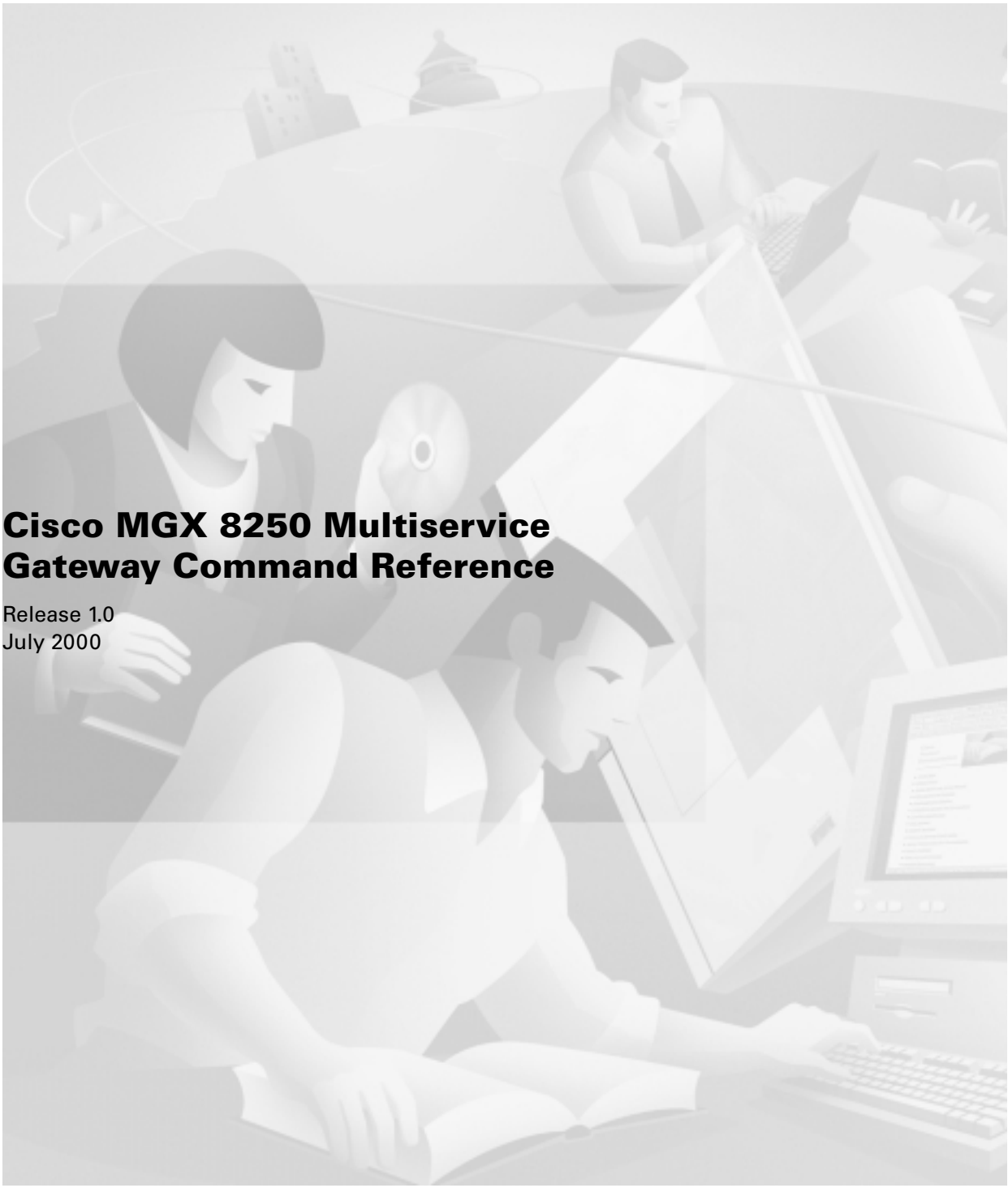

Cisco MGX 8250 Multiservice Gateway Command Reference

Release 1.0
July 2000

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Text Part Number: 78-10897-01

Cisco MGX 8250Command Reference, Release 1.0

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About This Manual

This preface describes the objectives, audience, organization, and conventions of the *Cisco MGX 8250 Multiservice Gateway Command Reference*.

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

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Objectives

This publication provides instructions for using the MGX 8250 commands in the command line interface.

Audience

The *Cisco MGX 8250 Multiservice Gateway Command Reference* provides installers, operators, network designers and managers with the necessary understanding to install MGX 8250 switches.

Organization

The body of this publication is:

Chapter 1 MGX 8250 Command Line Interface

Provides a list of commands for the common equipment cards and the service modules for the Cisco MGX 8250 wide area edge switch.

Related Documentation

The following Cisco publications contain additional information related to the operation of the Cisco WAN switching network:

MGX 8250 Release 1.0 Related Documentation	Documentation Description
Cisco MGX 8250 Multiservice Gateway Installation and Configuration Release 1.0 *DOC-7810924=*	Provides installation instructions for the 8250 multiservice gateway.
Cisco MGX 8250 Multiservice Gateway Error Messages Release 1.0 *DOC-7810923=*	Provides error message descriptions and recovery procedures.
Cisco BPX 8600 Series Installation and Configuration Release 9.2 DOC-786326=	Provides installation instructions for the BPX broadband switch.
Cisco BPX 8600 Series Reference Release 9.2 DOC-786325=	Provides a general description and technical details of the BPX broadband switch.
Cisco IGX 8400 Series Installation and Configuration Release 9.2 DOC-786723=	Provides installation instructions for the IGX multiband switch.
Cisco IGX 8400 Series Reference Release 9.2 DOC-786736=	Provides a general description and technical details of the IGX multiband switch.
Cisco WAN Switching Command Reference Release 9.2 DOC-786721=	Provides detailed information on the general command line interface commands.
Cisco WAN Switching SuperUser Command Reference Release 9.2 DOC-786722=	Provides detailed information on the command line interface commands requiring SuperUser access authorization.
WAN CiscoView for the IGX 8400 Switches Release 2.0 DOC-786541=	Provides instructions for using WAN CiscoView for the IGX 8400.

WAN CiscoView for the BPX 8600 Switches Release 2.0 DOC-786539=	Provides instructions for using WAN CiscoView for the BPX 8600.
Cisco WAN Manager Installation for Solaris Release 9.2 DOC-78=785875=	Provides procedures for installing Release 9.2 of the CiscoWAN Manager (CWM) network management system on Solaris systems.
Cisco WAN Manager Operations Release 9.2 DOC-785876=	Provides procedures for operating Release 9.2 of the Cisco WAN Manager (CWM) network management system.
Cisco WAN Manager SNMP Service Agent Release 9.2 DOC-785878=	Provides information about the Cisco WAN Manager Simple Network Management Protocol (SNMP) Service Agent components and capabilities.
Cisco WAN Manager Database Interface Release 9.2 DOC-785877=	Provides the information to gain direct access to the Cisco WAN Manager Informix OnLine database that is used to store information about the elements within your network.

Conventions

This publication uses the following conventions to convey instructions and information.

Command descriptions use these conventions:

- Commands and keywords are in **boldface**.
- Arguments for which you supply values are in *italics*.
- Required command arguments are inside angle brackets (< >).
- Optional command arguments are in square brackets ([ ]).
- Alternative keywords are separated by vertical bars (|).

Examples use these conventions:

- Terminal sessions and information the system displays are in `screen` font.
- Information you enter is in **`boldface screen`** font.
- Nonprinting characters, such as passwords, are in angle brackets (< >).
- Default responses to system prompts are in square brackets ([ ]).

Note Means *reader take note.* Notes contain helpful suggestions or references to materials not contained in this manual.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warning **This warning symbol means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents. (To**

see translated versions of this warning, refer to the *Regulatory Compliance and Safety Information* document that accompanied the product.)

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

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CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com
- WWW: http://www-europe.cisco.com
- WWW: http://www-china.cisco.com
- Telnet: cco.cisco.com
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

CHAPTER 1

MGX 8250 Command Line Interface

Introduction

The preferred tools for configuring, monitoring, and controlling an MGX 8250 switch are the CiscoView and Cisco WAN Manager (CWM) applications for equipment management and connection management, respectively. (The Cisco WAN Manager application is the former Cisco StrataView Plus application with the equipment management removed.) The command line interface (CLI) also provides access to an MGX 8250 switch and is highly applicable during initial installation, troubleshooting, and any situation where low-level control is useful.

The MGX 8250 commands in the tables that follow are divided by major functional group. Each table shows the complete name of the command and the cards for which the command is valid. For further reference, check the *Cisco MGX 8250 Installation and Configuration* document. This document provides conceptual information about how the Cisco MGX 8250 switch can best implement network services in your network configuration.

The command line prompt shows the name of the switch, the number of the switch (which is always "1"), the slot number and type for the current card, and whether the card is in the active ("a") or standby state ("s"). The following is an example of the command line prompt:

```
excel.1.6.AUSM.a >
```

In this case, the current card is an active AUSM in slot 6, and the name of the node is "excel."

The command notation and argument parameters follow standard programming convention: a space separates the command and each parameter; variables have an italicized typeface; required arguments appear within "<>" marks; optional parameters appear within square brackets ("[ ]"); and a vertical bar (|) represents the logical OR function.

Note You must type all command arguments then press **Return** or **Enter** rather than enter one parameter at a time.

When you enter a command with no parameters, a usage message appears. This message shows syntax and ranges for the applicable command parameters.

List of Commands

The list of commands for the common equipment cards PXM and SRM appear in Table 1-1. These commands are available when you log into the PXM. The node connectivity commands appear in Table 1-2. Applicable service module commands become available when you switch to a card by executing the **cc** command. The list of service module commands appear in Table 1-3. Many commands apply to both the common equipment cards and the service modules.

Table 1-1 PXM Commands

Command	Description
PXM Shelf Group	
addtrapmgr	Add Trap Manager
agetrapmgr	Age Trap Manager
clrcderrs	Clear Card Errors in BRAM
clrmsgcnt	Clear Control Message Counter
cnfclksrc	Configure Network Clock Source
cnfstatsmgr	Configure Statistics Manager
cnftrapmgr	Configure/Add/Delete Trap Managers
deltrapmgr	Delete Trap Manager
dspcd	Display Card
dspcderrs	Display Card Errors in BRAM
dspcds	Display Cards
dspclksrc	Display Clock Sources
dspfwrevs	Display Firmware Revisions
dspmsgcnt	Display Control Message Counter
dspsarcnts	Display SAR Counters
dspsmcnf	Display Service Module Configuration
dspstatparms	Display Statistics Alarms
dsptrapmgr	Display Trap Manager
dsptrapmgrs	Display Trap Managers
resetcd	Reset Card
switchcc	Switch Core Cards
version	Version (displays version data for a card)
xcnftrapmgr	Configure Trap Manager
xdsptrapmgr	Display Trap Manager
PXM User Group	
adduser	Add User
cc	Change Card
clrscrn	Clear Terminal Screen
clrlog	Clear Event/Message Log

Table 1-1 PXM Commands (continued)

Command	Description
cnfpwd	Configure Password
deluser	Delete User
dsplog	Display Event/Message Log
dspusers	Display Users
Help	Help (list of commands per card)
users	Users
PXM Node Group	
cnfname	Configure Shelf Name
cnfdate	Configure Date
cnftime	Configure Time
cnftmzn	Configure Time Zone
cnftmzngmt	Configure Time Zone to GMT
cnfifip	Configure Interface IP Address
delifip	Delete Interface IP Address
dspifip	Display LAN interface IP
PXM Redundancy Group	
addred	Add Redundancy
delred	Delete Redundancy
dspfeature	Display Feature
dspred	Display Redundancy
softswitch	Soft Switch
switchback	Switch Back
PXM Broadband Interface Group	
addrscprtn	Add Resource Partition
clratmlncnt	Clear an ATM Line's Counters
clratmlncnts	Clear All ATM Line Counters
clrifcnt	Clear Counters for a Broadband Interface
clrifcnts	Clear All Counters for a Broadband Interface
cnfatmln	Configure ATM Line
cnfcdrscprtn	Configure Card Resource Partition
cnfif	Configure a Broadband Interface
cnfrscprtn	Configure Resource Partition
cnfsvclcn	Configure SVC LCNs
cnfsvcrange	Configure SVC Range
dnif	Disable the Broadband Interface
dspatmlncnf	Display ATM Line Configuration

Table 1-1 PXM Commands (continued)

Command	Description
dspcdrscprt	Display Card Resource Partition
dspcdrsctype	Display Card Resource Type
dspif	Display Interface
dspifcnt	Display Interface Count
dspifrsc	Display Interface Resource
dspifs	Display Interfaces
dsplnrsc	Display Line Resource
dsprscprtns	Display All Resource Partitions
dspsvcrange	Display SVC Range
upif	Add Broadband Interface on PXM
PXM Alarm Group	
clralm	Clear Line Alarms
clralmcnt	Clear Alarm Counters/Statistics
dspalm	Display Alarms for a Line
dspalms	Display All Alarms on Card
dspalmcnf	Display Alarm Threshold Configuration
dspalmcnt	Display Alarm Counters/Statistics (line)
dspshelfalm	Display Shelf Alarms
PXM Line Group	
addapsln	Add APS on a Line
addln	Add Line
delln	Delete Line
dspln	Display Line Configuration
dsplns	Display All Lines on Card
dspsrmlns	Display All Lines on Card
PXM Channel Group	
clrsarcnt	Clear SAR Counters
dspsarcnt	Display SAR Counters
dspservrate	Display Service Rate
SRM-3T3 Group	
addlink	Add SRM-3T3 T3 Link to T1 Slot and Line
clrsrmcnf	Clear SRM-3T3 Configuration
cnfsrmclksrc	Configure SRM-3T3 Clock Source
dellink	Delete SRM-3T3 T3 Link from T1 Slot and Line
delslotlnk	Delete Link from T1 Slot
dsplink	Display SRM-3T3 T3 Link to a T1 Slot and Line

Table 1-1 PXM Commands (continued)

Command	Description
dspslotlnk	Display Link in T1 Slot
dspsrmclksrc	Display SRM-3T3 Clock Source
PXM Self-Test Group	
clrslftst	Clear Self-Test
dspslftsttble	Display Self-Test Table
PXM BERT Group	
cnfbert **xcnfbert**	Configure BERT Session Parameters
delbert	Stop Current BERT Session
dspbert	Display Results of BERT Session
modbert	Inject Bit Errors into Current BERT Session

Table 1-2 Node Connectivity Commands

Command	Description
addtrk	Add Trunk
clrerr	Clear Error Log
cnfclksrc	Configure Clock Source
cnfcmparm	Configure Connection Manager Parameters
cnfifastrk	Configure Interface as Trunk
cnfname	Configure Node Name
cnfnwip	Configure Network IP Address
cnfswfunc	Configure Software Function
cnfsysparm	Configure System Parameters
cnftrk	Configure Trunk
deltrk	Delete Trunk
dncon	Down Connection
dspcmparm	Display Connection Manager Parameters
dspcon	Display a Connection
dspcons	Display Connections
dsperr	Display Error Log
dspload	Display Load
dspmnup	Display Mandatory Update Parameters
dspname	Display Nodename
dspnw	Display Network
dspnwcons	Display Network Connections
dspnwip	Display Network IP Address

Table 1-2 Node Connectivity Commands (continued)

Command	Description
dspswfunc	Display Software Functions
dspsysparm	Display System Parameters
dsptrkcnf	Display Trunk Configuration
dsptrkcons	Display Trunk Connections
dsptrkload	Display Trunk Load
dsptrkmcons	Display Trunk Management Connections
dsptrks	Display Trunks
uncnfifastrk	Unconfigure Interface Trunk
upcon	Up Connection

Table 1-3 Service Module (SM) Commands

Command	Description	FRSM	AUSM	CESM	VISM	CESM-T3E3
SM Shelf Group						
clrcderrs	Clear Card Errors in BRAM	X	X			
clrmsgcnt	Clear Control Message Counter	X	X	X		
clrsmcnf	Clear Service Module Configuration	X	X	X	X	
cnfcdrscprtn	Configure Card Resource Partition	X	X		X	
cnfclksrc	Configure Network Clock Source		X			
cnffst	Configure ForeSight	X	X			
cnfsvcrange	Configure SVC Range	X	X			
dspcd	Display Card	X	X	X	X	X
dspcderrs	Display Card Errors in BRAM	X	X			
dspcdrscprtn	Display Card Resource Partition	X	X			
dspclksrc	Display Clock Sources		X			
dspmsgcnt	Display Control Message Counter	X	X	X	X	X
dspsmcnf	Display Service Module Configuration					X
dspstatparms	Display Statistics Parameters	X				
dsptotals	Display Totals	X				X
resetcd	Reset Card					
version	Version (displays card version data)	X	X	X		X
SM User Group						
cc	Change Card	X	X	X		X
clrscrn	Clear Terminal Screen	X	X	X		X
dspmaptbl	Display Map Table	X	X			X
Help	Help (list of commands per card)	X	X	X	X	X

Table 1-3 Service Module (SM) Commands (continued)

Command	Description	FRSM	AUSM	CESM	VISM	CESM-T3E3
Alarm Group						
clralm	Clear Line Alarms	X	X	X	X	X
clralmcnt	Clear Alarm Counters/Statistics	X	X	X	X	X
clralms	Clear All Alarms on the Card	X	X	X	X	X
dspalm	Display Alarms for a Line	X	X	X	X	X
dspalmcnf	Display Alarm Threshold Configuration	X	X	X	X	X
dspalmcnt	Display Alarm Counters/Statistics (line)	X	X	X	X	X
dspalms	Display All Alarms on Card	X	X	X	X	X
SM Line Group						
addln	Add Line	X	X	X	X	X
addlnloop	Add Line Loop		X	X	X	X
cnfds3ln	Configure DS3 Line	X				
cnfln	Configure Line	X	X	X	X	X
cnfplpp	Configure PLPP Parameters		X			
delln	Delete Line	X	X	X	X	X
dellnloop	Delete Line Loop		X	X	X	X
dspds3ln	Display a DS3 Line					
dspds3lns	Display DS3 Lines					
dspln	Display Line Configuration	X	X	X	X	X
dsplns	Display All Lines on Card	X	X	X	X	X
Port Group						
addport	Add Port	X				X
clrportcnt	Clear Port Counters	X	X			
clrportcnts	Clear All Port Counters	X	X			
cnfegrq	Configure Egress Queue	X				
cnfilmi	Configure ILMI		X			
cnfport	Configure FR Port(s)	X	X			
cnfportcllm	Configure Port CLLM Parameters	X				X
cnfportq	Configure AUSM Port Queue		X			
copyports	Copy Port Configuration	X	X			
delport	Delete FRSM or AUSM Port	X				
delports	Delete Port Configurations	X	X			X
dnport	Down Port		X			X
dspegrq	Display Egress Queue					
dspegrqs	Display Egress Queues					

Table 1-3 Service Module (SM) Commands (continued)

Command	Description	FRSM	AUSM	CESM	VISM	CESM-T3E3
dspilmi	Display ILMI		X			
dspilmicnt	Display ILMI Counters		X			
dspport	Display Port Configuration	X	X			
dspportcnt	Display FR Port Counters	X	X			
dspportq	Display Port Queue		X			
dspportqs	Display Port Queues		X			
dspports	Display All Ports	X	X			
dspportstats	Display Port Statistics	X				
upport	Up Port		X			
SM Channel Group						
addchan	Add Channel	X		X	X	X
addchanloop	Add a Channel Loopback	X	X	X		
clrchancnt	Clear Channel Counter for FRSM or AUSM Channels	X	X	X		X
clrsarcnts	Clear SAR Counters	X	X	X		
cnfchancaoff	Configure Channel Admission Control Off	X				
clrchancnts	Clear Channel Counter for All FR Channels	X	X	X		
cnfchanegressq	Configure Channel Egress Queue	X				
cnfchanfst	Configure Channel ForeSight	X	X			
cnfchaningressq	Configure Channel Ingress Queue					X
cnfchanmap	Configure Channel Map	X	X	X		
cnfchanpol	Configure Channel Policing	X				
cnfchanq	Configure Channel Queue		X			X
copychans	Copy Channel Configurations	X	X			X
delchan	Delete Channel(s)	X		X	X	X
delchanloop	Delete a Channel Loopback	X	X	X		
delchans	Delete Channels	X	X			X
dspchan	Display Channel Configuration	X		X	X	X
dspchancnt	Display Channel Counters	X	X	X		X
dspchans	Display All Channels	X		X	X	
dspchstats	Display Channel Statistics	X				
dspsarcnt	Display SAR Counters	X	X	X	X	
SM Connection Group						
addcon	Add Connection		X		X	
cnfupcabr	Configure UPC for ABR		X			

Table 1-3 Service Module (SM) Commands (continued)

Command	Description	FRSM	AUSM	CESM	VISM	CESM-T3E3
cnfupccbr	Configure UPC for CBR		X			
cnfupcubr	Configure UPC for UBR		X			
cnfupcvbr	Configure UPC for VBR		X			
delcon	Delete Connection		X		X	
dspcon	Display a Connection		X		X	
dspcons	Display Connections		X		X	
dsploads	Display Loads		X			
tstcon	Test Connection	X	X	X		X
tstconseg	Test Connection Segment		X			
SM Self-Test Group						
clrslftst	Clear Self-Test	X	X	X		X
dspslftsttble	Display Self-Test Table	X	X	X		X
SM BERT Group						
acqdsx3bert	Acquire BERT	X		X		
clrbertcntrs	Remove BERT Counters	X		X		
cnfdsx3bert **xcnfdsx3bert**	Configure BERT Parameters	X		X		
deldsx3bert	Stop BERT Test Session	X		X		
dspdsx3bert **xdspdsx3bert**	Display BERT Results	X		X		
moddsx3bert	Inject Bit Errors into BERT Session	X		X		
startdsx3bert	Begin BERT Session	X		X		
IMA Group						
addimagrp	Set Up New IMA Group		X			
addlns2imagrp	Add Lines to IMA Group		X			
clrimagrpcnt	Delete IMA Group Counters		X			
clrimalncnt	Delete Line Counters of IMA Group		X			
clrimatst	Stop IMA Group Test		X			
cnfimaalmparm	Configure IMA Group Alarm Parameters for IMA Group		X			
cnfimagrp	Configure IMA Group		X			
cnfimatst	Configure Testing for IMA Group		X			
delimagrp	Remove IMA Group		X			
delnsfmimagrp	Remove Lines from IMA Group		X			
dspimaalmparm	Display IMA Alarm Parameters		X			
dspimagrp	Display IMA Group Configuration		X			
dspimagrpcnt	Display Current IMA Group Counters		X			

Table 1-3 Service Module (SM) Commands (continued)

Command	Description	FRSM	AUSM	CESM	VISM	CESM-T3E3
dspimagrps	Display All IMA Groups		X			
dspimaln	Display IMA Group Line		X			
dspimalncnt	Display Line Counters of IMA Group		X			
dspimatst	Display IMA Group Test Parameters		X			

?

Help

Use the **?** command to view all commands associated with the current card, and to view a list of commands associated with a truncated command entry.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

? [*command*]

Syntax Description

command	Full or partial name of the command.

Related Commands

help

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- View all commands associated with a partial command entry string
- View all commands associated with the current card

Example 1-1 View all commands associated with a partial command entry string

```
raviraj.1.7.PXM.a > ? con

    Available commands
    ------------------
    addcon
    clrconcnt
    clrconcnts
    cnfcon
    dcondb
    delcon
    dspcon
    dspconcnt
    dspcons
    shellConn
    tstcon
    tstconseg

raviraj.1.7.PXM.a >
```

Example 1-2 View all commands associated with the current card

System response for the **?** command is identical to that when executing the **help** command. See the examples in the **help** section beginning on pa ge1-467.

abort

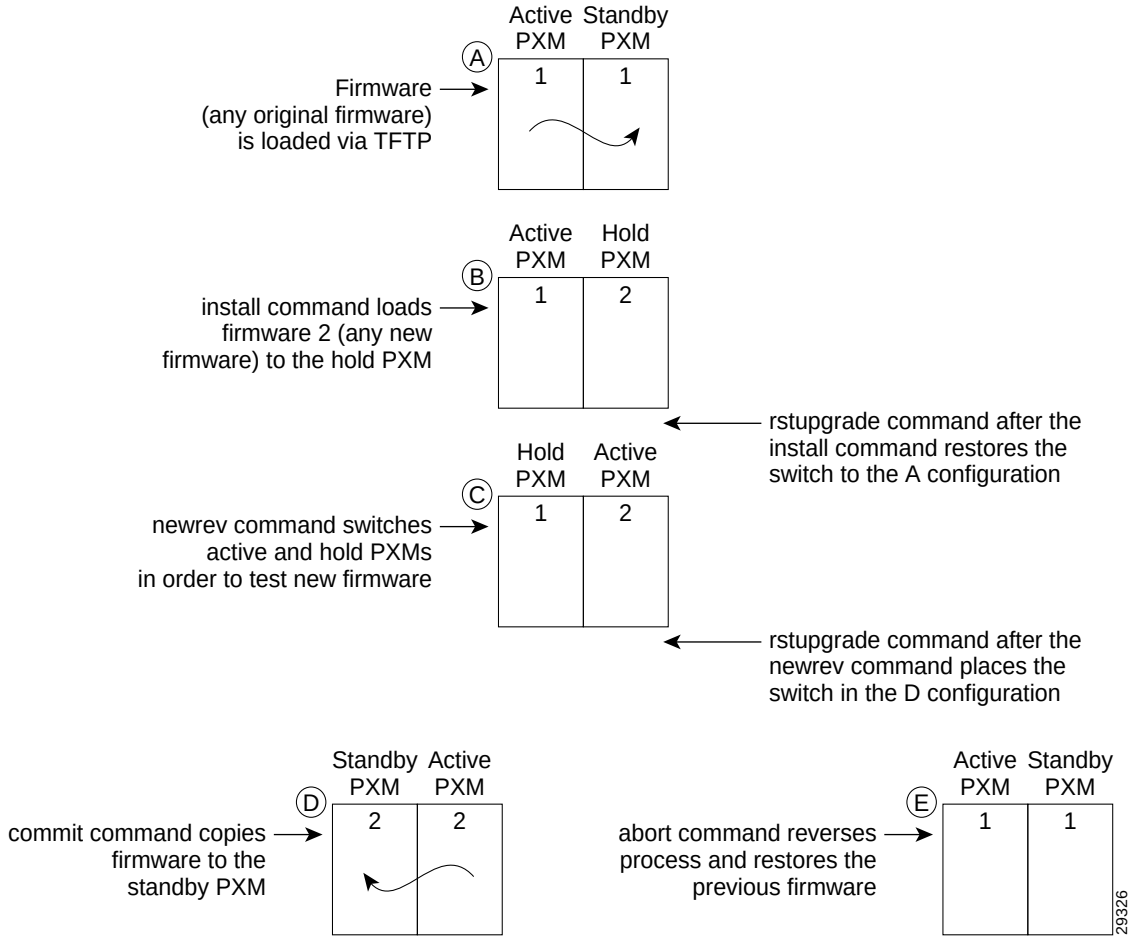
Abort

Use the **abort** command to stop the upgrade process and return to the previous firmware version.

- Using **abort** after a **newrev** returns the PXM to the original firmware image.
- Using **abort** after **install** resets the PXM(s) to their original states.

See Figure 1-1 to see the relationship of the **abort** command compared with other firmware commands.

Figure 1-1 Firmware-Related Commands



Card(s) on Which This Command Executes

PXM

Syntax

abort <*version*>

Syntax Description

version Original firmware version.

A system response does not occur unless an error is detected.

Related Commands

dspupgrade, **rstupgrade**, **newrev**, **dspfwrevs**, **printrev**, **commit**, **copy**, **install**

Attributes

Log: No State: Active Privilege: Any

Example 1-3 Abort loading firmware 1.1.24

```
NODENAME.1.7.PXM.a > abort 1.1.23
this may take a while ...
abort command completed ok
This card will be reset, the other will become active.
```

Example 1-4 Errors loading firmware (multiple cases)

```
NODENAME.1.8.PXM.a > abort 1.1.24
cannot be in 'upgrade idle', must be in 'upgrade' or 'upgrade
install'
ERR: command "abort" failed

NODENAME.1.7.PXM.a > abort 1.1.24
1.1.24 is not the old version 1.1.10aa
ERR: command "abort" failed
```

acqdsx3bert

Acquire DS3 BERT

Use the **acqdsx3bert** command to find out if a bit error rate test (BERT) session already exists on the selected MGX 8250 switch.

Card(s) on Which This Command Executes

FRSM 2CT3, CESMT3

Syntax

acqdsx3bert

Related Commands

cnfdsx3bert, **dspdsx3bert**, **moddsx3bert**, **startdsx3bert**, **xcnfdsx3bert**, **xdspdsx3bert**

Attributes

Log: No State: Any Privilege: Any

Example 1-5 Acquire current BERT session

```
NODENAME1.1.21.CESMT3.a > acqdsx3bert
dspdsx3BertCntrs :
BCRunning : 00
BCStorage : 0
BECRunning : 00
BECStorage : 0

DSX3 BERT in Sync

NODENAME1.1.21.CESMT3.a >
```

addapsln

Add APS to a Line

Use the **addapsln** command to set Automatic Protection Switching (APS) on a specified line for the current PXM.

APS is a SONET switching mechanism that routes traffic from working lines to protect them in case of a line card failure or fiber cut.

To set APS parameters, use the **cnfapsln** command following the **addapsln** command.

Card(s) on Which This Command Executes

PXM

Syntax

addapsln <*workline*> <*workslot*> <*protectline*> <*protectslot*> <*archmode*>

Syntax Description

workline	OC-3 or OC-12 line number on which to set APS. • OC-3 range = 1–4 • OC-12 = 1
workslot	Slot number of the PXM, either 7 or 8.
protectline	Protection line number. • OC-3 range = 1–4 • OC-12 = 1
protectslot	Protection slot number, either 7 or 8.
archmode	APS architect mode to be used on the working/protection line pairs. • 1 = 1+1 one back card • 2 = 1+1 two back cards • 3 = 1:1 one back card • 4 = 1+1 Annex B

Related Commands

cnfapsln, **delapsln**, **dspapsln**, **switchapsln**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-6 Add APS Protection line 1 on slot 8 to APS Working line1 on slot 7. Set the APS architect mode on the working/protection line pair to 1+1.

```
spirit4.1.8.PXM.a > addapsln 1 7 1 8 2
spirit4.1.8.PXM.a >
```

addaimgrp

Add IMA Group

Use the **addaimgrp** command to set an AIMUX group on the current AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

addaimgrp <*group_num*> <*port_type*> <*list_of_links*> <*minNumLinks*>

Syntax Description

group_num	AIMUX group number, in the range 1–8.
port_type	Port type. • 1 = UNI • 2 = NNI
list_of_links	List of physical lines, in the range 1–8, to be included in aimux_grp. Type a period (.) between each line in the string to delineate each member of the AIMUX group.
minNumLinks	Minimum number of links for the group formation, in the range 1–8.

Related Commands

delaimgrp, **cnfaimgrp**, **dspaimgrp**, **dspaimgrps**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-7 Add IMA group 2 as UNI with lines 3, 4, and 5

```
spirit4.1.18.AUSM.a > addaimgrp 2 3.4.5
spirit4.1.18.AUSM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- IMA group already exists.
- A line is not enabled.
- All lines are not in local mode.

addcdrscprtn

Add Card Resource Partition

Use the **addcdrscprtn** command to set card-level resource partitions.

Note This command applies only if the card partition type is *controllerBased*.

The resource you can partition at the card level is the number of connections available to a network controller.

With card-level partitioning:

- The number of connections available at each port is the same.
- You can specify the number of connections available to each controller or let them compete for connections at each port.

Table 1-4 describes the effects of each of three usages of **addcdrscprtn**.

Table 1-4 Degrees of Card-Level Resource Partitioning

Command	Description
addcdrscprtn off	Card-level partitioning is inactive. You must partition resources at the port level. (See also **cnfportrscprtn**.)
addcdrscprtn on	Default. Card-level partitioning is on, but no allocation for a specific controller is specified. The maximum number of connections on a port is available to each controller. Each controller therefore competes for the connections.
addcdrscprtn on <*x*> <*y*> <*z*>	Same as **addcdrscprtn**, except *x*, *y*, and *z* represent the number of connections per port available to the PAR, PNNI, and Tag controllers, respectively.

In addition to the definitions in Table 1-4, note the following characteristics of this command:

- If you specify that card-level partitioning is off (**addcdrscprtn off**), port-level partitioning is mandatory (**cnfportrscprtn**).
- If you do not execute **addcdrscprtn**, the default state of **addcdrscprtn on** is in effect.
- If you specify card-level partitioning (**addcdrscprtn on** *x y z*), port-level partitioning (**cnfportrscprtn**) is an option you can use to further modify the partitioning on a port.

Card(s) on Which This Command Executes

PXM, FRSM, CESM, VISM

Syntax: PXM

addcdrscprtn <*ctrlr_num*> <*num_lcns*>

Syntax Description

ctrlr_num Controller type.
- 1 = PAR
- 2 = PNNI
- 3 = TAG

num_lcns Number of available global logical connection numbers (GLCNs), in the range 0–32767.

Syntax: FRSM

addcdrscprtn <*controller*> <*numOfLcnAvail*>

Syntax Description

controller Controller type.
- 1 = PAR/PVC
- 2 = PNNI/SPVC
- 3 = TAG

numOfLcnAvail Maximum number of LCNs, in the range appropriate for the card.
- 2CT3 range = 1–4000
- 2T3 range = 1–2000
- 2E3 range = 1–2000
- HS2 range = 1–2000

Syntax: CESM

addcdrscprtn <*controller*> <*numOfLcnAvail*>

Syntax Description

controller Controller type.
- 1 = PAR/PVC
- 2 = PNNI/SPVC
- 3 = TAG

numOfLcnAvail Maximum number of LCNs, in the range 0–248.

Related Commands

cnfrscprtn, **dspcdrscprtn**, **delcdrscprtn**

Attributes

Log: Yes State: Any (Active for PXM) Privilege: Any

Example 1-8 On current PXM, change card-level partitioning to give 10000 GLCNs to PAR and 10000 GLCNs to Tag. The value for PNNI currently is 0.

```
spirit4.1.8.PXM.a > addcdrscprtn 10000 0 10000
spirit4.1.8.PXM.a >
```

addchan

Add Channel

Use the **addchan** command to configure channels on the current PXM, FRSM, AUSM, or CESM. The syntax for using **addchan** on an AUSM differs from that used on all other cards. See Syntax: AUSM, page 1-26 for guidelines.

Card(s) on Which This Command Executes

PXM, FRSM (8T1/E1, HS1/B, VHS), AUSM, CESM

Syntax: PXM

addchan <*LCN*> <*if_num*> <*conn_type*> <*vpi*> <*vci*> <*serv_type*> <*y_vpi*> <*y_vci*> <*y_nsap*> <*chan_master*>

Syntax Description

LCN	Logical connection number, in the range 16–4111.
if_num	Number of the logical interface port that receives connection traffic, in the range 1–32.
conn_type	Virtual path connection (VPC) or virtual channel connection (VCC). • 1 = VPC • 2 = VCC
vpi	Virtual path identifier (VPI) value, in the range 0–4095.
vci	Virtual channel identifier (VCI) value, in the range 0–65535.
serv_type	Service type. • 1 = CBR (constant bit rate) • 2 = VBR (variable bit rate) • 3 = ABR (available bit rate) • 4 = UBR (unspecified bit rate) • 5 = VBR-RT (variable bit rate—real-time class)
y_vpi	Remote VPI value, in the range 0–4095.
y_vci	Remote VCI value, in the range 0–65535.

y_nsap Remote Network Service Access Point (NSAP) value, in the format node.slot.port. An NSAP is the point at which OSI Network Service is made available to a transport layer (Layer 4) entity.

chan_master Status of local endpoint, either master or slave.

- 1 = master
- 2 = slave

Syntax: FRSM-8T1/E1

addchan <*chan*> <*port*> <*dlci*> <*cir*> <*chan_type*> [*CAC*] <*mastership*> <*locnsap*> <*rmtvpi*> <*rmtvci*> <*rmtnsap*>

Syntax Description

chan Channel number, in the range 16–1015.

port Port number for T1 or E1.

- T1 range = 1–192
- E1 range = 1–248

dlci Data-link connection identifier (DLCI) value, in the range 0–1023.

cir Committed information rate (CIR) value for T1 bps or E1 bps.

- T1 range = 0–1536000
- E1 range = 0–204800

chan_type Channel type.

- 1 = NIW
- 2 = SIW-transparent
- 3 = SIW-translation
- 4 = FUNI
- 5 = frame forwarding

CAC Connection admission control (CAC), either enabled or disabled.

- 1 = enable
- 2 = disable (default)

mastership Status of current end, either master or slave.

- 1 = master
- 2 = slave

locnsap A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.

rmtvpi	Remote virtual path identifier (VPI) value, in the range 1–65535.
rmtvci	Remote virtual channel identifier (VCI) value, in the range 1–65535.
rmtnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Syntax: FRSM-HS1/B

addchan <*chan_num*> <*port_num*> <*dlci_num*> <*cir*> <*chan_type*> [*CAC*] <*mastership*> <*locnsap*> <*rmtvpi*> <*rmtvci*> <*rmtnsap*>

Syntax Description

chan_num	Channel number, in the range 16–1015.
port_num	Port number, in the range appropriate for the interface. • X.21 range = 1–4 • HSSI range = 1–2
dlci_num	Data-link connection identifier (DLCI) value, in the range 0–1023.
cir	Committed information rate (CIR) value, in the range appropriate for the interface. • X.21 range = 0–10000000 bps • HSSI range = 0–20000000 bps
chan_type	Channel type. • 1 = NIW • 2 = SIW-transparent • 3 = SIW-translation • 4 = FUNI • 5 = frame forwarding
CAC	Connection admission control, either enabled or disabled. • 1 = enable • 2 = disable (default)
mastership	Status of current end, either master or slave. • 1 = master • 2 = slave
locnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.

rmtvpi	Remote virtual path identifier (VPI) value, in the range 1–65535.
rmtvci	Remote virtual channel identifier (VCI) value, in the range 1–65535.
rmtnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Syntax: FRSM-VHS

addchan <*chan*> <*port*> <*dlci*> <*cir*> <*chan_type*> <*serv_type*> [*CAC_enable*] <*mastership*> <*locnsap*> <*rmtvpi*> <*rmtvci*> <*rmtnsap*>

Syntax Description

chan	Channel number, in the range 16–4015.
port	Port number, in the range 1–256.
dlci	Data-link connection identifier (DLCI) value, in the range 0–1023.
cir	Committed information rate (CIR) value for T1 bps or E1 bps. • T1 range = 0–1536000 • E1 range = 0–2048000
chan_type	Channel type. • 1 = NIW • 2 = SIW-transparent • 3 = SIW-translation • 4 = FUNI • 5 = frame forwarding
serv_type	Service type. • 1 = CBR (constant bit rate) • 2 = VBR (variable bit rate) • 3 = ABR (available bit rate) • 4 = UBR (unspecified bit rate)

CAC_enable	Connection admission control (CAC), either enabled or disabled. • 1 = enable • 2 = disable (default)
mastership	Status of current end, either master or slave. • 1 = master • 2 = slave
locnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.
rmtvpi	Remote virtual path identifier (VPI) value, in the range 1–65535.
rmtvci	Remote virtual channel identifier (VCI) value, in the range 1–65535.
rmtnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Syntax: AUSM

addchan <*channel number*> <*connection type*> <*port number*> <*vpi*> <*vci*> <*service type*> <*mastership*> <*locnsap*> <*rmtvpi*> <*rmtvci*> <*rmtnsap*>

Syntax Description

channel number	Channel number, in the range 16–1015.
connection type	Connection type, either virtual path connection (VPC) or virtual channel connection(VCC). • 1 = VPC • 2 = VCC
port number	Port number, in the range 1–8.
vpi	Virtual path identifier (VPI) value, in the range 0–255.
vci	Virtual channel identifier (VCI) value, in the range 0–65535.
service type	Service type. • 1 = CBR (constant bit rate) • 2 = VBR (variable bit rate) • 3 = ABR (available bit rate) • 4 = UBR (unspecified bit rate)

mastership Status of current end, either master or slave.

- 1 = master
- 2 = slave

locnsap A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.

rmtvpi Remote VPI value, in the range 1–65535.

rmtvci Remote VCI value, in the range 1–65535. This setting should be identical to that for the logical port number of the remote endpoint.

rmtnsap 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Example 1-9 Add a VCC connection to channel 16 on port 1 with vpi=1, vci=1, ABR service type, and an egress queue number of 1

```
spirit4.1.18.AUSM.a > addchan 16 2 1 1 1 3 1
spirit4.1.18.AUSM.a >
```

Syntax: CESM-8T1E1

addchan <*chan_num*> <*port_num*> <*sig_type*> <*partial_fill*> <*cond_data*> <*cond_signal*> [mastership | locnsap | rmtvpi | rmtvci | rmtnsap]

Syntax Description

chan_num Channel number, in the range 32–279.

port_num Port number for T1 or E1.

- T1 range = 1–192
- E1 range = 1–248

sig_type Type of signalling to be used. All channels on a line should have the same value.

- 1 = basic
- 2 = E1 CAS
- 3 = DS1 superframe CAS
- 4 = DS1 extended superframe CAS

partial_fill Number of bytes to partially fill a cell for different lines.

- 0 = a fully filled cell (default)
- 20–47 = cells for structured E1
- 25–47 = for structured T1
- 33–47 = for unstructured T1 or E1

cond_data	Data-conditioning, either UDT or SDT. • UDT = 255 • SDT range = 0–255
cond_signal	Condition signal, in the range 0–15.
mastership	Status of current end, either master or slave. • 1 = master • 2 = slave (default)
locnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.
rmtvpi	Remote virtual path identifier (VPI) value, in the range 1–65535.
rmtvci	Remote virtual channel identifier (VCI) value, in the range 1–65535. This setting should be identical to that for the logical port number of the remote endpoint.
rmtnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Syntax: CESM-T3E3

addchan <*chan_num*> <*port_num*> <*cond_sig*> <*mastership*> <*locnsap*> <*rmtvpi*> <*rmtvci*> <*rmtnsap*>

Syntax Description

chan	Channel number. Enter the value 32.
port	Port number. Enter the value 1.
cond_sig	Condition signal number, in the range 0–15.
mastership	Status of the current end, either master or slave. • 1 = master • 2 = slave
locnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in NSAP format.

rmtvpi	Remote virtual path identifier (VPI) value, in the range 1–65535.
rmtvci	Remote virtual channel identifier (VCI) value, in the range 1–65535. This setting should be identical to that for the logical port number of the remote endpoint.
rmtnsap	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in NSAP format.

Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Related Commands

delchan, **dspchan**, **dspchans**

Attributes

Log: Yes State: Active Privilege: Group 2

addchanloop

Add a Channel Loopback

Use the **addchanloop** command to configure a channel loopback to the current FRSM or AUSM card. This command causes the channel to loop at the segmentation and reassembly (SAR) stage.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax: FRSM

addchanloop <*chan_num*>

Syntax Description

chan_num Channel number to be used for the loopback on the FRSM card.

- 8T1/E1 range = 16–1015
- HS1/B range = 16–1015
- T3/E3/HS2 range = 16–2015
- 2CT3 range = 16–4015

Syntax for AUSM-8T1E1

addchanloop <*port.VPI.VCI* | *ChanNum*>

Syntax Description

port.VPI.VCI Port range = 1–*N*, as appropriate for the physical installation.
Virtual path identifier (VPI) range = 1–4095.
Virtual channel identifier (VCI) range = 1–65535.

ChanNum Channel number, in the range 16–1015.

Related Commands

delchanloop, **tstcon**, **tstdelay**

Attributes

Log: No State: Active Privilege: Group 4

Example 1-10 Add channel loopback onto channel number 21

```
s1.1.12.AUSMB8.a > addchanloop 21
```

Example 1-11 Add channel loopback onto port 2, VPI 1, VCI 1

```
s1.1.12.AUSMB8.a > addchanloop 2.1.1
```

addcon

Add Connection

Use the **addcon** command to configure connectivity to the current card. The **addcon** command is preferable to **addchan** for adding a connection because **addcon** does not require the NSAP addresses.

Command execution includes a specification of the endpoint as either the master or the slave. Execute **addcon** first at the slave end, then the master end. The syntax for the master end includes a parameter *SlaveConID*. Rather than a single number, *SlaveConID* is the node name, slot number, port number, and connection identifier (if applicable) of the slave end.

Note To set up a three-segment connection across a network, specify the PXM as slot 0.

Card(s) on Which This Command Executes

PXM, FRSM, CESM, AUSM

Syntax: PXM

addcon <*port_no*> <*conn_type*> <*local_VPI*> <*local_VCI*> <*service*> [*CAC*] [*mastership*] [*remoteConnId*]

Syntax Description

port_no	Port number, in the range 1–32.
conn_type	Virtual path connection (VPC) or virtual channel connection (VCC). • 1 = VPC • 2 = VCC
local_VPI	Local virtual path identifier (VPI), in the range 0–4095.
local_VCI	Local virtual channel identifier (VCI), in the range 0–65535.
service	Type of service. • 1 = CBR (constant bit rate) • 2 = VBR (variable bit rate) • 3 = ABR (available bit rate) • 4 = UBR (unspecified bit rate)
CAC	Connection admission control (CAC). • 1 = enable • 2 = disable (default)

mastership	Status of the current end, either master or slave. • 1 = master (You must also set *remoteConnId* for the master.) • 2 = slave (default)
remoteConnId	Remote connection identifier, in the format *NodeName.SlotNo.PortNo.VPI.VCI*.

Syntax: FRSM-8T1/8E1

addcon <*port number*> <*DLCI*> <*CIR*> <*channel type*> [*Adm_cntrl*] <*controller_type*> [*mastership*] <*RemoteEndConID*>

Syntax Description

port number	Port number for T1 or E1. • T1 range = 1–192 • E1 range = 1–248
DLCI	Data-link connection identifier (DLCI) in the range 0–1023.
CIR	Committed information rate (CIR) for T1 bps or E1 bps. • T1 range = 0–1536000 • E1 range = 0–2048000
channel type	Type of connection to be used on the channel. • 1 = NIW (network interworking) • 2 = SIW-transparent (service interworking without any SDU translation) • 3 = SIW-translation (service interworking with SDU translation) • 4 = FUNI (Frame Relay UNI) • 5 = frame forwarding
Adm_cntrl	Connection admission control (CAC), either enabled or disabled. • 1 = enable CAC • 2 = disable CAC (default)
controller_type	Signalling controller type, either PVC or SPVC. • 1 = PVC (PAR) (default) • 2 = SPVC (PNNI)

mastership	Status of the connection, either master or slave. • 1 = master • 2 = slave (default)
RemoteEndConID	Node name, slot number, port number, and DLCI. or Node name, slot number, port number, Controller ID, and DLCI for a Frame Relay endpoint. Use one of the following values to set controller type: • 1 = PAR • 2 = PNNI • 3 = TAG or Node name, slot number, port number, and VPI.VCI for anATM endpoint.

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Syntax: FRSM-2CT3

addcon <*port number*> <*DLCI*> <*CIR*> <*channel type*> <*egress service type*> [*Adm_cntrl*] <*controller_type*> <*mastership*> <*RemoteEndConID*>

Syntax Description

port number	Port number in the range 1–256.
DLCI	Data-link connection identifier (DLCI) value, in the range 0–1023.
CIR	Committed information rate (CIR), in the range 0–1536000 bps.
channel type	Type of connection on this channel. • 1 = NIW (network interworking) • 2 = SIW-transparent (service interworking without any SDU translation) • 3 = SIW-translation (service interworking with SDU translation) • 4 = FUNI (Frame Relay UNI) • 5 = frame forwarding

egress service type Type of egress service provided on this channel.

- 1 = highpriorityQ (typically committed bit rate connections)
- 2 = rtVBRQ (real-time variable bit rate connections)
- 3 = nrtVBRQ (non-real time variable bit rate connections)
- 4 = aBRQ (available bit rate connections)
- 5 = uBRQ (unspecified bit rate connections)

Adm_cntrl Connection admission control (CAC), either enabled or disabled.

- 1 = enable CAC
- 2 = disable CAC (default)

controller_type Signalling controller type, either PVC or SPVC.

- 1 = PVC (PAR) (default)
- 2 = SPVC (PNNI)

mastership Status of connection, either master or slave.

- 1 = master
- 2 = slave (default)

RemoteEndConID Node name, slot number, port number, and DLCI.

or

Node name, slot number, port number, Controller ID, and DLCI for a Frame Relay endpoint. Use one of the following values to set controller type:

- 1 = PAR
- 2 = PNNI
- 3 = TAG

or

Node name, slot number, port number, and VPI.VCI for anATM endpoint.

Syntax: FRSM-2T3/2E3

addcon <*port number*> <*DLCI*> <*CIR*> <*channel type*> <*egress service type*> [*Adm_cntrl*] <*controller_type*> <*mastership*> <*RemoteEndConID*>

Syntax Description

port number Port number in the range 1–2.

DLCI Data-link connection identifier (DLCI) value in the range 0–1023.

CIR Committed information rate (CIR) bps value for 2T3 or 2E3.

- 2T3 range = 0–44210000
- 2E3 range = 0–34010000

channel type Type of connection on this channel.

- 1 = NIW (network interworking)
- 2 = SIW-transparent (service interworking without any SDU translation)
- 3 = SIW-translation (service interworking with SDU translation)
- 4 = FUNI (Frame Relay UNI)
- 5 = frame forwarding

egress service type Type of egress service provided on this channel.

- 1 = highpriorityQ (typically committed bit rate connections)
- 2 = rtVBRQ (real-time variable bit rate connections)
- 3 = nrtVBRQ (non real-time variable bit rate connections)
- 4 = aBRQ (available bit rate connections)
- 5 = uBRQ (unspecified bit rate connections)

Adm_cntrl Connection admission control (CAC), either enabled or disabled.

- 1 = enable CAC
- 2 = disable CAC (default)

controller_type Signalling controller type, either PVC or SPVC.

- 1 = PVC (PAR) (default)
- 2 = SPVC (PNNI)

mastership Status of connection, either master or slave.

- 1 = master
- 2 = slave (default)

RemoteEndConID Node name, slot number, port number, and DLCI.

or

Node name, slot number, port number, Controller ID, and DLCI for a Frame Relay endpoint. Use one of the following values to set controller type:

- 0 = PAR
- 1 = PNNI
- 2 = TAG

or

Node name, slot number, port number, and VPI.VCI for anATM endpoint.

Syntax: FRSM-HS2

addcon <*port number*> <*DLCI*> <*CIR*> <*channel type*> <*egress service type*> [*Adm_cntrl*] <*controller_type*> <*mastership*> <*RemoteEndConID*>

Syntax Description

port number	Port number, in the range 1–2.
DLCI	Data-link channel identifier (DLCI) value, in the range 0–1023.
CIR	Committed information rate (CIR), in the range 0–51840000 bps.
channel type	Type of connection on this channel. • 1 = NIW (network interworking) • 2 = SIW-transparent (service interworking without any SDU translation) • 3 = SIW-translation (service interworking with SDU translation) • 4 = FUNI (Frame Relay UNI) • 5 = frame forwarding
egress service type	Type of egress service provided on this channel. • 1 = highpriorityQ (typically committed bit rate connections) • 2 = rtVBRQ (real-time variable bit rate connections) • 3 = nrtVBRQ (non-real time variable bit rate connections) • 4 = aBRQ (available bit rate connections) • 5 = uBRQ (unspecified bit rate connections)
Adm_cntrl	Connection admission control (CAC), either enabled or disabled. • 1 = enable CAC • 2 = disable CAC (default)
controller_type	Signalling controller type, either PVC or SPVC. • 1 = PVC (PAR) (default) • 2 = SPVC (PNNI)

mastership	Status of the connection, either master or slave. 1 = master 2 = slave (default)
RemoteEndConID	Node name, slot number, port number, and DLCI. or Node name, slot number, port number, Controller ID, and DLCI for a Frame Relay endpoint. Use one of the following values to set controller type: • 0 = PAR • 1 = PNNI • 2 = TAG or Node name, slot number, port number, and VPI.VCI for anATM endpoint.

Syntax: AUSM

addcon slave | master *<port number> <vpi> <vci> <Conn type> <Service Type>*

Syntax Description

slave | master	Associates the AUSM port with either master or slave status.
port number	Port number, in the range 1–8.
vpi	Virtual path identifier (VPI) value, in the range 0–255.
vci	Virtual channel identifier (VCI) value, in the range 0–65535.
Conn type	Type of connection. • 0 = VCC connection • non-zero = Local connection VP ID of the VPC (1 to 20 (UNI)/100 (STI)/340 (NNI)
Service Type	Service type. • 1 = CBR (constant bit rate) • 2 = VBR (variable bit rate) • 3 = ABR (available bit rate)
SlaveConID	Used only for master configuration: Node name, slot number, port number, VCI, and VPI of the slave end.

Example 1-12 Add a VCC connection to channel 16 on port 2 with vpi=1, vci=1, ABR service type, and an egress queue number of 1

```
spirit4.1.18.AUSM.a > addcon 16 2 1 1 1 3 1
spirit4.1.18.AUSM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Syntax: CESM 8T1/E1

addcon <*port_num*> <*sig_type*> <*partial_fill*> <*cond_data*> <*cond_signalling*> [*controller_type*] [*mastership*] [*RemoteEndConID*]

Syntax Description

port_num — Port number for T1 or E1 interface.

- T1 range = 1–192
- E1 range = 1–248

sig_type — Channel associated signalling (CAS) value.

- 1 = basic
- 2 = E1 CAS
- 3 = DS1 superframe CAS
- 4 = DS1 extended superframe CAS

partial_fill — Number of bytes to set cell fills, as associated with line types.

- Partial fill, in the range 0–47. Enter the value either 0 or 47 to set this parameter for fully filled cells.
- Structured T1, in the range 25–47.
- Structure E1, in the range 20–47.
- Unstructured T1/E1, in the range 33–47.

cond_data — Conditional data UDT or SDT.

- UDT = 255
- SDT range = 0–255

Conditional data is sent on the line when there is an underflow and also toward the network when forming dummy cells.

cond_signalling — Conditional signalling, in the range 0–15.

Conditional signalling is sent on the line when there is an underflow and also toward the network when forming dummy cells.

controller_type Signalling controller type, either PVC or SPVC.

- 1 = PVC (PAR) (default)
- 2 = SPVC (PNNI)

mastership Status of current end, either master or slave.

- 1 = master
- 2 = slave (default)

RemoteEndConID Node name, slot number, port number, and DLCI.

or

Node name, slot number, port number, Controller ID, and DLCI for a Frame Relay endpoint. Use one of the following values to set controller type:

- 0 = PAR
- 1 = PNNI
- 2 = TAG

or

The node name, slot number, port number, and VPI.VCI for an ATM endpoint.

Note Note: the slot number should be set to 0 (zero) to point to the active PXM.

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- The channel already exists.
- The port might not be up.

Related Commands

delcon, **dspcons**, **dspcon**

Attributes

Log: Yes State: Active Privilege: Group 2

addendpt

Add End Point

Use the **addendpt** command to set the endpoints on the VISM card. An endpoint is a logical port that consists of one or more DS0s. It resembles the logical port on the channelized FRSM or CESM card. The ds1_num and the ds0_list are used to create the *endpoint ID*. The SU requires the endpoint ID to send the Create Connection (**CRCX**) command of the SGCP protocol to the VISM.

Card(s) on Which This Command Executes

VISM

Syntax

addendpt <*endpoint_num*> <*ds1_num*> <*ds0_list*>

Syntax Description

endpoint_num	Number of the endpoint, in the range 1–240.
ds1_num	Number of the physical line associated with this endpoint, in the range 1–8.
ds0_list	The list of DS0s at this endpoint. Set the list number as appropriate for T1, E1, or VISM. • E1 range = 1– 31 • T1 range = 1–24 • VISM: DS0s can be non-contiguous Separate individual DS0s by a period (.). For the current release of the VISM, only 1 DS0 can exist on an endpoint. For multiple DS0s, you can specify a range of DS0s with a dash (-). For example, 1.3–5 means DS0s 1, 3, 4, and 5.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Any

Example 1-13 Add endpoint number 1 to physical line 1. This endpoint uses DS0 1.

```
spirit4.1.28.VISM.a > addendpt 1 1 1
spirit4.1.28.VISM.a >
```

A system response does not occur unless an error is detected.

addimagrp

Add IMA Group

Use the **addimagrp** command to configure an IMA group for the current AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

addimagrp <*group_num*> <*port_type*> <*list_of_lines*> <*minNumLinks*>

Syntax Description

group_num	Number of the IMA group to be configured, in the range 1–8.
port_type	Value to set port type as either UNI or NNI. • 1 = UNI • 2 = NN1
list_of_lines	List of links to be included in *group_num*. Delineate each item in the list with a (.).
minNumLinks	Minimum number of links for the group formation, in the range 1–8.

Related Commands

dspimagrp, **dspimagrpcnt**, **dspimagrps**, **dspimainfo**, **dspimalncnt**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-14 Add IMA group 2 as UNI with lines 3, 4, and 5

```
spirit4.1.28.AUSM.a > addimagrp 2 1 3.4.5
spirit4.1.28.AUSM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are invalid or illegal.
- IMA group already exists.
- One of the lines is not enabled.
- All lines are not in local mode.

addlink

Add Link

Use the **addlink** command to configure a link between a T1 line within a T3 line on an SRM-3T3 card and a slot and line number on a T1 service module.

Card(s) on Which This Command Executes

PXM

Syntax

addlink <*T3LineNum*> <*T1Slot*> <*Numberof T1s*> <*TargetSlotNum*> <*TargetSlotLineNum*>

Syntax Description

T3LineNum	Line number in the format *slot.line*. • slot = 15 or 31 • line range = 1–3 Slot number 15 is used for the cards in slot and 15 and 16 (whichever is active). Slot 31 is used for cards in 31 and 32.
T1Slot	T1 slot number, in the range 1–28.
Number of T1s	Number of T1s, in the range 1–8.
Target Slot number	T1 service module slot number to be linked to the T1 line, in the following ranges: • 1–6 • 11–14 • 17–22 • 27–30.
TargetSlotLineNum	T1 line number in the slot to be linked, in the range 1–4 or 1–8.

Related Commands

dsplink, **dellink**

Attributes

Log: No State: Active Privilege: Any

Example 1-15 Add a link between the T1 line 1 within T3 line 2 on the SRM-3T3 card in slot 15 and T1 line number 5 on the T1 service module in slot 3

```
spirit4.1.8.PXM.a > addlink 15.2 1 3 5
spirit4.1.8.PXM.a >
```

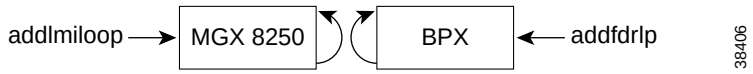
addlmiloop

Add Loopback Line

Use the **addlmiloop** command to stop sending LMI connection status messages to the BPX feeder trunk. This command should be used in conjunction with **addfdrlp** on the BPX (see Figure 1-2). This command can be used only if a feeder trunk exists.

After you have executed the **addlmiloop** command on the MGX 8250 switch and the **addfdrlp** command on the BPX series switch, use the **dsplmistats** command on the BPX switch. The **dsplmistats** command shows the LMI messages exchanged between the BPX series switch and the MGX 8250 switch. The LMI messages will not show an increase after LMI looping is implemented.

Figure 1-2 Status Messages Halted between an MGX 8250 Switch and a BPX Switch



Card(s) on Which This Command Executes

PXM

Syntax

addlmiloop <*slot.port*>

Syntax Description

slot.port	• Slot number, in the range 1–32 • Port number, in the range 1–256

Related Commands

dellmiloop, **dsplmiloop**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-16 Add an LMI loopback line numbered 1 to the current card (the PXM in slot 8)

```
spirit4.1.8.PXM.a > addlmiloop 1
spirit4.1.8.PXM.a >
```

Example 1-17 Add a feeder loop on the BPX

```
spirit4.1.8.PXM.a > addfdrlp 5.5
spirit4.1.8.PXM.a >
```

Example 1-18 Display LMI loop

```
spirit4.1.8.PXM.a > dsplmiloop
TRK     IN LMI LOOP
-------------------
1.8 Yes
```

Example 1-19 Display LMI statistics for the BPX; number of LMI messages in the statistics does not increase

```
VPI.VCI:       3.31                  Lmi enabled         Lmi polling enabled
Invalid Pdu      Rx:           0      Status Polling Timer (T396)    :    10
Invalid Pdu Len  Rx:          14      Status Enquiry Timer (T393)    :    10
Unknown Pdu Type Rx:           0      Max Status Enquiry Retry (N394):     5
Unknown IE Type  Rx:           4      Update Status Timer (T394)     :    10
Bad Transaction  Rx:           0      Max Update Status Retry (N395) :     5
Status           Rx:       46504      Spc Polling Timer              :     2
Status Enq       Tx:       46546      Spc Retry Timer                :     0
Status Enq       Rx:       92014      Spc Retry Counter              :     1
Status           Tx:       92014      Node Status Retry Timer        :     0
Status Ack       Rx:         185      Node Status Retry Counter      :     0
Update Status    Tx:         297      Node Status Polling Timer      :     8
Update Status    Rx:         203
Status Ack       Tx:         203


VPI.VCI:       3.31                  Lmi enabled         Lmi polling enabled
Invalid Pdu      Rx:           0      Status Polling Timer (T396)    :    10
Invalid Pdu Len  Rx:          14      Status Enquiry Timer (T393)    :    10
Unknown Pdu Type Rx:           0      Max Status Enquiry Retry (N394):     5
Unknown IE Type  Rx:           4      Update Status Timer (T394)     :    10
Bad Transaction  Rx:           0      Max Update Status Retry (N395) :     5
Status           Rx:       46511      Spc Polling Timer              :     0
Status Enq       Tx:       46553      Spc Retry Timer                :     0
Status Enq       Rx:       92028      Spc Retry Counter              :     1
Status           Tx:       92028      Node Status Retry Timer        :     0
Status Ack       Rx:         185      Node Status Retry Counter      :     0
Update Status    Tx:         297      Node Status Polling Timer      :     9
Update Status    Rx:         203
Status Ack       Tx:         203
```

addln

Add Line

Use the **addln** command to activate an OC-12, OC-3, T3, or E3 line on the current card.

Card(s) on Which This Command Executes

PXM, FRSM-series, AUSM, SRM-3T3, CESM-series, VISM

Syntax: PXM

addln -ds3 <*LineNum*> | -e3 <*LineNum*> | -sonet <*LineNum*>

Syntax Description

-ds3	Command delineator that precedes the T3 *LineNum* entry.
LineNum	DS3 line number in the format *slot.line*. • slot = 7, 8, 15, 16, 31, or 32 • line = 1–*N*, as appropriate for the physical installation
-e3	Command delineator that precedes the E3 *LineNum* entry.
LineNum	E3 line number format *slot.line*. • slot = 7, 8, 15, 16, 31, or 32 • line = 1–*N*, as appropriate for the physical installation
-sonet	Command delineator that precedes the SONET *LineNum* entry.
LineNum	OC-3 or OC-12 line number in the format *slot.line*. • slot = enter a value of 7. Enter 8 if the active PXM is in slot 8 • line = 1–*N*, as appropriate for the physical installation Set line number value at **7** if the line type is SONET.

Note You can only activate one PXM line on the feeder implementation of an MGX 8250 switch node. With an OC-12 trunk, the only active port with any MGX 8250 switch implementation is port 1.

Syntax: FRSM, AUSM, SRM, CESM, VISM

addln <*line_num*>

Syntax Description

line_num Line number, in the range appropriate for the card.

- FRSM
  - 8T1 range = 1–8
  - HS1/B range = 1–4
- AUSM
  - 8T1/8E1 range = 1–8
  - IMATM-T3T1/E3E1 range = 1–8
- CESM, enter a value in the range 1–8

Related Commands

cnfln, **delln**, **dspln**

Attributes

Log: Yes State: Active Privilege: 1 (Any on PXM)

Example 1-20 Add a line numbered 1 to current card (the PXM in slot 8)

```
spirit4.1.8.PXM.a > addln 1
spirit4.1.8.PXM.a >
```

A message does not appear unless an error occurs. Possible errors include:

- Parameters are illegal or invalid.
- Line already exists.

addlnloop

Add Line Loop

Use the **addlnloop** command to set a specified line in loopback state on the current card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: PXM

addlnloop -ds3 <*LineNum*> | -e3 <*LineNum*> | -sonet <*LineNum*>

Syntax Description

-ds3	Command delineator that precedes the T3 *LineNum* entry.
LineNum	DS3 line number in the format *slot.line*. • slot = 7, 8, 15, 16, 31, or 32 • line = 1–*N*, as appropriate for the physical installation
-e3	Command delineator that precedes the E3 *LineNum* entry.
LineNum	E3 line number format *slot.line*. • slot = 7, 8, 15, 16, 31, or 32 • line = 1–*N*, as appropriate for the physical installation
-sonet	Command delineator that precedes the SONET *LineNum* entry.
LineNum	OC-3 or OC-12 line number in the format *slot.line*. • slot = 7 or 8 • line = 1–*N*, as appropriate for the physical installation Set line number value at 7 if the line type is SONET.

Syntax: FRSM, AUSM, CESM

addlnloop <*line_num*>

Syntax Description

line_num Line number to be set in loopback state, in the range appropriate for the card.

- FRSM
  - 8T1 range = 1–8
  - HS1/B range = 1–4
- AUSM
  - 8T1/8E1 range = 1–8
  - IMATM-T3T1/E3E1 range = 1–8
- CESM, enter a value in the range 1–8

Related Commands

dellnloop

Attributes

Log: Yes State: Active Privilege: Service (Any on PXM)

addlns2aimgrp

Add Lines to an AIM Group

Use the **addlns2aimgrp** command to add lines to an existing AIMUX group.

Card(s) on Which This Command Executes

AUSM

Syntax

addlns2aimgrp <*grp_num*> <*list_of_lines*>

Syntax Description

grp_num	Number of the AIMUX group on which lines are to be added, in the range 1–8.
list_of_lines	List of lines to be associated with this AIMUX group. Use dotted format to delineate each line in your entry string.

Related Commands

dellnsfmaimgrp

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-21 Add lines 1 and 2 to IMA group 2

```
spirit4.1.18.AUSM.a > addlns2aimgrp 2 1.
spirit4.1.18.AUSM.a >
```

A message does not appear unless an error occurs. Possible errors include:

- IMA group is not enabled.
- Line is not enabled.
- Line is part of a different IMA group.
- Tolerable differential delay is exceeded.

addport

Add Port

Use the **addport** command to add a service port to the shelf configuration.

Card(s) on Which This Command Executes

PXM, FRSM, CESM

Syntax: PXM OC-3

addport <*port_number*> <*line_number*> <*percent_bandwidth*> <*min_vpi*> <*max_vpi*>

Syntax Description

port_number	OC-3 port number to be added, in the range 1–32.
line_number	OC-3 line number. Enter the value 4.
percent_bandwidth	Percentage of bandwidth to be allocated to the port, in the range 1–100.
min_vpi	Virtual path identifier (VPI) value, in the range 0–4095.
max_vpi	VPI value, in the range 0–4095.

Syntax: PXM OC-12 back cards

addport <*port_number*> <*line_number*> <*percent_bandwidth*> <*min_vpi*> <*max_vpi*>

Syntax Description

port_number	OC-12 port number to be added, in the range 1–32.
line_number	OC-12 line number. Enter the value 1.
percent_bandwidth	Percentage of bandwidth to be allocated to the port, in the range 1–100.
min_vpi	Virtual path identifier (VPI) value, in the range 0–4095.
max_vpi	VPI value, in the range 0–4095.

Syntax: PXM T3/E3 back cards

addport <*port_number*> <*line_number*> <*percent_bandwidth*> <*min_VPI*> <*max_VPI*>

Syntax Description

port_number	Port number, in the range 1–32.
line_number	T3/E3 line number. Enter the value 2.
percent_bandwidth	Percentage of bandwidth to be allocated to the port, in the range 1–100.
min_VPI	Virtual path identifier (VPI) value, in the range 0–4095.
max_VPI	VPI value, in the range 0–4095.

Syntax: FRSM-8T1E1 cards

addport <*port_num*> <*line_num*> <*ds0_speed*> <*begin_slot*> <*num_slot*> <*port_type*>

Syntax Description

port_num	Port number of either the FRSM-8T1 or the FRSM-8E1. • FRSM-8T1 range = 1–192 • FRSM-8E1 range = 1–248
line_num	FRSM-8T1E1 line number, in the range 1–8.
ds0_speed	Bit rate as either 56 Kbps or 64 Kbps for the DS0. • 1 = 56 Kbps • 2 = 64 Kbps
begin_slot	Number of the beginning timeslot in the T1 or E1 frame.
num_slot	Number of consecutive timeslots in the T1 or E1 frame.
port_type	Type of service as Frame Relay, FUNI, or frame forwarding. • 1 = Frame Relay • 2 = FUNI • 3 = frame forwarding

Syntax: FRSM-2T3E3 cards

addport <*port_num*> <*line_num*> <*ds0_speed*> <*begin_slot*> <*num_slot*> <*port_type*>

Syntax Description

port_num	Port number on the FRSM-2T3 or FRSM-2E3, in the range 1–2.
line_num	FRSM-2T3E3 line number in the range 1–2.
ds0_speed	Bit rate as either 56 Kbps or 64 Kbps for the DS0. • 1 = 56 Kbps • 2 = 64 Kbps
begin_slot	Number of the beginning timeslot in the T1 or E1 frame.
num_slot	Number of consecutive timeslots in the T1 or E1 frame.
port_type	Type of service as Frame Relay, FUNI, or frame forwarding. • 1 = Frame Relay • 2 = FUNI • 3= frame forwarding

Syntax: FRSM-2CT3

addport <*port_num*> <*line_num*> <*ds0_speed*> <*begin_slot*> <*num_slot*> <*port_type*>

Syntax Description

port_num	Port number on the FRSM-2CT3, in the range 1–256.
line_num	FRSM-2CT3 line number in the range 1–56.
ds0_speed	Bit rate as either 56 Kbps or 64 Kbps for the DS0. • 1 = 56 Kbps • 2 = 64 Kbps
begin_slot	Number of the beginning timeslot in the T1 or E1 frame.
num_slot	Number of consecutive timeslots in the T1 or E1 frame.
port_type	Type of service as Frame Relay, FUNI, or frame forwarding. • 1 = Frame Relay • 2 = FUNI • 3 = frame forwarding

Syntax: FRSM-HS1/B

addport <*port_num*> <*port_type*>

Syntax Description

port_num	Port number, in the range appropriate for the interface type. • X.21 range = 1–4 • HSSI range = 1–2
port_type	Type of service as Frame Relay, FUNI, or frame forwarding. • 1 = Frame Relay • 2 = FUNI • 3 = frame forwarding

Syntax: FRSM-HS2

addport <*port_num*> <*line_num*> <*ds0_speed*> <*begin_slot*> <*num_slot*> <*port_type*>

Syntax Description

port_num	Port number on the FRSM-HS2, in the range 1–2.
line_num	FRSM-HS2 line number, in the range 1–2.
ds0_speed	Bit rate as either 56 Kbps or 64 Kbps for the DS0. • 1 = 56 Kbps • 2 = 64 Kbps
begin_slot	Number of the beginning timeslot in the T1 or E1 frame.
num_slot	Number of consecutive timeslots in the T1 or E1 frame.
port_type	Type of service as Frame Relay, FUNI, or frame forwarding. • 1 = Frame Relay • 2 = FUNI • 3 = frame forwarding

Syntax: CESM-8T1E1 cards

addport <*port_num*> <*line_num*> <*begin_slot*> <*num_slot*> <*port_type*>

Syntax Description

port_num	Port number on the CESM-8T1 or CESM-8E1 card. • CESM-8T1 range = 1–192 • CESM-8E1 range = 1–248
line_num	CESM-8T1E1 line number, in the range 1–8.
begin_slot	Number of the beginning timeslot in the T1 or E1 frame.
num_slot	Number of consecutive timeslots in the T1 or E1 frame.
port_type	Type of service. • 1 = structured • 2 = unstructured • 3 = framing on VC disconnect

Syntax: CESM-T3E3 cards

addport <*port_num*> <*line_num*>

Syntax Description

port_num	Port number. Enter the value 1.
line_num	Line number. Enter the value 1.

Related Commands

cnfport, **delport**, **dspport**, **dspports**

Attributes

Log: Yes State: Active Privilege: Group 1 (Any on PXM)

Example 1-22 Add port 1 on line 1 with DS0 timeslots 1 through 24 assigned as structured

```
node501.1.1.CESM.a > addport 1 1 1 24 1
node501.1.1.CESM.a >
```

addred

Add Redundancy

Use the **addred** command to link two MGX 8250 slots (a primary slot and a secondary slot) so that the switch treats the cards in these slots as a redundant pair of cards.

The secondary slot should be in the same half of the shelf (upper or lower) as the primary slot. Redundancy can be 1:1 or 1:*N*. If the redundancy is 1:*N*, link one secondary slot to *N* primary slots through multiple executions of this command.

Card(s) on Which This Command Executes

PXM

Syntax

addred <*redPrimarySlotNum*> <*redSecondarySlotNum*> <*redType*>

Syntax Description

redPrimarySlotNum — Slot number that contains the primary card of the card pair, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

redSecondarySlotNum — Slot number that contains the secondary card of the card pair, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

redType — Type of redundancy to be deployed on the PXM.

- 1 = 1:1
- 2 = 1:*N*

Related Commands

dspred, **delred**

Attributes

Log: No State: Active Privilege: Any

Example 1-23 Add 1:1 redundancy between card in slot 4 and card in slot 1

```
node501.1.7.PXM.a > addred 1 4 1
node501.1.7.PXM.a >
```

A system response does not occur unless a system error is detected.

addrscprtn

Add Resource Partition

Use the **addrscprtn** command to configure resource partitions for the current PXM.

A resource partition on a PXM consists of a percentage of bandwidth, a VPI/VCI range, and the number of global logical connection numbers (GLCNs) available to a network control application.

Note On a virtual trunk, the *min_vpi* and *max_vpi* should be the same. Only a routing node can support virtual trunking.

Card(s) on Which This Command Executes

PXM

Syntax

addrscprtn <*if_num*> <*ctrlr_num*> <*ingr_pct_bw*> <*egr_pct_bw*> <*min_vpi*> <*max_vpi*> <*min_vci*> <*max_vci*> <*max_chans*>

Syntax Description

if_num	Logical interface number, in the range 1– 32.
ctrlr_num	Type of network control application to be used on the logical interface. • 1 = PAR • 2 = PNNI • 3 = TAG
ingr_pct_bw	Percentage of ingress bandwidth to be allocated on the interface, in the range 0–100.
egr_pct_bw	Percentage of egress bandwidth to be allocated on the interface, in the range 0–100.
min_vpi	Minimum virtual path identifier (VPI) value, in the range 0–4095.
max_vpi	Maximum VPI value, in the range 0–4095.
min_vci	Minimum virtual channel identifier (VCI) value, in the range 0–65535.
max_vci	Maximum VCI value, in the range 0–65535.
max_chans	Maximum global logical connection numbers (GLCNs), in the range 0–32767.

Related Commands

cnfrscprtn, **delrscprtn**, **dspifrsc**, **dspifs**, **dsprscprtns**, **dsprscprtn**, **dsplnrsc**

Attributes

Log: No State: Any Privilege: Any

addserialif

Add Serial Interface

Use the **addserialif** command to add a serial interface.

Card(s) on Which This Command Executes

PXM

Syntax

addserialif <*serial_port_num*>

Syntax Description

serial_port_num	Serial port number. • 1 = console • 2 = slip

Related Commands

cnfserialif, **dspserialif**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-24 Configure speed on SLIP for 19200 bps

```
NODENAME.1.7.PXM.a > addserialif 1
NODENAME.1.7.PXM.a >
```

addtrapmgr

Add Trap Manager

Use the **addtrapmgr** command to set up an SNMP trap manager for use with stand-alone applications. Trap managers that are added using the **addtrapmgr** command do not age, and are not deleted after 30 minutes.

Card(s) on Which This Command Executes

PXM

Syntax

addtrapmgr <*ip_addr*> <*portnum*>

Syntax Description

ip_addr	A 32-bit IP address in dotted decimal format. This setting is the IP address assigned to the port on the trap manager.
portnum	Port number on the trap manager workstation to be used to receive traps. Default = 162.

Related Commands

deltrapmgr, **dsptrapmgr**, **xcnftrapmgr**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-25 Add a trap manager with the IP address of 161.10.144.56 to port 162

```
node501.1.7.PXM.a > addtrapmgr 161.10.144.56 162
node501.1.7.PXM.a >
```

addtrk

Add Trunk

Use the **addtrk** command to activate a specified trunk on the current PXM.

The **addtrk** command applies only to routing node implementation. Execute **addtrk** after you have configured the broadband interface as a trunk by using **cnfifastrk**.

Note Traffic class and max vpc conids should match before executing the **addtrk** command.

Card(s) on Which This Command Executes

PXM

Syntax

addtrk <*slot.port*>

Syntax Description

slot.port Port identifier of the trunk to activate, using the format *slot.port*.

- slot ranges:
  - 1–6
  - 9–14
  - 17–22
  - 25–30
- port range = 1–*N*, as appropriate for the physical installation

Related Commands

cnftrk, **dsptrkcnf**, **dsptrkload**, **dsptrks**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-26 Activate trunk on port 4 in the card in slot 1

```
node501.1.7.PXM.a > addtrk 1.4
node501.1.7.PXM.a >
```

adduser

Add User

Use the **adduser** command to configure a user name and associated access level on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

adduser <*user_ ID*> <*accessLevel*>

Syntax Description

user_ID Name to be used as the login at the PXM.

- The name can consist of up to 12 characters composed of alpha and numeric characters, special characters "_" and "-".
- The name must begin with an alpha character and cannot contain spaces. The name is case-sensitive.

accessLevel System privilege level to be allocated for the user ID.

- GROUP1 (highest level)
- GROUP2
- GROUP3
- GROUP4
- GROUP5
- ANYUSER (lowest level)

The new user that you configure cannot have an access level that is higher than that defined for the current login ID.

Related Commands

dspusers, **deluser**

Attributes

Log: Yes State: Active Privilege: Group 5

Example 1-27 Add a user named fin with privilege level ANYUSER

```
spirit.1.7.PXM.a > adduser fin ANYUSER

Enter password:
Re-enter password:

spirit.1.7.PXM.a >
```

agetrapmgr

Age Trap Manager

Use the **agetrapmgr** command to activate or deactivate aging on trap managers.

Card(s) on Which This Command Executes

PXM

Syntax

agetrapmgr <*ip_addr*> <*aging*>

Syntax Description

ip_addr	IP address in dotted decimal format. Use ip_addr 0.0.0.1 for all managers.
aging	Aging of either the individual trap managers or all trap managers. • 1 = enable (default) • 2 = disable If enabled, the trap manager is deleted from the table after a period of 30 minutes.

Related Commands

dsptrapmgr

Attributes

Log: No State: Any Privilege: Any

aimhelp

AIM Help

Use the **aimhelp** command to display the Help screen for the AUSM service module.

Card(s) on Which This Command Executes

AUSM

Syntax

aimhelp

Related Commands

help

Attributes

Log: No State: Any Privilege: Any

Example 1-28 Display Help screen for AUSM service module

```
raviraj.1.9.AUSM8.a > aimhelp

AUSM-8P Commands

  addcon          :  Add a Connection
  addimagrp       :  Add an IMA group
  addln           :  Add a line
  addlnloop       :  Configure a line in local loopback
  addlns2imagrp   :  Add lines to an existing IMA group
  clralmcnt       :  Clear DS1 alarm count
  clralmcnts      :  Clear alarm count for all DS1 lines
  clralm          :  Clear the DS1 line alarms
  clrchancnt      :  Clear Channel Counters
  clrchancnts     :  Clear Channel Counters for all channels
  clralms         :  Clear DS1 alarms on all lines
  clrimagrpcnt    :  Clear IMA group Counters
  clrimalncnt     :  Clear IMA counters on a particular line
  clrportcnt      :  Clear Port Counters
  clrportcnts     :  Clear Port Counters for all ports
  clrsarcnt       :  Clear SAR channel counters
  clrsarcnts      :  Clear SAR counters for all channels
  clrslftst       :  Clear self test results
  clrimatst       :  clear IMA test procedure

Type <CR> to continue, Q<CR> to stop:

  cnfchanfst      :  Configure the channel foresight parameters
  cnfchanq        :  Configure the channel queue parameters
  cnffst          :  Configure foresight params of a card
  cnfportq        :  Configure Egress queue parameters
  cnfimagrp       :  Configure an IMA group
  cnfilmi         :  Configure ILMI parameters of a port
  cnfln           :  Configure DS1/E1 line
  cnflnloop       :  Configure DS1/E1 line
  cnfplpp         :  Configure DS1/E1 line
  cnfslftst       :  Configure self test parameters
  cnfsvcrange     :  Partition Resource between PVCs & SVCs
  cnfupccbr       :  Configure UPC parameters of CBR connection
  cnfupcvbr       :  Configure UPC parameters of VBR connection
  cnfupcabr       :  Configure UPC parameters of ABR connection
  cnfupcubr       :  Configure UPC parameters of UBR connection
  cnfimatst       :  Enable the IMA test procedure
  cnfimaalmparm   :  COnfigure the IMA alaram Integration UP and DOWN times
  copychans       :  Copy a template connection
  delimagrp       :  Delete an IMA group

Type <CR> to continue, Q<CR> to stop:
delcon          :  Delete a connection
  delln           :  Delete DS1 line
  dellnloop       :  Remove a DS1 line from local loopback
  dellnsfmimagrp  :  Delete lines from an existing IMA group
  dnport          :  Down an ATM port
  dspalm          :  Display DS1 alarms on a line
  dspalmcnf       :  Display DS1 alarm configuration
  dspalmcnt       :  Display alarm count for DS1 line
  dspalms         :  Display DS1 alarms on all lines
  dspcd           :  Display card information
  dspchancnt      :  Display channel counters
  dspcon          :  Display connection configuration
  dspcons         :  Display all the configured connections
  dspfeature      :  Display the features
  dspfst          :  Display the card Foresight params
```

```
  dspilmi         :  Display ILMI parms of a port
  dspilmicnt      :  Display ILMI counters of a port
  dspimagrp       :  Display all parms configured for an IMA group
  dspimagrpcnt    :  Display IMA group Counters

Type <CR> to continue, Q<CR> to stop:

  dspimagrps      :  Display the configured IMA groups
  dspimalncnt     :  Display IMA counters on a particular line
  dspimatst       :  Display IMA test status
  dspimaln        :  Display IMA link status
  dspimaalmparm   :  Display IMA alaram integration times
  dspln           :  Display DS1 line
  dsplns          :  Display all DS1 lines
  dsploads        :  Display the total bandwidth used up in each port
  dspplpp         :  Display the PLPP configuration of each line
  dspport         :  Display the configured ATM/IMA port
  dspportcnt      :  Display Port Counters
  dspportq        :  Display the egress queue configuration
  dspportqs       :  Display configuration of all egress queues
  dspports        :  Display the configured ATM/IMA ports
  dspsarcnt       :  Display the SAR counters of a connection
  dspsarcnts      :  Display the SAR counters of all connections
  dspslftst       :  Display self test configuration
  dspslftsttbl    :  Display the self test results
  dspsttatparms   :  Display the statistics params configured

Type <CR> to continue, Q<CR> to stop:

  dspsvcrange     :  Display the resource partition between PVCs & SVCs
  dsptotals       :  Display the total connections configured per port
  runslftstno     :  Run a particular self test
  tstcon          :  Test the connection towards the N/W side
  tstconseg       :  Test the connection towards the CPE side
  tstconsti       :  Test the connection towards the N/W side using STI supervis
ory cell
  tstdelay        :  Measure the delay towards the N/W side
  tstdelaysti     :  Measure the delay towards the N/W side using STI supervisor
y cell
  upport          :  Up an ATM port
  xcnfalm         :  Configure alms of a DS1 line
  xcnfln          :  Configure a DS1 line
  xcnfln          :  Configure a DS1 line


raviraj.1.9.AUSM8.a >
```

arpAdd

Add Address Resolution Protocol Entry

Use the **arpAdd** command to add an Address Resolution Protocol (ARP) entry to the ARP table. This Internet protocol is used to map an IP address to a MAC address, and the ARP table contains these translations.

Card(s) on Which This Command Executes

PXM

Syntax

arpAdd <*ip_address*> <*mac_address*>

Syntax Description

ip_address	IP address in dotted decimal format.
mac_address	Standardized data link layer address, six bytes long. Also known as a hardware address, MAC-layer address, and physical address.

Related Commands

arpShow, **arpDelete**, **arpFlush**

Attributes

Log: No State: Any Privilege: Any

Example 1-29 Add an ARP entry on current PXM, then show ARP entry

```
NODENAME.1.7.PXM.a > arpAdd 172.29.36.102 0:e0:4f:5c:6c:5a

NODENAME.1.7.PXM.a > arpShow
172.29.36.28 at 8:0:20:a6:80:3b
190.29.36.255 at 0:e0:4f:5c:6c:20
172.29.36.102 at 0:e0:4f:5c:6c:5a
171.71.54.104 at 0:e0:4f:5c:6c:20
NODENAME.1.7.PXM.a >
```

arpDelete

Delete Address Resolution Protocol Entry

Use the **arpDelete** command to delete an entry in the Address Resolution Protocol (ARP) table. The ARP protocol is used to map an IP address to a MAC address, and the ARP table contains these translations.

Card(s) on Which This Command Executes

PXM

Syntax

arpDelete <*ip_addr*>

Syntax Description

ip_addr	IP address in dotted decimal format.

Related Commands

arpAdd, **arpShow**, **arpFlush**

Attributes

Log: No State: Any Privilege: Any

Example 1-30 Delete ARP entry for IP address 172.29.36.102

```
NODENAME.1.7.PXM.a> arpDelete    172.29.36.102
172.29.36.102 (172.29.36.102) deleted
NODENAME.1.7.PXM.a>
```

arpFlush

Flush Address Resolution Protocol Table

Use the **arpFlush** command to remove non-permanent entries from the ARP table. The ARP protocol is used to map an IP address to a MAC address, and the ARP table contains these translations.

Card(s) on Which This Command Executes

PXM

Syntax

arpFlush

Related Commands

arpAdd, **arpDelete**, **arpShow**

Attributes

Log: No State: Any Privilege: Any

Example 1-31 Flush ARP table, then show ARP table

```
NODENAME.1.7.PXM.a > arpFlush

NODENAME.1.7.PXM.a > arpShow
171.71.54.104 at 0:e0:4f:5c:6c:20
NODENAME.1.7.PXM.a >
```

arpShow

Show Address Resolution Protocol Table

Use the **arpShow** command to display the Address Resolution Protocol (ARP) table. The ARP table contains IP address–to–MAC address translations mapped by the ARP protocol.

Card(s) on Which This Command Executes

PXM

Syntax

arpShow

Related Commands

arpAdd, **arpDelete**, **arpFlush**

Attributes

Log: No State: Any Privilege: Any

Example 1-32 Show ARP table on current PXM

```
NODENAME.1.7.PXM.a > arpShow
190.29.36.255 at 0:e0:4f:5c:6c:20
172.29.36.28 at 8:0:20:a6:80:3b
171.71.54.104 at 0:e0:4f:5c:6c:20
NODENAME.1.7.PXM.a >
```

bootChange

Boot Change

Use the **bootChange** command to change to the boot IP address and gateway address of a PXM card. The IP address you define is used only when the PXM is in boot state. Use the **cnfifip** command to assign IP addresses for the PXM and the shelf. The **bootChange** values are sent and automatically updated on the standby card, and bootlines are synchronized.

The PXM tries to correct bad entries when it boots up. This information is copied to the standby card. If the **bootChange** IP address is different from the shelf IP address, then it brings the Ethernet interface up on the standby with the **bootChange** IP address.

The **shellconn** version of this command updates only the local bootline values.

The following parameters are necessary for the network to function:

- Ethernet interface
- IP address and subnetmask
- Default Ethernet gateway

Note If the firmware fails to reach the CLI prompt or comes up in backup boot, the Ethernet interface might be down, a problem created by an identical shelf IP address and boot change address. In such a case, the **bootChange** command is used from the shell to set another IP address and then **usrEnetEnable** is called to activate that address.

If the CLI prompt does not display or if the switch is not enabled and in backup boot, use the **usrEnetEnable** command to bring up the Ethernet interface.

Card(s) on Which This Command Executes

PXM

Syntax

bootChange

Related Commands

cnfifip

Attributes

Log: Yes State: Active Privilege: Service

Example 1-33 Execute bootChange on current PXM

```
raviraj.1.7.PXM.a > bootChange

'.' = clear field;  '-' = go to previous field;  ^D = quit

boot device          : lnPci
processor number     : 0
host name            :
file name            :
inet on ethernet (e) : 172.29.37.41 : ffffff00
inet on backplane (b):
host inet (h)        :
gateway inet (g)     : 172.29.37.1
user (u)             :
ftp password (pw) (blank = use rsh):
flags (f)            : 0x0
target name (tn)     :
startup script (s)   :
other (o)            :


raviraj.1.7.PXM.a >
```

bye

Bye

Use the **bye** command to exit the current CLI shell.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, VISM

Syntax

bye

Related Commands

logout

Attributes

Log: Yes State: Any Privilege: ***Any***

Example 1-34 Exit current CLI shell

```
spirit.1.8.PXM.a > bye

(session ended)
```

cc

Change Card

Use the **cc** command to navigate from card to card on the shelf.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

cc <*slotNumber*>

Syntax Description

slotNumber	Number of the card slot, in the range 1–32.

Related Commands

None

Attributes

Log: Yes State: Any Privilege: Any

Example 1-35 Switch from AUSM in slot 22 to PXM in slot 8

```
node1.1.22.AUSM8.a > cc 8

(session redirected)

node1.1.8.PXM.a >
```

A system message does not occur unless an error is detected. If the card slot is empty, an error message is presented.

cd

Change Directory

Use the **cd** command to change the current directory on the PXM hard disk.

Card(s) on Which This Command Executes

PXM

Syntax

cd <*directory_name*>

Syntax Description

directory_name Name of the target directory.

Related Commands

ls, **pwd**, **rename**, **deltree**, **copy**

Attributes

Log: Yes State: Any Privilege: Group 3

Example 1-36 Change directory to FW

```
raviraj.1.7.PXM.a > cd FW

raviraj.1.7.PXM.a >
```

Verify the current directory by using the **pwd** command.

Example 1-37 Return to Root directory

```
raviraj.1.7.PXM.a > pwd
C:FW

raviraj.1.7.PXM.a > cd ..

raviraj.1.7.PXM.a > pwd
C:

raviraj.1.7.PXM.a >
```

clraimgrpcnt

Clear AIM Group Counters

Use the **clraimgrpcnt** command to clear all the AIMUX-related counters for all lines in the specified AIMUX group.

Card(s) on Which This Command Executes

AUSM

Syntax

clraimgrpcnt <*imagroup*>

Syntax Description

imagroup	Number of the AIMUX group on which you want to clear the AIMUX counters, in the range 1–8.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-38 Clear all AIM group counters in AIM group 8

```
node1.1.22.AUSM8.a > clraimgrpcnt 8
node1.1.22.AUSM8.a >
```

clraimlncnt

Clear AIM (or Clear IMA) Line Counters

Use the **clraimlncnt** command to clear all the AIMUX line counters for the specified IMA group.

Card(s) on Which This Command Executes

AUSM

Syntax

clraimlncnt (or **clrimalncnt**) <*imagroup*> <*linenum*>

Syntax Description

imagroup	Number of the AIMUX group on which you want to clear the line counters associated with an IMA group, in the range 1–8.
linenum	Line number, in the range 1–8.

Related Commands

dspaimlncnt, **clrimalncnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-39 Clear all AIM line counters in AIM group 8

```
node1.1.22.AUSM8.a > clraimlncnt 8
node1.1.22.AUSM8.a >
```

clrallcnf

Clear All Configurations

Use the **clrallcnf** command to clear all configuration elements for all the cards in the node. The system queries for confirmation before executing the **clrallcnf** command.

Caution This command clears all configuration files on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

clrallcnf

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-40 Clear Configuration Confirmation Query

```
node1.1.7.PXM.a > clrallcnf

All SM's config will be deleted, and
        the shelf will be reset.
Do you want to proceed (Yes/No)? No
(command not executed)

node1.1.7.PXM.a >
```

clralm

Clear Alarm

Use the **clralm** command to clear alarms on a specified line on the current card. Alarms occurring after this command executes are not affected. If alarms on a line are cleared with this command, the results may be observable through the **dspalm** command.

This command can clear alarms caused by the collection of statistical data only. Alarms caused by network failure cannot be cleared. For example, an alarm caused by a collection of bipolar errors can be cleared, but an alarm caused by a card failure cannot.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax: PXM

clralm -ds3 <*LineNum*> | -e3 <*LineNum*> | -sonet <*LineNum*> | -plcp <*PLCPNUM*>

Syntax Description

-ds3	Command delineator that precedes the T3 *LineNum* entry.
LineNum	DS3 line number in the format *slot.line*. • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation
-e3	Command delineator that precedes the E3 *LineNum* entry.
LineNum	E3 line number in the format *slot.line*. • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation
-sonet	Command delineator that precedes the SONET *LineNum* entry.
LineNum	SONET line number in the format *slot.line*. • slot = enter the value either 7 or 8 • line range = 1–*N*, as appropriate for the physical installation
-plcp	Command delineator that precedes the *PLCPNUM* entry.
PLCPNUM	Physical Layer Protocol Processor (PLCP) number, in the format *slot.line*. • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation

Syntax: FRSM, AUSM, CESM, or VISM

clralm -ds1 <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number appropriate for the card. • FRSM – 8T1: for DS1 = 1–8 – HS1/B: for X.21 = 1–4 • AUSM = 1–8 • CESM: for CESM_8P = 1–8

Syntax: SRM-3T3

clralm -srmds3 <*LineNum*>

Syntax Description

-srmds3	Command delineator that precedes the *LineNum* entry.
LineNum	LineNum = 1–*N*, where *N* = 3

Syntax: FRSM-HS1

clralm -hs1 <*LineNum*>

Syntax Description

-hs1	Command delineator that precedes the *LineNum* entry.
LineNum	LineNum = 1–*N*, where *N* = 4

Related Commands

clralms, **dspalm**, **dspalms**

Attributes

Log: No State: Any Privilege: Group 5

Example 1-41 Clear all alarms caused by the collection of statistical data for line 1 on current card

```
node1.1.22.AUSM8.a > clralm -ds1 1
node1.1.22.AUSM8.a >
```

clralmcnt

Clear Alarm Counters

Use the **clralmcnt** command to clear all the alarm counters and statistics on the specified line on the current card. All counters are reset to 0. The terminal does not display a response unless an error exists in the syntax.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax: PXM

clralmcnt -ds3 <*LineNum*> | -e3 <*LineNum*> | -sonet <*LineNum*> | -plcp <*PLCPNUM*>

Syntax Description

-ds3	Command delineator that precedes the T3 *LineNum* entry.
LineNum	DS3 line number in the format *slot.line.* • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation
-e3	Command delineator that precedes the E3 *LineNum* entry.
LineNum	E3 line number in the format *slot.line.* • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation
-sonet	Command delineator that precedes the SONET *LineNum* entry.
LineNum	SONET line number in the format *slot.line.* • slot = 7 or 8 • line range = 1–*N*, as appropriate for the physical installation
-plcp	Command delineator that precedes the *PLCPNUM* entry.
PLCPNUM	Physical Layer Protocol Processor (PLCP) value, in the format *slot.line*. • slot = 7, 8, 15, 16, 31, 32 • line range = 1–*N*, as appropriate for the physical installation

Syntax: FRSM, AUSM, CESM, or VISM

clralmcnt -ds1 <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number, in the range appropriate for the card. • FRSM range = 1–8 • AUSM range = 1–8 • CESM range = 1–8

Related Commands

dspalmcnt, **clralmcnts**

Attributes

Log: No State: Any Privilege: Any (Group 5 on PXM)

Example 1-42 Clear all alarm counters and statistics collected for line 1 on current card

```
node1.1.22.AUSM8.a > clralmcnt -ds1 1
node1.1.22.AUSM8.a >
```

clralmcnts

Clear All Alarm Counters/Statistics on Current Card

Use the **clralmcnts** command to clear all the alarm counters and statistics on the current card. All counters are reset to 0. The terminal does not display a response unless an error exists in the syntax.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Syntax

clralmcnts

Related Commands

dspalmcnt, **clralmcnt**

Attributes

Log: No State: Any Privilege: Group 5

Example 1-43 Clear all alarm counters and statistics collected for current card

```
node1.1.22.AUSM8.a > clralmcnts
node1.1.22.AUSM8.a >
```

clralms

Clear Alarms on Card

The **clralms** command clears alarms on the current card. Alarms occurring after this command executes are not affected.

This command can clear alarms caused by the collection of statistical data only. Alarms caused by network failure cannot be cleared. For example, an alarm caused by a collection of bipolar errors can be cleared, but an alarm caused by a card failure cannot.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Syntax: FRSM, AUSM,CESM, or VISM

clralms -ds1 <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number on which to clear alarms, in the range 1–*N*, as appropriate for the physical installation.

Related Commands

clralm, **dspalm**, **dspalms**

Attributes

Log: No State: Any Privilege: Group 5

Example 1-44 Clear all alarms triggered by the collection of statistics for line 1 on current card

```
node1.1.22.AUSM8.a > clralms -ds1 1
node1.1.22.AUSM8.a >
```

clratmlncnt

Clear All ATM Line Counters on Specified Line Number

The **clratmlncnt** clears the ATM event counters for the specified line on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

clratmlncnt <*line_num*>

Syntax Description

line_num	Line number on which to clear the ATM event counters, in the range 1–4.

Related Commands

clratmlncnts

Attributes

Log: No State: Any Privilege: Any

Example 1-45 Clear all ATM event counters for line 1 on the PXM

```
node1.1.7.PXM.a > clratmlncnt 1
node1.1.7.PXM.a >
```

clratmlncnts

Clear All ATM Line Counters on All Lines

Use the **clratmlncnts** command to remove allATM counters on all the lines on the current card.

Card(s) on Which This Command Executes

PXM

Syntax

clratmlncnts

Related Commands

clratmlncnt

Attributes

Log: No State: Any Privilege: Any

Example 1-46 Clear all ATM event counters on the PXM

```
node1.1.7.PXM.a > clratmlncnts
node1.1.7.PXM.a >
```

clrbertcntrs

Clear BERT Counters

Use the **clrbertcntrs** command to remove all counters associated with bit error rate testing (BERT).

Card(s) on Which This Command Executes

FRSM 2CT3, CESMT3

Syntax

clrbertcntrs

Related Commands

acqdsx3bert, **cnfdsx3bert**, **deldsx3bert**, **dspdsx3bert**, **startdsx3bert**, **xcnfdsx3bert**, **xdspdsx3bert**

Attributes

Log: No State: Any Privilege: Any

Example 1-47 Clear all BERT counters on the current FRSM

```
raviraj.1.13.VHS2CT3.a > clrbertcntrs

raviraj.1.13.VHS2CT3.a >
```

clrcderrs

Clear Hardware/Reset Errors in BRAM

Use the **clrcderrs** command to clear all card-related errors on an MGX 8250 card. Refer to the **dspcderrs** description to see an example of the errors that this command clears, or execute the **dspcderrs** command before and after executing the **clrcderrs** command.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

clrcderrs

Related Commands

dspcderrs

Attributes

Log: No State: Any Privilege: SuperUser

Example 1-48 Clear all card-related errors on the FRSM in slot 4

```
node1.1.4.FRSM.a > clrcderrs
node1.1.4.FRSM.a >
```

A response does not occur unless an error is detected.

clrchancnt

Clear Channel Counters on Specified Channel

Use the **clrchancnt** command to clear the channel counters for the specified channel on the current card. Counting resumes after the command executes.

The Frame Relay counters for each channel are:

- Received frames: bytes, DE, discarded, FECN, BECN
- Received frames tagged FECN, BECN, DE
- Received frames discarded for shelf alarms, exceeded queue depth, exceeded DE threshold
- Received bytes: DE, discarded
- Transmitted bytes: DE, discarded
- Transmitted bytes discarded for exceeded queue depth
- Transmitted bytes during LMI logical port alarm
- Transmitted frames tagged FECN, BECN
- Transmitted frames: bytes, BECN, FECN, DE
- Transmitted frames during LMI logical port alarm
- Transmitted frames discarded for exceeded queue depth, exceeded DE threshold, CRC error, physical layer fail, source abort, reassembly failure

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: PXM

clrchancnt -cnt <*chan_num*> -cc <*clrButton*>

Syntax Description

-cnt	Command delineator that precedes the PXM *chanNum* entry.
chanNum	PXM channel number, in the range 16–4111.
-cc	Command delineator that precedes the *clrButton* entry.
clrButton	Underline MIB object to clear or retain the counters. • 1 = no action • 2 = clear counts (default)

Syntax: FRSM CESM

clrchancnt <*chan_num*>

Syntax Description

chan_num	Channel number, in the range appropriate for the card. • FRSM range = 16–1015 • CESM range = 32–279

Syntax: AUSM

clrchancnt <*Port.VPI.VCI* | *Chan_num*>

Syntax Description

Port.VPI.VCI	Connection number, in the format port.VPI.VCI.
Chan_num	Channel number, in the range 16–1015.

Related Commands

dspchan, **clrchancnts**, **dspchancnt**

Attributes

Log: Yes State: Any Privilege: Any

Example 1-49 Clear all channel counters for channel 16 on the FRSM in slot 4

```
node1.1.4.FRSM.a > clrchancnt 16
node1.1.4.FRSM.a >
```

clrchancnts

Clear All Channel Counters on Card

Use the **clrchancnts** command to clear all channel counters for all channels on the current service card. The counters resume accruing after the command executes. To view a list of the Frame Relay counters, refer to the description of **clrchancnt**.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

clrchancnts

Related Commands

dspchan, **clrchancnt**, **dspchancnt**

Attributes

Log: **Yes** State: **Any State** Privilege: Group 3(Any on PXM)

Example 1-50 Clear all channel counters for all channels on the FRSM in slot 4

```
node1.1.4.FRSM.a > clrchancnts
node1.1.4.FRSM.a >
```

clrconcnt

Clear Connection Counters for Specified Connection Identifier

Use the **clrconcnt** command to clear the counters for the specified connection identifier on the current PXM card. Counting resumes after the command executes.

Card(s) on Which This Command Executes

PXM

Syntax

clrconcnt <*conn_ID*>

Syntax Description

conn_ID Connection ID, in the format *PortNum.VPI.VCI*

- PortNum = 1–*N*, as appropriate for the physical installation
- VPI = virtual path identifier in the range for either UNI or NNI
  - UNI range = 0–255 (typically applied to lines that connect a standalone node to a workstation)
  - NNI range = 0–4095
- VCI = virtual circuit identifier in the range 0–65535

Related Commands

dspcon, **clrconcnts**, **dspconcnt**

Attributes

Log: Yes State: Any Privilege: Any

Example 1-51 Clear all counters for connection on port 1 with a VPI of 2 and a VCI of 2

```
node4.1.8.PXM.a > clrconcnt 1.2.2
node4.1.8.PXM.a >
```

clrconcnts

Clear Connection Counters for All Connections on Card

Use the **clrconcnts** command to clear the counters for all the connections on the current PXM card. Counting resumes after the command executes.

Card(s) on Which This Command Executes

PXM

Syntax

clrconcnts

Related Commands

dspcon, **clrconcnt**, **dspconcnt**

Attributes

Log: Yes State: Any Privilege: Any

Example 1-52 Clear all counters for all connections on the PXM card

```
node4.1.8.PXM.a > clrconcnts
node4.1.8.PXM.a >
```

clrerr

Clear Error Log Counters for All Connections on Card

Use the **clrerr** command to remove specified or all error log files. This command queries for confirmation prior to clearing the error log files from the system.

Card(s) on Which This Command Executes

PXM

Syntax:

clrerr [-en <*error slot*>]

Syntax Description

-en	Command delineator that precedes the *error slot* entry.
error slot	Number of the log file to clear, which is identical to the slot number of the card.

Related Commands

dsperr

Attributes

Log: No State: Any Privilege: Any

Example 1-53 Show clrerr confirmation query

```
wilco.1.7.PXM.a > clrerr

Do you want to proceed (Yes/No)? No
(command not executed)

wilco.1.7.PXM.a >
```

clrifcnt

Clear Interface Counters for Specified Interface

Use the **clrifcnt** command to clear the counters for a specified broadband interface.

Card(s) on Which This Command Executes

PXM

Syntax

clrifcnt <*if_num*>

Syntax Description

if_num	Interface number, in the range 1–32.

Related Commands

clrifcnts

Attributes

Log: No State: Any Privilege: Any

Example 1-54 Clear counters for the specified broadband interface (1)

```
wilco.1.7.PXM.a > clrifcnt 1
wilco.1.7.PXM.a >
```

clrifcnts

Clear All Interface Counters

Use the **clrifcnts** command to clear the counters for all the broadband interfaces.

Card(s) on Which This Command Executes

PXM

Syntax

clrifcnts

Related Commands

clrifcnt

Attributes

Log: No State: Any Privilege: Any

Example 1-55 Clear counters for all broadband interfaces on the PXM card

```
wilco.1.7.PXM.a > clrifcnts
wilco.1.7.PXM.a >
```

clrimagrpcnt

Clear Inverse Multiplexing ATM Group Counters

Use the **clrimagrpcnt** command to clear Inverse MultiplexingATM (IMA) group counters on the current AUSM card for a specified IMA group.

Card(s) on Which This Command Executes

AUSM

Syntax

clrimagrpcnt (or **clraimgrpcnt**) <*imagroup*>

Syntax Description

imagroup	IMA group number, in the range 1–8.

Related Commands

dspimagrp, **dspimagrpcnt**, **dspimagrps**, **dspimainfo**, **dspimalncnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-56 Clear all inverse multiplexing ATM group counters for IMA group 1 on the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrimagrpcnt 1
flyers01.1.17.AUSM.a >
```

clrimalncnt

Clear AIM (or Clear IMA) Line Counters

Use the **clrimalncnt** command to clear all AIMUX line counters for a specified line in an IMA trunk.

Card(s) on Which This Command Executes

AUSM

Syntax

clrimalncnt (or **clraimlncnt**) <*imagroup*> <*linenum*>

Syntax Description

imagroup	AIMUX group number, in the range 1–8.
linenum	Line number, in the range 1–8.

Related Commands

dspaimlncnt, **clraimlncnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-57 Clear all inverse multiplexing ATM line counters for IMA group 1 on the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrimalncnt 1
flyers01.1.17.AUSM.a >
```

clrlmistats

Clear All LMI Statistics

Use the **clrlmistats** command to clear the local management interface (LMI)-related statistics on the current PXM.

Card(s) on Which This Command Executes

PXM

Syntax

clrlmistats

Related Commands

dsplmistats

Attributes

Log: No State: Any Privilege: Any

Example 1-58 Clear LMI statistics on the PXM card

```
penguin.1.7.PXM.a > clrlmistats

Enabled        :          1   Port Status    :          1
VPI.VCI        :       3.31
Polling enable :          1
T393           :         10   N394           :          5
T394           :         10   N395           :          5
WaitStatus     :          0   WaitStAck      :          0
Retry Timer    :          0   Retry Count    :          1
Poll Timer     :          6   Trans Num      :         86
Status     Rx  :          0   Status     Tx  :          0
UpdtStatus Rx  :          0   UpdtStatus Tx  :          0
Status Enq Rx  :          0   Status Enq Tx  :          0
Status Ack Rx  :          0   Status Ack Tx  :          0
NodeStatus Rx  :          0   NodeStatus Tx  :          0
NodeStaAck Rx  :          0   NodeStaAck Tx  :          0
Bad PDU Rx     :          0   Bad PDU Len Rx :          0
Unknown PDU Rx :          0   Invalid I.E. Rx:          0
Invalid Trans  :          0
BPX IP Addr    :  172.3.3.62

penguin.1.7.PXM.a >
```

clrlog

Clear Log

Use the **clrlog** command to clear specified or all event log files. The log resumes accumulating event log messages after the command executes. This command queries for confirmation prior to removing all event log files.

Card(s) on Which This Command Executes

PXM

Syntax

clrlog [-log <*log slot*>]

Syntax Description

-log	Command delineator that precedes the *log slot* entry.
log slot	Number of the file that you want to clear from the event log file.

Related Commands

dsplog

Attributes

Log: Yes State: Any Privilege: Group 1

Example 1-59 Clear all event log files on the PXM card

```
wilco.1.7.PXM.a > clrlog

Do you want to proceed (Yes/No)? Yes

wilco.1.7.PXM.a >
```

clrmsgcnt

Clear Control Message Counters

Use the **clrmsgcnt** command to clear the control message counters. The control message counters are for the total numbers of:

- Control frames transmitted to SAR from RISC maintained by RISC
- Control frames received from SAR to RISC maintained by RISC
- Control frames transmitted to RISC from SAR maintained by SAR (should be equal to *riscRcvCtrlMsg*)
- Control frames received to SAR from RISC maintained by SAR (should be equal to *riscXmtCtrlMsg*)
- Control (management) cells discarded due to illegal length error
- Control (management) cells discarded due to illegal CRC error
- Discarded control messages due to unknown channel error

This message also clears the control cell header received on the last unknown channel.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Syntax

clrmsgcnt

Related Commands

dspmsgcnt

Attributes

Log: No State: Any Privilege: Group 5

Example 1-60 Clear all control message counters on the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrmsgcnt 1
flyers01.1.17.AUSM.a >
```

clrportcnt

Clear Port Counters

Use the **clrportcnt** command to clear counter values on a specified port associated with the current PXM, AUSM, or FRSM.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM

Syntax

clrportcnt <*port_ number*>

Syntax Description

port_ number Port number, as appropriate for the current card.

- PXM range = 1–32
- AUSM range = 1–8
- FRSM
  - T1 = 1–192
  - E1 = 1–248
  - HS1/B
- X.21 range = 1–4
- HSSI range = 1–2

Related Commands

clrportcnts, **dspportcnt**

Attributes

Log: No State: Any Privilege: Group 5 (Any on PXM)

Example 1-61 Clear port counters on port 1 on the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrportcnt 1
flyers01.1.17.AUSM.a >
```

clrportcnts

Clear Port Counters

Use the **clrportcnts** command to clear all port counters on the current PXM, FRSM, or AUSM.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM

Syntax

clrportcnts

Related Commands

clrportcnt, **dspportcnt**

Attributes

Log: No State: Any Privilege: Group 5

Example 1-62 Clear all port counters on all ports on the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrportcnts
flyers01.1.17.AUSM.a >
```

clrsarcnt

Clear SAR Counters

On an FRSM or CESM, use the **clrsarcnt** command to clear the segmentation and reassembly (SAR) counters for the particular channel in the argument. On an AUSM, use the **clrsarcnt** command to clear the SAR counters for the particular port.VPI.VCI connection.

The SAR counters are:

- Number of cells transmitted on this channel
- Number of CLP cells that were transmitted on this channel
- Number of AIS cells that were transmitted on this channel
- Number of FERF cells that were transmitted on this channel
- Number of BCM cells that were transmitted on this channel
- Number of End2End loop cells that were transmitted on this channel
- Number of segment loop cells that were transmitted on this channel
- Number of cells discarded due to shelf alarm on this channel
- Number of cells that were received on this channel
- Number of CLP cells that were received on this channel
- Number of AIS cells that were received on this channel
- Number of FERF cells that were received on this channel
- Number of BCM cells that were received on this channel
- Number of End2End loop cells that were received on this channel
- Number of segment loop cells that were received on this channel
- Number of cells that had the CRC error on this channel

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Syntax for FRSM-8T1E1

clrsarcnt -chn <*ChanNum*>

Syntax Description

-chn	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number in the range 16–1015.

Syntax for CESM-8T1E1

clrsarcnt -chn <*ChanNum*>

Syntax Description

-chan	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number in the range 0–279.

Syntax for AUSM-8T1E1

clrsarcnt <*port.VPI.VCI*>

Syntax Description

port.VPI.VCI	Port and identifier values. • Port range = 1–*N*, as appropriate for the physical installation. • VPI range = 1–4095. • VCI range = 1–65535.

Related Commands

dspsarcnt

Attributes

Log: No State: Any Privilege: Group 5

Example 1-63 Clear SAR counters for channel number 20 on the FRSM card

```
NODENAME.1.17.FRSM.a > clrsarcnt -chn 20
NODENAME.1.17.FRSM.a >
```

clrsarcnts

Clear SAR Counters

Use the **clrsarcnts** command to clear the segmentation and reassembly (SAR) counters for all the channels or connections on the card from which the command is executed.

Syntax

clrsarcnts

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Related Commands

clrsarcnt, **dspsarcnt**, **dspsarcnts**

Attributes

Log: No State: Any Privilege: Any

Example 1-64 Clear all SAR counters on all cards in the node

```
flyers01.1.17.AUSM.a > clrsarcnts
flyers01.1.17.AUSM.a >
```

clrscrn

Clear Terminal Screen

Use the **clrscrn** command to clear the control terminal screen. After this command executes, only the current command line prompt appears on the screen.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

clrscrn

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-65 Clear the screen

```
flyers01.1.17.AUSM.a > clrscrn
flyers01.1.17.AUSM.a >
```

clrslftst

Clear Self-Test

Use the **clrslftst** command to clear the results of the last self-test on the current card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

clrslftst

Related Commands

cnfslftst, **dspslftst**, **runslftstno**

Attributes

Log: No State: Any Privilege: Any

Example 1-66 Clear results of last self-test for the AUSM card in slot 17

```
flyers01.1.17.AUSM.a > clrslftst
flyers01.1.17.AUSM.a >
```

clrsmcnf

Clear Service Module Configuration

Use the **clrsmcnf** command to clear the following configuration elements for the selected service card:

- Configuration
- Rate control function
- Channelization on the card
- MIB version

Note Before executing the **clrsmcnf** command, clear (delete) all lines, ports, and channels on the affected service module(s).

Card(s) on Which This Command Executes

PXM

Syntax

clrsmcnf <*slot num*>

Syntax Description

slot num Slot number in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

Related Commands

dspsmcnf

Attributes

Log: Yes State: Active Privilege: Group 3

Example 1-67 Clear all configuration elements on the AUSM card in slot 17

```
flyers01.1.7.PXM.a > clrsmcnf 17
flyers01.1.7.PXM.a >
```

clrsrmcnf

Clear SRM-3T3 Configuration

Use the **clrsrmcnf** command to clear SRM-3T3 card information and to remove all T1 link mappings. All links are switched back to their respective service modules.

Card(s) on Which This Command Executes

PXM

Syntax

clrsrmcnf <*slot num*>

Syntax Description

slot num	Slot number, either 15 or 31. • Slot number 15 is used for the cards in slot and 15 and 16 (whichever is active). • Slot 31 is used for cards in 31 and 32.

Related Commands

addlink, **dsplink**, **xcnfsrmlink**, **xdspsrmlink**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-68 Clear all configuration information and remove all T1 link mappings on the SRM-3T3 card in slot 15

```
flyers01.1.7.PXM.a > clrsrmcnf 15
flyers01.1.7.PXM.a >
```

cmdhistory

Display Command History

Use the **cmdhistory** command to view the last ten commands executed on the current card.

Card(s) on Which This Command Executes

PXM

Syntax

cmdhistory

Related Commands

history

Attributes

Log: No State: Any Privilege: Any

Example 1-69 Display previous ten commands executed on the PXM card

```
spirit4.1.8.PXM.a > cmdhistory

Size of cmdHistory is currently 10 line(s)
  1 dspconcnt 2.39.45
  2 dsplmistats
  3 dsplmiloop
  4 dsplm
  5 clrportcnt
  6 dspportcnts
  7 dspportcnt
  8 dspportcnt 1
  9 dsplmistats
 10 cmdhistory

spirit4.1.8.PXM.a >
```

cnfaimgrp

Configure AIM Group

Use the **cnfaimgrp** command to configure an AIMUX group on the AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

cnfaimgrp <*grp*> <*max_diff_delay*> <*min_num_links*>

Syntax Description

grp	IMA group number, in the range 1–8.
max_diff_delay	Maximum differential delay, in the range appropriate for the interface. • 8T1 range = 0–275 • 8E1 range = 0–200
min_num_links	Minimum number of links for the group formation, in the range 1–8.

Related Commands

addaimgrp, **delaimgrp**, **dspaimgrp**, **dspaimgrps**

Attributes

Log: Yes State: Active Privilege: Group 1

Note Redundant link(s) indicates the number of link(s) the system can lose without bringing down the AIMUX group. However, the <*link_loss_severity*> option overrides this feature.

The <*read_wr_ptr_diff*> value cannot be decreased from its existing value—it can only be increased (this is because decreasing the <*read_wr_ptr_diff*> in an established AIMUX group involves dropping cells that are stored in the delay compensation buffer.

Example 1-70 Configure AIMUX group 1 on the AUSM card in slot 17 to have a read/write pointer differential of 5, a link loss severity of 2, a maximum tolerable differential delay of 5, and 2 redundant links

```
flyers01.1.17.AUSM.a > cnfaimgrp 1 -rwdiff 5 -severity 2 -maxdiff 3 -red 2
flyers01.1.17.AUSM.a >
```

cnfapsln

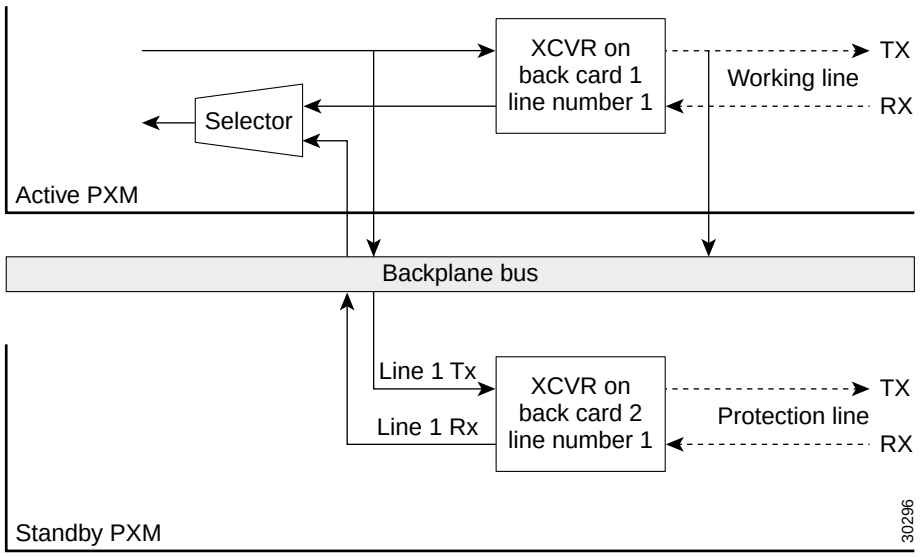
Configure APS Line

Use the **cnfapsln** command to set Automatic Protection Switching (APS) parameters for a line on the current PXM. APS is a standard that provides a means for SONET line redundancy. APS involves switching between working (active) and protection (standby) SONET lines in the event of a hardware failure detected by the receiving end or by the far end. *This support applies only to PXM OC-3 and PXM OC-12 back cards*.

Software Release 1.1.24 release provides support for the SONET Linear APS 1+1 mode with two back cards. The SONET Linear APS 1+1 standard specifies that for every working line there must exist a redundant protection line. Traffic protected by the redundant line is carried simultaneously on both the working line and the protection line. The line switch-over to the protection line has to be completed within 60 ms.

Figure 1-3 illustrates a dual back card redundancy configuration. This design requires two PXM front cards and two SONET back cards. Port 1 of active PXM and port 1 of standby PXM.

Figure 1-3 SONET APS 1+1 with Two Back Cards



SONET 155 also can be configured to have this redundancy configuration. Ports are paired as follows:

- Port 1 of active PXM and port 1 of standby PXM
- Port 2 of active PXM and port 2 of standby PXM
- Port 3 of active PXM and port 3 of standby PXM
- Port 4 of active PXM and port 4 of standby PXM

Switching of the paired port on the pair back card can be done independently of the other paired ports.

You must add an APS line with the **addapsln** command before using the **cnfapsln** command.

Card(s) on Which This Command Executes

PXM

Syntax

cnfapsln <*workline*> <*SFBER*> <*SDBER*> <*WTR*> <*Direction*> <*Revertive*> <*K1K2*>

Syntax Description

workline	OC-3 or OC-12 line number, in the range appropriate for the associated interface. • OC-3 range = 1–4 • OC-12 = 1
SFBER	Signal failure bit error rate (BER) threshold, in the range 3–5. • 5 = signal failure BER threshold = 10 ^^ -5
SDBER	Signal degrade BER threshold, in the range 5–9. • 5 = signal degrade BER threshold = 10 ^^ -5
WTR	Number of minutes to wait before attempting to switch back to the working line, in the range 1–12. This setting is not applicable if the line is configured in non-revertive mode (*Revertive* set to 1).
Direction	Switching direction for either unidirectional or bidirectional. • 1 = Unidirectional. This APS line supports only one direction. • 2 = Bidirectional. This APS line supports both ends of the line.
Revertive	APS revertive or non-revertive function. • 1 = Non-revertive • 2 = Revertive: This setting allows the line to switch back to the working line after the wait-to-restore interval has expired and the working line SF/SD has been cleared.
K1K2	K1/K2 inband interface on the protection line. Always set to 1. • 1 = enable • 2 = disable

Related Commands

addapsln, **delapsln**, **dspapsln**, **dspapscfg**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-71 Configure APS working line 1 on the active PXM card in slot 7 to have a signal failure BER threshold of 10^^5, a signal degrade BER threshold of 10^^5, to enable switch back after signal failure or degradation has cleared, to wait 2 minutes before attempting to switch back, to make switching bidirectional, and to enable the K1/K2 inband interface on the protection line

```
flyers01.1.7.PXM.a > cnfapsln 1 5 5 1 2 1 1
flyers01.1.7.PXM.a >
```

cnfatmln

Configure ATM Line

Use the **cnfatmln** command to configure a UNI or NNI cell header for a PXM trunk. UNI cell headers are typically used on the line that connects to a workstation rather than a switch.

Note Configure the cell header type using the **cnfatmln** command before adding lines and ports.

Card(s) on Which This Command Executes

PXM (in an MGX 8250 stand-alone node)

Syntax

cnfatmln <*line_num*> <*type*>

Syntax Description

line_num OC-3 or OC-12 line number, in the range appropriate for the interface.
- OC-3 range = 1–4
- OC-12 = 1

type Cell header type for either UNI or NNI.
- 2 = UNI
- 3 = NNI (default)

Related Commands

dspatmlncnf, **clratmlncnt**

Attributes

Log: No State: Any Privilege: Any

Example 1-72 Set cell header type for trunk 1 on the PXM to NNI

```
flyers01.1.7.PXM.a > cnfatmln 1 3
flyers01.1.7.PXM.a >
```

cnfbctype

Configure Back Card Type

Use the **cnfbctype** command to specify the interface of the 12-in-1 dual-personality back card. The back card can be configured with either an X.21 or a V.35 interface. The default interface is V.35.

Note The **cnfbctype** is not allowed if there are enabled lines on the card.

Card(s) on Which This Command Executes

FRSM-HS1B

Syntax

cnfbctype <*cardType*>

Syntax Description

cardType Integer that specifies the interface type:

- 1 = X.21
- 2 = V.35 (default)

Related Commands

dspbctype

Attributes

Log: Yes State: Any Privilege: Service

Example 1-73 Configure interface type on the current FRSM card

```
man.1.14.FRSM.a > cnfbctype 1
```

Example 1-74 Display interface type on the current FRSM

```
man.1.14.FRSM.a > dspbctype

Backcard Personality: X.21
```

cnfbert

Configure BERT

Use the **cnfbert** command to configure bit error rate testing (BERT) parameters on the PXM.

A BERT session does not time out automatically. Use the **delbert** command to end the test.

Caution BERT is a disruptive test. Activation of this test stops the data flow on all the channels configured on the port under test. BERT requires the presence of an SRM-3T3/B card in the service bay, in which the card under test is located.

Card(s) on Which This Command Executes

PXM

Syntax: PXM

cnfbert <*slot*>

Syntax Description

slot	Slot number that contains the card on which to perform BERT.

Related Commands

delbert, **dspbert**, **modbert**, **xcnfbert**

Attributes

Log: Yes State: Active Privilege: Group 1

cnfcbclk

Configure Cell Bus Clock

Use the **cnfcbclk** command to set the cell bus (CB) operating clock rate to high (42 MHz) or low (21 MHz). An MGX 8250 shelf contains eight cell buses. Use the **cnfcbclk** command to set the cell bus to different operating clock rates to take advantage of high-speed service modules whenever possible. Not all service modules can support the high clock rate.

Note Even though you can specify this command against CB4 and CB8, the clock rate does not change for either cell bus.

Card(s) on Which This Command Executes

FRSM_2CT3, FRSM_2T3, FRSM_2E3, FRSM_HS2, CESM_T3, CESM_E3, VISM_8T1, VISM_8E1, RPM (new), PXM

Syntax

cnfcbclk <*cellBus*> <*clockRate*>

Syntax Description

cellBus	A string denoting a bus, in the range CB1 to CB8.
clockRate	A rate value, in MHz. • 21 • 42

Possible Errors

- Set failed due to illegal option value(s).
- Certain service modules will not operate at the clock rate you specified. Please check the service modules in the slots where the cell bus clock rate is affected by this command.

Related Commands

dspcbclk

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-75 Display cards in the chassis, display current clock settings, configure CB2 for 42 MHz, and display clock settings with new setting for CB2

```
NODENAME12.1.7.PXM.a > dspcds
Command Executed :dspcds

    Slot  CardState    CardType     CardAlarm  Redundancy
    ----  -----------  --------     ---------  -----------
    1.1   Empty                     Clear
    1.2   Active       FRSM-8T1     Clear
    1.3   Empty                     Clear
    1.4   Empty                     Clear
    1.5   Empty                     Clear
    1.6   Active       FRSM-8T1     Clear
    1.7   Active       PXM1-OC3     Clear
    1.8   Empty                     Clear
    1.9   Empty                     Clear
    1.10  Empty                     Clear
    1.11  Empty                     Clear
    1.12  Empty                     Clear
    1.13  Empty                     Clear
    1.14  Empty                     Clear
    1.15  Empty                     Clear
    1.16  Empty                     Clear
    1.17  Empty                     Clear
    1.18  Empty                     Clear
    1.19  Empty                     Clear

Type <CR> to continue, Q<CR> to stop: q

NODENAME12.1.7.PXM.a > dspcbclk
Command Executed :dspcbclk

     CellBus    Rate (MHz)    Slot
    -------------------------------
       CB1         21        1, 2
       CB2         21        3, 4
       CB3         21        5, 6
       CB4         21        17 - 22
       CB5         21        9, 10
       CB6         21        11, 12
       CB7         21        13, 14
       CB8         21        25 - 30

NODENAME12.1.7.PXM.a > cnfcbclk cb2 42
Command Executed :cnfcbclk
NODENAME12.1.7.PXM.a > dspcbclk
Command Executed :dspcbclk

     CellBus    Rate (MHz)    Slot
    -------------------------------
       CB1         21        1, 2
       CB2         42        3, 4
       CB3         21        5, 6
       CB4         21        17 - 22
       CB5         21        9, 10
       CB6         21        11, 12
       CB7         21        13, 14
       CB8         21        25 - 30
```

Example 1-76 Error messages that might be displayed when executing this command

```
popeye12.1.7.PXM.a > cnfcbclk cb1 42
Command Executed :cnfcbclk
Set failed due to illegal option value(s)

Syntax: cnfcbclk <cellBus> <clockRate>
        cellBus -- a string CB1..CB8
        clockRate -- a number 21 or 42 (MHz)

WARNING: Certain Service Modules will not operate at the clock rate you
specified. Please check the Service Modules in the slots where the Cell Bus clock
rate is effected by this command
```

cnfcdprtntype

Configure Card Resource Type

Use the **cnfcdprtntype** command to configure the type of partition to serve as the basis for sharing global logical connection numbers (GLCNs). The GLCNs are shared by the network controller applications on a logical broadband interface.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

cnfcdprtntype <*prtn_type*>

Syntax Description

prtn_type Card partition type, in the range 1–3.

- 1 = noPartition
  All controllers compete for the total number of (G)LCNs available for the card.
- 2 = controllerBased
  The total number of (G)LCNs available to each controller is fixed but there is no reservation on each port.
- 3 = portControllerBased
  Some of the (G)LCNs that are available on each port for each controller are reserved.

Related Commands

cnfcdrscprtn

Attributes

Log: No State: Any Privilege: Any

Example 1-77 Allow all controllers access to all (G)LCNs available for the card

```
spirit3.1.10.AUSMB8.a > cnfcdprtntype 1
spirit3.1.10.AUSMB8.a >
```

cnfcdrscprtn

Configure Card Resource Partition

Use the **cnfcdrscprtn** command to modify card-level resource partitions on the current card. This command creates a template of available connections among the network controllers to provide card-level partitioning for PAR, PNNI, or Tag. With card-level partitioning:

- The number of connections available at each port is the same.
- You can specify the number of connections available to each controller or let them compete for connections at each port.

The matrix in Table 1-5 describes the effects of each of three usages of **cnfcdrscprtn**.

Table 1-5 Degrees of Card-Level Resource Partitioning

Command	Description
cnfcdrscprtn off	Card-level partitioning is inactive. If you specify that card-level partitioning is off (**cnfcdrscprtn off**), you must configure port-level partitions (**cnfportrscprtn**).
cnfcdrscprtn on	Default. Card-level partitioning is on, but no allocation for a specific controller is specified. The maximum number of connections on a port is available to each controller, so each controller competes for the connections.
cnfcdrscprtn on <*x*> <*y*> <*z*>	The *x*, *y*, and *z* represent a number of connections per port available to the PAR, PNNI, and Tag controllers, respectively.

Note PNNI is always 0 in Release 1.1.24 of the MGX 8250 switch.

Additional characteristics of this command are:

- If you do not execute **cnfcdrscprtn**, the default state of **cnfcdrscprtn on** is in effect.
- If you specify card-level partitioning (**cnfcdrscprtn on** *x y z*), port-level partitioning (**cnfportrscprtn**) is an option you can use to further modify the partitioning on a port.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

cnfcdrscprtn <*number_PAR_conns*> <*number_PNNI_conns*> <*number_Tag_conns*>

Syntax Description

number_PAR_conns Maximum number of PAR connections, in the range appropriate for the current card.

- PXM range = 0–32,767 GLCNs
- FRSM range = 1–4000
- AUSM range = 1–1000
- CESM range = 1–1000
- SRM range = 1–1000

number_PNNI_conns Maximum number of PNNI connections. Enter the value 0 (zero).

number_Tag_conns Maximum number of Tag connections.

Related Commands

addcdrscprtn, **delcdrscprtn**, **dspcdrscprtn**

Attributes

Log: Yes State: Any (Active for PXM) Privilege: Any

Example 1-78 On current PXM, change card-level partitioning to give 10000 GLCNs to PAR and 10000 GLCNs to Tag. Note that the value for PNNI currently is 0.

```
spirit.1.7.PXM.a > cnfcdrscprtn 10000 0 10000
spirit.1.7.PXM.a >
```

cnfchan

Configure Channel

Use the **cnfchan** command to configure channels on the current service card.

Card(s) on Which the Command Executes

PXM, AUSM, CESM

Syntax: PXM

cnfchan <*LCN*> <*chan_rte_pri*> <*chan_max_cost*> <*chan_restrict_trk_type*>

Syntax Description

LCN	LCN, in the range16–4111.
chan_rte_pri	Channel route priority, in the range 1–15.
chan_max_cost	Maximum cost, in the range 1–255.
chan_restrict_trk_type	Channel restrict trunk type. • 1 = no restriction • 2 = terrestrial trunk • 3 = satellite trunk

Syntax: AUSM-8T1E1

cnfchan <*chan_num*> <*RoutingPriority*> <*MaxCost*> <*RestrictTrunkType*> <*PCR*> <*MCR*> <*PctUtil*>

Syntax Description

chan_num	Channel number, in the range 16–1015.
RoutingPriority	Routing Priority, in the range 1–15.
MaxCost	Maximum cost, in the range 1–255.
RestrictTrunkType	Restrict trunk type. • 1 = no restriction • 2 = terrestrial trunk • 3 = satellite trunk
PCR	Peak cell rate, in the range 1–65525 cells per second.

MCR	Minimum cell rate, in the range 1–65525 cells/second.
PctUtil	Percentage of utilization, in the range 1–100.

Syntax: CESM-8T1E1

cnfchan <*chan_num*> <*CDVT*> <*CLIP*> <*bufsize*> <*clockmode*> <*IdleSuppEnable*> <*ForceIS*>

Syntax Description

chan_num	Channel number (LCN). Enter the value 32.
CDVT	Cell delay variation tolerance in the range appropriate for T1 or E1. • T1 = 125–24000 microseconds • E1 = 125–32000 microseconds
CLIP	Cell loss integration period, in the range 1000–65535 milliseconds.
bufsize	Maximum egress buffer size, as appropriate for T1 or E1. • Structured T1 = 9216 bytes (maximum) • Unstructured T1 or E1 = 16384 bytes (maximum)
clockmode	Clock mode of the CBR virtual circuit. • 1 = synchronous clocking • 2 = synchronous residual time-stamp clocking • 3 = adaptive clocking
IdleSuppenable	Idle suppression, either disabled or enabled. • 1 = disable • 2 = enable
ForceIS	Forced idle suppression or normal operations. • 1 = normal operation • 2 = force virtual circuit into idle signal code suppression

Syntax: CESM-T3E3

cnfchan <*chan_num*> <*CDVT*> <*CLIP*> <*bufsize*>

Syntax Description

chan_num	Channel number (LCN). Enter the value 32.
CDVT	Cell delay variation tolerance, in the range appropriate for T3 or E3. • T3 range = 125–24000 microseconds • E3 range = 125–32000 microseconds
CLIP	Cell loss integration period, in the range 1000–65535 milliseconds.
bufsize	Maximum egress buffer size, in bytes. Set up to the maximum 16384 for unstructured T3 or E3.

Related Commands

addchan

Attributes

Log: No State: Any Privilege: Any

Example 1-79 On current AUSM in slot 17, change the configuration for channel 16 to set a routing priority of 1, a maximum cost of 5, restrict trunk routing for this channel to terrestrial trunks only, set the peak cell rate to 655525 cells per second, set the minimum cell rate to 655525 cells per second, and set the percent utilization to 100 percent

```
spirit.1.17.AUSM.a > cnfchan 16 1 5 2 65525 65525 100
spirit.1.17.AUSM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- Channel is not enabled.

cnfchaneir

Configure Channel EIR

Use the **cnfchaneir** command to configure the Frame Relay policing parameter excess information rate (EIR), which is the second bucket leak rate for a channel. No messages appear on the screen unless an error occurs.

Available

Release 1.1.23 and higher

Card(s) on Which the Command Executes

FRSM-8T1/E1, FRSM-VHS

Syntax

cnfchaneir <*chan_num*> <*zerocireir*>

Syntax Description

chan_num — Specifies the channel for which you are modifying the policing parameter. Values are:

- FRSM-8T1/E = 16–1015
- FRSM-2CT3 = 16–4015
- FRSM-2T3/E3 and FRSM-HS2 = 16–2015

zerocireir — Specifies the excess information rate for 0 CIR cases. Values are:

- FRSM-8T1 = 0–1536000 bps
- FRSM-8E1 = 0–2048000 bps
- FRSM-2CT3 = 0–1536000 bps
- FRSM-2T3 = 0–44210000 bps
- FSM-2E3 = 0–34010000 bps
- FRSM-HS2 = 0–51840000 bps

Related Commands

dspchan

Attributes

Log: Yes State: Active Privilege: Group 2

cnfchancacoff

Configure Channel CAC Off

Use the **cnfchancacoff** command to turn off the connection admission control (CAC) function for a channel.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfchancacoff <*chan_num*>

Syntax Description

chan_num	Channel number, in the range appropriate for the interface type. • 8T1/E1 range = 16–1015 • HS1/B range = 16–1015 • T3/E3/HS2 range = 16–2015 • 2CT3 range = 16–4015

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-80 On current FRSM in slot 27, change configuration for channel 16 to turn off connection admission control (CAC) function

```
spirit.1.27.FRSM.a > cnfchancacoff 16
spirit.1.27.FRSM.a >
```

cnfchanegressq

Configure Channel Egress Queue

Use the **cnfchanegressq** command to configure the egress queue for a specified channel.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfchanegressq <*ChanNum*> <*QSel*> <*QDepth*> <*QDEThresh*> <*QECNThresh*>

Syntax Description

ChanNum	Channel number, in the range appropriate for the interface type. • 8T1/E1 range = 16–1015 • T3/E3/HS2 range = 16–2015 • 2CT3 range = 16–4015
QSel	Egress queue select. • 1 = High-priority queue, usually used for constant bit rate (CBR) connections. • 2 = Low-priority queue (default). • 3 = Not used. This option is only for the FRSM-T3/E3/HS2 and FRSM-2CT3 service modules. For these service modules, the queue to which the channel gets mapped is determined by the channel service type.
QDepth	Egress queue depth, in the range 1–65535 bytes. This setting is the maximum allowable depth for the queue before it starts dropping cells. Default = 65535 bytes
QDEThresh	Egress queue DE Threshold, in the range 1–65535 bytes. This setting is the maximum depth for the queue before the cells are tagged as discard eligible (DE). Default = 32767 bytes
QECNThresh	Egress queue ECN Threshold, in the range 1–65535 bytes. This setting is the maximum depth for the queue before initiating flow control. Default = 65535 bytes

Related Commands

cnfchaningressq

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-81 On current FRSM in slot 27, change configuration of egress queue for channel 16 to set the priority to high, the maximum queue depth to 65535, the discard eligible threshold to 32767, and the ECN threshold to 65535

```
spirit.1.27.FRSM.a > cnfchanegressq 16 1 65535 32767 65535
spirit.1.27.FRSM.a >
```

cnfchanfst

Configure Channel ForeSight

Use the **cnfchanfst** command to configure ForeSight parameters for a Frame Relay or ATM channel.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax: FRSM

cnfchanfst <*chan_num*> <*fst_enable*> <*mir*> <*pir*> <*qir*>

Syntax Description

chan_num — Channel number, in the range appropriate for the FRSM card type.

- 8T1/E1 range = 16–1015
- T3/E3/HS2 range = 16–2015
- 2CT3 range = 16–4015

fst_enable — ForeSight, either enabled or disabled.

- 1 = enable
- 2 = disable

mir — Minimum information rate, as appropriate for the FRSM card type.

- 8T1/E1 the range = 10–8000 in cell per sec.
- T3/E3/HS2/2CT3 range = 10–400000 in cell per sec.

Default = 1000

pir — Peak information rate, as appropriate for the FRSM card type.

- 8T1/E1 range = 10–8000 in cell/sec.
- T3/E3/HS2/2CT3, the range is 10–400000 in cell per sec.

Default = 1000

qir — Quiescent information rate, as appropriate for the FRSM card type.

- 8T1/E1 range = 0–8000 in cell/sec.
- T3/E3/HS2/2CT3 range = 10–400000 in cell per sec.

Default = 1000

Syntax: AUSM

cnfchanfst <*port.VPI.VCI | channel number*> <*enable | disable*> <*fgcra_enable*> <*ibs*> <*pcr*> <*mcr*> <*icr*>

Syntax Description

port.VPI.VCI — Connection identifier, in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation
- VPI range = 1–4095
- VCI range = 1–65535

channel number — Channel number, in the range 16–1015.

enable | *disable* — ForeSight, either disabled or enabled.

- 1 = disable
- 2 = enable

fgcra_enable — FGCRA for the specified channel, either disabled or enabled.

- 1 = disable
- 2 = enable

ibs — Initial burst size, in the range 0–5000 cells.

pcr — Peak cell rate, in the range 10–38328 cells/second.

- 10-PortRate (T1-3622, E1-4528, clearE1-4830)
- IMA, T1-3591, E1-4490, clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

mcr — Minimum cell rate, in the range 10–38328 cells per second.

- 0-PortRate (T1-3622, E1-4528, clearE1-4830)
- For IMA, T1-3591, E1-4490, clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

icr — Initial cell rate, in the range 10–38328 cells per second.

- 0-PortRate (T1-3622, E1-4528, clearE1-4830)
- For IMA, T1-3591, E1-4490, clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

Related Commands

dspchan

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-82 On current FRSM in slot 27, change configuration of the ForeSight for channel 16 to enable ForeSight, to set the minimum information rate to 1000 cells per second, the peak information rate to 1000 cells per second, and the quiescent information rate to 1000 cells per second

```
spirit.1.27.FRSM.a > cnfchanfst 16 1 1000 1000 1000
spirit.1.27.FRSM.a >
```

A system response does not occur unless an error is detected.

Example 1-83 On current AUSM in slot 12, change the configuration using the port.VPI.VCI argument

```
s1.1.12.AUSM8.a > cnfchanfst 2.1.5 2 1 2000 4000 2000 2000
s1.1.12.AUSM8.a >
```

Example 1-84 On current AUSM in slot 12, change the configuration using the channel number argument

```
s1.1.12.AUSM8.a > cnfchanfst 31 2 1 2000 4000 2000 2000
s1.1.12.AUSM8.a >
```

Note This command is valid only for ABR-type channels.

cnfchaningressq

Configure Channel Ingress Queue

Use the **cnfchaningressq** command to configure the ingress queue for a specified channel.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfchaningressq <*ChanNum*> <*QSel*> <*QDepth*> <*QDEThresh*> <*QECNThresh*>

Syntax Description

ChanNum — Channel number, in the range appropriate for the FRSM card type.

- 8T1/E1 range = 16–1015
- HS1/B range = 16–1015
- T3/E3/HS2 range = 16–2015
- 2CT3 range = 16–4015

QSel — FRSM-8T1/E1 only.

Egress queue select.

- 1 = High-priority queue, usually used for constant bit rate (CBR) connections.
- 2 = Low-priority queue (default).
- 3 = Not used. This option is only for the FRSM-T3/E3/HS2 and FRSM-2CT3 service modules. For these service modules, the queue to which the channel gets mapped is determined by the channel service type.

QDepth — Ingress queue depth, in the range 1–65535 bytes. This setting is the maximum depth for the queue before it starts dropping cells.

Default = 65535 bytes

QDEThresh — Ingress queue DE Threshold, in the range 1–65535 bytes. This setting is the maximum depth for the queue before the cells are tagged as discard eligible (DE).

Default = 32767 bytes

QECNThresh — Ingress queue ECN Threshold, in the range 1–65535 bytes. This setting is the maximum depth for the queue before initiating flow control.

Default value = 65535 bytes

Related Commands

cnfchaningressq

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-85 On current FRSM in slot 27, change configuration of the egress queue for channel 16 to set the priority to high, set the maximum queue depth to 65535, the Discard Eligible threshold to 32767, and the ECN threshold to 65535

```
spirit.1.27.FRSM.a > cnfchaningressq 16 1 65535 32767 65535
spirit.1.27.FRSM.a >
```

cnfchanmap

Configure Channel Map

Use the **cnfchanmap** command to configure interworking field mapping for a specified channel.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfchanmap <*chan_num*> <*chanType*> <*FECN/EFCI*> <*DE to CLP*> <*CLP to DE*>

Syntax Description

chan_num — Channel number, in the range appropriate for the FRSM card type.

- 8T1/E1 range = 16–1015
- HS1/B range = 16–1015
- T3/E3/HS2 range = 16–2015
- 2CT3 range = 16–4015

chanType — Channel type.

- 1 = network interworking
- 2 = service interworking in transparent mode
- 3 = service interworking in translation mode
- 4 = FUNI
- 5 = frame forwarding

FECN/EFCI — Mapping between FECN and EFCI.

- 1 = map EFCI. This option is only valid for service interworking.
- 2 = make EFCI 0

DE to CLP — DE to CLP mapping.

- 1 = map DE to CLP
- 2 = make CLP 0
- 3 = make CLP 1

CLP to DE — CLP to DE mapping.

- 1 = map CLP to DE
- 2 = make DE 0
- 3 = make DE 1
- 4 = ignore CLP. This option is only valid for network interworking.

Related Commands

dspchanmap

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-86 On current FRSM in slot 27, change configuration of the interworking channel mapping for channel 16 to set the channel type to network interworking, to set EFCI equal to 0, the DE to CLP mapping to map DE to CLP, and the CLP to DE mapping to map CLP to DE

```
spirit.1.27.FRSM.a > cnfchanmap 16 1 1 1
spirit.1.27.FRSM.a >
```

cnfchanpol

Configure Channel Policing

Use the **cnfchanpol** command to configure the Frame Relay policing parameters for a channel.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfchanpol <*chan_num*> <*cir*> <*bc*> <*be*> <*ibs*> <*detag*> <*egrat*>

Syntax Description

chan_num Channel number, in the range appropriate for the FRSM card type.

- 8T1/E1 range = 16–1015
- HS1/B range = 16–1025
- T3/E3/HS2 range = 16–2015
- 2CT3 range = 16–4015

cir Committed information rate, in the range appropriate for the interface.

- T1 range = 0–1536000 bps
- E1 range = 0–2048000 bps
- T3 range = 0–44210000 bps
- E3 range = 0–34010000 bps
- HSSI range = 0–51840000 bps

Default = 2400 bits per second (bps)

Note For the FRSM-2CT3 service module, the peak value for permissible CIR is 1536000 bits per second.

bc Burst committed rate, in the range appropriate for the FRSM card type.

- FRSM-8T1/E1 range = 0–65535 bytes
- FRSM-T3/E3/HS2 range = 0–2097151 bytes
- FRSM-2CT3 range = 0–2097151 bytes

Default = 5100 bytes

Note The burst committed value cannot be 0 when the committed information rate is not 0.
The burst committed value MUST be set to 0 when the committed information rate is set to 0.

be Burst excess rate, in the range appropriate for the FRSM card type.

- FRSM-8T1/E1 range = 0–65535 bytes
- FRSM-T3/E3/HS2 range = 0–2097151 bytes
- FRSM-2CT3 = 0–2097151 bytes

Default = 5100 bytes

Note The burst excess value cannot be 0 when the committed information rate is set to 0.

ibs Initial burst size, in the range appropriate for the FRSM card type.

- FRSM-8T1/E1 range = 0–65535 bytes
- FRSM-T3/E3/HS2 range = 0–2097151 bytes
- FRSM-2CT3 range = 0–2097151 bytes

Default =100 bytes

Note The initial burst size should be less than or equal to the value of the burst committed when the committed information rate is set to greater than 0.
When the committed information rate is set to 0, the initial burst size MUST be set to 0.

detag Ingress discard eligible (DE) tagging, either enabled or disabled.

- 1 = enable
- 2 = disable (default)

egrat Egress service rate, in the range appropriate for the interface.

- T1 range = 0–1536000 bps
- E1 range = 0–2048000 bps

Related Commands

dspchan

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-87 On current FRSM in slot 27, change the configuration of the ForeSight for channel 16 to enable ForeSight, to set the committed information rate to 100000 cells per second, the committed burst size to 65535 bytes, the burst excess to 65535 bytes, the initial burst size to 1000 bytes, and to enable discard eligible tagging

```
spirit.1.27.FRSM.a > cnfchanpol 16 1 100000 65535 65535 1000 1
spirit.1.27.FRSM.a >
```

A system response does not occur unless an error is detected.

cnfchanq

Configure Channel Queue

Use the **cnfchanq** command configure queue parameters for a specified channel on the current PXM or AUSM.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax: PXM

cnfchanq <*LCN*> <*discard_option*> <*clp_thresh_high*> <*clp_thresh_low*> <*efci_thresh*> <*update_code*> <*max_cell_cnt*>

Syntax Description

LCN	Channel number, in the range 16–4111.
discard_option	Discard option for hysteresis or frame discard. • 1 =CLP hysteresis • 2 = Frame discard
clp_thresh_high	CLP threshold high, in the range 1–491520 cells. Once the high cell loss priority threshold is exceeded, cells can have a CLP bit set, making them discard eligible.
clp_thresh_low	CLP threshold low, in the range 1–491520 cells. Once the low cell loss priority threshold is passed, cells will no longer have the CLP bit set, making them discard eligible.
efci_thresh	EFCI threshold, in the range 1–491520 cells. An explicit forward congestion indicator (EFCI) is sent to the sending node when the threshold is exceeded.
update_code	Congestion update. • 1 = Do not update • 2 = Set CI bit • 3 = Set EFCI bit • 4 = Clear EFCI
max_cell_cnt	Maximum cell count, in the range 0–512000 cells.

Syntax: AUSM

cnfchanq <*port.VPI.VCI*> <*discard_option*> <*vc_q_depth*> <*clp_thresh_high*> <*clp_thresh_low*> <*efci_thresh*>

Syntax Description

port.VPI.VCI	Connection identifier, in the format *port.VPI.VCI*. • Port range = 1–*N*, as appropriate for the physical installation • VPI range = 1–4095 • VCI range = 1–65535
discard_option	Discard option for hysteresis or frame discard. • 1 =CLP hysteresis • 2 = Frame discard
vc_q_depth	Ingress queue depth, in the range 0–16000 cells.
clp_thresh_high	CLP threshold high, in the range 1–16000 cells. Once the high cell loss priority threshold is exceeded, cells can have a CLP bit set, making them discard eligible.
clp_thresh_low	CLP threshold low, in the range 1–16000 cells. Once the low cell loss priority threshold is exceeded, cells will no longer have the CLP bit set, making them discard eligible.
efci_thresh	EFCI threshold, in the range 1–16000 cells. An explicit forward congestion indicator (EFCI) is sent to the sending node when the threshold is exceeded.

Related Commands

dspchan

Attributes

Log: Yes State: Active Privilege: Group 2 on AUSM, Any on PXM

Example 1-88 On current AUSM in slot 1, change the configuration of the channel queue for channel 16 to set the ingress queue depth to 16000, the CLP high threshold to 16000, the CLP Low threshold to 10000, and the EFCI threshold to 12000

```
spirit.1.1.AUSM.a > cnfchanq 16 16000 16000 10000 12000
spirit.1.1.AUSM.a >
```

cnfchansrvrate

Configure Channel Service Rate

Use the **cnfchansrvrate** command to provision the service rate of a channel independent of the CIR rate of the connection. This feature separates the policing parameters (CIR, BC, BE, IBS) from the service rate, providing you with more traffic management control over the connection.

Card(s) on Which This Command Executes

FRSM 2T3/E3, FRSM HS2, FRSM-8

Syntax

cnfchansrvrate <*LCN*> <*ena* | *dis*> <*srvrate*>

Syntax Description

LCN	Channel number, in the range: • FRSM-8T1/E1, FRSM-HS1, 16–1015 • FRSM-HS2, 2T3, 2E3, 16–2015 • FRSM-2CT3, 16–4015
<*ena* | *dis*>	Channel service rate override, either enabled or disabled. • 1 = enable • 2 = disable
srvrate	The actual service rate to be provisioned for the given channel (in cps). For VHS modules, the maximum rate is 285714 cps

Related Commands

cnfchanfst

Attributes

Log: Yes State: Any Privilege: Any

Example 1-89 Configure the SAR on current FRSM, service connection 16, at 4000 cells per second, even though the CIR for the connection may be set to 0

```
NODENAME.1.26.VHS2CT3.a > cnfchansrvrate 16 1 4000
NODENAME.1.26.VHS2CT3.a >
```

cnfclksrc

Configure Clock Source

Use the **cnfclksrc** command to configure an interface as a clock source. Available clock sources are shown in Table 1-6. Any combination of clock sources are configurable in any order (primary or secondary). For example, you can configure an external clock source as the primary clock source and a line as the secondary clock source. If the primary and secondary clock sources fail, the internal oscillator becomes the source.

Before using the **cnfclksrc** command, the PXM broadband interfaces and the service module lines must be configured; therefore, run the **addln** command, then the **addport** command. Configure only one clock source each time you execute **cnfclksrc**, and run the command from the active PXM.

Table 1-6 Clock Sources

Clock Source	Description
Internal clock	Comes from an oscillator on the PXM1. It is the default source when the switch first comes up and remains so until you specify a different clock source.
Inband clock	Originates on a BPX 8600 series node or another vendor's switch and comes through the trunk on the PXM1 uplink card.
External clock	Comes from an external timing source and arrives at the T1 or E1 clock connector on the PXM UI. Frequently, the external source is a highly reliable, dedicated device that can provide a Stratum 2 or Stratum 3 clock. (As the subsequent configuration steps show, an additional step is necessary for an external clock source.)
Line on a service module or PXM UNI port	The PXM UNI line source is only available on a standalone node. A line must be active before you can specify it as a clock source.

Card(s) on Which This Command Executes

PXM, FRSM, CESM. AUSM

Syntax: PXM, FRSM, CESM, AUSM

cnfclksrc <*slot.port*> <*clktyp*>

Syntax Description

slot.port

For the PXM:

- Slot is 7, regardless of where the active PXM1 resides.
- Port range = 1–*N*, as appropriate for the physical installation.

For the FRSM, CESM, AUSM:

Slot and port number.

- Slot = 1–6, 9–14, 17–22, or 25–30
- Port range = 1–*N*, as appropriate for the physical installation

For the trunk to a BPX 8600 series or other backbone node-sourced clock, the port is always 1.

For the external clock, port is always 35.

For the UNI line (stand-alone only), port depends upon the number of lines on the back card.

For a service module providing the clock source:

- Slot is the slot number of the card.
- Port is the number of the line that provides the clock.

Using an external clock source:

Use the **cnfextclk** command to select the T1 or E1 line and the impedance of the line. The command syntax is

cnfextclk <*ClockType*> <*Impedance*>

- <*ClockType*> 1 = T1 source, 2 = E1 source
- <*Impedance*> is one of the following:
  - T1 source: 1 = 75 ohms
  - E1 source: 2 = 100 ohms, 3 = 120 ohms

clktyp

Clock type to be sourced on the specified interface.

- p = primary
- s = secondary
- t = tertiary
- n = null. Use only for removing clock configuration that currently applies to the specified *slot.port*

Related Commands

dspclksrc, **dspclkinfo**, **cnfextclk**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-90 Configure inband (trunk) interface as the primary clock source and an external clock device as the secondary source

```
spirit.1.8.PXM.a > cnfclksrc 7.1 P

spirit1r.1.8.PXM.a > cnfclksrc 7.35 S
```

cnfcon

Configure Connection

Use the **cnfcon** command to configure connectivity parameters on the PXM, AUSM, FRSM, or CESM. The applicable parameters were previously specified by the **addcon** command.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: PXM

cnfcon <*conn_ID*> <*route_priority*> <*max_cost*> <*restrict_trunk_type*> [*CAC*]

Syntax Description

conn_ID	Connection identifier, in the format *PortNo.VPI.VCI*.
route_priority	Routing priority number, in the range 1–15.
max_cost	Maximum cost for the connection, in the range 1–255.
restrict_trunk_type	Restriction on the trunk. • 1 = no restriction • 2 = terrestrial trunk • 3 = satellite trunk
CAC	(optional) Connection admission control (CAC), either enabled or disabled. • 1 = enable • 2 = disable

Syntax: FRSM, AUSM

cnfcon <*Port.Dlci*> <*chan_type*> <*cir*> [*CAC*]

Syntax Description

Port.Dlci	Port number and DLCI.
chan_type	Channel type. • 1 = NIW • 2 = SIW-transparent • 3 = SIW-xlation • 4 = FUNI • 5 = frForward
cir	Committed information rate (CIR), in the range appropriate for the interface. • T1 range = 0–1536000 • E1 range = 0–2048000 • X.21 range = 0–10000000 bps • HSSI range = 0–20000000 bps
CAC	(optional) Connection admission control (CAC), either enabled or disabled. • 1 = enable • 2 = disable

Syntax: CESM

cnfcon <*port_num*> <*CDVT*> <*CLIP*> <*bufsize*> <*clockmode*> <*IdleSuppEnable*> <*ForceSuppression*>

Syntax Description

port_num	Unique port number.
CDVT	Cell delay variation tolerance (CDVT), as appropriate for the interface. • T1 range = 125–24000 microseconds • E1 range = 125–26000 microseconds.
CLIP	Cell loss integration period (CLIP), in the range 1000–65535 milliseconds.

bufsize Size of the buffer.

- Egress bufsize = 0 to autocompute.
- Min value depends on CDVT configured.
- Min BufSize = greater (CDVT in frames * 2) * *N*, (CDVT + frames in two cells) * *N*
- Max for T1 UDT and E1 UDT: 16224 bytes
- Max for T1 SDT: 384 * *N* bytes
- Max for E1 SDT: 417 * *N* bytes, where *N* is the number of timeslots assigned in *N*x64 connection, and *N* = 32 for T1/E1 UDT

clockmode Clock mode.

- 1 = synchronous
- 2 = SRTS
- 3 = adaptive

IdleSuppEnable Idle suppression, either disabled or enabled.

- 1 = disable
- 2 = enable

ForceSuppression External idle suppression, either disabled or enabled.

- 1 = disable
- 2 = enable

Related Commands

addcon, **dspcon**, **dspcons**, **delcon**

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-91 Configures connection on port 1 with a VCI of 2 and a VPI of 5 to use routing priority 15, a maximum routing cost of 255, to not use satellite trunks, and to enable connection admission control

```
spirit01.1.7.PXM.a > cnfcon 1.2.5 15 255 3 2
spirit01.1.7.PXM.a >
```

cnfdate

Configure Date

Use the **cnfdate** command to set the system date.

Card(s) on Which This Command Executes

PXM

Syntax

cnfdate <*mm/dd/yyyy*>

Syntax Description

mm/dd/yyyy	Month, day, year. • *mm* = month, in the range 01 through 12 • *dd* = day, in the range 01–31 • *yyyy* = year, in the 0000–9999

Related Commands

None

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-92 Set date to be 03/29/2000

```
excel.1.3.PXM.a > cnfdate 03/29/2000
Date = 03/29/2000

excel.1.3.PXM.a >
```

cnfdsx3bert

Configure DS3 BERT

Use the **cnfdsx3bert** command to specify a pattern for bit error rate testing (BERT) on the FRSM.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax

cnfdsx3bert <*test pattern*>

Syntax Description

test pattern DSX3 BERT pattern

- 1 = all ones
- 2 = all zeros
- 3 = alternating ones and zeroes
- 4 = double alternating ones and zeros
- 5 = 3 in 24
- 6 = 1 in 16
- 7 = 1 in 8
- 8 = 1 in 4
- 9 = D4 loop activate
- 10 = D4 loop deactivate
- 11 = 2**3-1
- 12 = 2**4-1
- 13 = 2**5-1
- 14 = 2**6-1
- 15 = 2**7-1
- 16 = FT1 LB activate
- 17 = FT1 LB deactivate
- 18 = 2**9-1
- 19 = 2**10-1
- 20 = 2**11-1
- 21 = 2**15-1
- 22 = 2**17-1
- 23 = 2**18-1
- 24 = 2**20-1
- 25 = QRSS
- 26 = 2**21-1
- 27 = 2**22-1
- 28 = 2**23-1
- 29 = 2**25-1
- 30 = 2**28-1
- 31 = 2**28-1
- 32 = 2**31-1
- 33 = 2**32-1

Related Commands

None

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-93 Set double alternating ones-and-zeroes pattern for the BERT

```
popeye1.1.21.CESMT3.a > cnfdsx3bert 4

popeye1.1.21.CESMT3.a >
```

cnfegrservtype

Configure Egress Servicing Type

Use the **cnfegrservtype** command to change the egress port servicing algorithm. Egress port queue servicing type is a card-level option. You can choose either four-queue, weighted fair queuing (WFQ) algorithm with quality of service (QoS) guaranteed, or simple ratio-based, two-queue algorithm without quality of service.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

cnfegrservtype <*servicing type*>

Syntax Description

servicing type One of the following servicing types:

- 87 = WFQ algorithm with four queues.
- 99 = Ratio-based algorithm with two queues.

Related Commands

dspegrservtype

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-94 Configure egress service type to queue ratio

```
raviraj.1.10.VHS2CT3.a > cnfegrservtype 99
The card will be reset, Do you want to proceed (Yes/No)? Yes

Err: card reset/removed/failed on slot 10
slot 2 (cardInx 3) is present, insertion msg from PXM 7
```

cnfextclk

Configure External Clocking

Use the **cnfextclk** command to configure the line type and impedance of the external clocking source.

Card(s) on Which This Command Executes

PXM

Syntax

cnfextclk <*ClockType*> <*Impedance*>

Syntax Description

ClockType Clock source on the line.

- 1 = T1
- 2 = E1

Impedance Impedance for the line selected as the external clocking source.

- 1 = 75 ohms
- 2 = 100 ohms
- 3 = 120 ohms

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 3

Example 1-95 Configure clocking to be extracted from an E1 line with an impedance of 100 ohms

```
excel.1.3.PXM.a > cnfextclk 2 2
excel.1.3.PXM.a >
```

cnfenetgw

Configure Ethernet Gateway

Use the **cnfenetgw** command to establish the Ethernet gateway route permanently.

Card(s) on Which This Command Executes

PXM

Syntax

cnfenetgw <*IPaddress*>

Syntax Description

IPaddress	IP address for the default gateway; a subnet.

Related Commands

dspenetgw

Attributes

Log: No State: Active Privilege: SuperUser

Example 1-96 Configure gateway 172.29.37.1 and add necessary routes

```
excel.1.3.PXM.a > cnfenetgw 172.28.37.1
excel.1.3.PXM.a >
```

cnffst

Configure ForeSight

Use the **cnffst** command to configure ForeSight parameters for the current card.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

cnffst <*rate_up*> <*rate_down*> <*rate-fast_down*> <*qir_time_out*> <*rtd_interval*>

Syntax Description

rate_up	Rate up, in the range 1–100 percent. If free bandwidth is available, this setting is the rate at which ForeSight increases transmission (as a percentage of MIR).
rate_down	Rate down, in the range 1–100 percent. If free bandwidth becomes unavailable, this setting is the rate at which ForeSight decreases transmission (as a percentage of current rate).
rate-fast_down	Rate fast down, in the range 1–100 percent. If a cell is dropped or the TxQ is full, this setting is the rate at which ForeSight decreases transmission (as a percentage of current rate).
qir_time_out	QIR timeout period before resetting IR to QIR, in the range 1–255 seconds.
rtd_interval	Interval between round-trip delay measurement requests, in the range 1–255 seconds.

Related Commands

dspfst

Attributes

Log: Yes State: Active Privilege: SuperUser

cnfif

Configure Broadband Interface

Use the **cnfif** command to modify parameters for an existing broadband interface on a PXM. System software does not allow you to conflict with existing configurations. You might need to reduce the bandwidth allocation or VPI/VCI range on one or more interfaces before you expand the resources for an interface. See the **upif** command description for more information on resource partitioning.

Card(s) on Which This Command Executes

PXM

Syntax

cnfif <*if_num*> <*pct_bw*> <*min_vpi*> <*max_vpi*>

Syntax Description

if_num	Interface number of the logical interface, in the range 1–32.
pct_bw	Percentage of the line bandwidth to be allocated for the logical interface, in the range 0–100. This setting applies to both the ingress and egress.
min_vpi	Minimum virtual path identifier (VPI) value for UNI or NNI. • UNI range = 0–255 • NNI range = 0–4095 UNI typically applies to a line connecting a stand-alone node to a workstation.
max_vpi	Maximum VPI value for UNI or NNI. • UNI range = 0–255 • NNI range = 0–4095 UNI typically applies to a line connecting a stand-alone node to a workstation.

Related Commands

upif

Attributes

Log: No State: Any Privilege: Any

Example 1-97 Configure broadband interface number 1 to use 10% of the line bandwidth for both ingress and egress, have a minimum virtual path interface (VPI) of 0, and a maximum virtual path interface (VPI) of 19

```
wilco.1.7.PXM.a > cnfif 1 10 0 19
wilco.1.7.PXM.a >
```

Example 1-98 Confirm configuration for the broadband interface

```
wilco.1.7.PXM.a > dspif

 ifNum  Status  Line  ingrPctBw egrPctBw minVpi maxVpi
-------------------------------------------------------
  1     Ena       1       10       10        0     19

wilco.1.7.PXM.a >
```

cnfifastrk

Configure Interface as Trunk

Use the **cnfifastrk** command to configure a logical interface on the PXM to act as a feeder trunk. Before configuring the interface as a feeder trunk, the option must be activated with the **cnfswfunc** command.

Card(s) on Which This Command Executes

PXM

Syntax

cnfifastrk <*slot.port*> <*ftrk* | *rtrk* | *vtrk*>

Syntax Description

slot.port	Slot and port number. • slot = enter the value 7, or 15, or 31 • port range = 1–*N*, as appropriate for the physical installation
<*ftrk* | *rtrk* | *vtrk*>	Trunk type. • ftrk = feeder trunk • rtrk = routing trunk (default) • vtrk = virtual trunk

Related Commands

uncnfifastrk

Attributes

Log: No State: Active Privilege: Group 2

Example 1-99 Configure line 1 on PXM in slot 7 as a feeder trunk

```
wilco.1.7.PXM.a > cnfifastrk 7.1 ftrk
wilco.1.7.PXM.a >
```

cnfifip

Configure Interface Address

Use the **cnfifip** command to configure the interface address for LAN, SLIP, orATM on the PXM. In addition, you can specify an interface to be up or down dynamically. No reboot is required to bring an interface up or down, and interfaces set to down are persistent across resets.

A shelf now can have one or two IP addresses for Ethernet. The shelf IP address set using the **cnfifip** command will always be the IP address of the active card.

The bootChange IP address is used for the standby card and backup boot if it is different from the shelf IP address. If the bootChange IP address is same as the shelf IP address, then the Ethernet interface on the standby card or in backup boot is left in the down state.

Card(s) on Which This Command Executes

PXM

Syntax

cnfifip <*Interface*> <*IPaddr*> [<*NetMask*> [*BroadcastAddr*]] <*InterfaceFlag*>

Syntax Description

Interface	Interface as Ethernet, SLIP, orATM. • 26 = Ethernet • 28 = SLIP • 37 = ATM
IPaddr	A 32-bit IP address in dotted decimal format.
NetMask	<*n*>.<*n*>.<*n*>.<*n*> where <*n*> = integer 0–255 If netmask 255.255.255.252 is used for the SLIP interface, the PXM automatically adds a host route for its peer whenever the interface is turned ON.
BroadcastAddr	<*n*>.<*n*>.<*n*>.<*n*> where <*n*> = integer 0–255.
InterfaceFlag	Interface flag, either UP or DOWN.

Related Commands

dspifip

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-100 Configure ATM interface and bring it up

```
wilco.1.7.PXM.a > cnfifip atm 192.9.200.1 255.255.255.128
wilco.1.7.PXM.a >
```

A system response does not occur unless an error is detected. To confirm your configuration for the interface address, use the **dspifip** command.

Example 1-101 Configure ATM interface with the current information in the database

```
wilco.1.7.PXM.a > cnfifip atm up
wilco.1.7.PXM.a >
```

Example 1-102 Remove ATM interface and preserve the information in the database

```
wilco.1.7.PXM.a > cnfifip atm down
wilco.1.7.PXM.a >
```

cnfilmi

Configure ILMI

Use the **cnfilmi** command to configure the local management interface port on the PXM or AUSM. A system response does not occur unless an error is detected.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax: PXM

cnfilmi <*ifNum*> <*bbIfSigPortNum*> <*ilmiEnable*> <*sigProtocolType*> <*signallingVPI*> <*signallingVCI*> <*iLMITrap*> <*minTrapInterval*> <*keepAlive*> <*errorThresholdN491*> <*pollingIntervalT491*> <*eventThresholdN492*> <*minEnquiryIntervalT493*> <*addrRegEnable*>

Syntax Description

ifNum	Interface number.
bbIfSigPortNum	Broadband interface signal port number, in the range 1–32.
ilmiEnable	ILMI, either disabled or enabled. • 1 = disable • 2 = enable
sigProtocolType	Signal protocol type. • 1 = other • 2 = no signalling • 3 = ILMI
signallingVPI	Signalling virtual path identifier (VPI), in the range 0–4095.
signallingVCI	Signalling virtual channel identifier (VCC), in the range 0–4095.
iLMITrap	ILMI trap, either disabled or enabled. • 1 = disable • 2 = enable
minTrapInterval	Minimum trap interval, in the range 1–10 seconds.
keepAlive	Keep alive function, either disabled or enabled. • 1 = disable • 2 = enable
errorThresholdN491	Error threshold N491, in the range 1–10.

pollingIntervalT491	Polling interval T491, in the range v1–v12.
eventThresholdN492	Event threshold N492, in the range 1–10.
minEnquiryIntervalT493	Minimum enquiry interval, in the range 1–20.
addrRegEnable	Address registration, either disabled or enabled. • 1 = disable • 2 = enable

Syntax: AUSM

cnfilmi <*port_num*> <*signal_type*> <*vpi*> <*vci*> <*scr*> <*trap_enable*> <*min_trap_int*> <*keep_alive*>

Syntax Description

port_num	Port number, in the range 1–8.
signal_type	Signalling type. • 1 = other • 2 = no signalling • 3 = ILMI
vpi	Virtual path identifier (VPI), in the range 0–255.
vci	Virtual circuit identifier (VCI), in the range 0–65535.
trap_enable	ILMI trap, either disabled or enabled. • 1 = disable • 2 = enable
min_trap_int	Minimum trap interval, in the range 1–10 seconds.
keep_alive	Keep alive polling, either disabled or enabled. • 1 = disable • 2 = enable

Related Commands

dspilmi, **dspilmicnt**

Attributes

Log: Yes State: Active Privilege: Group 1 (Cisco for PXM)

cnfimagrp

Configure IMA Group

Use the **cnfimagrp** command to configure delay and resilient links for inverse multiplexing ATM (IMA) parameters on the current AUSM card.

Card(s) on Which This Command Executes

AUSM

Syntax

cnfimagrp <*grp*> <*max_diff_delay*> <*min_num_links*>

Syntax Description

grp	IMA group number, in the range 1–8.
max_diff_delay	Maximum tolerable differential delay between the various links in the IMA group in the range appropriate for the SM type. • AUSM8-T1 = 0–275 milliseconds • AUSM8-E1 = 0–200 milliseconds
min_num_links	Number of resilient links in the inverse multiplexer. This setting is the number of links the system can lose from this IMA group without bringing it down. Default = one less than the number of links in the selected group.

Related Commands

dspimagrp, **dspimagrps**, **dspimagrpcnt**

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-103 Configure AIMUX group 1 on the AUSM card in slot 17 to have a read/write pointer differential of 5, a link loss severity of 2, a maximum tolerable differential delay of 5, and 2 redundant links

```
flyers01.1.17.AUSM.a > cnfimagrp 1 -rwdiff 5 -severity 2 -maxdiff 3 -red 2
flyers01.1.17.AUSM.a >
```

cnfln

Configure Line

Use the optional **cnfln** command to configure line characteristics after the line becomes active (see **addln**). Applicable cards are the core cards and service modules. For the PXM1 and optional SRM, a syntax *switch* or command *delineator* is necessary to identify the interface type as well as the parameters. (See syntax descriptions that follow.)

Note On the PXM1 CLI, all parameters for this command are optional and position-independent. Therefore, you can enter them in any order after the interface identifier. A parameter value is mandatory only if you type the delineator for that parameter.

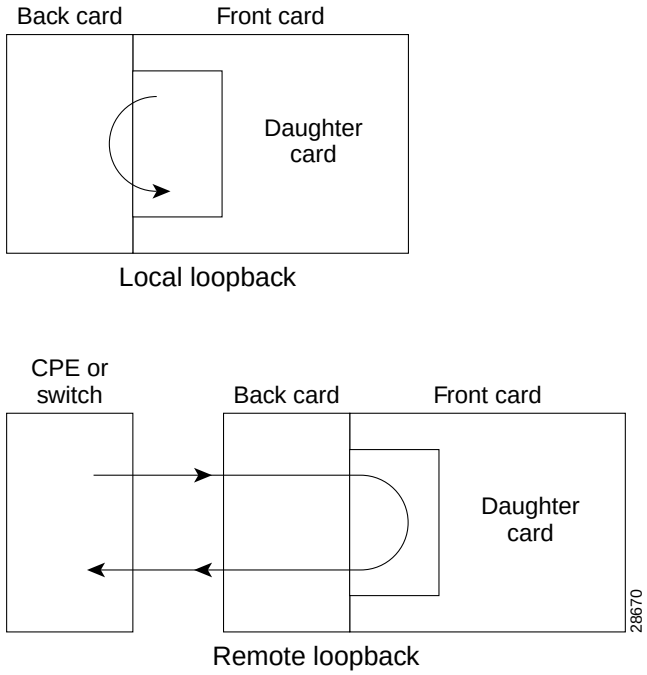
Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Note The **cnfln** command on the PXM supports a loopback parameter.

On all PXM interfaces, a loopback is available. The *local* loopback exists between the daughter card and the back card. The *remote* loopback exists between the CPE or switch and the PXM daughter card.With a remote loopback, the data originates on the CPE or external switch, arrives at the PXM daughter card, then returns to the remote equipment. (See Figure 1-4.)

Figure 1-4 Local and Remote Loopbacks on the PXM



Syntax: PXM (SONET)

cnfln -sonet <*LineNum*> -slt <*LineType*> -lpb <*LoopCmd*> -smask <*HCSmasking*> -sps <*PayloadScramble*> -sfs <*FrameScramble*>

Syntax Description

-sonet	Command delineator that precedes the *LineNum* entry.
LineNum	Line number in the format *slot.line*. • slot number = 7 or 8. • line number – 1 = OC-12 card – 1–4 = OC-3 card.
-slt	Command delineator that precedes the *LineType* entry.
LineType	Line type: • 1 = sonetSts3c • 2 = sonetStm1 • 3 = sonetSts12c • 4 = sonetStm4
-lpb	Command delineator that precedes the *LoopCmd* entry.
LoopCmd	Loopback mode of the SONET interface. • 1 = no loopback. The purpose is to remove an existing loopback. • 2 = near end loops back data from the remote end. • 3 = near end loops back local data.
-smask	Command delineator that precedes the *HCSmasking* entry.
HCSmasking	HCS masking, either enabled or disabled. • 1 = disable • 2 = enable
-sps	Command delineator that precedes the *PayloadScramble* entry.
PayloadScramble	Payload scramble, either enabled or disabled. • 1 = disable • 2 = enable

-sfs	Command delineator that precedes the *FrameScramble* entry.
FrameScramble	Frame scramble, either enabled or disabled. • 1 = disable • 2 = enable

Syntax: PXM (T3)

cnfln -ds3 <*LineNum*> -lc <*LineCoding*> -ltp <*LineType*> -len <*LineLength*> -oof <*LineOOFCriteria*> -cb <*LineAIScBitsCheck*> -lpb <*LoopCmd*> -rfeac <*LineRcvFEACValidation*>

Syntax Description

-ds3	Command delineator that precedes the *LineNum* entry.
LineNum	DS3 line number in the format *slot.line* and has the following possible values: • Slot: – PXM1 = 7 or 8 – Optional SRM (controlled from the PXM1 CLI) = 15, 16, 31, or 32 • Line range: – PXM1 = 1–2 – SRM = 1–3
-lc	Command delineator that precedes the *LineCoding* entry.
LineCoding	Line coding for zero code suppression B3ZS or HDB3. • 1 = B3ZS on a DSX3 line • 2 = HDB3 on an E3 line
-ltp	Command delineator that precedes the *LineType* entry.
LineType	Line type. • 1 = cbit-parity • 2 = not allowed • 3 = m23
-len	Command delineator that precedes the *LineLength* entry.
LineLength	Number of line feet. • 1 = less than 225 feet • 2 = 225 feet or more

-oof	Command delineator that precedes the *LineOOFCriteria* entry.
LineOOFCriteria	Threshold for triggering an Out Of Frame condition. • 1 = 3 out of 8 An Out Of Frame condition is declared if at least 3 of 8 framing bits are in error. • 2 = 3 out of 16 An Out Of Frame condition is declared if at least 3 of 16 framing bits are in error.
-cb	Command delineator that precedes the *LineAIScBitsCheck* entry.
LineAIScBitsCheck	Test of the C-bit in response to AIS status. • 1 = check the C-bit • 2 = ignore the C-bit
-lpb	Command delineator that precedes the *LoopCmd* entry.
LoopCmd	Loopback mode of the DS3/T3 interface. The looped data is the line framing synchronization and is sent every 10 ms. The loop exists on the daughter card attached to the PXM1 front card. The back card is involved only as a passive part of the loopback and only in the case of a remote loopback. For remote loopback, the far end can be CPE on a UNI port or a switch at the far end of a trunk. For local loopback, the data passes between only the PXM1 front card and the daughter card. The mere execution of a loop may clear line alarms. • 1 = no loopback. The purpose is to remove an existing loopback. • 2 = near end loops back data from the remote end. • 3 = local data loopback.
-rfeac	Command delineator that precedes the *LineRcvFEACValidation* entry.
LineRcvFEACValidation	A number to specify criteria to validate far-end alarm and control (FEAC) code. • 1 = 4 out of 5. A valid FEAC code is declared if 4 of 5 codes match. • 2 = 8 out of 10. A valid FEAC code is declared if 8 of 10 codes match.

Syntax: PXM E3

cnfln -e3 <*LineNum*> -lc <*LineCoding*> -len <*LineLength*> -lpb <*LoopCmd*> -topt <*TrailTraceOption*> -txtt <*txTrailTrace*> -txma <*txTimingMarker*> -rxma <*rxTimingMarker*> -txpt <*txPayloadType*>

Syntax Description

-e3	Command delineator that precedes the *LineNum* entry.
LineNum	Line number in the format *slot.line* and has the following possible values: • Slot: – PXM1 = 7 or 8 – Optional SRM (controlled from the PXM1 CLI) = 15, 16, 31, or 32 • Line range: – PXM1 = 1–2 – SRM = 1–3
-lc	Command delineator that precedes the *LineCoding* entry.
LineCoding	Line coding for Zero Code Suppression B3ZS or HDB3. • 1 = B3ZS on a DSX3 line • 2 = HDB3 on an E3 line
-len	Command delineator that precedes the *LineLength* entry.
LineLength	Number of line feet. • 1 = less than 225 feet • 2 = 225 feet or more
-lpb	Command delineator that precedes the *LoopCmd* entry.
LoopCmd	Loopback mode of the E3 interface. • 1 = no loopback. The purpose is to remove an existing loopback. • 2 = near end loops back data from the remote end. • 3 = local data loopback.
-topt	Command delineator that precedes the *TrailTraceOption* entry.
TrailTraceOption	Trail trace, either disabled or enabled. • 1= disable • 2 = enable
-txtt	Command delineator that precedes the *txTrailTrace* entry.
txTrailTrace	Length of the trail trace string in the transmit direction (away from the switch). The maximum length of *txTrailTrace* is 16 bytes.
-txma	Command delineator that precedes the *txTimingMarker* entry.

txTimingMarker	Timing marker tracer during outbound transmission. • 1 = traceable • 2 = untraceable
-rxma	Command delineator that precedes the *rxTimingMarker* entry.
rxTimingMarker	Timing marker tracer during inbound transmission. • 1 = traceable • 2 = untraceable
-txpt	Command delineator that precedes the *txPayloadType* entry.
txPayloadType	Payload type. • 1 = unequipped • 2 = equipped • 3 = ATM • 4 = sdhtu12s

Syntax: FRSM 8T1, 8E1, 2CT3

cnfln <*line_num*> <*line_type*> <*line_len*> <*clk_src*> [E1-signalling]

Syntax Description

line_num	DS1 Line number, in the range 1–56.
line_type	Type of line to be configured. • 1 = dsx1ESF • 2 = dsx1D4
line_len	Line length in feet, as appropriate for the interface. • 10–15 = T1 • 8 = E1 with SMB line module • 9 = E1 with RJ48 line module

clk_src	DSX1 clock source. • 1 = loop clock • 2 = local clock
E1-signalling	Type of E1 signalling. • CAS = CAS, no CRC • CAS_CRC = CAS, with CRC • CCS = CC, no CRC • CCS_CRC = CCS, with CRC • CLEAR = clear E1

Syntax: FRSM 2T3, 2E3, 2CT3, HS2

cnfds3ln <*line_num*> <*line_type*> <*line_len*> <*clk_src*>

Syntax Description

line_num	DS3 line number, in the range 1–2.
line_type	Type of line to be configured. • 1 = C-bit parity • 2 = g832_g804 • 3 = M13 • 4 = g751
line_len	Length of line. • 1 = less than 225 feet • 2 = greater than 225 feet
clk_src	DSX3 clock source. • 1 = backplane clock • 2 = recovery clock • 3 = local clock

Syntax: FRSM HS1/B

cnfln <*line_num*> <*line_type*> <*line_rate*>

Syntax Description

line_num Line number, in the range 1–4.

line_type Line type.

- 1 = DTE
- 2 = DCE
- 3 = DTE_ST (V.35 only)

line_rate Line rate, in the range 48 Kbps–52 Mbps.

1= 48000 11= 320000 21= 1792000 31= 6315000 41=12629000
2= 56000 12= 336000 22= 1920000 32= 7744000 42=13897000
3= 64000 13= 384000 23= 1984000 33= 7899000 43=14222000
4= 112000 14= 392000 24= 2048000 34= 8192000 44=14336000
5= 128000 15= 448000 25= 3097000 35= 9289000 45=15488000
6= 168000 16= 512000 26= 3157000 36= 9472000 46=15799000
7= 192000 17= 768000 27= 4096000 37=10240000 47=16384000
8= 224000 18= 1024000 28= 4645000 38=10890000 48=20025000
9= 256000 19= 1536000 29= 4736000 39=11059000 49=24986000
10= 280000 20= 1544000 30= 6195000 40=12390000 50=52000000

AUSM, CESM, VISM (for T1 or E1)

cnfln <*line_num*> <*line_code*> <*line_len*> <*clk_src*> [*E1-signalling*]

Syntax Description

line_num Line number, in the range 1–8.

line_code Line coding.

- 2 = B8ZS, applies to T1
- 3 = HDB3, applies to E1
- 4 = AMI, applies to T1 or E1

line_len Line length, as appropriate for the interface.

- 10–15 = T1
- 8 = E1 with SMB module
- 9 = E1 with RJ-48 module

clk_src	Clock source, either loop clock or local clock. • 1 = loop clock • 2 = local clock
E1-signalling	• CAS: CAS, no CRC • CAS_CRC: CAS with CRC • CCS: CCS no CRC • CCS_CRC: CCS with CRC • CLEAR: Clear E1

Related Commands

addln, **delln**, **dsplns**, **dspln**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-104 Configure line 4 on the current card (an AUSM in slot 4) to be T1 with B8ZS line coding, have a length of 10, and use the loop clock as a clock source

```
wilco.1.4.AUSM.a > cnfln 4 2 10 1
wilco.1.4.AUSM.a >
```

cnflnsubrate

Configure Line Subrate

Use **cnflnsubrate** to configure the T3/E3 line subrate mode. This command provides T3/E3 line subrates for Digital Link and ADC Kentrox DSUs.

Card(s) on Which This Command Executes

FRSM-2T3/2E3

Syntax

cnflnsubrate <*line_num*> <*dsu_subrate_ena*> <*dsu_select*> <*dsu_scramble_ena*> <*dsu_line_rate* >

Syntax Description

.

line_num — DS3 line number, in the range 1–2.

dsu_subrate_ena — Data service unit (DSU) subrate, either disabled or enabled.

- 1 = disable
- 2 = enable

dsu_select — DSU mode.

- 1 = Digital Link 3100 Mode
- 2 = ADC-Kentrox

dsu_scramble_ena — DSU line scrambling, either disabled or enabled.

- 1 = disable
- 2 = enable

dsu_line_rate — A DSU line rate, values ranging from *x* to *y*.

For DL3100:

- FRSM-2T3: *x* = 300, *y* = 44210
- FRSM-2E3: *x* = 358, *y* = 34010

For ADC-Kentrox Mode (2T3/E3):

- *x* = 500,
- *y* = 44210 or 34010 in steps of *x*-value

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- Feature is already enabled.
- Line does not exist.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 2

cnfname

Configure Name

Use the **cnfname** command to set the switch name. The name can consist of letters, special characters "_" and "-" and numbers. It must begin with a letter and cannot contain spaces. The name is case-sensitive.

Card(s) on Which This Command Executes

PXM

Syntax

cnfname <*node name*>

Syntax Description

node name	Node name consisting of up to eight alphanumeric characters.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-105 Set the switch name. The prompt returns with the new name. However, on the command line, the name is truncated to eight characters because of the information displayed in the prompt

```
NODENAME.1.7.PXM.a > cnfname kanchendzonga
kanchend.1.3.PXM.a >
```

cnfoamlpbk

Configure OAM Loopback

Use the **cnfoamlpbk** command to configure the operation, administration, and maintenance (OAM) cell loopback test. This nonintrusive test sends OAM cells to an idle PVC, one not receiving data for a whole minute, to verify connection continuity. OAM cells are automatically recognized and returned without the need for the remote end to be looping back all data. If the endpoints reside in FastPacket cards, then "test delay" cells are transmitted instead of OAM loopback cells.

The OAM cell is initiated at an endpoint and sent into the network, where it is returned by the card at the remote end of the connection. The cells do not go through NNI trunks.

If ten consecutive cells are not received, the PVC is declared failed. The test logs alarms when significant continuous cell loss is encountered.

Once a failed PVC is detected, the local end from which the test started sends a network message, indicating a failure, to the endpoint.

Card(s) on Which This Command Executes

FRSM 2T3/E3, FRSM HS2

Syntax

cnfoamlpbk <*action*> <*frequency*>

Syntax Description

action	One of the following actions: • 1 = OamRas enabled • 2 = OamRas disabled
frequency	Frequency at which the loopback cells should be sent, in the range 1 to 10 minutes.

Related Commands

dspoamlpbk

Attributes

Log: Yes State: Any Privilege: Any

Example 1-106 Send OAM cells every ten minutes on an FRSM-2CT3 card

```
NODENAME.1.19.VHS2CT3.a > cnfoamlpbk 1 10
NODENAME.1.19.VHS2CT3.a >
```

cnfpasswd

Configure Password

Use the **cnfpasswd** command to set the password for the specified User ID. Enter the command without arguments to change your own password. Prompts are presented to let you enter the new password and to confirm it.

Card(s) on Which This Command Executes

PXM

Syntax

cnfpasswd [<*user_id*>]

Syntax Description

user_id User name.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Any

Example 1-107 Change your own password. Prompts appear for you to enter the new password and confirm it.

```
spirit4.1.8.PXM.a > cnfpasswd

Enter password:
Re-enter password:


spirit4.1.8.PXM.a >
```

cnfplpp

Configure PLPP

Use the **cnfplpp** command to set physical layer protocol process (PLPP) parameters on the current AUSM card.

Card(s) on Which This Command Executes

AUSM

Syntax

cnfplpp <*phy_port_num*> <*loopback*> <*scramble*> <*singlebit_errcorr_ena*>

Syntax Description

phy_port_num	Physical port number, in the range 1–8.
loopback	PLPP loopback. • 1 = no loopback • 2 = remote loopback • 3 = local loopback
scramble	Cell scramble. • 1 = no scramble • 2 = scramble
singlebit_errcorr_ena	Single-bit error correction, either disabled or enabled. • 1 = disable • 2 = enable

Related Commands

dsppasswd

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-108 Configure PLPP parameters on port 1 on current AUSM card in slot 22 to disable cell scramble, to disable PLPP loopback, and to disable single-bit error correction

```
spirit3.1.22.AUSM8.a > cnfplpp 1 1 1 1
spirit3.1.22.AUSM8.a >
```

A system response does not occur unless an error is detected. To confirm your configurations for PLPP parameters, use the **dsppasswd** command.

Example 1-109 Confirm PLPP configuration

```
spirit3.1.22.AUSM8.a > dspplpp 1
  PhysicalPortNumber:            1
  CellFraming:                   ATM
  CellScramble:                  No Scramble
  Plpp Loopback:                 No Loopback
  Single-bit error correction:   Disabled

spirit3.1.22.AUSM8.a >
```

cnfport

Configure Port

Use the **cnfport** command to configure service port on an FRSM or a PXM. The configuration can be verified using the **dspport** command.

Card(s) on Which This Command Executes

PXM, FRSM

Syntax: PXM

cnfport <*port_number*> <*percent_bandwidth*> <*min_VPI*> <*max_VPI*>

Syntax Description

port_number	Port number, in the range 1–32.
percent_bandwidth	Percentage of bandwidth to be allocated on the port, in the range 1–100.
min_VPI	Minimum virtual path identifier (VPI), in the range 0–4095.
max_VPI	Maximum VPI, in the range 0–4095.

Syntax: FRSM

cnfport <*port_num*> <*lmi_sig*> <*asyn*> <*ELMI*> <*T391*> <*T392*> <*N391*> <*N392*> <*N393*>

Syntax Description

port_num — Logical port number, in the range appropriate for the interface type.

- 8-port T1 range = 1–192
- 8-port E1range = 1–248
- 4-port HS1 or HS2 range 1–4
- Unchannelized E1 or T1 range = 1–4
- 2-port HS1 or HS2 range = 1–2
- Unchannelized E3 or T3 = 1–2
- Channelized T3 = 1–56

lmi_sig — Local management interface (LMI) signalling protocol type.

- N = None
- S = StrataLMI
- au = AnnexAUNI
- du = AnnexDUNI
- an = AnnexANNI
- dn = AnnexDNNI

asyn — Asynchronous update status (UPD) or unsolicited full status (UFS).

- n or 1 = both disabled
- y or 2 = UPD enabled
- 3 = UFS enabled
- 4 = both enabled

ELMI — Enhanced LMI, either disabled or enabled.

N or n = disable

Y or y = enable

T391 — T391 timer, in the range 5–30 seconds. This setting is the interval in seconds for NNI status polling.

Default = 10

T392 — T392 timer, in the range 5–30 seconds. This setting is the interval in seconds for UNI status polling.

Default = 15

N391 — N391 counter, in the range 1–255. This setting establishes the number of UNI/NNI polling cycles.

Default = 6

N392	N392 counter, in the range 1–10. This setting is the UNI/NNI error threshold. Default = 3
N393	N393 counter, in the range 1–10. This setting is the UNI/NNI monitored events threshold, which must be greater than *N392*. Default = 4

Related Commands

addport, **delport**, **dspport**, **dspports**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-110 Configure port parameters on PXM port 1, in slot 8, to allocate all bandwidth and to set VPI range for 0-4095

```
spirit3.1.8.PXM.a > cnfport 1 100 0 4095
spirit3.1.8.PXM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- Port does not exist. To add a port, use the **addport** command.
- Loopback BERT is on.

cnfportcllm

Configure Port CLLM

Use the **cnfportcllm** command to set consolidated link layer management (CLLM) parameters for a specified port on the current card. Use CLLM to pass ForeSight to another CiscoWAN switching network using NNI.

Card(s) on Which This Command Executes

FRSM

Syntax

cnfportcllm <*port_num*> <*CLLMEN*> <*CLLMTM*>

Syntax Description

port_num Logical port number, in the range appropriate for the current card.

- 8-port T1 range = 1–192
- 8-port E1range = 1–248
- 4-port HS1 (X.21) or HS2 range 1–4
- Unchannelized E1 or T1 range = 1–4
- 2-port HS1 (HSSI) or HS2 range = 1–2
- Unchannelized E3 or T3 = 1–2
- Channelized T3 = 1–56

CLLMEN CLLM, either disabled or enabled.

- 1 = disable (default)
- 2 = enable

CLLMTM CLLM time, in the range 40–5000 milliseconds. This setting is the amount of time to wait to receive CLLM updates before timing out.

Default = 1000 (1 second)

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- Port does not exist. To add a port, use the **addport** command.
- Loopback BERT is on.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 2

cnfportq

Configure Port Queue

Use the **cnfportq** command to configure queue parameters for a specified port on the current AUSM. A system response does not occur unless an error is detected.

Card(s) on Which This Command Executes

AUSM

Syntax

cnfportq <*port_num*> <*q_num*> <*q_algo*> <*q_depth*> <*clp_high*> <*clp_low*> <*efci_thres*>

Syntax Description

port_num	Port number, in the range 1–8.
q_num	Queue number. • 1 = CBR (constant bit rate) • 2 = ABR (available bit rate) • 3 = VBR (variable bit rate) • 4 = UBR (unspecified bit rate)
q_algo	Queue algorithm, in the range 1–5. 0 = disable queue
q_depth	Maximum queue depth, in the range 1–16000 cells.
clp_high	Cell loss priority (CLP), in the range 1–16000 cells.
clp_low	Low CLP, in the range 1–16000 cells.
efci_thres	Explicit forward congestion indication (EFCI) threshold, in the range 1–16000 cells.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 1

cnfportrscprtn

Configure Port Resource Partition

Use the **cnfportrscprtn** command to configure the resources each controller application receives at a port.

Configure partitions at the port level if:

- You configured card-level resource partitioning to be off.
- You configured resource partitioning to be on, with or without specified controller allocations.

Card(s) on Which This Command Executes

PXM, AUSM, FRSM, CESM, VISM

Syntax: PXM

cnfportrscprtn <*port_no*> <*controller*> <*ingress_%bw*> <*egress_%bw*> <*min_VPI*> <*max_VPI*> <*min_VCI*> <*max_VCI*> <*max_GLCNs*>

Syntax Description

port_no	Logical interface number, in the range 1– 32.
controller	Network control application. • 1 = PAR • 2 = PNNI • 3 = TAG
ingress_%bw	Percent of ingress bandwidth to be allocated on the interface, in the range 0–100.
egress_%bw	Percent of egress bandwidth to be allocated on the interface, in the range 0–100.
min_VPI	Minimum virtual path identifier (VPI) value, in the range 0–4095.
max_VPI	Maximum VPI value, in the range 0–4095.
min_VCI	Minimum virtual channel identifier (VCI) value, in the range 0–65535.
max_VCI	Maximum VCI value, in the range 0–65535.
max_GLCNs	Maximum number of global logical connection numbers (GLCNs), in the range 0–32767.

Syntax: AUSM, FRSM, CESM, VISM

cnfportrscprtn <*port_num*> <*controller-name*> <*pct_bw*> <*min_vpi*> <*max_vpi*> <*min_vci*> <*max_vci*> <*max_glcn*>

Syntax Description

port_num	Logical port number, in the range appropriate for the interface type. • 8-port T1 range = 1–192 • 8-port E1range = 1–248 • 4-port HS1 (X.21) or HS2 range 1–4 • Unchannelized E1 or T1 range = 1–4 • 2-port HS1 (HSSI) or HS2 range = 1–2 • Unchannelized E3 or T3 = 1–2 • Channelized T3 = 1–56
controller-name	Controller type. • 1 = PAR • 2 = PNNI • 3 = TAG
percent bandwidth	Percentage of the port bandwidth available to the controller. This setting applies to both the ingress and egress.
min_VPI	Minimum virtual path identifier (VPI) value, in the range 0–255.
max_VPI	Maximum VPI value, in the range 0–255.
min_VCI	Minimum virtual channel identifier (VCI) value, in the range 0–65535.
max_VCI	Maximum VCI value, in the range 0–65535.
max_GLCNs	Maximum number of global logical connection numbers (GLCNs), in the range 0–1000.

Related Commands

addcdrscprtn, **cnfcdrscprtn**

Attributes

Log: Yes State: Active Privilege: Group 1 (Service for PXM)

cnfprfparam

Configure Preference Parameters

Use the **cnfprfparam** command to configure the bucket interval.

Card(s) on Which This Command Executes

PXM

Syntax

cnfprfparam <*bucket interval*>

Syntax Description

bucket interval Bucket interval, in the range 1–600 seconds.

Related Commands

dspprf, **dspprfhist**

Attributes

Log: No State: Active Privilege: Any

Example 1-111 Set bucket interval for two seconds

```
popeye3.1.8.PXM.a > cnfprfparam 2
The bucket interval will be effective after the current bucket interval is over.

popeye3.1.8.PXM.a >
```

cnfrscprtn

Configure Resource Partition

Use the **cnfrscprtn** command to modify an existing resource partition. For information on resource partitions, see **addrscprtn**, page 1-60.

A resource partition on a PXM consists of the following:

- Percent of bandwidth
- Virtual path identifier (VPI)/virtual channel identifier (VCI) range
- Number of global logical connection numbers (GLCNs) available to a network control application

Card(s) on Which This Command Executes

PXM

Syntax

cnfrscprtn <*if_num*> <*ctrlr_num*> <*ingr_pct_bw*> <*egr_pct_bw*> <*min_vpi*> <*max_vpi*> <*min_vci*> <*max_vci*> <*max_chans*>

Syntax Description

if_num	Logical interface number, in the range 1–32.
ctrlr_num	Network control application. • 1 = PAR • 2 = PNNI • 3 = TAG
ingr_pct_bw	Percent of ingress bandwidth to be allocated on the interface, in the range 0–100.
egr_pct_bw	Percent of egress bandwidth to be allocated on the interface, in the range 0–100.
min_vpi	Minimum VPI value, in the range 0–4095.
max_vpi	Maximum VPI value, in the range 0–4095.
min_vci	Minimum VCI value, in the range 0–65535.
max_vci	Maximum VCI value, in the range 0–65535.
max_chans	Maximum GLCNS, in the range 0–32767.

Related Commands

addrscprtn, **delrscprtn**, **dspifrsc**, **dspifs**, **dsprscprtns**, **dsprscprtn**, **dsplnrsc**

Attributes

Log: Yes State: Any Privilege: Service

Example 1-112 Modify resource partition on current PXM card

```
MGX-01.1.2.PXM.a > cnfrscprtn 1 1 100 100 0 4095 0 65535 32767
MGX-01.1.2.PXM.a >
```

cnfserialif

Configure Serial Interface

Use the **cnfserialif** command to configure the speed of a serial port.

Card(s) on Which This Command Executes

PXM

Syntax

cnfserialif -if <*serial_port_num*> -sp <*serial_port_speed*>

Syntax Description

-if	Command delineator that precedes the *serial_port_num* entry.
serial_port_num	Serial port number. • 1 = console • 2 = slip
-sp	Command delineator that precedes the *serial_port_speed* entry.
serial_port_speed	Port speed. • 1 = 9600 bps • 2 = 2400 bps • 3 = 19200 bps

Related Commands

dspserialif

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-113 Configure speed on slip for 19200 bps

```
NODENAME.1.7.PXM.a > cnfserialif -if 2 -sp 3

NODENAME.1.7.PXM.a > dspserialif -if 2
  SerialPortNum         : 2
  SerialPortType        : main
  SerialPortEnable      : Enable
  SerialPortBps         : 19200bps
```

cnfslftst

Configure Self-Test

Use the **cnfslftst** command to configure the self-test routine on the current card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

cnfslftst -en <*SelftestEnable*> -tm <*SelftestPeriod*>

Syntax Description

-en	Command delineator that precedes the *SelftestEnable* entry.
SelftestEnable	Self-test, either disabled or enabled. • 1 = disable • 2 = enable
-tm	Command delineator that precedes the *SelftestPeriod* entry.
SelftestPeriod	Period between self-tests in the range 1–60 minutes.

Related Commands

clrslftst, **dspslftst**, **runslftstno**

Attributes

Log: No State: Any Privilege: Any

Example 1-114 Enable self-test for the AUSM in slot 22, with a self-test period of five minutes

```
spirit3.1.22.AUSM8.a > cnfslftst -en 2 -tm 5
spirit3.1.22.AUSM8.a >
```

cnfsnmp

Configure SNMP

Use the **cnfsnmp** command to view the community strings configured on a service module.

Card(s) on Which This Command Executes

PXM

Syntax

cnfsnmp <*community string*>

Syntax Description

community string The SNMP community string, up to 18 characters in length.

Related Commands

dspsnmp

Attributes

Log: No State: Active Privilege: SuperUser

Example 1-115 Configure SNMP community string

```
spirit3.1.7.PXM.a > cnfsnmp SPIRITST

spirit3.1.7.PXM.a > dspsnmp

Community String:SPIRITST
```

cnfsrmclksrc

Configure SRM Clock Source

Use the **cnfsrmclksrc** command to configure the SRM clock source to be acquired from either the PXM or from an SRM-3T3 T3 line.

Card(s) on Which This Command Executes

PXM

Syntax

cnfsrmclksrc -ds3 <*LineNum*> -srmclk <*ClockSource*>

Syntax Description

-ds3	Command delineator for the *LineNum* entry.
LineNum	SRM-3T3 T3 line number in the format *slot.line*. • slot = 7, 8, 15, 16, 31, 32 • line range = 1 to *N*, as appropriate for the card
-srmclk	Command delineator for the *ClockSource* entry.
ClockSource	Clock source. • 1 = backplane clock, from PXM (default) • 2 = recovery clock, from T3 line

Related Commands

dspsrmclksrc

Attributes

Log: No State: Active Privilege: Any

cnfstatsmgr

Configure Statistics Manager

Use the **cnfstatsmgr** command to specify the IP address of the workstation with the statistics manager to the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

cnfstatsmgr <*IP_Addr*>

Syntax Description

IP_Addr	A 32-bit IP address in dotted decimal format.

Related Commands

dsptrapmgr

Attributes

Log: Yes State: Active Privilege: SuperUser

cnfswfunc

Configure Software Function

Use the **cnfswfunc** command to set certain node-level, paid features on an MGX 8250. The features are the feeder implementation of the switch and virtual source/virtual destination (VSVD) control for ABR traffic. The defaults are disabled for VSVD and the routing implementation of the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

cnfswfunc -vsvd <*enable(yes)* | *disable(no)*> -ndtype <*routing* | *fdr*>

Syntax Description

-vsvd	Command delineator that precedes the *enable* or *disable* entry.
enable(yes) *disable(no)*	Character that enables or disables VSVD. • yes = enable • no = disable
-ndtype	Command delineator that precedes the *routing* | *fdr* entry.
routing | *fdr*	Node implementation. • routing = either the stand-alone or routing node implementation (default) • fdr = feeder implementation

Note The **cnfswfunc** command enables only one feature at a time.

Related Commands

dspswfunc

Attributes

Log: No State: Active Privilege: Service

Example 1-116 Set the VSVD to enable and the node implementation to routing

```
wilco.1.7.PXM.a > cnfswfunc -vsvd yes -ndtype routing
wilco.1.7.PXM.a >
```

cnftime

Configure Time

Use the **cnftime** command to set the time on the PXM. The node uses a 24-hour clock.

Card(s) on Which This Command Executes

PXM

Syntax

cnftime <*hh:mm:ss*>

Syntax Description

hh:mm:ss	Hour, minutes, seconds. • hh = hour, in the range 01–24 • mm = minutes, in the range 01–60 • ss = seconds, in the range 01–60

Related Commands

cnftmzn, **cnfdate**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-117 Set time for 2 p.m. plus 11minutes and 22 seconds

```
excel.1.3.PXM.a > cnftime 14:11:22
04/03/00-14:11:22 3  tDbgCmdTask 1220 informational : TIME/DATE updated

excel.1.3.PXM.a >
```

cnftmzn

Configure Timezone

Use the **cnftmzn** command to configure the time zone for the switch.

Card(s) on Which This Command Executes

PXM

Syntax

cnftmzn <*timezone*>

Syntax Description

timezone	Time zone. 1 = GMT (Greenwich Mean Time) 2 = EST (Eastern Standard Time) 3 = CST (Central Standard Time) 4 = MST (Mountain Standard Time) 5 = PST (Pacific Standard Time)

Related Commands

cnftime, **cnfdate**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-118 Configure time zone in the node to U.S. Central Standard Time

```
excel.1.3.PXM.a > cnftmzn 3
excel.1.3.PXM.a >
```

cnftmzngmt

Configure Timezone Relative to GMT

Use the **cnftmzngmt** command to configure the time zone for the shelf relative to GMT.

Card(s) on Which This Command Executes

PXM

Syntax

cnftmzngmt <*timeoffsetGMT*>

Syntax Description

timeoffsetGMT	Number of offset in hours from GMT, in the range –12 to 12.

Related Commands

cnftmzn, **cnftime**, **cnfdate**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-119 Set time zone in shelf to GMT plus 4 hours

```
excel.1.3.PXM.a > cnftmzngmt 4
excel.1.3.PXM.a >
```

cnftrafficgen

Configure Traffic Generation Test

Use the **cnftrafficgen** command to configure a traffic generation test. This test is used for troubleshooting cell loss and is intended for use with defective PVCs. This test is enabled or disabled at a connection level, not at a card level.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

cnftrafficgen <*Port.DLCI*/*pvc_num*> <*action*> <*num_frames*> <*pattern_type*>

Syntax Description

pvc_num	Number of the PVC. • 16–4015 (2CT3) • 16–2015 (2T3/2E3/HS2)
action	Type of action. • 1 = start • 2 = stop • 3 = abort
num_frames	Number of frames, in the range 1–40960000.
pattern_type	Type of pattern, in the range 1–4. Default = 1

Related Commands

dsptrafficgen

Attributes

Log: No State: Active Privilege: Any

Example 1-120 Start traffic generation test on connection 16 for 100 frames with a pattern type of 1

```
spirit.1.1.VHS2CT3.a > cnftrafficgen 16 1 100 1

Wait......
Starting Test
```

Example 1-121 Stop traffic generation test on connection 16

```
spirit.1.1.VHS2CT3.a > cnftrafficgen 16 2

Wait....
Stopping Test
```

cnftrapip

Configure Trap IP Address

Use the **cnftrapip** command to configure the IP address to be used in all out-going traps from the shelf. This should be configured to one of the interface addresses. The system displays errors if they occur.

Card(s) on Which This Command Executes

PXM

Syntax

cnftrapip <*ip_addr*>

Syntax Description

ip_addr	A 32-bit IP address in dotted decimal format.

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-122 Configure the IP address for outgoing traps to 192.169.3.102

```
spirit4.1.8.PXM.a > cnftrapip 192.169.3.102
spirit4.1.8.PXM.a >
```

cnftrk

Configure Trunk

Use the **cnftrk** command to configure various trunk parameters. Execute this command after configuring the interface as a routing trunk using the **cnfifastrk** command and activated the trunk on a node through the **addtrk** command.

Card(s) on Which This Command Executes

PXM

Syntax

cnftrk -slot.port *slot.port* [-stres <*Stats Reserve*> | -ccRstr <*CC Restrict*> | -lnTyp <*Line Type*> | -passSync <*yes/no*> | -drtdly <*Deroute Delay(ms)*> | -fst <*yes/no*> | -fr <*yes/no*> | -nts <*yes/no*> | -ts <*yes/no*> | -voice <*yes/no*> | -cbr <*yes/no*> | -vbr <*yes/no*> | -abr <*yes/no*> | -rtcost <*Routing_Cost*> | -vpcconid <*Max VPC Con IDs*>

Note You can execute this command for only one optional (all but -slot.port) parameter at a time.

Syntax Description

slot.port	• Slot = enter the value 7. • Port range= 1–N, as appropriate for the physical installation.
-stres	Command delineator that precedes the *Stats Reserve* entry.
Stats Reserve	Statistical reserve in cells per second, in the range 0–maximum bandwidth of the card.
-ccrstr	Command delineator that precedes the *CC Restrict* entry.
CC Restrict	Activates or deactivates the control plane communication restriction. • yes = activate the restriction With this restriction, the switch avoids sending PAR control data over this trunk but does send control data if no other trunk is available. • no = allow PAR control communication
-lntyp	Command delineator that precedes the *Line Type* entry.
Line Type	Line type that characterizes the trunk. • terrestrial • satellite

-passsync	Enable or disable the trunk to pass the synchronization clock. • yes = enable the trunk to pass sync • no = disable
-drtdly	Command delineator that precedes the *Deroute Delay* entry.
Deroute Delay	Number of milliseconds the switch waits to deroute connections after a trunk failure occurs. The purpose of delaying connection deroute is that occasional, transitory trunk failures do not warrant the loss of service due to connection derouting.
-Fst	ForeSight control, either enabled or disabled. • yes = enable • no = disable
-Fr	Frame Relay traffic, either enabled or disabled. • yes = enable • no = disable
-nts	Non-time-stamped traffic, either enabled or disabled. • yes = enable • no = disable
-ts	Time-stamped traffic, either enabled or disabled. • yes = enable • no = disable
-voice	Voice traffic, either enabled or disabled. • yes = enable • no = disable
-cbr	Constant bit rate (CBR) traffic, either enabled or disabled. • yes = enable • no = disable
-vbr	Variable bit rate (VBR) traffic, either enabled or disabled. • yes = enable • no = disable
-abr	Available bit rate (ABR) traffic, either enabled or disabled. • yes = enable • no = disable
-rtcost	Command delineator that precedes the *Routing_Cost* entry.

Routing_Cost	Routing cost for this trunk.
-vpcconid	Command delineator that precedes the *Max VPC Con IDs* entry.
Max VPC Con IDs	Number of available virtual path connection IDs for this trunk.

Related Commands

addtrk, **dsptrks**, **dsptrkcnf**, **dsptrkload**

Attributes

Log: No State: Active Privilege: Group 2

Example 1-123 Configure trunk parameters on port 1

```
tango1.1.8.PXM.a > cnftrk 7.1-stres 1000 -ccrstr no -lntyp s -passsync yes -drtdly 0 -fst
yes -fr yes -nts yes -ts yes -voice yes -cbr yes -vbr yes -abr yes -rtcost 10 -vpcconid
255

tango1.1.8.PXM.a >
```

cnfupcabr

Configure Parameter Control for ABR

Use the **cnfupcabr** command to configure bandwidth control parameters for ABR connections on the current AUSM.

Card(s) on Which This Command Executes

PXM, AUSM-8T1/E1

Syntax for PXM

cnfupcabr <*conn_ID*> <*polType*> <*pcr*[0+1]> <*cdvt*[0+1]> <*mcr*> <*mbs*> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*>

Syntax Description

conn_ID — Connection identifier in the format *port number.VPI.VCI*.

polType — Policing type, in the range 1–5.

pcr[0+1] — Peak cell rate, in the range 50–1412832 cells per second. This setting is the peak cell rate for cells with cell loss priority (CLP) = 0 and CLP = 1. The actual value depends on the logical port speed.

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port.

cdvt[0+1] — Cell delay variation [0+1], in the range 1–250000 microseconds.

mcr — Minimum cell rate (MCR), in the range 50–1412832 in cells per second. The actual value depends on the logical port speed:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port.

mbs — Maximum burst size, in the range 1–5000000 cells per second.

IngPcUtil — Ingress percentage utilization, in the range 1–100.

EgSrvRate — Egress service rate, in the range 50–1412832.

Syntax for AUSM-8T1E1

cnfupcabr <*port.VPI.VCI* | *chan_num*> <*enable*> <*pcr*[0+1]> <*cdvt*[0+1]> <*scr*> <*scr_police*> <*mbs*> <*clp_tag*> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*>

Syntax Description

port.VPI.VCI — Connection identifier in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation
- VPI range = 1–4095
- VCI range = 1–65535

chan_num — Channel number, in the range 16–1015.

enable — Usage parameter control (UPC), either disabled or enabled.

- 1 = disable
- 2 = enable

pcr[0+1] Peak cell rate, in the range 10-38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the speed of the logical port, which can be a T1, E1 (normal), E1 (clear), IMA T1, IMA E1 (normal) or an IMA E1 (clear) port.

A 10-PortRate has the following PCRs:

- T1-3622
- E1-4528
- clearE1-4830

IMA has the following PCRs:

- T1-3591
- E1-4490
- clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

cdvt[0+1] Cell delay variation [0+1], in the range 1–250000 microseconds.

scr Sustained cell rate, in the range 10–38328 cells per second. The actual value depends on the following speeds of the logical port:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear) port

Note The IMA port speed is variable and depends on the number of links in the port.

scr_police SCR policing.

- 1 = CLP[0] cells
- 2 = CLP[0+1] cells
- 3 = no SCR policing

mbs Maximum burst size, in the range 1–5000 cells.

IngPcUtil Ingress percentage utilization, in the range 1–127.

Default = 0

EgSrvRate Egress service rate. Use the following values:

- 1-PortRate (T1-3622, E1-4528, clearE1-4830)
- IMA-T1-3591, E1-4490, clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

EgPcUtil Egress percentage utilization, in the range 1–127.

Default = 0

clp_tag Cell loss priority (CLP) tagging.

- 1 = disable
- 2 = enable

Related Commands

dspcon, **dspcons**, **cnfupccbr**, **cnfupcvbr**

Attributes

Log: Yes State: Active Privilege: Group 2 (Any for PXM)

Example 1-124 Configure bandwidth control parameters for ABR connections on the current AUSM (using port.VPI.VCI argument)

```
s1.1.12.AUSMB8.a > cnfupcabr 2.1.5 2 3000 250000 2000 1 1000 50 4000 50 2
```

Example 1-125 Configure bandwidth control parameters for ABR connections on the current AUSM (using channel number argument)

```
s1.1.12.AUSMB8.a > cnfupcabr 31 2 3000 250000 2000 1 1000 50 4000 50 2
```

A system response does not occur unless an error is detected.

cnfupccbr

Configure User Parameter Control Constant Bit Rate

Use the **cnfupccbr** command to set connection bandwidth control parameters for the constant bit rate (CBR) connection type on the current AUSM.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax for PXM

cnfupccbr <*conn_ID*> <*polType*> <*pcr*[0+1]> <*cdvt*[0+1]> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*>

Syntax Description

chan_num — Connection identifier in the format *port number.VPI.VCI*.

polType — Policing type, either 4 or 5.

pcr[0+1] — Peak cell rate (PCR), in the range 50–1412832 cells per second. This setting is the peak cell rate for cells with cell loss priority (CLP) = 0 and CLP = 1. The actual value depends on the logical port speed:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port.

cdvt[0+1] — Cell delay variation tolerance for cells with CLP = 0 and CLP = 1, in the range 1–5000000 microseconds.

IngPcUtil — Ingress percentage utilization, in the range 1–100.

EgSrvRate — Egress service rate, in the range 50–1412832.

EgPcUtil — Egress percentage utilization, in the range 1–100.

Syntax for AUSM-8T1E1

cnfupccbr <*port.VPI.VCI | ChanNum*> <*enable|disable*> <*pcr*[0+1]> <*cdvt*[0+1]> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*>

Syntax Description

port.VPI.VCI — Connection identifier in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation
- VPI range = 1–4095
- VCI range = 1–65535

ChanNum — Channel number, in the range 16–1015.

enable|disable — Usage parameter control (UPC), either disabled or enabled.

- 1 = disable
- 2 = enable

pcr[0+1] — Peak cell rate, in the range 10-38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the speed of the logical port, which can be a T1, E1 (normal), E1 (clear), IMA T1, IMA E1 (normal) or an IMA E1 (clear) port.

A 10-PortRate has the following PCRs:

- T1-3622
- E1-4528
- clearE1-4830

IMA has the following PCRs:

- T1-3591
- E1-4490
- clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

cdvt[0+1] — Cell delay variation tolerance for cells with CLP = 0 and CLP = 1, in the range 1–250000 microseconds.

IngPcUtil — Ingress percentage utilization, in the range 1–127.

Default = 0

EgSrvRate Egress service rate. Use the following values:

- 1-PortRate (T1-3622, E1-4528, clearE1-4830)
- IMA-T1-3591, E1-4490, clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

EgPcUtil Egress percentage utilization, in the range 1–127.

Default = 0

Related Commands

dspcon, dspcons, cnfupcabr, cnfupcvbr

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-126 Set connection bandwidth control parameters for the constant bit rate (CBR) connection type on the current AUSM (using port.VPI.CVI argument)

```
s1.1.12.AUSMB8.a > cnfupccbr 2.1.1 2 4528 250000 50 4528 50
```

Example 1-127 Set connection bandwidth control parameters for the constant bit rate (CBR) connection type on the current AUSM (using channel number argument)

```
s1.1.12.AUSMB8.a > cnfupccbr 21 2 4528 250000 50 4528 50
```

A system message does not display unless an error occurs.

cnfupcubr

Configure User Parameter Control Unspecified Bit Rate

Use the **cnfupcubr** command to configure the usage parameter control (UPC) parameters for unspecified bit rate (UBR) on the current AUSM8 card.

Card(s) on Which This Command Executes

PXM, AUSM-8T1E1

Syntax for PXM

cnfupcubr <*chan_num*> <*polType*> <*pcr*[0+1]> <*cdvt*[0+1]> <*IngPcUtil*>

Syntax Description

chan_num	Channel number, in the range 16–1015.
polType	Policing type, in the range 3–5.
pcr[0+1]	Peak cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the following speeds of the logical port: • T1 • E1 (normal) • E1 (clear) • IMA T1 • IMA E1 (normal) • IMA E1 (clear) **Note** The IMA port speed is variable and depends on the number of links in the port.
cdvt[0+1]	Cell delay variation, in the range of 1–5000000 microseconds.
IngPcUtil	Ingress percentage utilization, in the range 1–100. Default = 0

Syntax for AUSM-8T1E1

cnfupcubr <*port.VPI.VCI* | *chan_num*> <*enable*> <*pcr*[0+1]> <*cdvt*[0+1]> <*IngPcUtil*> <*clp_tag*>

Syntax Description

port.VPI.VCI — Connection identifier in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation
- VPI range = 1–4095
- VCI range = 1–65535

chan_num — Channel number, in the range 16–1015.

enable — UPC, either disabled or enabled.

- 1 = disable
- 2 = enable

pcr[0+1] — Peak cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the following speeds of the logical ports:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

cdvt[0–1] — Cell delay variation, in the range of 1–250000 microseconds.

IngPcUtil — Ingress percentage utilization, in the range 1–100.

Default = 0

clp_tag — Cell loss priority (CLP) tagging, either disabled or enabled.

- 1 = disable
- 2 = enable

Related Commands

dspcon, **dspcons**, **cnfupcabr**, **cnfupcvbr**

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-128 Configure the usage parameter control (upc) parameters for unspecified bit rate (ubr) on the current AUSM8 card (using port.VPI.VCI argument)

```
s1.1.12.AUSMB8.a > cnfupcubr 2.1.7 2 4528 250000 50 2
```

Example 1-129 Configure the usage parameter control (upc) parameters for unspecified bit rate (ubr) on the current AUSM8 card (using channel number argument)

```
s1.1.12.AUSMB8.a > cnfupcubr 37 2 4528 250000 50 2
```

A system response does not occur unless and error is detected.

cnfupcvbr

Configure User Parameter Control Variable Bit Rate

Use the **cnfupcvbr** command to configure channel bandwidth control parameters for a variable bit rate (VBR) connection type on the current AUSM.

Card(s) on Which This Command Executes

PXM, AUSM-8T1E1

Syntax for PXM

cnfupcvbr <*conn_ID*> <*polType*> <*pcr*[0+1]> <*cdvt*[0+1]> <*scr*> <*scr_police*> <*mbs*> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*>

Syntax Description

conn_ID — Connection identifier in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation.
- VPI range = 1–4095
- VCI range = 1–65535

polType — Policing type, in the range 1–5.

pcr[0 + 1] — Peak cell rate, in the range 50–1412832 cells per second. This setting is the peak cell rate for cells with cell loss priority (CLP) = 0 and CLP = 1. The actual value depends on the logical port speed:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port.

cdvt[0 + 1] — Cell delay variation tolerance for cells with CLP = [0+1], in the range 1–5000000 microseconds.

scr — Sustained cell rate (SCR), in the range 50–1412832 cells per second.

mbs — Maximum burst size, in the range 1–5000000 cells.

IngPcUtil Ingress percentage utilization, in the range 1–100.

EgSrvRate Egress service rate, in the range 50–1412832.

For 10-PortRate:

- T1-3622
- E1-4528
- clearE1-4830

For IMA:

- T1-3591
- E1-4490
- clrE1-4789

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

Syntax for AUSM-8T1E1

cnfupcvbr <*port.VPI.VCI* | *chan_num*> <*enable*> <*pcr*[0+1]> <*cdvt*[0+1]> <*scr*> <*scr_police*> <*mbs*> <*IngPcUtil*> <*EgSrvRate*> <*EgPcUtil*> <*clp_tag*>

Syntax Description

port.VPI.VCI Connection identifier in the format *port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation
- VPI range = 1–4095
- VCI range = 1–65535

chan_num Channel number, in the range 16–1015.

enable Usage parameter control (UPC), either disabled or enabled.

- 1 = disable
- 2 = enable

pcr[0+1] Peak cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the speed of the logical port:

- T1
- E1 (normal)
- E1 (clear)
- IMA T1
- IMA E1 (normal)
- IMA E1 (clear)

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

cdvt[0+1] Cell delay variation tolerance for cells with CLP = [0+1], in the range 1–250000 microseconds.

scr Sustained cell rate, in the range 1–4670 cells per second.

scr_police SCR policing.

- 1 = CLP[0] cells
- 2 = CLP[0+1] cells
- 3 = no SCR policing

mbs Maximum burst size, in the range 1–5000 cells.

IngPcUtil Ingress percentage utilization, in the range 1–127.

Default = 0

EgSrvRate Egress service rate. Use the following values:

- 1-PortRate (T1-3622, E1-4528, clearE1-4830)
- IMA (T1-3591, E1-4490, clrE1-4789)

Note The IMA port speed is variable and depends on the number of links in the port. Multiply the rate by the number of links.

EgPcUtil Egress percentage utilization, in the range 1 to 127.

Default = 0

clp_tag Cell loss priority (CLP) tagging, either disabled or enabled.

- 1 = disable
- 2 = enable

Related Commands

dspcon, **dspcons**, **cnfupcabr**, **cnfupccbr**

Attributes

Log: Yes State: Active Privilege: Group 2

Example 1-130 Configure channel bandwidth control parameters for a variable bit rate (VBR) connection type on the current AUSM (using port.VPI.VCI argument)

```
s1.1.12.AUSMB8.a > cnfupcvbr 2.1.3 2 3000 250000 2000 1 1000 50 4000 50 2
```

Example 1-131 Configure channel bandwidth control parameters for a variable bit rate (VBR) connection type on the current AUSM (using channel number argument)

```
s1.1.12.AUSMB8.a > cnfupcvbr 26 2 2 3000 250000 2000 1 1000 50 4000 50 2
```

cnfvismip

Configure VISM IP Address

Use the **cnfvismip** command to configure the VISM IP address and the signalling unit (SU) IP address on the VISM card. An IP address for each VISM is necessary for it to communicate with the SU and serves as the identifier for VoIP endpoints. Together, the VISM IP address and the local RTP port identify the bearer channel of each VoIP connection.

Any of the above three parameters can be configured with the **cnfvismip** command. It is possible to configure all of them in a single command invocation or separate invocations. Once configured, these IP addresses will be stored on the hard disk on the PXM and will be retrieved from there for subsequent reboots of the card.

Note No automatic mechanism exists for communicating or registering the VISM IP address to the LightSpeed unit; therefore, configure the signalling unit with the IP address of each CU that the SU controls.

Card(s) on Which This Command Executes

VISM

Syntax

cnfvismip -cuip <*VISM IP address*> | -mask <*net mask*> | -suip <*SU IP address*>

Syntax Description

-cuip	Command delineator that precedes the *VISM IP address* entry.
VISM IP address	A 32-bit IP address of the VISM in dotted decimal format.
-mask	Command delineator that precedes the *net mask* entry.
net mask	The network mask in the format *nnn.nnn.nnn.nnn*, where *n* = 0–9, and *nnn* < 256.
-suip	Command delineator that precedes the *SU IP address* entry.
SU IP address	A 32-bit IP address of the signaling unit, in dotted decimal format.

Related Commands

None

commit

Confirm Copying Firmware Load

Use the **commit** command to confirm copying the selected firmware file into the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

commit <*version*>

Syntax Description

version	Firmware version.

Related Commands

dspupgrade, **rstupgrade**, **newrev**, **dspfwrevs**, **printrev**, **copy**, **install**, **abort**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-132 Load firmware 1.1.24

```
NODENAME.1.8.PXM.a > commit 1.1.24
this may take a while ...
commit command completed ok
```

Example 1-133 Commit command errors (multiple cases)

```
NODENAME.1.8.PXM.a > commit 1.1.25
in 'upgrade idle', must be in 'upgrade newrev'
ERR: command "commit" failed

NODENAME.1.7.PXM.a > commit 1.1.25
1.1.25 is not the currently running version 1.1.24Hu
ERR: command "commit" failed
```

Example 1-134 Load firmware on a service module

```
golden1.1.7.PXM.a > commit sm 11 10.0.05
Do you want to proceed (Yes/No)? yes
```

Example 1-135 Display errors loading firmware on a service module

```
golden1.1.7.PXM.a > commit sm 11 10.0.04

Incorrect version : 10.0.04
usage: commit [sm <slot>] <version>
ERR: command "commit" failed
```

copy

Copy Firmware Load

Use the **copy** command to replicate the selected firmware file into the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

copy <*fw_load*>

Syntax Description

fw_load	Firmware file name.

Related Commands

abort, **commit**, **cp**

Attributes

Log: No State: Any Privilege: Any

Example 1-136 Copy loading firmware file named pxm_1.0.00Ef.fw

```
spirit4.1.8.PXM.a > copy pxm_1.0.00Ef.fw
spirit4.1.8.PXM.a >
```

cp

Copy Firmware Load

Use the **cp** command to replicate the selected firmware file into the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

copy <*fw_load*>

Syntax Description

fw_load	Firmware file name.

Related Commands

abort, **commit**, **copy**

Attributes

Log: No State: Any Privilege: Any

Example 1-137 Copy loading firmware file named pxm_1.0.00Ef.fw

```
spirit4.1.8.PXM.a > copy pxm_1.0.00Ef.fw
spirit4.1.8.PXM.a >
```

cth

Clear Transaction Handler

Use the **cth** command to clear the transaction handler trace buffer.

Card(s) on Which This Command Executes

PXM

Syntax

cth

Related Commands

dth

Attributes

Log: No State: Any Privilege: Service

Example 1-138 Clear the transaction trace handler

```
spirit4.1.8.PXM.a > cth
spirit4.1.8.PXM.a >
```

copychans

Copy Channels

Use the **copychans** command to copy a channel configuration onto one or more channels. This command enables you to create and configure multiple channels from a specified template channel.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

copychans <*template chan #*> <*start chan #*> <*start dlci*> <*start vci*> <*start vpi*> <*# of chans*> [<*start remote VPI*> <*start remote VCI*>]

Syntax Description

template chan # Template channel number, in the range appropriate for the card.

- FRSM
  - 8T1/E1 range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - 2CT3 range = 16–4015
- AUSM range = 16–1015

start chan # Start channel number, in the range appropriate for the card.

- FRSM
  - 8T1/E1 range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - 2CT3 range = 16–4015
- AUSM range = 16–1015

start dlci Start local DLCI for FRSM
Start local VCI for AUSM

start vci Start local virtual channel identifier (VCI) for VC connections

start vpi Start local virtual path identifier (VPI) for VP connections.

# of chans Number of channels.

start remote VPI Start remote VPI.

start remote VCI Start remote VCI.

Related Commands

delchan, **delchans**

Attributes

Log: No State: Active Privilege: Group 1

copyports

Copy Ports

Use the **copyports** command to copy a port configuration to one or more ports. The purpose of this command is to create and configure multiple ports from a single port that serves as a template.

Card(s) on Which This Command Executes

FRSM (not on the HS1/B)

Syntax

copyports <*template port #*> <*start port #*> <*start time slot*> <*# of ports*>

Syntax Description

template port #	Number of the template port to be copied.
start port #	Number of the port to be copied.
start time slot	Starting time slot in the port to be copied.
# of ports	Number of contiguous ports to be copied.

Related Commands

delport, **delports**

Attributes

Log: No State: Active Privilege: Group 1

cvsi

Clear VSI

Use the **cvsi** command to clear the VSI trace buffer.

Card(s) on Which This Command Executes

PXM

Syntax

cvsi

Related Commands

dvsi

Attributes

Log: No State: Any Privilege: Cisco

Example 1-139 Clear VSI on current PXM

```
spirit4.1.8.PXM.a > cvsi
spirit4.1.8.PXM.a >
```

dcct

Display Connection

Use the **dcct** command to display connection information.

Card(s) on Which This Command Executes

PXM

Syntax

dcct <*slot.port.vpi.vci*>

Syntax Description

slot.port.vpi.vci Connection identifier.

- Slot range = 1–32
- Port range = 1–256
- Virtual path identifier (VPI) range = 0–4095
- Virtual channel identifier (VCI) range = 0–65535

Related Commands

None

Attributes

Log: No State: Active Privilege: Service

Example 1-140 Show connection information for card in slot 2

```
porky.1.7.PXM.a > dcct 6.2.100.100
Connection does not exist

porky.1.7.PXM.a >
```

dcondb

Display Connection Database

Use the **dcondb** command to view a connection database.

Card(s) on Which This Command Executes

PXM

Syntax

dcondb <*dbtype*> <*index*>

Syntax Description

dbtype Database type.

- 1 = master
- 2 = slave
- 3 = DAX
- 4 = summary

index Index type.

- index = database types 1, 2, 3
- dbtype = database type 4

Related Commands

None

Attributes

Log: No State: Any Privilege: Service

del

Delete

Use the **del** command to remove a file or directory from the PXM hard drive.

Card(s) on Which This Command Executes

PXM

Syntax

del <*path_name*>

Syntax Description

path_name	Name of an existing file or directory.

Related Commands

None

Attributes

Log: Yes State: Any Privilege: Service

delaimgrp

Delete AIMUX Group

Use the **delaimgrp** command to delete an AIMUX group.

Card(s) on Which This Command Executes

AUSM

Syntax

delaimgrp <*group_num*>

Syntax Description

group_num	AIMUX group number to be deleted, in the range 1–8.

Related Commands

addaimgrp, **dspaimgrp**, **dspaimgrps**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-141 Delete AIMUX group 2 on current AUSM card

```
spirit3.1.22.AUSM8.a > delaimpgrp 2
spirit3.1.22.AUSM8.a >
```

delapsln

Delete APS Line

Use the **delapsln** command to delete an APS line configuration.

Card(s) on Which This Command Executes

PXM

Syntax

delapsln <*workingline*>

Syntax Description

workingline	The configured working line on the PXM.

Related Commands

addapsln, **cnfapsln**, **dspapsln**, **switchapsln**

Attributes

Log: Yes State: Active Privilege: SuperUser

delbert

Delete BERT

Use the **delbert** command to conclude a bit error rate testing (BERT) session in a specified location on the shelf.

Card(s) on Which This Command Executes

PXM

Syntax

delbert <*slot*>

Syntax Description

slot	Slot number, as configured for BERT.

Related Commands

cnfbert, **dspbert**, **modbert**, **xcnfbert**

Attributes

Log: Yes State: Active Privilege: Group 1

delcdrscprtn

Delete Card Resource Partition

Use the **delcdrscprtn** command to delete global logical connection numbers (GLCNs) allocated to a controller. This command applies if the card partition type is *controllerBased*.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

delcdrscprtn <*controller-name*>

Syntax Description

controller-name Controller type.

- 1 = PAR/PVC
- 2 = PNNI/SPVC
- 3 = TAG

Related Commands

addcdrscprtn, **cnfrscprtn**, **dspcdrscprtn**

Attributes

Log: Yes State: Any Privilege: Service

Example 1-142 Delete allotment of connections on current card for Tag controller

```
spirit4.1.8.PXM.a > delcdrscprtn 3
spirit4.1.8.PXM.a >
```

delchan

Delete Channel

Use the **delchan** command to delete a channel. A system message does not occur unless an error is detected.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

delchan <*channel number*>

Syntax Description

channel number Channel number, as appropriate for the card.

- PXM range = 16–4111
- FRSM range = 16–1015
- CESM
  - T1/E1 range = 32–279
  - T3/E3 = enter the value 32

Related Commands

dspchan, **addchan**, **cnfchan**

Attributes

Log: Yes State: Any Privilege: Group 2

delchanloop

Delete Channel Loopback

Use the **delchanloop** command to delete a channel loopback from the current FRSM or AUSM. No messages appear unless the command cannot execute as entered.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax: FRSM

delchanloop <*chan_num*>

Syntax Description

chan_num Channel number, in the range appropriate for the FRSM card.

- 8T1/E1 range = 16–1015
- T3/E3/HS2 range = 16–2015
- HS1/B range = 16–1015
- 2CT3 range = 16–4015

Syntax for AUSM-8T1E1

delchanloop <*port.VPI.VCI* | *ChanNum*>

Syntax Description

port.VPI.VCI Port range = 1–*N*, as appropriate for the physical installation
Virtual path identifier (VPI) range = 1–4095
Virtual channel identifier (VCI) range = 1–65535

ChanNum Channel number, in the range 16–1015.

Related Commands

addchanloop, **tstcon**, **tstdelay**

Attributes

Log: Yes State: Active Privilege: Group 4

Example 1-143 Delete channel loopback on a channel number for the current AUSM

```
s1.1.12.AUSMB8.a > delchanloop 26
```

Example 1-144 Delete channel loopback on port 2, VPI 1, VCI 3** on the **current AUSM

```
s1.1.12.AUSMB8.a > delchanloop 2.1.3
```

delchans

Delete Channels

Use the **delchans** command to delete a range of Frame Relay orATM channels.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

delchans <*start chan #*> <*# of chans*>

Syntax Description

start chan # Start channel number, in the range appropriate for the card.

- FRSM
  - 8T1/E1 range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - HS1/B range = 16–1015
  - 2CT3 range = 16–4015
- AUSM range = 16–1015

# of chans Number of channels to delete.

Related Commands

None

Attributes

Log: No State: Active Privilege: Group 1

delcon

Delete Connection

Use the **delcon** command to remove a connection from a card.

Card(s) on Which This Command Executes

PXM, FRSM, CESM, AUSM

Syntax: PXM, CESM

delcon <*conn_ID*>

Syntax Description

conn_ID Connection number, as appropriate for the card.

- PXM = enter values in the format *PortNo.VPI.VCI*.
- CESM
  - T1 range = 1–192
  - E1 range = 1–248

Syntax: FRSM

delcon <*port.DLCI*>

Syntax Description

port.DLCI Connection number, in the format *port.DLCI*.

Syntax: AUSM

delcon <*port.VPI.VCI*>

Syntax Description

port.VPI.VCI Connection number, in the format *port.VPI.VCI*.

Related Commands

addcon, **dspcons**, **dspcon**

Attributes

Log: Yes State: Active Privilege: Group 2

deldsx3bert

Delete DSX3 BERT

Use the **deldsx3bert** command to end the bit error rate test (BERT). Counters remain until you use the **clrbertcntrs** command.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax: PXM, CESM, AUSM

deldsx3bert

Related Commands

acqdsx3bert, **clrbertcntrs**, **cnfdsx3bert**, **dspdsx3bert**, **moddsx3bert**, **startdsx3bert**

Attributes

Log: No State: Active Privilege: Any

Example 1-145 Stop current BERT session

```
popeye1.1.21.CESMT3.a > deldsx3bert
popeye1.1.21.CESMT3.a >
```

Example 1-146 Display results

```
popeye1.1.21.CESMT3.a > dspdsx3bert

Bert Control:                           Default state
Bert Resource Status State:             Free
Bert Owner:                             CLI
Bert Status:                            Inactive
Bert Test Medium:                       Line
Bert Port:                              1
Line Number :                           1
Bert Mode :                             bertPatternTest
Bert Pattern :                          allOnes
Loopback type:                          No loopback
Start time (secs.)                      Not Configured Yet
Start Date                              Not Configured Yet
Bit countupper:                         80
Bit countlower:                         1054968191
Bit Error Countupper                    0
Bit Error Countlower                    1655197832
Error Insertion Rate:                   Error injection disabled
Error Insertion count:                  0

         DSX3 BERT in Sync

popeye1.1.21.CESMT3.a >
```

delifip

Delete a Management Interface

Use the **delifip** command to delete a management interface, clearing the database information.

Card(s) on Which This Command Executes

PXM

Syntax

delifip <*Interface*>

Syntax Description

Interface	Interface type. • 26 = Ethernet • 28 = SLIP • 37= ATM

Related Commands

cnfifip, **dspifip**

Attributes

Log: Yes State: Any Privilege: SuperUser

Example 1-147 Delete ATM interface (indicated by the number 37)

```
spirit1.1.8.PXM.a > delifip 37
spirit1.1.8.PXM.a >
```

dellink

Delete Link

Use the **dellink** command to remove a link between a T1 line within a T3 line on an SRM-3T3 card and a slot and line number on a service module.

Card(s) on Which This Command Executes

PXM

Syntax

dellink <*T3 line number*> <*T1 line number*>

Syntax Description

T3 line number	SRM-3T3 T3 line number in the format *slot.line*. • slot = 15 or 31 • line range = 1–3
T1 line number	Starting T1 line number, in the range 1–28.

Related Commands

dsplink, **addlink**

Attributes

Log: No State: Active Privilege: Any

Example 1-148 Delete link between first T3 line on SRM-T3 in slot 15 and T1 line 1

```
spirit1.1.8.PXM.a > dellink 15.1 1
spirit1.1.8.PXM.a >
```

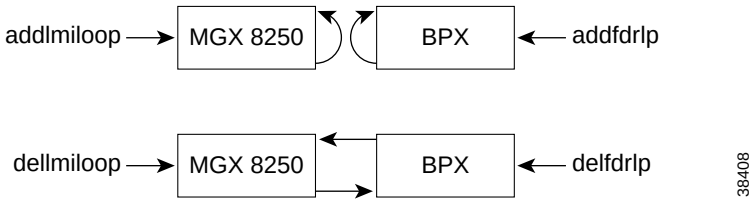
dellmiloop

Delete LMI Loop

Use the **dellmiloop** command to delete a current local management interface (LMI) configuration and resume sending LMI connection status messages to the BPX feeder trunk. This command should be used in conjunction with the **delfdrlp** command on the BPX module, shown in Figure 1-5. First, use **dellmiloop** on the MGX 8250, then use **delfdrlp** on the BPX module. Be aware that there is no display command for the feeder loop on the BPX.

Use the **dsplmistats** command after you have executed the **dellmiloop** command on the MGX 8250 and the **delfdrlp** command on the BPX module to verify the delete commands. The LMI statistics table shows an increase in statistics.

Figure 1-5 Status Messages Halted Then Enabled Again Using dellmiloop and delfdrlp



Card(s) on Which This Command Executes

PXM

Syntax

dellmiloop <*slot.port*>

Syntax Description

slot.port	Slot and port number. • slot = 1–32 • port = 1–256

Related Commands

cnfilmi, **dspilmi**, **dspilmicnt**, **dspilmis**, **addlmiloop**

Attributes

Log: No State: Active Privilege: SuperUser

The examples that follow illustrate:

- Delete feeder trunk command executed on the BPX
- Display LMI loop command, indicating that an LMI loop exists
- Delete LMI loop command, terminating the LMI loop

Example 1-149 Delete feeder loop on BPX

```
NODENAME.1.7.PXM.a > delfdrlp 5.5
```

Example 1-150 Display LMI loop (LMI loop added)

```
NODENAME.1.7.PXM.a > dsplmiloop
TRK     IN LMI LOOP
-------------------
7.1      Yes
```

Example 1-151 Delete LMI loop

```
NODENAME.1.7.PXM.a > dellmiloop 7.1
```

Example 1-152 Display LMI loop (LMI loop deleted)

```
NODENAME.1.7.PXM.a > dsplmiloop
TRK     IN LMI LOOP
-------------------
7.1      No
```

delln

Delete Line

Use the **delln** command to remove a line from the current card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM (8T1/E1;IMATM-T3T1/E3E1), CESM, VISM

Syntax

delln <*LineNum*>

or

delln <-ds3 | -e3 | -sonet> <*LineNum*>
(on the PXM)

Syntax Description

-ds3	Command delineator that precedes DS3 line number entry.
-e3	Command delineator that precedes E3 line number entry.
-sonet	Command delineator that precedes SONET line number entry.
LineNum	Line number, as appropriate for the card. • FRSM range = 1–4 • AUSM range = 1–8 • CESM range = 1–8 • VISM range = 1–8

Note Set line number value at 7 if the line type is SONET.

Related Commands

dspln, **addln**, **cnfln**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-153 Delete line 4 from current card

```
spirit1.1.8.PXM.a > delln 4
spirit1.1.8.PXM.a >
```

dellnloop

Delete Line Loop

Use the **dellnloop** command to remove a T1 or E1 line loopback state for the current card.

Card(s) on Which This Command Executes

PXM, AUSM, FRSM, CESM, VISM

Syntax

dellnloop -ds3 | -e3 | -sonet <*line number*>

Syntax Description

-ds3	Command delineator that precedes DS3 line number entry.
-e3	Command delineator that precedes E3 line number entry.
-sonet	Command delineator that precedes SONET line number entry.
line number	DS3 or E3: Line number for DS3 or E3 in the format *slot.line*. • PXM–in the format *slot.line* – Slot = 7, 8, 15, 16, 31, or 32 – Line range = 1–*N* • FRSM range = 1–4 • AUSM range = 1–8 • CESM range = 1–8 • VISM range = 1–8 SONET: Line number in the format *slot.line* • Slot = 7 or 8 • Line range = 1–*N*

Related Commands

addlnloop

Attributes

Log: No (Yes PXM) State: Active Privilege: Group 1 (Any on PXM)

dellnsfmaimgrp

Delete Lines from an AIM Group

Use the **dellnsfmaimfrp** command to remove lines from an existing IMA group.

Card(s) on Which This Command Executes

AUSM

Syntax

dellnsfmaimgrp <*group_num*> <*list_of_lines*>

Syntax Description

group_num	IMA group number, in the range 1–8.
list_of_lines	List of lines to be deleted from the IMA group. Type a period between each group number in the entry string.

Related Commands

addlns2aimgrp

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-154 Delete lines 3 and 5 from AIMUX group 2

```
spirit1.1.8.PXM.a > dellnsfmaimgrp 2 3.5
spirit1.1.8.PXM.a >
```

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are illegal or invalid.
- IMA group is not enabled
- Line is not part of the IMA group.
- Line number is less than the minimum number.

delport

Delete Port

Use the **delport** command to remove a port from a PXM, FRSM, or a CESM.

Card(s) on Which This Command Executes

PXM, FRSM, CESM

Syntax: PXM

delport <*port_number*>

Syntax Description

port_number	Number of the port to be deleted.

Syntax: FRSM, CESM

delport <*port_num*>

Syntax Description

port_num	Number of the port to be deleted.

Related Commands

addport, **cnfport**, **dspport**, **dspports**

Attributes

Log: Yes State: Active Privilege: Group 1

A system response does not occur unless an error is detected. Possible errors include:

- Port does not exist.
- Active resource partitions or channels exist on this port.
- Loopback/BERT is on.

delports

Delete Ports

Use the **delports** command remove a specified number of contiguous port configurations.

Card(s) on Which This Command Executes

FRSM, CESM

Syntax

delports <*start port #*> <*# of ports*>

Syntax Description

start port #	Start port number to be deleted.
# of ports	Number of contiguous ports to be deleted.

Related Commands

copyports

Attributes

Log: Yes State: Active Privilege: Group 1

A system response does not occur unless an error is detected.

delred

Delete Redundancy

Use the **delred** command to remove a redundancy link for the specified primary card slot.

Card(s) on Which This Command Executes

PXM

Syntax

delred <*redPrimarySlotNumber*>

Syntax Description

redPrimarySlotNumber	Slot number of the primary card of the card pair, in the ranges 1–6, or 9–14, or 17–22, or 25–30.

Related Commands

dspred, **addred**

Attributes

Log: No State: Active Privilege: Any

delrscprtn

Delete Resource Partition

Use the **delrscprtn** command to remove a resource partition. For information on resource partition, see the description of **addrscprtn**, page 1-60.

Card(s) on Which This Command Executes

PXM, FRSM (not on HS1/B)

Syntax

delrscprtn <*if_num*> <*ctrlr_num*>

Syntax Description

if_num	Interface Number, in the range 1–32.
ctrlr_num	Controller number. • 1 = PAR • 2 = PNNI • 3 = TAG

Related Commands

addrscprtn

Attributes

Log: No State: Any Privilege: Any

delslotlink

Delete Slot Link

Use the **delslotlink** command to remove SRM-3T3 link information for a specified slot.

Card(s) on Which This Command Executes

PXM

Syntax

delslotlink <*slot number*> <*line number*>

Syntax Description

slot number	Slot number associated with the link to be deleted.
line number	Line number associated with the link to be deleted, in the range 1–*N*, as appropriate for the physical installation. 0 = unlink all lines

Related Commands

dspslotlink

Attributes

Log: No State: Active Privilege: Any

deltrapmgr

Delete Trap Manager

Use the **deltrapmgr** to delete the specified trap manager associated with the specified IP address.

Card(s) on Which This Command Executes

PXM

Syntax

deltrapmgr <*ipaddr*>

Syntax Description

ipaddr	A 32-bit IP address of the trap manager to delete, in dotted decimal format.

Related Commands

addtrapmgr, **dsptrapmgr**

Attributes

Log: Yes State: Active Privilege: SuperUser

deltree

Delete Tree

Use the **deltree** command to remove a directory and all files below.

Card(s) on Which This Command Executes

PXM

Syntax

deltree <*path_name*>

Syntax Description

path_name	Name of an existing file or directory.

Related Commands

None

Attributes

Log: Yes State: Any Privilege: SuperUser

deluser

Delete User

Use the **deluser** command to remove a user from the list of users on the MGX 8250. The system does not delete a user with a privilege level higher than the level at which you execute the command.

Card(s) on Which This Command Executes

PXM

Syntax

deluser <*user ID*>

Syntax Description

user ID	User name, consisting of up to 12 characters.

Related Commands

dspusers, **adduser**

Attributes

Log: Yes State: Active Privilege: Group 5

dir

Directory

Use the **dir** command to view the firmware files on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dir

Related Commands

mkdir

Attributes

Log: No State: Any Privilege: Any

Example 1-155 List firmware on current PXM

```
raviraj.1.7.PXM.a > dir
  size          date       time       name
--------       ------     ------    --------
     512    JUL-03-1999  19:20:44   .                 <DIR>
     512    JUL-03-1999  19:20:44   ..                <DIR>
 2089064    JUL-03-1999  13:54:08   pxm_rmenon.old.fw
  896020    JUL-18-1999  14:18:50   sm130.fw
  794280    JUL-03-1999  14:56:42   sm35.fw
 1136684    JUL-03-1999  16:04:50   sm50.fw
 2094828    JUL-16-1999  14:29:06   pxm_rmenon.fw

In the file system :
    total space :  819200 K bytes
    free  space :  742625 K bytes

raviraj.1.7.PXM.a >
```

dlmi

Display LMI Trace

Use the **dlmi** command to display the data captured as a result of executing the **lmitrace** command. You first must use the **lmitrace** command to capture the data, then the **dlmi** command to display the data.

Card(s) on Which This Command Executes

PXM

Syntax

dlmi

Related Commands

lmitrace (to capture lmi messages) **clmi** (to clear lmi buffer)

Attributes

Log: No State: Any Privilege: Cisco

Example 1-156 Display when LMI trace buffer is empty

```
NODENAME.1.8.PXM.a > dlmi
LMI Trace Buffer is empty
```

Example 1-157 Display when LMI trace buffer contains data (resulting from the lmitrace command)

```
NODENAME.1.8.PXM.a > dlmi
No. Time(mSecs) AbsTime Ltrk Dir MsgType Length Data
0 0 171519360 1 Rx 76 28
[ 09 03 ff ff ff 76 80 00 13 66 80 00 01 04 5a 80 00 05 80 00 03 00 1f 64 80 00 01 d3  ]
1 0 171519360 1 Tx 7e 32
[ 09 03 ff ff ff 7e 80 00 13 66 80 00 01 04 65 80 00 05 00 03 00 1f 82 64 80 00 01 d3 0d
00
00 00  ]
2 +26 171519880 1 Tx 76 32
[ 09 03 ff ff ff 76 80 00 13 66 80 00 01 04 5a 80 00 05 80 00 03 00 1f 64 80 00 01 1b 0d
00
00 00  ]
```

dncon

Down Connection

Use the **dncon** command to temporarily deactivate a connection. The **dncon** command is typically used when performing operational modifications or troubleshooting. Use the **upcon** command to reactivate the connection.

Card(s) on Which This Command Executes

AUSM, VISM, CESM

Syntax

dncon <*slot*>.<*port*>.<*vpi*>.<*vci*>

Syntax Description

slot	Slot number, in the ranges 1–6, 9–14, 17–22, or 25–30.
port	Port number, in the range 1–*N*, as appropriate for the physical installation.
vpi	Virtual path identifier (VPI), in the range 0–4095.
vci	Virtual channel identifier (VCI), in the range 0–65535.

Related Commands

upcon

Attributes

Log: No State: Active Privilege: Group 2

dnif

Down Interface

Use the **dnif** command to deactivate the specified broadband interface.

Note For a user-port, remove all UNI channels on the interface before you deactivate the port.

Card(s) on Which This Command Executes

PXM

Syntax

dnif <*if_num*>

Syntax Description

if_num	Interface number, in the range 1–32.

Related Commands

cnfif, **dspif**, **upif**

Attributes

Log: No State: Active Privilege: Group 1

dnilmi

Down ILMI

Use the **dnilmi** command to deactivate the integrated local management interface (ILMI) on a specified PXM port number.

Card(s) on Which This Command Executes

PXM

Syntax

dnilmi -ifNum <*bbIfSigPortNum*>

Syntax Description

-ifNum	Command delineator that precedes the *bbIfSigPortNum* entry.
bbIfSigPortNum	Broadband interface signal port number, in the range 1–32.

Related Commands

cnfilmi, **dspilmi**, **dspilmicnt**, **dspilmis**

Attributes

Log: No State: Any Privilege: Cisco

downloadflash

Download the Flash

Use the **downloadflash** command to load the first boot code found by the PXM hard drive into EEPROM (flash memory). A **downloadflash** session concludes the sequence of tasks for performing a PXM boot code load. Prior to executing the **downloadflash** command, access the boot code, transfer the file (using a **put** command) to the PXM hard drive.

Using various arguments with the **put** command enables boot code load onto both the standby and active PXM, to the active PXM only, or to the standby PXM only.

Note Make sure only one backup boot code resides in the firmware directory: either delete or rename old versions to ensure the **downloadflash** session does not pick up the wrong version.

Once firmware is installed in slot 7, the firmware file is mirrored to a PXM subsequently installed in slot 8. However, to ensure the correct firmware is used, manually download the boot code (using the **downloadflash** command onto the standby PXM).

Card(s) on Which This Command Executes

PXM

Syntax

downloadflash

Related Commands

None

Attributes

Log: No State: Any Privilege: SuperUser

Example 1-158 Load boot code, starting with a TFTP to the boot code source, and ending with the download to standby and active PXM

```
tftp <dest_addr> (of the switch)
bin
put pxm_bkup_version>.fw POPEYE@PXM.BT
quit
wilco.1.7.PXM.a > downloadflash
```

Note Despite the potentially deceptive ".fw" argument in the command string, this is NOT a firmware load.

Example 1-159 Place boot code on the active PXM only, using the put string

```
put pxm_bkup_version>.fw POPEYE@PXM_ACTIVE.BT
```

Example 1-160 Place boot code on the standby PXM only, using the put string:

```
put pxm_bkup_version>.fw POPEYE@PXM_STANDBY.BT
```

dnport

Down Port

Use the **dnport** command to deactivate a port.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

dnport <*PortNum*>

Syntax Description

PortNum	Port number, in the range 1–*N*, as appropriate for the card.

Related Commands

upport

Attributes

Log: No State: Active Privilege: Group 1

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are incorrect.
- Port does not exist.
- Port is already disabled.
- Channels still exist on the port.

dspaimgrp

Display AIM Group Status and Configuration

Use the **dspaimgrp** command to view detailed status and configuration information for a specified AIMUX group.

Card(s) on Which This Command Executes

AUSM

Syntax

dspaimgrp <*imagroup_number*>

Syntax Description

imagroup_number AIMUX group number, in the range 1–8.

Related Commands

addaimgrp, **delaimgrp**, **dspaimgrps**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-161 Display all detailed status and configuration information for AIMUX group 1 on current card

```
spirit.1.19.AUSM8.a > dspaimgrp 1

   IMA Group number               : 1
   Port type                      : NNI
   Lines configured               : 1.2.3
   Enable                         : Enabled
   IMA Port state                 : Sig. Failure
   IMA Group Ne state             : Startup
   PortSpeed (cells/sec)          : 13470
   GroupTxAvailCellRate (cells/sec) : 0
   ImaGroupTxFrameLength(cells)   : 128
   LcpDelayTolerance (IMA frames) : 1
   ReadPtrWrPtrDiff  (cells)      : 4
   Minimun number of links        : 2
   MaxTolerableDiffDelay (msec)   : 200
   Lines Present                  :
   ImaGroupRxImaId                : 0x100
   ImaGroupTxImaId                : 0x0
   Observed Diff delay (msec)     : 0
   Clock Mode                     : CTC
   GroupAlpha                     : 2
   GroupBeta                      : 2
   GroupGamma                     : 1
Type <CR> to continue, Q<CR> to stop:

   GroupConfiguration             : 1
   IMAGrp Failure status          : Ne StartUp
   Timing reference link          : 1

Syntax : dspimagrp (or dspaimgrp) "imagroup_number"
         IMA group number -- value ranging from 1 to 8

spirit.1.19.AUSM8.a >
```

dspaimgrpcnt

Display AIM Group Count

Use the **dspaimgrpcnt** command to view all AIMUX-related counters for a line in an AIMUX group.

Card(s) on Which This Command Executes

AUSM

Syntax

dspaimgrpcnt <*imagroup*>

Syntax Description

imagroup	AIMUX group number, in the range 1–8.

Related Commands

clraimgrpcnt

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-162 Display all AIMUX related counters for AIMUX group 1 on current card

```
spirit.1.19.AUSM8.a > dspaimgrpcnt 1

IMA Group number: 1
Ne Number of failures : 0


Syntax : dspimagrpcnt (or dspaimgrpcnt) imagroup
         IMA group number -- value ranging from 1 to 8

spirit.1.19.AUSM8.a >
```

dspaimgrps

Display Status and Configuration of All AIM Groups

Use the **dspaimgrps** command to view the status and configuration information for all current AIMUX groups.

Card(s) on Which This Command Executes

AUSM

Syntax

dspaimgrps

Related Commands

addaimgrp, **delaimgrp**, **dspaimgrp**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-163 Display status and configuration information for all AIMUX groups on current card

```
spirit.1.19.AUSM8.a > dspaimgrps

List of IMA groups:
===================

ImaGrp PortType Speed  Lines configured  Lines present  Tol Diff  Port State
                                                       Delay(ms)
------ -------- -----  ----------------  -------------  --------- ----------
 19.1   NNI     13470  1.2.3                            200      Sig. Failure

NextPortNumAvailable:  6
 Syntax : dspimagrps (or dspaimgrps)

spirit.1.19.AUSM8.a >
```

dspaimlncnt

Display AIM (or Display IMA) Line Count

Use the **dspaimlncnt** command to view all the AIMUX line counters for the specified line in an IMA trunk.

Card(s) on Which This Command Executes

AUSM

Syntax

dspaimlncnt <*imagroup*> <*linenum*>

Syntax Description

imagroup	AIMUX group number, in the range 1–8.
linenum	AIMUX line number, in the range 1–8.

Related Commands

clraimlncnt, clrimalncnt, dspimalncnt

Attributes

Log: No State: Active Privilege: Group 1

Example 1-164 Display line counters for line 1 of IMA group 1

```
spirit.1.19.AUSM8.a > dspaimlncnt 1 1

   IMA group number               : 1
   Line number                    : 1
   Acp Cells Received             : 0
   Acp Errored Cells Recvd        : 0
   Port changed from LDS          : 0
   # HEC errored cells            : 0
   # HEC errored seconds          : 0
   # Severely HEC errored seconds  : 0

Syntax : dspimalncnt (or dspaimlncnt) imagroup linenum
         IMA group number -- value ranging from 1 to 8
         line number -- value ranging from 1 to 8

spirit.1.19.AUSM8.a >
```

dspalm

Display Alarms for a Line

Use the **dspalm** command to view the alarms associated with a specified line.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

New Syntax

dspalm -ds1 <*LineNum*> | -ds3 <*LineNum*> | -e3 <*LineNum*> | -plcp <*PLCPNum*> | -sonet <*LineNum*> | -hs1 <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry for a T1 interface.
LineNum	Line number, in the range 1–8 (FRSM, VISM, AUSM, or CESM).
-ds3	Command delineator that precedes the *LineNum* entry for a T3 interface.
LineNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-e3	Command delineator that precedes the *LineNum* entry for an E3 interface.
LineNum	Line number in the form *slot.line*. • Slot = enter a value from the range 7, 8, 15, 16, 31, 32 • Line range = 1–3
-plcp	Command delineator that precedes the *PLCPNum* entry.
PLCPNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-sonet	Command delineator that precedes the *LineNum* entry for the SONET interface.
LineNum	Line number in the form *slot.line*. • Slot = 7 or 8 • OC-3 line range = 1–4 • OC-12 = 1

-hs1	Command delineator that precedes the *LineNum* entry for a HS1 interface (for FRSM-HS1).
LineNum	Line number = 1–*N*, where: *N* = 4 if FRSM.

Related Commands

clralm, **dspalms**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display alarms on PXM T3 line number 2
- Display alarms on PXM OC-3 line number 1
- Display alarms on PXM E1 line number 1
- Display alarms on AUSM T1 line number 1
- Display alarms on VISM line number 1
- Display alarms on FRSM line number 3

Example 1-165 Display alarms on PXM T3 line number 2

```
spirit.1.7.PXM.a > dspalm -ds3 7.2

  LineNum:                   2
  LineAlarmState:            No Alarms
  LineStatisticalAlarmState: No Statistical Alarms

spirit.1.7.PXM.a >
```

Example 1-166 Display alarms on PXM OC-3 line 1

```
spirit.1.7.PXM.a > dspalm -sonet 7.1

 LineNum:                      1
 SectionCurrentStatus:         Clear
 LineCurrentStatus:            Clear
 PathCurrentStatus:            Clear
 SectionStatAlarmStatus:       Clear
 LineStatAlarmStatus:          Clear
 PathStatAlarmStatus:          Clear

spirit.1.7.PXM.a >
```

Example 1-167 Display alarms on PXM E3 line 1

```
wilco.1.7.PXM.a > dspalm -e3 7.1

  LineNum:                   1
  LineAlarmState:            XmtRAI,RcvLOS
  LineStatisticalAlarmState: UAS15minAlarm,UAS24hrAlarm

wilco.1.7.PXM.a >
```

Example 1-168 Display alarms on AUSM T1 line 1

```
spirit.1.19.AUSM8.a > dspalm -ds1 1

  LineNum:                   1
  LineAlarmState:            Alarm(s) On --
                                RcvLOS
  LineStatisticalAlarmState: Alarm(s) On --
                                UAS15minAlarm
                                UAS24hrAlarm

spirit.1.19.AUSM8.a >
```

Example 1-169 Display alarms on VISM line 1

```
spirit.1.5.VISM8.a > dspalm -ds1 1

  LineNum:                   1
  LineAlarmState:            No Alarms
  LineStatisticalAlarmState: No Statistical Alarms

spirit.1.5.VISM8.a >
```

Example 1-170 Display alarms on FRSM line 3

```
man.1.4.FRSM.a > dspalm -hs1 3

  LineNum:         3
  LineAlarmState:  Alarm(s) On --
                   Cabletype mismatch - either (DTE/DCE) or (X.21/V.35)is wrong
```

dspalmcnf

Display Alarm Configuration

Use the **dspalmcnf** command to view the threshold information about the alarm statistics being collected.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

dspalmcnf -ds1 <*LineNum*> | -ds3 <*LineNum*> | -e3 <*LineNum*> | -plcp <*PLCPNum*> | -sonet <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry for a T1 interface.
LineNum	Line number, in the range 1–8 (FRSM, VISM, AUSM, or CESM).
-ds3	Command delineator that precedes the *LineNum* entry for a T3 interface.
LineNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-e3	Command delineator that precedes the *LineNum* entry for an E3 interface.
LineNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-plcp	Command delineator that precedes the *PLCPNum* entry.
PLCPNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-sonet	Command delineator that precedes the *LineNum* entry for the SONET interface.
LineNum	Line number in the form *slot.line*. • Slot = 7 or 8 • OC-3 line range = 1–4 • OC-12 = 1

Syntax for FRSM-HS1

dspalmcnf -hs1 <*LineNum*>

Syntax Description

LineNum	Line number = 1–*N*, where *N* = 4

Related Commands

dspalm, **dspalms**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display alarm configuration for FRSM line 4
- Display alarm configuration for the current PXM
- Display the alarm configuration on the current AUSM for E1 line 1
- Display the alarm configuration on the current FRSM-2T3 for line 1

Example 1-171 Display alarm configuration for FRSM line 4 (slot 17 in this example)

```
spirit.1.17.FRSM.a > dspalmcnf -ds1 17.4

        Severity   AlarmUpCount  AlarmDnCount  AlarmThreshold
  Line  Red / RAIS    NE / FE       NE / FE       NE  /  FE
  ---- ----- -----  ----- -----   ----- -----    ----- -----
  17.4  Major/Minor      6/1        1500/6            1/1500


spirit.1.17.FRSM.a >
```

Example 1-172 Display alarm configuration for current PXM

```
spirit.1.7.PXM.a > dspalmcnf -ds3 7.1

  LineNum:                  1
  RedSeverity:              Major
  RAISeverity:              Minor
  NEAlarmUpCount:           6
  NEAlarmDnCount:           1
  NEAlarmThreshold:         150
  FEAlarmUpCount:           6
  FEAlarmDnCount:           1
  FEAlarmThreshold:         150
  StatisticalAlarmSeverity: Minor
  LCV15minThreshold:        3870
  LCV24hrThreshold:         38650
  LES15minThreshold:        86
  LES24hrThreshold:         864     PSES24hrThreshold:        40
  LSES15minThreshold:       4        SEFS15minThreshold:       120
  LSES24hrThreshold:        40       SEFS24hrThreshold:        1200
  PCV15minThreshold:        382      AISS15minThreshold:       120
  PCV24hrThreshold:         3820     AISS24hrThreshold:        1200
  PES15minThreshold:        86       UAS15minThreshold:        120
  PES24hrThreshold:         864      UAS24hrThreshold:         1200
  PSES15minThreshold:       4
```

Example 1-173 Display alarm configuration on current AUSM for E1 line 1

```
spirit.1.19.AUSM8.a > dspalmcnf -ds1 1

  LineNum:                  1
  RedSeverity:              Major
  RAISeverity:              Minor
  NEAlarmUpCount:           6
  NEAlarmDnCount:           6
  NEAlarmThreshold:         1
  FEAlarmUpCount:           1
  FEAlarmDnCount:           1500
  FEAlarmThreshold:         1500
  StatisticalAlarmSeverity: Minor
  lCV15minThreshold:        14
  lCV24hrThreshold:         134
  lES15minThreshold:        12
  lES24hrThreshold:         121
  lSES15minThreshold:       10
  lSES24hrThreshold:        100
  cRC15minThreshold:        14
  cRC24hrThreshold:         134
  cRCES15minThreshold:      12
  cRCES24hrThreshold:       121
  cRCSES15minThreshold:     10
  cRCSES24hrThreshold:      100
  SEFS15minThreshold:       2
  SEFS24hrThreshold:        17
  AISS15minThreshold:       2
  AISS24hrThreshold:        17
  UAS15minThreshold:        10
  UAS24hrThreshold:         10


spirit.1.19.AUSM8.a >
```

Example 1-174 Display alarm configuration on current VISM for E1 line 1

```
spirit.1.5.VISM8.a > dspalmcnf -ds1 1

        Severity   AlarmUpCount  AlarmDnCount  AlarmThreshold
  Line  Red / RAIS    NE / FE       NE / FE       NE  /  FE
  ---- ----- -----  ----- -----   ----- -----    ----- -----
  5.1  Major/Minor      6/6           1/1         1500/1500

 spirit.1.5.VISM8.a >
```

Example 1-175 Display alarm configuration on current FRSM-2T3 for line 1

```
spirit.1.1.VHS2T3.a > dspalmcnf -ds3 1

  LineNum:                  1
  RedSeverity:              Major
  RAISeverity:              Minor
  NEAlarmUpCount:           4
  NEAlarmDnCount:           3
  NEAlarmThreshold:         1200
  FEAlarmUpCount:           4
  FEAlarmDnCount:           3
  FEAlarmThreshold:         1200
  StatisticalAlarmSeverity: Minor
  LCV15minThreshold:        3870
  LCV24hrThreshold:         38650
  LES15minThreshold:        86
  LES24hrThreshold:         864
  LSES15minThreshold:       4
  LSES24hrThreshold:        40
  PCV15minThreshold:        382
  PCV24hrThreshold:         3820
  PES15minThreshold:        86
  PES24hrThreshold:         864
  PSES15minThreshold:       4
  PSES24hrThreshold:        40
  CCV15minThreshold:        382
  CCV24hrThreshold:         3820
  CES15minThreshhold:       86
  CES24hrThreshold:         864
  CSES15minThreshold:       4
  CSES24hrThreshold:        40
  SEFS15minThreshold:       120
  SEFS24hrThreshold:        1200
  AISS15minThreshold:       120
  AISS24hrThreshold:        1200
  UAS15minThreshold:        120
  UAS24hrThreshold:         1200

spirit.1.1.VHS2T3.a >
```

dspalmcnt

Display Alarm Counters

Use the **dspalmcnt** command to view the alarm counters and statistics.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

dspalmcnt -ds1 <*LineNum*> | -ds3 <*LineNum*> | -e3 <*LineNum*> | -plcp <*PLCPNum*> | -sonet <*LineNum*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry for a T1 interface.
LineNum	Line number, in the range 1–8 (FRSM, VISM, AUSM, or CESM).
-ds3	Command delineator that precedes the *LineNum* entry for a T3 interface.
LineNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-e3	Command delineator that precedes the *LineNum* entry for an E3 interface.
LineNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-plcp	Command delineator that precedes the *PLCPNum* entry.
PLCPNum	Line number in the form *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3
-sonet	Command delineator that precedes the *LineNum* entry for the SONET interface.
LineNum	Line number in the form *slot.line*. • Slot = 7 or 8 • OC-3 line range = 1–4 • OC-12 = 1

Related Commands

clralmcnt, **clralmcnts**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display alarm count for the T3 line 1 on the PXM
- Display alarms and counters for line 1 on the current FRSM
- Display alarms and counters for line 1 on the PXM with OC-3
- Display alarms and counters for line 1 (E3) on the PXM
- Display alarms and counters for line 1 on the VISM
- Display alarms and counters for line 1 on the FRSM-2T3

Example 1-176 Display alarm count for line 1 (T3) of a PXM

```
wilco.1.7.PXM.a > dspalmcnt -ds3 7.1
  LineNum:             1
  LCVCurrent:          0
  LCVLast15minBucket:  0
  LCVLast24hrBucket:   0
  LESCurrent:          0
  LESLast15minBucket:  0
  LESLast24hrBucket:   0
  LSESCurrent:         0
  LSESLast15minBucket: 0
  LSESLast24hrBucket:  0
  PCVCurrent:          0
  PCVLast15minBucket:  0
  PCVLast24hrBucket:   0
  PESCurrent:          0
  PESLast15minBucket:  0
  PESLast24hrBucket:   0
  PSESCurrent:         0
  PSESLast15minBucket: 0
  PSESLast24hrBucket:  0
  SEFSCurrent:         0
  SEFSLast15minBucket: 0
  SEFSLast24hrBucket:  0
  AISSCurrent:         0
  AISSLast15minBucket: 0
  AISSLast24hrBucket:  0
  UASCurrent:          0
  UASLast15minBucket:  0
  UASLast24hrBucket:   0
  PercentEFS:          0
  RcvLOSCount:         1
  RcvOOFCount:         0
  RcvRAICount:         0
  RcvCCVCount:         0
  RcvFECount:          0

spirit.1.7.PXM.a >
```

Example 1-177 Display alarms and counters for line 1 on current FRSM

```
spirit.1.11.FRSM.a > dspalmcnt -ds1 1

  Line  RcvLOSCount  RcvOOFCount  RcvRAICount  RcvFECount
  ----  -----------  -----------  -----------  ----------
  11.1            1            2           17           2

spirit.1.11.FRSM.a >
```

Example 1-178 Display alarms and counters for line 1 on PXM with OC-3

```
spirit11.1.7.PXM.a > dspalmcnt -sonet 7.1

  SonetLineNum:                          1

  SectionCurrentValidFlag:               valid
  SectionCurrent15minTimeElapsed:        429s
  SectionCurrentESs:                     0
  SectionCurrentSESs:                    0
  SectionCurrentSEFSs:                   0
  SectionCurrentCVs:                     0
  SectionCurrentDayValidFlag:            valid
  SectionCurrentDayESs:                  100
  SectionCurrentDaySESs:                 100
  SectionCurrentDaySEFSs:                100
  SectionCurrentDayCVs:                  5149776
  SectionCounterLOSs:                    2
  SectionCounterLOFs:                    2
  LineCurrentValidFlag:                  valid
  LineCurrent15minTimeElapsed:           429s
  LineCurrentESs:                        0
  LineCurrentSESs:                       0
  LineCurrentCVs:                        0
  LineCurrentUASs:                       0
  FarEndLineCurrentValidFlag:            valid
  FarEndLineCurrent15minTimeElapsed:     429s
  FarEndLineCurrentESs:                  0
  FarEndLineCurrentSESs:                 0
  FarEndLineCurrentCVs:                  0
  FarEndLineCurrentFCs:                  0
  FarEndLineCurrentUASs:                 0
  FarEndLineCurrentDayValidFlag:         valid
  FarEndLineCurrentDayESs:               2
  FarEndLineCurrentDaySESs:              2
  FarEndLineCurrentDayCVs:               46
  FarEndLineCurrentDayFCs:               0
  FarEndLineCurrentDaySEFSs:             0
  LineCurrentDayValidFlag:               valid
  LineCurrentDayESs:                     100
  LineCurrentDaySESs:                    100
  LineCurrentDayCVs:                     100
  LineCurrentDaySEFSs:                   0
  LineCounterAISs:                       2
  LineCounterRFIs:                       0
  PathCurrentValidFlag:                  valid
  PathCurrent15minTimeElapsed:           429s
  PathCurrentESs:                        0

spirit11.1.7.PXM.a >
```

Example 1-179 Display alarms and counters for line 1 (E3) on PXM

```
spirit11.1.7.PXM.a > dspalmcnt -e3 7.1

  LineNum:             1
  LCVCurrent:          0
  LCVLast15minBucket:  0
  LCVLast24hrBucket:   0
  LESCurrent:          0
  LESLast15minBucket:  0
  LESLast24hrBucket:   0
  LSESCurrent:         0
  LSESLast15minBucket: 0
  LSESLast24hrBucket:  0
  SEFSCurrent:         0
  SEFSLast15minBucket: 0
  SEFSLast24hrBucket:  0
  AISSCurrent:         0
  AISSLast15minBucket: 0
  AISSLast24hrBucket:  0
  UASCurrent:          572
  UASLast15minBucket:  900
  UASLast24hrBucket:   4496
  BIP8CVCurrent:       0
  BIP8CV15MinBucket:   0
  BIP8CV24HrBucket:    0
  BIP8ESCurrent:       0
  BIP8ES15MinBucket:   0
  BIP8ES24HrBucket:    0
  BIP8SESCurrent:      0
  BIP8SES15MinBucket:  0
  BIP8SES24HrBucket:   0
  PercentEFS:          100
  RcvLOSCount:         0
  RcvOOFCount:         0
  RcvRAICount:         0
  RcvCCVCount:         0
  RcvFECount:          0
```

Example 1-180 Display alarms and counters for line 1 on VISM

```
spirit.1.5.VISM8.a > dspalmcnt -ds1 1

Line  RcvLOSCount  RcvOOFCount  RcvRAICount  RcvFECount
----  -----------  -----------  -----------  ----------
5.1             0            0            0        4095

spirit.1.5.VISM8.a >
```

Example 1-181 Display alarms and counters for line 1 on FRSM-2T3

```
spirit.1.1.VHS2T3.a > dspalmcnt -ds3 1

  LineNum:             1
  LCVCurrent:          0
  LCVLast15minBucket:  0
  LCVLast24hrBucket:   0
  LESCurrent:          0
  LESLast15minBucket:  0
  LESLast24hrBucket:   0
  LSESCurrent:         0
  LSESLast15minBucket: 0
  LSESLast24hrBucket:  0
  PCVCurrent:          0
  PCVLast15minBucket:  0
  PCVLast24hrBucket:   0
  PESCurrent:          0
  PESLast15minBucket:  0
  PESLast24hrBucket:   0
  PSESCurrent:         0
  PSESLast15minBucket: 0
  PSESLast24hrBucket:  0
  CCVCurrent:          0
  CCVLast15minBucket:  0
  CCVLast24hrBucket:   0
  CESCurrent:          0
  CESLast15minBucket:  0
  CESLast24hrBucket:   0
  CSESCurrent:         0
  CSESLast15minBucket: 0
  CSESLast24hrBucket:  0
  SEFSCurrent:         0
  SEFSLast15minBucket: 0
  SEFSLast24hrBucket:  0
  AISSCurrent:         0
  AISSLast15minBucket: 0
  AISSLast24hrBucket:  0
  UASCurrent:          0
  UASLast15minBucket:  0
  UASLast24hrBucket:   0
  PercentEFS:          0
  RcvLOSCount:         0
  RcvOOFCount:         0
  RcvRAICount:         0
  RcvCCVCount:         0
  RcvFECount:          0

spirit.1.1.VHS2T3.a >
```

dspalms

Display All Alarms on a Card

Use the **dspalms** command to view all alarms for the selected line type on the card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, SRM-3T3, CESM, VISM

Syntax for PXM, FRSM, AUSM, SRM-3T3, CESM, VISM

dspalms <*alarmTable*> <*slot number*>

Syntax Description

alarmTable	Type of line on which you want to display alarms. • -ds1 = T1 or E1 lines • ds3 • e3 • sonet • plcp
slot number	Slot number = 7, 8, 15, 16, 31, 32. Enter the value either 7 or 8 for SONET.

Syntax: FRSM-HS1

dspalms <*lineType*>

Syntax Description

lineType	Line type is HS1.

Related Commands

dspalm

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display alarms on the current FRSM (slot 17)
- Display alarms on the 2 E3 lines on current PXM
- Display alarms on the 3 E1 lines on current VISM
- Display alarms on the 2 T3 lines on current FRSM-2T3

Example 1-182 Display alarms on current FRSM (slot 17)

```
spirit.1.17.FRSM.a > dspalms -ds1
  Line  AlarmState   StatisticalAlarmState
  ----  -----------  --------------------
  17.1  Alarm(s) On  No Statistical Alarms
  17.2  No Alarms    No Statistical Alarms
  17.3  No Alarms    No Statistical Alarms
  17.4  No Alarms    No Statistical Alarms
  17.5  Alarm(s) On  No Statistical Alarms
  17.6  No Alarms    No Statistical Alarms
  17.7  No Alarms    No Statistical Alarms
  17.8  No Alarms    No Statistical Alarms

spirit.1.17.FRSM.a >
```

Example 1-183 Display alarms on the 2 E3 lines on current PXM

```
wilco.1.7.PXM.a > dspalms e3 7

Line :  1
   AlarmState            : XmtRAI,RcvLOS
   StatisticalAlarmState : UAS15minAlarm,UAS24hrAlarm
Line :  2
   AlarmState            : No Alarms
   StatisticalAlarmState : No Statistical Alarms
wilco.1.7.PXM.a >
```

Example 1-184 Display alarms on the 3 E1 lines on current VISM

```
spirit.1.5.VISM8.a > dspalms -ds1

Line  AlarmState   StatisticalAlarmState
----  -----------  --------------------
5.1   No Alarms    No Statistical Alarms
5.2   No Alarms    No Statistical Alarms
5.3   No Alarms    No Statistical Alarms

spirit.1.5.VISM8.a >
```

Example 1-185 Display alarms on the 2 T3 lines on current FRSM-2T3

```
spirit.1.1.VHS2T3.a > dspalms -ds3

  Line  AlarmState   StatisticalAlarmState
  ----  -----------  --------------------
  1.1   No Alarms    No Statistical Alarms
  1.2   No Alarms    No Statistical Alarms
```

dspapscfg

Display APS Configuration

Use the **dspapscfg** command to display more Automatic Protection Switching (APS) parameters. APS is a standard that provides a means for SONET line redundancy. APS involves switching between working (active) and protection (standby) SONET lines in the event of a hardware failure detected by the receiving end or by the far-end.

Note This support applies only to PXM OC-3 and PXM OC-12 cards.

Card(s) on Which This Command Executes

PXM

Syntax

dspapscfg

Related Commands

addapsln, **cnfapsln**, **delapsln**

Attributes

Log: No State: Any Privilege: Any

Example 1-186 Display APS configuration on current PXM

```
DENAME.1.7.PXM.a > dspapscfg
 SlotLine Type  SFBER SDBER WTR Direc Revert
--------------------------------------------------------------------------------
 7.1&8.1  1+1_2 3     5     1   UNI   NRV

DENAME.1.7.PXM.a >
```

Data Components

SlotLine OC-3 or OC-12 line number, in the range appropriate for the associated interface.

- OC-3 range = 1–4
- OC-12 = 1

Type The APS mode is 1+1.

SFBER Signal failure BER threshold, in the range 3–5.

- 5 = signal failure BER threshold = 10 ^^ -5

SDBER Signal degrade BER threshold, in the range 5–9.

- 5 = signal degrade BER threshold = 10 ^^ -5

WTR Number of minutes to wait before attempting to switch back to the working line, in the range1 to 12. This setting is not applicable if the line is configured in non-revertive mode (*Revertive* set to 1).

Direc Switching direction for either unidirectional or bidirectional.

- UNI = Unidirectional. This APS line supports only one direction.
- BI = Bidirectional. This APS line supports both ends of the line.

Revert APS revertive or non-revertive function.

- NRV = Non-revertive
- REV = Revertive
  This setting allows the line to switch back to the working line after the Wait-to-Restore interval has expired and the working line SF/SD has been cleared.

dspapsln

Display APS Line

Use the **dspapsln** command to display the Automatic Protection Switching (APS) line status.

APS is a SONET switching mechanism that routes traffic from working lines to protect them in case of a line card failure or fiber cut.

Card(s) on Which This Command Executes

PXM

Syntax

dspapsln

Related Commands

addapsln, **cnfapsln**, **dspapscfg**, **delapsln**

Attributes

Log: No State: Active Privilege: Any

Example 1-187 Display APS line on current PXM

```
NODENAME.1.7.PXM.a > dspapsln
 SlotLine Type  Act W_LINE P_LINE APS_ST CDType Dirc Revt LastUsrSwReq
-------------------------------------------------------------------------
 7.1&8.1  1+1_2 7.1 OK     OK     OK     OC-12  UNI  NRV  NO_REQUEST

NODENAME.1.7.PXM.a >
```

Data Components

SlotLine	OC-3 or OC-12 line number, in the range appropriate for the associated interface. • OC-3 range = 1–4 • OC-12 = 1
Type	APS mode is 1+1.
Act	Line that is currently active.

W-Line Status of the working line.

- OK = OK
- R_SD = remote end signal degrade
- SigD = signal degrade
- R_AM = remote end signal failure
- ALM = line alarm
- SigF = signal failure
- MIS = back card mismatch or missing
- LOOPBK = line loopback

P-Line Status of the protection line.

- OK = OK
- R_SD = remote end signal degrade
- SigD = signal degrade
- R_AM = remote end signal failure
- ALM = line alarm
- SigF = signal failure
- MIS = back card mismatch or missing
- LOOPBK = line loopback
- P_D = protocol defection (received K1K2 bytes are not expected)
- P_B = protection byte failure

APS-ST APS status.

- OK = OK
- AR_MIS = Architecture mismatch
- DI_MIS = direction mismatch
- CH_MIS = channel mismatch
- PL_ALM = line alarm on protection line

CDType Back card type, either OC-3 or OC-12.

Dirc Switching direction for either unidirectional or bidirectional.

- Uni = Unidirectional. This APS line supports only one direction.
- Bi = Bidirectional. This APS line supports both ends of the line.

Revertive APS function, either revertive or non-revertive.

- NRV = Non-revertive
- RV = Revertive. This setting allows the line to switch back to the working line after the Wait-to-Restore interval has expired and the working line SF/SD has been cleared.

LastUsrSwReq Last user switching request.

dspatmlncnf

Display ATM Line Configuration

Use the **dspatmlncnf** command to view the cell header configuration for the line. The display indicates NNI or UNI cell headers. The configuration is the result of **cnfatmln** execution. This command applies to stand-alone configurations of the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

dspatmlncnf <*line_num*>

Syntax Description

line_num	Line number in the range 1–*N*, as appropriate for the card.

Related Commands

cnfatmln, **clratmlncnt**

Attributes

Log: No State: Any Privilege: Any

Example 1-188 Display line configuration for line 2 of PXM

```
wilco.1.7.PXM.a > dspatmlncnf 2

 lineNum   atmLineInterfaceFormat
----------------------------------
    2             NNI

wilco.1.7.PXM.a >
```

dspatmlncnt

Display ATM Line Counters

Use the **dspatmlncnt** command to view the ATM cell counters for the specified line. The display shows the total number of cells received, the total number of cells transmitted, and the number of cells received with HEC errors.

Card(s) on Which This Command Executes

PXM

Syntax

dspatmlncnt <*line_num*>

Syntax Description

line_num	Line number, in the range 1–4.

Related Commands

cnfatmln, **clratmlncnt**, **clratmlncnts**

Attributes

Log: No State: Any Privilege: Any

Example 1-189 Display ATM line counters (total cells received, total cells transmitted, and number of cells received with HEC errors) for line 1 of the PXM

```
wilco.1.7.PXM.a > dspatmlncnt 1

Line Number            :          1
Total Rcvd. Cells      :    5214310
Total Xmtd. Cells      :     368687
Rcvd. HEC Error Cells  :          0

wilco.1.7.PXM.a >
```

dspbctype

Display Back Card Type

Use the **dspbctype** command to display the current interface of the 12IN1 dual-personality back card. The back card can be configured with eithera V.35 or an X.21 interface.

Card(s) on Which This Command Executes

FRSM-HS1B

Syntax

dspbctype

Related Commands

cnfbctype

Attributes

Log: No State: Any Privilege: Any

Example 1-190 Display back card type on current FRSM

```
man.1.14.FRSM.a > dspbctype

Backcard Personality: X.21
```

dspbert

Display BERT

Use the **dspbert** command to view the current bit error rate test (BERT) configuration.

Card(s) on Which This Command Executes

PXM

Syntax

dspbert <*slot*>

Syntax Description

slot	Number of the slot associated with the BERT session for this display.

Related Commands

cnfbert, **modbert**

Attributes

Log: No State: Active Privilege: Any

dspcbclk

Display Cell Bus Clock

Use the **dspcbclk** command to display the current clock rate setting. Using this command, you can see which service modules are set for a high cell bus (CB) operating clock rate (42 MHz) or a low rate (21 MHz).

Note Not all service modules can support a high CB clock rate.

Card(s) on Which This Command Executes

FRSM_2CT3, FRSM_2T3, FRSM_2E3, FRSM_HS2, CESM_T3, CESM_E3, VISM_8T1, VISM_8E1, RPM, PXM

Syntax

dspcbclk

Related Commands

cnfcbclk

Attributes

Log: No State: Any Privilege: Any

Example 1-191 Display current CB settings for PXM1-OC3 module in slot 7

```
popeye12.1.7.PXM.a > dspcbclk
Command Executed :dspcbclk

     CellBus    Rate (MHz)    Slot
    --------------------------------
       CB1         21        1, 2
       CB2         42        3, 4
       CB3         21        5, 6
       CB4         21        17 - 22
       CB5         21        9, 10
       CB6         21        11, 12
       CB7         21        13, 14
       CB8         21        25 - 30
```

dspcd

Display Card

Use the **dspcd** command to view the hardware and firmware characteristics of the current card and information on its status.

Card characteristics include serial number and hardware and firmware revision levels. Status might include the reason for the last reset (FunctionModuleResetReason) and state of the integrated alarm (cardIntegratedAlarm), useful in debugging the card or an MGX 8250, respectively. Some of the information is common to the **version** command display.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

dspcd [*slot number*]

Syntax Description

slot number	If logged into a PXM, enter the slot number of the service module you want to view. Slot number is not necessary when logged into a service module.

Related Commands

dspcds, **version**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display current PXM card characteristics
- Display current FRSM-8T1 card characteristics
- Display current FRSM-2CT3 card characteristics
- Display current FRSM-8E1 card characteristics
- Display current CESM-8T1 card characteristics
- Display current AUSM-8T1 card characteristics
- Display current VISM-8E1 card characteristics
- Display characteristics of SRM-T3E3 in slot 15

Example 1-192 Display current PXM card characteristics

```
popeye3.1.8.PXM.a > dspcd

    ModuleSlotNumber:          8
    FunctionModuleState:       Active
    FunctionModuleType:        PXM1-OC3
    FunctionModuleSerialNum:   SBK02420044
    FunctionModuleHWRev:       09
    FunctionModuleFWRev:       1.1.01Hi
    FunctionModuleResetReason: Reset From Shell
    LineModuleType:            PXM-UI
    LineModuleState:           Present
    SecondaryLineModuleType:   MMF-4-155
    SecondaryLineModuleState:  Present
    mibVersionNumber:          0.0.00
    configChangeTypeBitMap:    No changes
    cardIntegratedAlarm:       Major
    cardMajorAlarmBitMap:      Line Alarm
    cardMinorAlarmBitMap:      Line Statistical Alarm

popeye3.1.8.PXM.a >
```

Example 1-193 Display current FRSM-8T1 card characteristics

```
node1.1.4.FRSM.a > dspcd

  ModuleSlotNumber:          4
  FunctionModuleState:       Active
  FunctionModuleType:        FRSM-8T1
  FunctionModuleSerialNum:   622758
  FunctionModuleHWRev:       bb
  FunctionModuleFWRev:       5.0.00ak
  FunctionModuleResetReason: Power reset
  LineModuleType:            LM-RJ48-8T1
  LineModuleState:           Present
  mibVersionNumber:          20
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Clear
  fab number:                282069-01

node1.1.4.FRSM.a >
```

Example 1-194 Display current FRSM-2CT3 card characteristics

```
spirit.1.17.FRSM.a > dspcd

  ModuleSlotNumber:          17
  FunctionModuleState:       Active
  FunctionModuleType:        FRSM-2CT3
  FunctionModuleSerialNum:   CAB024804K8
  FunctionModuleHWRev:       ex
  FunctionModuleFWRev:       5.0.00_11Jan99_1_tti
  FunctionModuleResetReason: Reset by ASC from Cell Bus
  LineModuleType:            LM-BNC-2T3
  LineModuleState:           Present
  mibVersionNumber:          20
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Clear
  pcb part no-(800 level):   800-02910-04
  pcb part no-(73 level):    73-02265-04

spirit.1.17.FRSM.a >
```

Example 1-195 Display current FRSM-8E1 card characteristics

```
popeye3.1.3.FRSM.a > dspcd

  ModuleSlotNumber:          3
  FunctionModuleState:       Active
  FunctionModuleType:        FRSM-8E1
  FunctionModuleSerialNum:   782908
  FunctionModuleHWRev:       ab
  FunctionModuleFWRev:       5.0.00_21Dec98
  FunctionModuleResetReason: Power reset
  LineModuleType:            LM-RJ48-8E1
  LineModuleState:           Present
  mibVersionNumber:          20
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Major
  cardMajorAlarmBitMap:      Line Alarm
  cardMinorAlarmBitMap:      Channel failure
  fab number:                28-2069-02
```

Example 1-196 Display current CESM-8T1 card characteristics

```
popeye3.1.1.CESM.a > dspcd

  ModuleSlotNumber:          1
  FunctionModuleState:       Active
  FunctionModuleType:        CESM-8T1
  FunctionModuleSerialNum:   786327
  FunctionModuleHWRev:       ab
  FunctionModuleFWRev:        5.0.00bq
  FunctionModuleResetReason: Reset by ASC from Cell Bus
  LineModuleType:            LM-RJ48-8T1
  LineModuleState:           Present
  mibVersionNumber:          20
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Major
  cardMajorAlarmBitMap:      Line Alarm
  cardMinorAlarmBitMap:      Channel failure

  fab number:                28-2199-02
```

Example 1-197 Display current AUSM-8T1 card characteristics

```
spirit.1.19.AUSM8.a > dspcd

  ModuleSlotNumber:          19
  FunctionModuleState:       Active
  FunctionModuleType:        AUSM-8T1
  FunctionModuleSerialNum:   FNTYPE
  FunctionModuleHWRev:       fk
  FunctionModuleFWRev:       model-A 2.0.00
  FunctionModuleResetReason: Reset by PXM from PIO
  LineModuleType:            LM-DB15-8T1
  LineModuleState:           Present
  mibVersionNumber:          4
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Minor
  cardMinorAlarmBitMap:      Channel failure
spirit.1.19.AUSM8.a >
```

Example 1-198 Display current VISM-8E1 card characteristics

```
spirit.1.5.VISM8.a > dspcd
  ModuleSlotNumber:          5
  FunctionModuleState:       Active
  FunctionModuleType:        VISM-8E1
  FunctionModuleSerialNum:   CAB0246014W
  FunctionModuleHWRev:       0.0
  FunctionModuleFWRev:       rangar
  FunctionModuleResetReason: Power reset
  LineModuleType:            LM-RJ48-8E1
  LineModuleState:           Present
  mibVersionNumber:          20
  configChangeTypeBitMap:    CardCnfChng, LineCnfChng
  cardIntegratedAlarm:       Clear
  pcb part no - (800 level): 800-04399-01
  pcb part no - (73 level):  73-03618-01
  Fab Part no - (28 level):  28-02791-01
  PCB Revision:              05

  Daughter Card Information:
  Daughter Card Serial Number: CAB024601FU
  pcb part no - (73 level):    73-03722-01
  Fab Part no - (28 level):    28-02905-01
  PCB Revision:                02
spirit.1.5.VISM8.a >
```

Example 1-199 Display characteristics of SRM-T3E3 in slot 15

```
tinky.1.7.PXM.a > dspcd 15

    ModuleSlotNumber:          15
    FunctionModuleState:       Active
    FunctionModuleType:        SRM-3T3
    FunctionModuleSerialNum:   785324
    FunctionModuleHWRev:       be
    FunctionModuleFWRev:       1.0.00
    FunctionModuleResetReason: Reset From Shell
    LineModuleType:            LM-SRM-3T3
    LineModuleState:           Present
    SecondaryLineModuleType:   Missing
    SecondaryLineModuleState:  Invalid
    mibVersionNumber:          0.0.06
    configChangeTypeBitMap:    No changes
    cardIntegratedAlarm:       Clear
    cardMajorAlarmBitMap:      Clear
    cardMinorAlarmBitMap:      Clear

tinky.1.7.PXM.a >
```

dspcderrs

Display Card Errors

Use the **dspcderrs** command to view information about card errors.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, VISM, CESM

Syntax

dspcderrs

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-200 Display card errors on PXM module in slot 7

```
wilco.1.7.PXM.a > dspcderrs

dspcderrs
08/05/95-18:53:05 tRootTask    3 Task failed : scm
09/05/95-09:14:08 tRootTask    3 Task failed : scm
value = 0 = 0x0

wilco.1.7.PXM.a >
```

dspcdprtntype

Display Card Resource Type

Use the **dspcdprtntype** command to view partition type on the current card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

dspcdprtntype

Related Commands

cnfcdprtntype

Attributes

Log: No State: Any Privilege: Any

Example 1-201 Display card resource partition type on current PXM

```
spirit.1.7.PXM.a > dspcdprtntype

cardLcnPartitionType : controllerBased

spirit.1.7.PXM.a >
```

dspcdrscprtn

Display Card Resource Partition

Use the **dspcdrscprtn** command to view allocated resource information to a controller.

Note The **dspcdrscprtn** command applies only to cards with a card partition type of *controllerBased*.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, VISM

Syntax

dspcdrscprtn

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display number of LCNs available for each of the three possible partitions on the FRSM 2CT3
- Display number of LCNs available for each of the three possible partitions on the CESM 8T1
- Display number of LCNs available for each of the three possible partitions on the FRSM 8T1
- Display number of LCNs available for each of the three possible partitions on the PXM T1

Example 1-202 Display number of LCNs available for each of the three possible partitions on the FRSM 2CT3

```
spirit.1.13.VHS2CT3.a > dspcdrscprtn

User   Status  NumOfLcnAvail
------  ------  -------------
 PAR     Add       1000
 PNNI    Add       1000
 TAG     Add       1000

spirit.1.13.VHS2CT3.a >
```

Example 1-203 Display number of LCNs available for each of the three possible partitions on the CESM 8T1

```
spirit.1.17.CESM.a > dspcdrscprtn

User   Status  NumOfLcnAvail
------  ------  -------------
 PAR     Mod         248
 PNNI    Mod         248
 TAG     Mod         248
spirit.1.17.CESM.a >
```

Example 1-204 Display number of LCNs available for each of the three possible partitions on the FRSM 8T1

```
spirit.1.1.FRSM.a > dspcdrscprtn

User   Status  NumOfLcnAvail
------  ------  -------------
 PAR     Add       1000
 PNNI    Add       1000
 TAG     Add       1000

spirit.1.1.FRSM.a >
```

Example 1-205 Display number of LCNs available for each of the three possible partitions on the PXM T1

```
spirit.1.7.PXM.a > dspcdrscprtn

Controller  Status    Number of Available LCNs
-----------------------------------------------
 PAR         Enabled       32767
 PNNI        Enabled       32767
 TAG         Enabled       32767

spirit.1.7.PXM.a >
```

dspcds

Display Card Shelf Information

Use the **dspcds** command to view the status of all the cards in the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

dspcds

Related Commands

dspcd

Attributes

Log: No State: Active Privilege: Any

Example 1-206 Display all cards currently installed in the MGX 8250

```
wilco.1.7.PXM.a > dspcds

    Slot  CardState    CardType     CardAlarm  Redundancy
    ----  -----------  --------     ---------  -----------
    1.1   Active       FRSM-8T1     Major
    1.2   Empty                     Clear
    1.3   Active       FRSM-2CT3    Clear
    1.4   Empty                     Clear
    1.5   Empty                     Clear
    1.6   Empty                     Clear
    1.7   Active       PXM1-T3E3    Major
    1.8   Empty                     Clear
    1.9   Empty                     Clear
    1.10  Empty                     Clear
    1.11  Empty                     Clear
    1.12  Active       RPM          Clear
    1.13  Empty                     Clear
    1.14  Empty                     Clear
    1.15  Empty                     Clear
    1.16  Empty                     Clear
    1.17  Active       CESM-8E1     Clear
    1.18  Empty                     Clear
    1.19  Empty                     Clear
    1.20  Empty                     Clear
    1.21  Empty                     Clear
    1.22  Empty                     Clear
    1.25  Empty                     Clear
    1.26  Empty                     Clear
    1.27  Empty                     Clear
    1.28  Empty                     Clear
    1.29  Empty                     Clear
    1.30  Empty                     Clear
    1.31  Empty                     Clear
    1.32  Empty                    ClearNumOfValidEntries:    32
    NodeName:             wilco
    Date:                 02/01/1999
    Time:                 07:32:41
    TimeZone:             PST
    TimeZoneGMTOff:       -8
    StatsMasterIpAddress: 0.0.0.0

    shelfIntegratedAlarm: Major
    BkplnSerialNum:       12345
    BkplnType:            2
    BkplnFabNumber:       73-0123-01
    BkplnHwRev:           80

wilco.1.7.PXM.a >
```

dspchan

Display Channel

Use the **dspchan** command to view a channel on a PXM, FRSM, AUSM, CESM, or VISM.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

dspchan <*chan_num*>

Syntax Description

chan_num Channel number, as appropriate for the card.

- PXM, range = 16–4111
- FRSM range = 16–1015
- AUSM range = 16–1015
- CESM range = 32–279

Related Commands

dspchans, **cnfchan**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display channel characteristics of channel 69 on an FRSM
- Display channel characteristics of channel 16 on an AUSM
- Display channel characteristics of channel 32 on the current CESM
- Display channel characteristics of channel 16 on the current PXM
- Display channel characteristics of channel 37 on the current VISM

Example 1-207 Display channel characteristics of channel 69 on an FRSM

```
spirit.1.17.FRSM.a > dspchan 69
  ChanNum:                  69
  ChanRowStatus:            Mod
  ChanPortNum:              1
  ChanDLCI:                 100
  EgressQSelect:            1
  IngressQDepth:            65535
  IngressQDEThresh:         32768
  IngressQECNThresh:        65535
  EgressQDepth:             65535
  EgressQDEThresh:          32768
  EgressQECNThresh:         6553
  DETaggingEnable:          Disabled
  CIR:                      24000
  Bc:                       5100
  Be:                       5100
  IBS:                      100
  ForeSightEnable:          Enabled
  QIR:                      260
  MIR:                      62
  PIR:                      500
  ChanLocalRemoteLpbkState: Enabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanType:                 NIW
  ChanFECNmap:              setEFCIzero
  ChanDEtoCLPmap:           mapCLP
  ChanCLPtoDEmap:           mapDE
  ChanFrConnType:           PVC
  ChanIngrPercentUtil:      100
  ChanEgrPercentUtil:       100
  ChanEgrSrvRate:           1536000
  ChanOvrSubOvrRide:        Enabled
  ChanLocalVpi:             0
  ChanLocalVci:             100
  ChanLocalNSAP:            535052494e54303100000000000000000002000100
  ChanRemoteVpi:            10
  ChanRemoteVci:            134
  ChanRemoteNSAP:           535052494e54303100000000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      ATFR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              4000
  ChanConnMCR:              4000
  ChanConnPercentUti:       100

  ChanNumNextAvailable:  17

spirit.1.17.FRSM.a >
```

Example 1-208 Display channel characteristics of channel 16 on an AUSM

```
spirit.1.19.AUSM8.a > dspchan 16

  ChanNum:                           16
  RowStatus:                         Del
  ConnectionType:                    VCC
  ServiceType:                       CBR
  ChanSvcFlag:                       PVC
  PortNum:                           1
  VPI:                               0
  VCI (For VCC):                     0
  Local VPId(for VPC):               0
  EgressQNum:                        0
  IngressQDepth(cells):              1000
  IngressDiscardOption:              CLP hysterisis
  IngressFrameDiscardThreshold       1000
  IngressQCLPHigh(cells):            900
  IngressQCLPLow(cells):             800
  QCLPState:                         LOW
  IngressEfciThreshold(cells):       1000
  UPCEnable:                         Enabled
  PeakCellRate[0+1](cells/sec):      50
  CellDelayVariation[0+1]:           10000 (micro secs)
  PeakCellRate[0](cells/sec):        50
  CellDelayVariation[0]:             10000 (micro secs)
  SustainedCellRate(cells/sec):      50
  MaximumBurstSize(cells):           1000
  SCRPolicing:                       CLP[0]
  CLPTagEnable:                      Enabled
  FrameGCRAEnable:                   Disable
  ForesightEnable:                   Disable
  InitialBurstSize(cells):           0
  ForeSightPeakCellRate(cells/sec):  50
  MinimumCellRate(cells/sec):        0
  InitialCellRate(cells/sec):        1
  LocalRemoteLpbkState:              Disable
  ChanTestType:                      No Test
  ChanTestState:                     Not In Progress
  ChanRTDresult:                     65535 ms
  Ingress percentage util:           100
  Egress percentage util :           100
  Egress Service Rate:               50
  LocalVpi:                          0
  LocalVci:                          0
  LocalNSAP:                         546869732069732061206475 6d6d79204e534150
  RemoteVpi:                         0
  RemoteVci:                         0
  RemoteNSAP:                        546869732069732061206475 6d6d79204e534150
  Mastership:                        Slave
  VpcFlag:                           Vcc
  ConnServiceType:                   CBR
  RoutingPriority:                   1
  MaxCost:                           255
  RestrictTrunkType:                 No Restriction
  ConnPCR:                           50
  ConnMCR:                           0
  ConnPercentUtil:                   100

  ChanNumNextAvailable     :  17
  Local VpId NextAvailable :  2

spirit.1.19.AUSM8.a >
```

Example 1-209 Display channel characteristics of channel 32 on the current CESM

```
MGX-01.1.1.CESM.a > dspchan 32

  ChanNum:                  32
  ChanRowStatus:            Add
  ChanLineNum:              1
  ChanMapVpi:               1
  ChanMapVci:               32
  ChanCBRService:           structured
  ChanClockMode:            Synchronous
  ChanCAS:                  Basic
  ChanPartialFill:          47
  ChanMaxBufSize:           6144 bytes
  ChanCDV:                  6000 micro seconds
  C L I P:                  2500 milliseconds
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanPortNum               1
  ChanConnType              PVC
  ISDetType                 DetectionDisabled
  CondData                  255
  CondSignalling            0
  ExtISTrig                 DisableIdleSupression
  ISIntgnPeriod             4095 seconds
  ISSignallingCode          0
  OnHookCode                1
  ChanLocalVpi:             0
  ChanLocalVci:             1
  ChanLocalNSAP:            535052494e54303100000000000000001000100
  ChanRemoteVpi:            10
  ChanRemoteVci:            132
  ChanRemoteNSAP:           535052494e54303100000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              4128
  ChanConnMCR:              4128
  ChanConnPercentUtil:      100

  ChanNumNextAvailable:  32

MGX-01.1.1.CESM.a >
```

Example 1-210 Display channel characteristics of channel 16 on the current PXM

```
MGX-01.1.7.PXM.a > dspchan 16

bbChanCnfNum                : 16
bbChanRowStatus             : 1
bbChanConnType              : 2
bbChanServiceType           : 1
bbChanConnDesc              : 0x828d4e30
bbChanSvcFlag               : 2
bbChanSvcConnId             : 0
bbChanIfNum                 : 1
bbChanVpi                   : 10
bbChanVci                   : 134
bbChanUpcEnable             : 1
bbChanUpcPCR                : 50
bbChanUpcCDVT               : 10000
bbChanUpcSCR                : 0
bbChanUpcMBS                : 0
bbChanGcra1Action           : 1
bbChanGcra2Action           : 1
bbChanEfciThreshold         : 98304
bbChanDiscardOption         : 1
bbChanFrmDiscardThreshold   : 0
bbChanClpHiThreshold        : 0
bbChanClpLoThreshold        : 0
bbChanCongstUpdateCode      : 1
bbChanMaxCellMemThreshold   : 131072
bbChanIngrPercentUtil       : 100
bbChanEgrPercentUtil        : 100
bbChanEgrSrvRate            : 50
bbChanOvrSubOvrRide         : 2
bbChanLocalVpi              : 10
bbChanLocalVci              : 134
bbChanLocalNsapAddr         : 0x828d4a20
bbChanRemoteVpi             : 0
bbChanRemoteVci             : 100
bbChanRemoteNsapAddr        : 0x828d49f0
bbChanMaster                : 2
bbChanRtePriority           : 1
bbChanMaxCost               : 255
bbChanRestrictTrkType       : 1
bbChanTestType              : 3
bbChanTestState             : 4
bbChanTestResult            : 0
bbChanTestTypeCPESide       : 2
bbChanTestStateCPESide      : 4
bbChanUpcSCRPolicing        : 3
bbConnVpcFlag               : 2
bbConnServiceType           : 1
bbConnPCR                   : 50
bbConnSCR                   : 0
bbConnPercentUtil           : 100
bbRemoteConnPCR             : 50
bbRemoteConnSCR             : 0
bbRemoteConnPercentUtil     : 100

MGX-01.1.7.PXM.a >
```

Example 1-211 Display channel characteristics of channel 37 on the current VISM

```
spirit.1.5.VISM8.a > dspchan 37

  ChanNum:                  37
  ChanRowStatus:            Add
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanPortNum:              1
  ChanPvcType:              VoIP
  ChanConnectionType:       PVC
  ChanLocalVpi:             0
  ChanLocalVci:             1
  ChanLocalNSAP:            4e4f44454e414d450000000000000000005000100
  ChanRemoteVpi:            58
  ChanRemoteVci:            59
  ChanRemoteNSAP:           4e4f44454e414d450000000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction

Type <CR> to continue, Q<CR> to stop:

  ChanConnPCR:              100000
  ChanConnPercentUtil:      100

  ChanNumNextAvailable:  34

Syntax : dspchan "chan_num"
         channel number -- values : 32 - 255


spirit.1.5.VISM8.a >
```

dspchancnt

Display Channel Counters

Use the **dspchancnt** command to view the contents of the statistical counters for a channel.

Card(s) on Which This Command Executes

PXM, AUSM, FRSM, CESM

Syntax: PXM, FRSM, CESM

dspchancnt <*channel number*>

Syntax Description

channel number Channel number, in the range appropriate for the card.

- PXM range = 16–4111
- FRSM
  - 8T1/E1 range = 16–1015
  - HS1/B range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - 2CT3 range = 16–4015
- CESM
  - 8T1/E1 range = 32–279
  - T3/E3 = one connection starting at 32

Syntax: AUSM

dspchancnt <*port.VPI.VCI* | *ChanNum*>

Syntax Description

port.VPI.VCI Connection identifier in the format *Port.VPI.VCI*.

- Port range = 1–*N*, as appropriate for the physical installation.
- VPI range = 1–4095.
- VCI range = 1–65535.

ChanNum Channel number, in the range 16–1015.

Related Commands

dspchstats

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display counters for channel 69 of the current FRSM
- Display counters for channel 16 of the current AUSM
- Display counters for channel 32 of the current CESM-8E1

Example 1-212 Display counters for channel 69 of the current FRSM

```
wilco.1.17.FRSM.a > dspchancnt 69

ChanNum:          69
ChanState:        okay

ChanUpTime:       10186
                             Tx                            Rx
                        ---------------            ---------------
  AbitState:            Sending A=1                Receiving A=1
  ATMState:             Not sending any state      Not receiving any state
  Total Frames:          0                          0
  Total Bytes:          0                          0
  Frames DE:            0                          0
  Bytes DE:             0                          0
  Frames Discarded:      0                          0
  Bytes Discarded:       0                          0
  FramesDiscXceedQDepth:     0                      0
  BytesDiscXceedQDepth:      0                      0
  FramesDiscXceedDEThresh:   0                      0
  Frames FECN:          0                          0
  Frames BECN:          0                          0
  FramesTagged FECN:     0                          0
  FramesTagged BECN:     0                          0
  KbpsAIR:              0                          0
  FramesTaggedDE:        0                          0
  BytesTaggedDE:         0                          0
  RcvFramesDiscShelfAlarm:                          0
  XmtFramesDiscPhyLayerFail: 0
  XmtFramesDiscCRCError:     0
  XmtFramesDiscReAssmFail:   0
  XmtFramesDiscSrcAbort:     0
  XmtFramesDuringLMIAlarm:   0
  XmtBytesDuringLMIAlarm:    0
  RcvFramesDiscUPC:                                 0
  XmtFramesInvalidCPIs:      0
  XmtFramesLengthViolations: 0
  XmtFramesOversizedSDUs:    0
  XmtFramesUnknownProtocols: 0
  RcvFramesUnknownProtocols:                        0
wilco.1.17.FRSM.a >
```

Example 1-213 Display counters for channel 16 of the current AUSM

```
wilco.1.19.AUSM.a > dspchancnt 16
  ChanNum:                        16
  ChannelState:                   Active
  ChannelEgressRcvState:          Normal
  ChannelEgressXmitState:         Normal
  ChannelIngressRcvState:         Normal
  ChannelIngressXmtState:         Normal
  ChanInServiceSeconds:           1126725
  ChanIngressPeakQDepth(cells):   1
  ChanIngressReceiveCells:        41160574
  ChanIngressClpSetCells:         0
  ChanIngressEfciSetRcvCells:     0
  ChanIngressUpcClpSetCells:      0
  ChanIngressQfullDiscardCells:   1
  ChanIngressClpSetDiscardCells:  0
  ChanIngressTransmitCells:       41160574
  ChanShelfAlarmDiscardCells:     0

Syntax : dspchancnt "chan_num"
         channel number—value ranging from 16 to 1015
wilco.1.19.AUSM.a >
```

Example 1-214 Display counters for channel 32 of the current CESM-8E1

```
MGX-01.1.1.CESM.a > dspchancnt 32

ChanNum:                  32
Chan State:               alarm
Chan RCV ATM State:       Receiving AIS OAM
Chan XMT ATM State:       Sending AIS OAM
Cell Loss Status:         Cell Loss
Reassembled Cells:        0
Generated Cells:          1134344
Header Errors:            0
Seqence Mismatches :      0
Lost Cells:               0
Channel Uptime (secs.)    277
Signalling Status         Offhook

Syntax : dspchancnt "chan_num"
         channel number -- values : 32 - 279
MGX-01.1.1.CESM.a >
```

dspchanmap

Display Channel Map

Use the **dspchanmap** command to view interworking field mapping for a specified channel.

Card(s) on Which This Command Executes

FRSM

Syntax

dspchanmap <*port.VPI.VCI*> <*ChanNum*>

Syntax Description

port.VPI.VCI	Connection identifier in the format *Port.VPI.VCI*. • Port range = 1–*N*, as appropriate for the physical installation. • VPI range = 1–4095. • VCI range = 1–65535.
ChanNum	Channel number, in the range 16–1015.

Related Commands

cnfchanmap

Attributes

Log: No State: Any Privilege: Any

dspchans

Display Channels

Use the **dspchans** command to view all current channels on the card.

Card(s) on Which This Command Executes

FRSM, PXM, VISM, AUSM

Syntax

dspchans

Related Commands

dspchans, **addchan**, **delchan**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display channels on the current FRSM
- Display channels on the current PXM
- Display channels on the current VISM
- Display channels on the current AUSM8T1/E1

Example 1-215 Display channels on the current FRSM

```
spirit.11.1.FRSM.a > dspchans

    DLCI       Chan  EQ  I/EQDepth  I/EQDEThre  I/EECNThre  Fst/DE  Type  Alarm
  ------------ ---- -- ----- ----- ----- ----- ----- ----- --- --- ----- -----
  11.1.1.100    69   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.101    70   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.102    71   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.103    72   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.104    73   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.105    74   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.106    75   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.107    76   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.108    77   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.109    78   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.110    79   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.111    80   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.112    81   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.113    82   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.114    83   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.1.115    84   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
  11.1.2.100    85   1  65535/65535 32768/32768 65535/6553  Ena/Dis NIW    No
spirit.11.1.FRSM.a >
```

Example 1-216 Display channels on the current PXM

```
wilco.1.7.PXM.a > dspchans

Chan Stat Intf locVpi locVci conTyp srvTyp PCR[0+1] Mst rmtVpi rmtVci State
------------------------------------------------------------------------------
  16 Ena    1     10     134  VCC    CBR         50 Slv     0     100 normal
  32 Ena    1     10     132  VCC    CBR         50 Slv     0       1  alarm
wilco.1.7.PXM.a >
```

Example 1-217 Display channels on the current VISM

```
spirit.1.5.VISM8.a > dspchans

Channel       ChanNum   Status
------------  -------   ------
5.0.1.37        37       Add

  Number of channels:    1

  ChanNumNextAvailable:  33

Syntax : dspchans
spirit.1.5.VISM8.a >
```

Example 1-218 Display channels on the current AUSM-8T1E1

```
s1.1.12.AUSMB8.a > dspchans

Chan Port.VPI.VCI  ConnType Service Type   PCR[0+1]  Q-Depth State
---- ------------  -------  ------------  ---------  ------- -------
 21  2.1.1           VCC     CBR           4528      1000   Active
 26  2.1.3           VCC     VBR           4528      1000   Active
 31  2.1.5           VCC     ABR           4528      1000   Alarm
 37  2.1.7           VCC     UBR           4528      1000   Alarm
```

dspchstats

Display Channel Statistics

Use the **dspchstats** command to view current statistics associated with the specified channel.

Card(s) on Which This Command Executes

FRSM

Syntax

dspchstats <*line*>.<*1stDS0*>.<*DLCI*>

Syntax Description

line	Line number, in the range 1–8.
1stDS0	First DS0, in the range appropriate for the interface. • T1 range = 1–24 • E1 range =1–32
DLCI	Connection for which the statistics are to be displayed.

Related Commands

dspchan, **dspchans**

Attributes

Log: No State: Any Privilege: Any

Example 1-219 Display counters for line 1, 1st_DS0 of 4, and DLCI of 1000 for the current FRSM

```
wilco.1.17.FRSM.a > dspchstats 1.4.1000
                          lineNum:           1
                          Physical Port Num: 4
                          Logical Port Num:  2
                          ChanDLCI:          1000
                          ChanNum:           1
                          ChanState:        okay

                          ChanUpTime:       10186
                                 Tx                          Rx
                             ---------------             ---------------
  AbitState:                 Sending A=1                 Receiving A=1
  ATMState:                  Not sending any state       Not receiving any state
  Total Frames:              0                           0
  Total Bytes:               0                           0
  Frames DE:                 0                           0
  Bytes DE:                  0                           0
  Frames Discarded:          0                           0
  Bytes Discarded:           0                           0
  FramesDiscXceedQDepth:     0                           0
  BytesDiscXceedQDepth:      0                           0
  FramesDiscXceedDEThresh:   0                           0
  Frames FECN:               0                           0
  Frames BECN:               0                           0
  FramesTagged FECN:         0                           0
  FramesTagged BECN:         0                           0
  KbpsAIR:                   0                           0
  FramesTaggedDE:            0                           0
  BytesTaggedDE:             0                           0
  RcvFramesDiscShelfAlarm:                               0
  XmtFramesDiscPhyLayerFail: 0
  XmtFramesDiscCRCError:     0
  XmtFramesDiscReAssmFail:   0
  XmtFramesDiscSrcAbort:     0
  XmtFramesDuringLMIAlarm:   0
  XmtBytesDuringLMIAlarm:    0
  RcvFramesDiscUPC:                                      0
  XmtFramesInvalidCPIs:      0
  XmtFramesLengthViolations: 0
  XmtFramesOversizedSDUs:    0
  XmtFramesUnknownProtocols: 0
  RcvFramesUnknownProtocols:                             0

wilco.1.17.FRSM.a >
```

dspclkinfo

Display Clock Information

Use the **dspclkinfo** command to view detailed information about all the configured clock sources in the node.

Card(s) on Which This Command Executes

PXM

Syntax

dspclkinfo

Related Commands

dspclksrc, **cnfclksrc**

Attributes

Log: No State: Active Privilege: Group 3

Example 1-220 Display detailed clock information for MGX 8250 shelf

```
spirit3.1.7.PXM.a > dspclkinfo

 ****** Clock HW registers ********
SEL_T1 = t1      SEL100 = ON     SEL120 = ON     SEL120 = ON
NOEXTCLK = ON

 priMuxClockSource = INTERNAL_OSC
 prevPriMuxClockSource = INTERNAL_OSC
 primaryInbandClockSourceLineNum = 0
 secMuxClockSource = EXTERNAL_CLOCK
 prevSecMuxClockSource = EXTERNAL_CLOCK
 secondaryInbandClockSourceLineNumber = 1
 currentClockSetReq = primary
 currentClockHwStat = primary
 PreviousClockHwStat = internal
 extClockPresent = No
 extClkConnectorType = RJ45
 extClkSrcImpedance = 100 Ohms
 Internal Clock Status=1, Primary Clock Status=1

                Secondary Clock Status=0, Last inband Clock State=0
 last Inband Clock state= 0, Last External Clock Present = 1

spirit3.1.7.PXM.a >
```

dspclksrc

Display Clock Sources

Use the **dspclksrc** command to view all configured clock sources in the node.

Card(s) on Which This Command Executes

PXM

Syntax

dspclksrc

Related Commands

cnfclksrc

Attributes

Log: No State: Active Privilege: Any

Example 1-221 Display current clock source for MGX 8250 shelf

```
spirit3.1.7.PXM.a > dspclksrc

  PrimaryClockSource:   Internal Oscillator
  SecondaryClockSource: External T1/E1 from C.O.
  CurrentClockSource:   Internal Oscillator
  ClockSwitchState:     NoChange
  ExtClkPresent:        Not Present
  ExtClkSrcImpedance:   75 ohms
  ExtClkConnectorType:  BNC

spirit3.1.7.PXM.a >
```

dspcon

Display Connection

Use the **dspcon** command to view configuration data for a connection.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

dspcon <*port number*> <*connection number*>

Syntax Description

port number	Port number, in the range 1–8.
connection number	Connection number, as appropriate for the card. • PXM = vpi.vci • FRSM = DLCI • AUSM = vpi.vci • CESM = does not require connection number

Related Commands

addcon, **delcon**, **dspcons**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display connection parameters for channel 16 on a CESM
- Display connection parameters for the connection on channel 51 (port 3, DLCI 500) on the current FRSM
- Display connection parameters for the connection on channel 37 on the current VISM

Example 1-222 Display connection parameters for channel 16 on a CESM

```
spirit3.1.22.CESM.a > dspcon 16
  ChanNum:                                  16
  RowStatus:                                Add
  ConnectionType:                           VCC
  ServiceType:                              CBR
  PortNum:                                  1
  VPI:                                      10
  VCI:                                      100
  EgressQNum:                               1
  IngressQDepth (cells):                    100
  IngressQCLPHigh (cells):                  70
  IngressQCLPLow (cells):                   60
  IngressEfciThreshold (cells):             50
  CompliantCellDelayVariation (micro secs): 0
  CompliantInfoRate (cells/sec):            0
  InitialBurstSize (cells):                 0
  MaxFrameSize (cells):                     0
  PeakInformationRate (cells/sec)           1000
  CLPTagEnable:                             Disabled
  FrameGCRAEnable:                          Disabled
spirit3.1.22.CESM.a >
```

Example 1-223 Display connection parameters for the connection on channel 51 (port 3, DLCI 500) on the current FRSM

```
spirit.1.3.FRSM.a > dspcon 3.500

  ChanNum:                  51
  ChanRowStatus:            Mod
  ChanPortNum:              3
  ChanDLCI:                 500
  EgressQSelect:            2
  IngressQDepth:            65535
  IngressQDEThresh:         32768
  IngressQECNThresh:        6554
  EgressQDepth:             65535
  EgressQDEThresh:          32768
  EgressQECNThresh:         6554
  DETaggingEnable:          Disabled
  CIR:                      1024000
  Bc:                       5100
  Be:                       5100
  IBS:                      100
  ForeSightEnable:          Enabled
  QIR:                      2666
  MIR:                      2666
  PIR:                      5333
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanType:                 SIW-Xlat
  ChanFECNmap:              setEFCIzero
  ChanDEtoCLPmap:           mapCLP
  ChanCLPtoDEmap:           mapDE
  ChanFrConnType:           PVC
  ChanIngrPercentUtil:      100
  ChanEgrPercentUtil:       100
  ChanEgrSrvRate:           1024000
  ChanOvrSubOvrRide:        Enabled
  ChanLocalVpi:             0
  ChanLocalVci:             500
  ChanLocalNSAP:            73776973735f703100000000000009100030003000
  ChanRemoteVpi:            3
  ChanRemoteVci:            14
  ChanRemoteNSAP:           73776973735f703100000000000009100000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      ATFR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              5333
  ChanConnMCR:              2666
  ChanConnPercentUti:       100

  ChanNumNextAvailable:  63

spirit.1.3.FRSM.a >
```

Example 1-224 Display connection parameters for the connection on channel 37 on the current VISM

```
spirit.1.5.VISM8.a > dspcon 37

  ChanNum:                  37
  ChanRowStatus:            Add
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanPortNum:              1
  ChanPvcType:              VoIP
  ChanConnectionType:       PVC
  ChanLocalVpi:             0
  ChanLocalVci:             1
  ChanLocalNSAP:            4e4f44454e414d450000000000000000005000100
  ChanRemoteVpi:            58
  ChanRemoteVci:            59
  ChanRemoteNSAP:           4e4f44454e414d450000000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction

Type <CR> to continue, Q<CR> to stop:

  ChanConnPCR:              100000
  ChanConnPercentUtil:      100

  ChanNumNextAvailable:  36

Syntax : dspcon "chan_num"
         channel number -- values : 32 - 255

spirit.1.5.VISM8.a >
```

dspconcnt

Display Connection Counters

Use the **dspconcnt** command to view counter data for the specified connection.

Card(s) on Which This Command Executes

PXM

Syntax

dspconcnt <*conn_id*>

Syntax Description

conn_id	Connection identifier, in the format *port.vpi.vci*. • port range = 1–N, as appropriate for the physical installation. • vpi range = 1–4095 • vci range = 1–65535

Related Commands

addcon, **delcon**, **dspcon**, **dspcons**

Attributes

Log: No State: Any Privilege: Any

Example 1-225 Display connection counters for the connection on port 2 with a VPI of 39 and a VCI of 45 on the current PXM

```
spirit4.1.8.PXM.a > dspconcnt 2.39.45

Channel Number               :         17
Channel State                :      alarm
Channel Ingress State        :      alarm
Channel Egress State         :      other
CLP=0  Rcvd. Cells           :          0
CLP=1  Rcvd. Cells           :          0
GCRA1  Non Conforming Cells  :          0
GCRA2  Non Conforming Cells  :          0
EOF    Cells Rcvd.           :          0
CLP=0  Discard Cells         :          0
CLP=1  Discard Cells         :          0
Total  Xmtd. Cells           :       7253
CLP=0  Xmtd. Cells           :          0
CLP=1  Xmtd. Cells           :      10867
CLP=0  Discard Cells to Port :          0
CLP=1  Discard Cells to Port :          0

spirit4.1.8.PXM.a >
```

dspcons

Display Connections

Use the **dspcons** command to view details of all connections on the current card.

Card(s) on Which This Command Executes

PXM, FRSM, CESM, AUSM, VISM

Syntax

dspcons

Related Commands

dspcon, **addcon**, **delcon**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display parameters for connections on the current AUSM
- Display parameters for connections on the current VISM

Example 1-226 Display parameters for connections on the current AUSM

```
spirit3.1.1.AUSM.a > dspcons

Chan    Port.VPI.VCI    ConnType    Service Type    PCRlot1   Q-Depth     State
30        1.10.100       VCC            ABR          3622      2000       Active
33        1.10.200       VPC            CBR          3622      100        Alarm

spirit3.1.1.AUSM.a >
```

Example 1-227 Display parameters for connections on the current VISM

```
spirit.1.5.VISM8.a > dspcons

  ConnId            ChanNum Status
------------------- ------- ------
spirit.5.1.0       37      Add

  ChanNumNextAvailable:  35

Syntax : dspcons

spirit.1.5.VISM8.a >
```

dspcurclk

Display Current Clock Source

Use the **dspcurclk** command to view the current clock source for the switch.

Card(s) on Which This Command Executes

PXM

Syntax

dspcurclk

Related Commands

dspclksrc, **cnfclksrc**, **dspclkinfo**

Attributes

Log: No State: Active Privilege: Any

Example 1-228 Display current clock source for connections on the current PXM

```
spirit4.1.8.PXM.a > dspcurclk

Current Clock Source
----------------------
Source Node: spirit4

Clock Level: --
Clock Type : INTERNAL


spirit4.1.8.PXM.a >
```

dspdsx3bert

Display DSX3 BERT

Use the **dspdsx3bert** command to view parameters and results of the current bit error rate testing (BERT) session.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax

dspdsx3bert

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-229 Display BERT results

```
popeye1.1.21.CESMT3.a > dspdsx3bert

Bert Control:                           Acquire dsx3Bert
Bert Resource Status State:             In Use
Bert Owner:                             CLI
Bert Status:                            In Sync
Bert Test Medium:                       Line
Bert Port:                              1
Line Number :                           1
Bert Mode :                             bertPatternTest
Bert Pattern :                          allOnes
Loopback type:                          metallicLoopback
Start time (secs.)                      Not Configured Yet
Start Date                              Not Configured Yet
Bit countupper:                         0
Bit countlower:                         0
Bit Error Countupper                    0
Bit Error Countlower                    0
Error Insertion Rate:                   Error injection disabled
Error Insertion count:                  0

         DSX3 BERT in Sync

Syntax : dspdsx3bert

popeye1.1.21.CESMT3.a >
```

dspegrq

Display Egress Queue Parameters

Use the **dspegrq** command to view the port egress queue parameters. This command is valid only when the egress quality of service feature is enabled.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

dspegrq

Related Commands

dspegrqs, **dspegrservtype**, **cnfegrservtype**

Attributes

Log: No State: Active Privilege: Any

Example 1-230 Display port egress queue parameters for port 1

```
golden1.1.1.VHS2CT3.a > dspegrq 1 1

  ServicePortNum:            1
  Serv Type:                 1
  Queue Depth:               65535
  Queue ECN Threshold:       6553
  Queue DE Threshold:        32767
  Max Bandwidth Increment:   16384
  portBytesDiscXceedQueFull: 0
  portBytesDiscXceedDEThresh:0

golden1.1.1.VHS2CT3.a >
```

dspegrqs

Display Egress Queue Parameters

Use the **dspegrqs** command to view the egress queue parameters for all the ports on a shelf. This command is valid only when the egress quality of service feature is enabled.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

dspegrqs

Related Commands

dspegrq, **dspegrservtype**, **cnfegrservtype**

Attributes

Log: No State: Active Privilege: Any

Example 1-231 Display egress queue parameters for a shelf

```
golden1.1.1.VHS2CT3.a > dspegrqs 1

  PortNum  ServType   Q Depth   Q-ECN-Thres   Q-DE-Thres  BandWidth-Inc
  -------  --------   -------   -----------   ----------  ---------
    1        1         65535        6553        32767      16384
    1        2         65535        6553        32767      0
    1        3         65535        6553        32767      0
    1        4         65535        6553        32767      0

golden1.1.1.VHS2CT3.a >
```

dspegrservtype

Display Egress Servicing Type

Use the **dspegrservtype** to display the current egress port queue servicing.

Software Version

Command available with 1.1.20 and higher

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

dspegrservtype

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

dspenetgw

Display Ethernet Gateway

Use the **dspenetgw** command to display the permanent Ethernet gateway. The Ethernet gateway is specified with the **cnfenetgw** command.

Card(s) on Which This Command Executes

PXM

Syntax

dspenetgw

Related Commands

cnfenetgw

Attributes

Log: No State: Any Privilege: Any

Example 1-232 Display default gateway

```
spirit3.1.7.PXM.a > dspenetgw
spirit3.1.7.PXM.a > enet gateway: 172.29.37.1
```

dsperr

Display Errors

Use the **dsperr** command to view the contents of either all error log files or a specific error log file.

Card(s) on Which This Command Executes

PXM

Syntax

dsperr [-en <*error slot*>]

Syntax Description

-en	Command delineator that precedes the *error slot* entry.
error slot	Number of the error log file (optional).

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display all error log files. The output appears one screen at a time. A prompt appears at the bottom of the screen requesting you to continue to the next screen or quit.
- Display error log for the card in slot 3. In this example, the card is an FRSM-8T.

Example 1-233 Display all error log files. The output appears one screen at a time. A prompt appears at the bottom of the screen requesting you to continue to the next screen or quit.

```
spirit3.1.7.PXM.a > dsperr

----------
Stack Trace:
    0x801e5714 vxTaskEntry              +  c: sysTaskSetup()
    0x80024d2c sysTaskSetup             + 58: rmm_main()
    0x800dff7c rmm_main                 +624: rmm_process_message()
    0x800df764 rmm_process_message      + 98: rmm_delete_seat()
    0x800e0f54 rmm_delete_seat          + ac: ipc_remove_seat()
    0x800d1140 ipc_remove_seat          + 50: ipc_renumber_as_slave()
    0x800d0a10 ipc_renumber_as_slave    +208: my_free()
    0x800d3430 my_free                  +  8: ssiFree()
    0x8001c378 ssiFree                  + 8c: ssiEvent()
    0x800274dc ssiEvent                 +11c: ssiEvent()
    0x800277bc ssiEvent                 +3fc: sysStackTrace()
----------
No Dump Trace before the event
----------
No Dump Trace after the event

Type <CR> to continue, Q<CR> to stop:
----------
Stack Trace:
    0x801e5714 vxTaskEntry              +  c: sysTaskSetup()
    0x80024d2c sysTaskSetup             + 58: rmm_main()
    0x800dff7c rmm_main                 +624: rmm_process_message()
    0x800df764 rmm_process_message      + 98: rmm_delete_seat()
    0x800e0f54 rmm_delete_seat          + ac: ipc_remove_seat()
    0x800d1140 ipc_remove_seat          + 50: ipc_renumber_as_slave()
    0x800d0a10 ipc_renumber_as_slave    +208: my_free()
    0x800d3430 my_free                  +  8: ssiFree()
    0x8001c378 ssiFree                  + 8c: ssiEvent()
    0x800274dc ssiEvent                 +11c: ssiEvent()
    0x800277bc ssiEvent                 +3fc: sysStackTrace()
----------
No Dump Trace before the event
----------
No Dump Trace after the event

spirit3.1.7.PXM.a >
```

Example 1-234 Display the error log for the card in slot 3. In this example, the card is an FRSM-8T1.

```
spirit3.1.7.PXM.a > dsperr -en 3

Stack Trace:
    0x801e5714 vxTaskEntry              +  c: sysTaskSetup()
    0x80024d2c sysTaskSetup             + 58: rmm_main()
    0x800dff7c rmm_main                 +624: rmm_process_message()
    0x800df764 rmm_process_message      + 98: rmm_delete_seat()
    0x800e0f54 rmm_delete_seat          + ac: ipc_remove_seat()
    0x800d1140 ipc_remove_seat          + 50: ipc_renumber_as_slave()
    0x800d0a08 ipc_renumber_as_slave    +200: ipc_remove_ports_on_seat()
    0x800d02a8 ipc_remove_ports_on_seat + a0: ipc_remove_port()
    0x800d01dc ipc_remove_port          +190: ipc_subsys_init()
    0x800cecf0 ipc_subsys_init          +204: my_free()
    0x800d3430 my_free                  +  8: ssiFree()
    0x8001c378 ssiFree                  + 8c: ssiEvent()
    0x800274dc ssiEvent                 +11c: ssiEvent()
    0x800277bc ssiEvent                 +3fc: sysStackTrace()
----------
No Dump Trace before the event
----------

spirit3.1.7.PXM.a >
```

dspfeature

Display Feature

Use the **dspfeature** command to display features or to change features, such as Channelized and Rate Control. Without parameters, this command acts as a display command.

When the rate control feature is set to ON, the card supports ForeSight. ForeSight is a software feature that provides a closed-loop feedback mechanism for controlling the rate at which users can apply to the network. It improves the efficiency of the network when carrying Frame Relay data, especially during periods of light usage, and maintains consistent performance during peak loading periods without dropping frames. This can be enabled only on an Available Bit Rate (ABR) connection. If the Rate Control feature is OFF, this cannot be enabled.

If the channelized feature is set to ON, it will enable either channelized E1 or channelized T1 for cards that are channelized.

Card	Channelized Feature
FRSM-8T1	Channelized T1
FRSM-8E1	Channelized E1
FRSM-2CT3	Channelized T1
FRSM-2T3/2E3/HS2	No channelized feature on cards

Channelized E1 is an access link operating at 2.048 Mbps. It is subdivided into 30 B-channels and 1 D-channel, supporting DDR, Frame Relays, and x.25.

Channelized T1 is an access link operating at 1.544 Mbps. It is subdivided into 24 channels (23 B-channels and 1 D-channel) of 64 Kbps each. The individual channels or groups of channels connect to different destinations and support DDR, Frame Relay, and x.25. Channelized T1 also is known as fractional T1.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2), FRSM-8T1/E1

Syntax

dspfeature [[*feature*] [*enable*]]

Syntax Description

feature — One of the following features:

- 375 = channelized
- 193 = rate control

enable — Enable or disable feature:

- 97 = ON
- 0 = OFF

Related Commands

None

Attributes

Log: No State: Any Privilege: Group 2

Example 1-235 Display features of the current FRSM card

```
golden1.1.2.VHS2CT3.s > dspfeature


  Channelized:  On
  Rate Control: Off
```

dspfst

Display ForeSight Parameters

Use the **dspfst** command to view current ForeSight parameter settings for the current service module. For an explanation of the ForeSight parameter settings, see the description of the **cnffst**, page 1-162.

Card(s) on Which This Command Executes

FRSM

Syntax

dspfst

Related Commands

cnffst

Attributes

Log: Yes State: Active Privilege: Group 4

Example 1-236 Display current ForeSight parameter settings for the FRSM-2CT3

```
wilco.1.3.VHS2CT3.a > dspfst

  RateUp:        10 percent
  RateDown:      87 percent
  RateFastDown:  50 percent
  QIRTimeout:    10 seconds
  RTD:           5 seconds

wilco.1.3.VHS2CT3.a >
```

dspfw

Display Firmware Revisions

Use the **dspfw** command to view firmware files stored on the hard disk of the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

dspfw [bt] [sm <*slot*>]

Syntax Description

[bt]	Backup boot.
[sm <*slot*>]	Number of the service module slot that needs to be upgraded or downgraded.

Related Commands

None

Attributes

Log: No State: ***Any*** Privilege: Any

Example 1-237 Show firmware versions for the current PXM

```
raviraj.1.7.PXM.a > dspfw
PXM FW versions:

"1.1.10" in pxm_1.1.10.fw
"1.1.11" in pxm_1.1.11.fw
```

dspfwrevs

Display Firmware Revisions

Use the **dspfwrevs** command to display the current list of firmware revisions on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dspfwrevs

Related Commands

newrev, **printrev**

Attributes

Log: No State: Any Privilege: Any

Example 1-238 Show current firmware revisions on the selected PXM

```
raviraj.1.7.PXM.a > dspfwrevs
In dspfwrevs()
Cfg Size     Date       Time     File Name                     Card Type    Version
--- -------- ------------------  ------------                  ------------
--------------------
No   1996736 05/06/1999 15:40:24 pxm_gprasann.fw              PXM1E1       gprasann
No    615232 05/10/1999 13:11:36 sm90.fw                     CESM-8T1E1
10.0.00_19Apr99_1
No    794572 05/20/1999 18:10:50 sm35.fw                     FRSM-8T1E1
10.0.01_18May99_1_rm
No   1983308 04/24/1999 14:18:48 pxm_1.0.00Eh.fw             PXM1E1       1.0.00Eh
N/A  1500292 04/28/1999 14:31:48 pxm_gprasann.fw.working-bcdc PXM1E1       gprasann
No   2089064 06/27/1999 08:12:50 pxm_rmenon.fw               PXM1E1       rmenon
Yes   892356 07/01/1999 15:22:36 sm130.fw                    FRSM-2CT3E1
5.0.01_24Jun99_1_raj
No    884404 05/24/1999 11:30:04 smravi.fw                   FRSM-2CT3E1
5.0.00_21May99_1_raj


raviraj.1.7.PXM.a >
```

dsphotstandby

Display Hot Standby

Use the **dsphotstandby** command to display service modules in hot standby state. Service modules that are part of a 1:1 redundancy can be in hot standby state. When the secondary service module is introduced, it goes into standby state for a number of minutes, then to hot standby state. For example, an FRSM-VHS module with 4000 connections requires about eight minutes to go from standby state to hot standby state.

In hot standby state, if the active service module fails, the standby service module takes over from the active service module with less than one second of traffic loss. Without the hot standby feature, the delay for a standby service module to take over could be as high as eight minutes, resulting in traffic loss for that period of time.

For the hot standby feature to work, you need a PXM and VHS image that supports this functionality, and an FRSM-VHS module. This feature is available in the software version 1.1.20 release, and requires no configuration of the PXM or the service module.

Use **dsphotstandby** in conjunction with **dspred** to view the redundant slot links.

Card(s) on Which This Command Executes

PXM

Syntax

dsphotstandby

Related Commands

dspred

Attributes

Log: No State: Any Privilege: Any

Example 1-239 View current redundant slot links

```
raviraj.1.7.PXM.a > dspred
  Primary  Primary  Primary  Secondary  Secondary  Secondary  Red.  Red.Slot
  SlotNum   Type     State    SlotNum     Type       State    Type   Cover
  -------  -------  -------  ---------  ---------  ---------  ----  --------
    4      FRSM-2CT  Standby     10       FRSM-2CT   Active    1:1     4
```

Example 1-240 Display hot standby state for slots 4 and 10

```
raviraj.1.7.PXM.a > dsphotstandby
Slot  4 : Primary SM in HOT STANDBY state.
Slot 10 : Secondary Active SM.
```

Example 1-241 Display service module in slot 4 going from standby into hot standby state

```
raviraj.1.7.PXM.a > dsphotstandby
Slot  4 : Primary SM not in Hot Standby state.
Slot 10 : Secondary Active SM.
```

dspif

Display Interface

Use the **dspif** command to view configuration and state information for a broadband interface.

Card(s) on Which This Command Executes

PXM

Syntax

dspif <*if_num*>

Syntax Description

if_num	Interface number, in the range 1–32.

Related Commands

cnfif

Attributes

Log: No State: Any Privilege: Any

Example 1-242 Display configuration and state information for broadband interface number 1

```
spirit3.1.7.PXM.a > dspif 1

 ifNum  Status  Line  ingrPctBw egrPctBw minVpi maxVpi
--------------------------------------------------------
  1     Ena       1       10       10        0     19

 spirit3.1.7.PXM.a >
```

dspifcnt

Display Interface Counter

Use the **dspifcnt** command to view interface counters for a broadband interface.

Card(s) on Which This Command Executes

PXM

Syntax

dspifcnt <*if_num*>

Syntax Description

if_num	Interface number, in the range 1–32.

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-243 Display counters and state information for broadband interface number 1

```
spirit3.1.7.PXM.a > dspifcnt 1

Interface Num                 :          1
Interface State               : Line Failure
Total Cells                   :          0
Received RM Cells             :          0
Received OAM Cells            :          0
Received CLP0 Cells           :          0
Received CLP1 Cells           :          0
Received CLP0,Discarded Cells :          0
Received CLP1,Discarded Cells :          0
Transmitted OAM Cells         :          0
Transmitted RM Cells          :          0
Transmitted CLP0 Cells        :          0
Transmitted CLP1 Cells        :          0

wilco.1.7.PXM.a >
```

dspifip

Display Interface IP Configuration

Use the **dspifip** command to view all configured interface IP addresses on the current PXM, as well as their status. The possible interfaces are Ethernet, SLIP, and ATM. Data displayed for the SLIP interface will be displayed when the interface is enabled using the **cnfifip** command; for example:

```
cnfifip slip on
```

Software Version

New feature (displays the state of each interface) available with 1.1.12 and higher.

Card(s) on Which This Command Executes

PXM

Syntax

dspifip

Related Commands

cnfifip, **delifip**

Attributes

Log: No State: Any Privilege: Any

Example 1-244 Display IP LAN configuration

```
spirit3.1.7.PXM.a > dspifip
Interface        Flag  IP Address       Subnetmask       Broadcast Addr
---------------  ----  ---------------  ---------------  ---------------

Ethernet/lnPci0  UP    172.29.37.77     255.255.255.0    172.29.37.255
SLIP/sl0         DOWN  172.29.36.253    255.255.255.252  (N/A)
ATM/atm0         UP    192.9.200.1      255.255.255.128  0.0.0.0

spirit3.1.7.PXM.a >
```

dspifrsc

Display Interface Resource Partition

Use the **dspifrsc** command to view all resource partition information for the specified interface.

Card(s) on Which This Command Executes

PXM

Syntax

dspifrsc <*if_num*>

Syntax Description

if_num	Interface number, in the range 1–32.

Related Commands

dspif

Attributes

Log: No State: Any Privilege: Any

Example 1-245 Display resource partition information for all controller types on broadband interface 1

```
POP1.1.7.PXM.a > dspifrsc 1

 bbIfNum Ctrlr Status ingrPctBw egrPctBw minVpi maxVpi minVci maxVci maxChans
-------------------------------------------------------------------------------
    1    PAR     Mod      100      100       1   2000      0  65535    2000
    1    PNNI    Ena      100      100       1   2000      0  65535   32767
    1    TAG     Ena      100      100       1   2000      0  65535   32767
    1    SVC     Dis        0        0       0      0      0      0       0


POP1.1.7.PXM.a >
```

dspifs

Display List of Broadband Interfaces

Use the **dspifs** command to view the current list of configured broadband interfaces.

Card(s) on Which This Command Executes

PXM

Syntax

dspifs

Related Commands

upif, **cnfif**

Attributes

Log: No State: Any Privilege: Any

Example 1-246 Display configuration and state information for all broadband interfaces on the current PXM. In the response below, only broadband interface number 1 exists on the current PXM.

```
POP1.1.7.PXM.a > dspifs

 ifNum  Status  Line  ingrPctBw egrPctBw minVpi maxVpi
-------------------------------------------------------
  1     Ena       1       10       10        0     19


 POP1.1.7.PXM.a >
```

dspilmi

Display ILMI

Use the **dspilmi** command to view the interim local management interface (ILMI) configuration.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax

dspilmi <*port_num*>

Syntax Description

port_num	Port number, in the range 1–32.

Related Commands

cnfilmi, **dspilmi**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display ILMI configuration for port 1 on the AUSM
- Display ILMI configuration for port 1 on the PXM

Example 1-247 Display ILMI configuration for port 1 on the AUSM

```
spirit3.1.20.AUSM.a > dspilmi 1

  Port Num:                     1
  Signalling:                   No signalling
  SignallingVPI:                0
  SignallingVCI:                0
  ILMITrap:                     Disabled
  ILMI-Min-Trap-Interval (secs): 1
  KeepAlivePolling:             Disabled
  ErrorThreshold:               3
  EventThreshold:               4
  PollingInterval (secs):       30
  MinimumEnquiryInterval (secs):  10
  EXT Operation:                port 2

spirit3.1.20.AUSM.a >
```

Example 1-248 Display ILMI configuration for port 1 on the PXM

```
spirit3.1.7.PXM.a > dspilmi 1

Sig.    Ilmi     Sig  Sig   Ilmi          T491       T492   T493   Addr
Port State/Type  Vpi  Vci Trap/Int KA ErrTh/Pollint EvntTh EnqInt  Reg.
---- ---------  ---- ---- -------- --- ------------- ------ ------ ----
   1 Off/none     0   16  Off/01   Off     3/v6        4     10     Off

spirit3.1.7.PXM.a >
```

dspilmicnt

Display ILMI Counters

Use the **dspilmicnt** command to view the ILMI counters.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax

dspilmicnt <*port_num*>

Syntax Description

port_num	Port number, in the range 1–32.

Related Commands

cnfilmi, **dspilmi**

Attributes

Log: No State: Any Privilege: Any

Example 1-249 Display ILMI counters for port 1 on the current AUSM card

```
spirit3.1.20.AUSM.a > dspilmicnt 1

  Port Num:                1
  SNMPPDUsReceived:        0
  Get RequestsReceived:    0
  GetNextRequestsReceived: 0
  SetRequestsReceived:     0
  TrapReceived:            0
  GetResponseReceived      0
  GetResponseTransmitted:  0
  GetRequestTransmitted:   0
  TrapsTransmitted:        0
  InvalidPDUReceived:      0
  Asn1ParseError:          0
  NoSuchNameError:         0
  TooBigError:             0

spirit3.1.20.AUSM.a >
```

dspilmis

Display All ILMI Configurations

Use the **dspilmis** command to view all interim local management interface (ILMI) configurations on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dspilmis

Related Commands

cnfilmi, **dspilmi**, **dspilmicnt**

Attributes

Log: No State: Any Privilege: Any

Example 1-250 Display ILMI configuration for all ports on the PXM

```
spirit3.1.7.PXM.a > dspilmis

Sig.    Ilmi     Sig  Sig   Ilmi          T491       T492   T493   Addr
Port State/Type  Vpi  Vci Trap/Int KA ErrTh/Pollint EvntTh EnqInt  Reg.
---- ---------  ---- ---- -------- --- ------------- ------ ------ ----
   1 Off/none     0   16  Off/01   Off     3/v6        4     10     Off


 spirit3.1.7.PXM.a >
```

dspimagrp

Display IMA Group

Use the **dspimagrp** command to view delay and resilient links inverse multiplexingATM (IMA) parameters on the current AUSM card.

Card(s) on Which This Command Executes

AUSM

Syntax

dspimagrp <*aimux_grp*>

Syntax Description

aimux_grp	AIMUX group number, in the range 1–8.

Related Commands

cnfimagrp, **dspimagrps**, **dspimagrpcnt**

Attributes

Log: ***No*** State: Active Privilege: Group 1

Example 1-251 Display all detailed status and configuration information for AIMUX group 1 on the current card

```
spirit.1.19.AUSM8.a > dspimagrp 1

   IMA Group number                : 1
   Port type                       : NNI
   Lines configured                : 1.2.3
   Enable                          : Enabled
   IMA Port state                  : Sig. Failure
   IMA Group Ne state              : Startup
   PortSpeed (cells/sec)           : 13470
   GroupTxAvailCellRate (cells/sec) : 0
   ImaGroupTxFrameLength(cells)    : 128
   LcpDelayTolerance (IMA frames)  : 1
   ReadPtrWrPtrDiff  (cells)       : 4
   Minimun number of links         : 2
   MaxTolerableDiffDelay (msec)    : 200
   Lines Present                   :
   ImaGroupRxImaId                 : 0x100
   ImaGroupTxImaId                 : 0x0
   Observed Diff delay (msec)      : 0
   Clock Mode                      : CTC
   GroupAlpha                      : 2
   GroupBeta                       : 2
   GroupGamma                      : 1
   GroupConfiguration              : 1
   IMAGrp Failure status           : Ne StartUp
   Timing reference link           : 1


Syntax : dspimagrp (or dspaimgrp) "imagroup_number"
         IMA group number -- value ranging from 1 to 8


 spirit.1.19.AUSM8.a >
```

dspimagrpcnt

Display IMA Group Counters

Use the **dspimagrpcnt** command to view inverse multiplexingATM (IMA) counters on the current AUSM card for all IMA groups.

Card(s) on Which This Command Executes

AUSM

Syntax

dspimagrpcnt <*imagroup*>

Syntax Description

imagroup	AIMUX group number, in the range 1–8.

Related Commands

dspimagrp, **dspimagrpcnt**, **dspimagrps**, **dspimainfo**, **dspimalncnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-252 Display all detailed status and configuration information for the IMA counters for AIMUX group 1 on the current card

```
spirit.1.19.AUSM8.a > dspimagrpcnt 1

IMA Group number:                          1
Ne Number of failures                  :   0

spirit.1.19.AUSM8.a >
```

dspimagrps

Display IMA Groups

Use the **dspimagrps** command to view inverse multiplexing ATM (IMA) parameters for all AIMUX groups on the AUSM card.

Card(s) on Which This Command Executes

AUSM

Syntax

dspimagrps

Related Commands

dspimagrp, **cnfimagrp**, **dspimainfo**, **dspimagrpcnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-253 Display all IMA parameter information for all AIMUX groups on the current card

```
spirit.1.19.AUSM8.a > dspimagrps

 List of IMA groups:
 ===================

ImaGrp PortType Speed  Lines configured  Lines present  Tol Diff  Port State
                                                       Delay(ms)
------ -------- -----  ----------------  -------------  --------- ----------
 19.1   NNI     13470  1.2.3                            200      Sig. Failure

  NextPortNumAvailable:  8

spirit.1.19.AUSM8.a >
```

dspimainfo

Display AIM (or Display IMA) Information

Use the **dspimainfo** command to view information about inverse multiplexing ATM (IMA) parameters on the current AUSM card.

Card(s) on Which This Command Executes

AUSM

Syntax

dspimainfo

Related Commands

dspimagrp, **cnfimagrp**

Attributes

Log: No State: Active Privilege: Any

Example 1-254 Display all IMA parameter information for all AIMUX groups on the current card

```
spirit.1.19.AUSM8.a > dspimainfo

Link      NeTx            NeRx           TxId   RxID
          State           State
-----------------------------------------------------
   1      (null)         (null)            0      0
   2      (null)         (null)            0      0
   3      (null)         (null)            0      0
   4      (null)         (null)            0      0
   5      (null)         (null)            0      0
   6      (null)         (null)            0      0
   7      (null)         (null)            0      0
   8      (null)         (null)            0      0

spirit.1.19.AUSM8.a >
```

dspimalncnt

Display AIM (or Display IMA) Line Count

Use the **dspimalncnt** command to view current AIMUX line counters for the specified line in an IMA trunk.

Card(s) on Which This Command Executes

AUSM

Syntax

dspaimlncnt <*imagroup*> <*linenum*>

Syntax Description

imagroup	AIMUX group number, in the range 1–8.
linenum	AIMUX line number, in the range 1–8.

Related Commands

clraimlncnt, **clrimalncnt**, **dspaimlncnt**

Attributes

Log: No State: Active Privilege: Group 1

Example 1-255 Display line counters for line 1 of IMA group 1

```
spirit.1.19.AUSM8.a > dspimalncnt 1 1

   IMA group number               : 1
   Line number                    : 1
   Acp Cells Received             : 0
   Acp Errored Cells Recvd        : 0
   Port changed from LDS          : 0
   # HEC errored cells            : 0
   # HEC errored seconds          : 0
   # Severely HEC errored seconds  : 0

Syntax : dspimalncnt (or dspaimlncnt) imagroup linenum
         IMA group number -- value ranging from 1 to 8
         line number -- value ranging from 1 to 8.

spirit.1.19.AUSM8.a >
```

dsplink

Display Link

Use the **dsplink** command to view a link on a T3 line on an SRM-3T3 card.

Card(s) on Which This Command Executes

PXM

Syntax

dsplink <*T3 line number*>

Syntax Description

T3 line number SRM-3T3 T3 line number, in the format *slot.line*.

- Slot = 15 or 31
- Line range = 1–3

Related Commands

dellink, **addlink**

Attributes

Log: No State: Active Privilege: Group 1

System Response

T3Line	StartT	TRowStatus	TargetSlot	TargetSlotLine
1	1	Add	7	1
1	2	Add	7	2
1	3	Add	7	3
1	4	Add	7	4

dsplmiloop

Display LMI Loop

Use the **dsplmiloop** command to view the current local management interface (LMI) configurations. The command displays the LMI loop status as present or not present for the feeder trunk. This command can be used only if a feeder trunk exists.

Card(s) on Which This Command Executes

PXM

Syntax

dsplmiloop

Related Commands

cnfilmi, **dspilmi**, **dspilmicnt**, **dspilmis**, **addlmiloop**, **dellmiloop**

Attributes

Log: No State: Any Privilege: Any

Examples

The example that follows illustrates:

- Display feeder trunk command showing that a feeder trunk is configured on the PXM
- Display LMI loop command, indicating that no LMI loop exists

Example 1-256 Display feeder trunk and display LMI loop

```
NAME.1.7.PXM.a > dsptrks
TRK       Current Alarm Status        Other End

7.1       CLEAR                       pswbpx1


NODENAME.1.7.PXM.a > dsplmiloop
TRK     IN LMI LOOP
-------------------
7.1      No
```

The example that follows illustrates:

- Add an LMI loop command adding an LMI loop configuration to the PXM
- Display LMI loop command showing that an LMI loop is present

Example 1-257 Add LMI loop and display LMI loop

```
NODENAME.1.7.PXM.a > addlmiloop 7.1


NODENAME.1.7.PXM.a > dsplmiloop
TRK     IN LMI LOOP
------------------
7.1      Yes
```

dsplmistats

Display All LMI Statistics

Use the **dsplmistats** command to view the current local management interface (LMI) configurations.

Card(s) on Which This Command Executes

PXM

Syntax

dspilmis

Related Commands

cnfilmi, **dspilmi**, **dspilmicnt**, **dspilmis**

Attributes

Log: No State: Any Privilege: Any

Example 1-258 Display LMI statistics for the PXM

```
spirit4.1.8.PXM.a > dsplmistats

Enabled        :          1   Port Status    :          0
VPI.VCI        :       3.31
Polling enable :          1
T393           :         10   N394           :          5
T394           :         10   N395           :          5
WaitStatus     :          0   WaitStAck      :          0
Retry Timer    :          0   Retry Count    :          0
Poll Timer     :          0   Trans Num      :          0
Status     Rx  :          0   Status     Tx  :          0
UpdtStatus Rx  :          0   UpdtStatus Tx  :          0
Status Enq Rx  :          0   Status Enq Tx  :          0
Status Ack Rx  :          0   Status Ack Tx  :          0
NodeStatus Rx  :          0   NodeStatus Tx  :      18329
NodeStaAck Rx  :          0   NodeStaAck Tx  :          0
Bad PDU Rx     :          0   Bad PDU Len Rx :          0
Unknown PDU Rx :          0   Invalid I.E. Rx:          0
Invalid Trans  :          0
BPX IP Addr    :  172.1.1.215


spirit4.1.8.PXM.a >
```

dspln

Display Line

Use the **dspln** command to view the characteristics of a specified physical line. When the current card is a PXM, you must specify the line type:

- DS3 if the PXM has a T3 line module
- E3 if the PXM has an E3 line module
- SONET if the PXM has an OC-3 or OC-12 line module

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax: PXM

dspln <-ds3 | -e3 | -sonet> <*LineNum*>

Syntax Description

-ds3	Command delineator that precedes the *LineNum* entry for a T3 line.
-e3	Command delineator that precedes the *LineNum* entry for an E3 line.
-sonet	Command delineator that precedes the *LineNum* entry for a SONET line.
LineNum	Line number in the format *slot.line*. Slot = 7, 8, 15, 16, 31, or 32. Line range = 1–*N* as appropriate for the interface.

Note Set line number value at 7 or 8 if the line type is SONET.

Syntax: FRSM, AUSM, CESM, VISM

dspln <*line_num*>

Syntax Description

line_num	Line number, in the range 1–*N* as appropriate for the card.

Related Commands

addln, **cnfln**, **delln**

Attributes

Log: No State: Active (PXM), Any State (Service Modules) Privilege: Any

Examples

This section contains the following examples:

- Display line 2 on the current AUSM
- Display T3 line 1 on the current PXM (BNC-2T3)
- Display OC-3 line 1 on the current PXM
- Display line 3 on the current FRSM

Example 1-259 Display line 2 on the current AUSM

```
spirit3.1.20.AUSM.a > dspln 2

 LineNum:                 2
 LineConnectorType:       BNC
 LineType:                dsx1E1CAS
 LineEnable:              Enabled
 LineCoding:              dsx1HDB3
 LineLength:              G.703 75 ohm
 LineXmtClockSource:      LocalTiming
 LineLoopbackCommand:     NoLoop
 LineSendCode:            NoCode
 LineUsedTimeslotsBitMap: 0xffffffff
 ConfigChangePortBitMap:  0x0

  LineNumOfValidEntries: 4

spirit3.1.20.AUSM.a >
```

Example 1-260 Display T3 line 1 on the current PXM (BNC-2T3)

```
spirit3.1.7.PXM.a > dspln -ds3 7.1

  LineNum:              1
  LineType:             dsx3CbitParity
  LineCoding:           dsx3B3ZS
  LineLength:           lessThan225
  LineOOFCriteria:      fBits3Of8
  LineAIScBitsCheck:    Check C-bits
  LineLoopbackCommand:  NoLoop
  LineRcvFEACValidation: 4 out of 5 FEAC codes
  LineEnable:           Disable

spirit3.1.7.PXM.a >
```

Example 1-261 Display OC-3 line 1 on the current PXM

```
spirit3.1.7.PXM.a > dspln -sonet 7.1
  sonetLineNum:                1
  sonetLineType:               sonetSts3c
  sonetLineLoopback:           NoLoop
  sonetHCSmasking:             Enabled
  sonetPayloadScramble:        Enabled
  sonetFrameScramble:          Enabled
  sonetLineEnable:             Disable
  sonetMediumType:             sonet
  sonetMediumTimeElapsed:      0
  sonetMediumValidIntervals:   0
  sonetMediumLineCoding:       NRZ
  sonetMediumLineType:         LongSingleMode
  sonetMediumCircuitIdentifier: Sonet Line

spirit.1.8.PXM.a >
```

Example 1-262 Display line 3 on the current FRSM

```
spirit3.1.3.FRSM.a > dspln 3
  LineNum:                  3
  LineConnectorType:        RJ-48
  LineType:                 dsx1E1CLEAR
  LineEnable:               Enabled
  LineCoding:               dsx1HDB3
  LineLength:               G.703 120 ohm
  LineXmtClockSource:       LocalTiming
  LineLoopbackCommand:      NoLoop
  LineSendCode:             NoCode
  LineUsedTimeslotsBitMap:  0xffffffff
  LineLoopbackCodeDetection: codeDetectDisabled
  LineBertEnable:           Disable

  LineNumOfValidEntries: 8

Syntax : dspln "line_num"
         line number -- values ranging from 1-8 are accepted, for FRSM_8

spirit3.1.3.FRSM.a >
```

dsplnrsc

Display Line Resource

Use the **dsplnrsc** command to view the resource partition information for a specified line on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dsplnrsc <*line_num*>

Syntax Description

line_num	Line number, in the range 1–*N*, as appropriate for the physical installation.

Related Commands

addrscprtn, **cnfrscprtn**

Attributes

Log: No State: Any Privilege: Any

Example 1-263 Display partition information for line 1 on the current PXM

```
spirit.1.7.PXM.a > dsplnrsc 1

 ifNum  Status  Line  ingrPctBw egrPctBw minVpi maxVpi
-----------------------------------------------------
    1      1      1       100      100       0   4095

spirit.1.7.PXM.a >
```

dsplns

Display Lines

Use the **dsplns** command to view the configuration for all lines on the current card. On the PXM, specify the line type.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

On all cards other than a PXM, enter **dsplns** without arguments.

On a PXM:

dsplns <*LineTable*> <*slot*>

Syntax Description

LineTable	Line type. • ds3 • e3 • sonet. Use the **dspcd** command to view line types.
slot	Slot number = 7, 8, 15, 16, 31, or 32.

Related Commands

addln, **cnfln**, **delln**, **dspcds**, **dspln**

Attributes

Log: No State: Active (PXM), Any (Service Modules) Privilege: Any

Examples

This section contains the following examples:

- Display lines on the current FRSM (8T1)
- Display lines on the current FRSM HX1/B
- Display lines on the current PXM with BNM-T3E3 trunk card
- Display lines on the current AUSM
- Display lines on the PXM with OC-3
- Display lines on the PXM with OC-12

Example 1-264 Display lines on the current FRSM (8T1) card

```
spirit3.1.3.FRSM.a > dsplns

  Line  Conn      Type     Status/Coding      Length     XmtClock Alarm Stats
        Type                                            Source         Alarm
  ----  ----- ------------ ------ -------- ------------ -------- ----- -----
  3.1   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.2   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.3   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.4   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.5   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.6   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.7   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  3.8   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
spirit3.1.3.FRSM.a >
```

Example 1-265 Display lines on the current FRSM HS1/B card

```
porky.1.14.FRSM.a > dsplns

  Line  Type       Rate       Status     Alarm

  ----  ------  -----------  --------   ---------
  14.1  dte     8192 Kbps    mod           Yes
  14.2  dce     8192 Kbps    mod           No
  14.3  dte     8192 Kbps    mod           Yes
  14.4  dte     48 Kbps      dis

  LineNumOfValidEntries: 4
porky.1.14.FRSM.a >
```

Example 1-266 Display lines on the current PXM with BNM-T3E3 trunk card

```
spirit3.1.7.PXM.a > dsplns ds3 7

Line       Type        Coding      Length       Criteria   AIScBitsCheck
----  --------------  --------  -------------  ----------- -------------
1  dsx3CbitParity     Dis / dsx3B3ZS  lessThan225    fBits3Of8   Check C-bits
1  dsx3CbitParity     Dis / dsx3B3ZS  lessThan225    fBits3Of8   Check
C-bitLineNumOfValidEntries: 1
spirit3.1.7.PXM.a >
```

Example 1-267 Display lines on the current AUSM

```
spirit3.1.19.AUSM.a > dsplns

Medium   Medium   Medium    Medium
Œ  Line  Conn      Type     Status/Coding      Length     XmtClock Alarm Stats
        Type                                            Source         Alarm
  ----  ----- ------------ ------ -------- ------------ -------- ----- -----
  19.1  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.2  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.3  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.4  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.5  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.6  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.7  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  19.8  SMB   dsx1E1CCS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  LineNumOfValidEntries: 8
spirit3.1.19.AUSM.a >
```

Example 1-268 Display lines on the PXM with OC-3

```
spirit.1.8.PXM.a > dsplns sonet 7

                                                          Medium  Medium Medium Medium
  Sonet Line  Line   Line   HCS   Payload  Frame    Time    Valid  Line   Line
  Line  Type  Status Lpbk   mask  Scramble Scramble Elapsed Intvls Coding Type
  ----- ----- ------ ------ ---- -------- -------- ------- ------ ------ ------
   1   sonet Dis    NoLoop Ena  Enabled  Enabled   0       0      NRZ   LongSine
   2   sonet Dis    NoLoop Ena  Enabled  Enabled   0       0      NRZ   LongSine
   3   sonet Dis    NoLoop Ena  Enabled  Enabled   0       0      NRZ   LongSine
   4   sonet Dis    NoLoop Ena  Enabled  Enabled   0       0      NRZ   LongSine
spirit.1.8.PXM.a >
```

Example 1-269 Display lines on the PXM with OC-12

```
spirit3.1.7.PXM.a > dsplns sonet 7

                                                          Medium  Medium Medium Medium
  Sonet Line  Line   Line   HCS   Payload  Frame    Time    Valid  Line   Line
  Line  Type  Status Lpbk   mask  Scramble Scramble Elapsed Intvls Coding Type
  ----- ----- ------ ------ ---- -------- -------- ------- ------ ------ ------
   1   sonet Ena    NoLoop Ena  Enabled  Enabled   96734   96     Other LongSingleMode
 spirit3.1.7.PXM.a >
```

dsploads

Display Loads

Use the **dsploads** command to view the connection load at a specified port on the AUSM. This command helps you to determine whether adding more connections is advisable.

The display shows the load in cells per second. The layout of the display is in rows and columns. One column exists for each port, and one row exists for each connection type. If the traffic is exceeding the bandwidth configured for the port, an “overload” message appears at the bottom of the column for the overloaded port.

Card(s) on Which This Command Executes

AUSM

Syntax

dsploads

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-270 Display load on the current AUSM

```
spirit3.1.20.AUSM.a > dsploads

Load Display for AUSM ports

                       Port 1  Port2   Port3   Port4
                       ******************************
CBR (based on PCR0+1)       0       0       0       0
VBR (based on PCR0+1)       0       0       0       0
ABR (based on MCR)      64000   64000   64000   64000
                       ------------------------------

Total                   64000   64000   64000   64000

Load Status             OverloadOverloadOverloadOverload

Note: All Cell Rates are multiplied by respective
               Percentage Utilization factors

spirit3.1.20.AUSM.a >
```

dsplog

Display Log

Use the **dsplog** command to view events and messages logged by the current PXM or FRSM. The most recent events appear at the top of the list. The **dsplog** command displays the MGX 8250 log. If you enter the command without either of the optional parameters, the system displays the entire log for all cards. Optionally, you can display the log for a particular card or a particular log entry.

Card(s) on Which This Command Executes

PXM, FRSM

Syntax

dsplog -log <*EventLog#* > -mod <*ModuleName*> -sev <*Severity#*> -sl <*Slot#* > -task <*TaskName*> -tge <*MM/DD/YYYY-HH:MM:SS*> -tle <*MM/DD/YYYY -HH:MM:SS*>

Syntax Description

-log	Command delineator that precedes the *EventLog#* entry.
EventLog#	Number of the event log item.
-mod	Command delineator that precedes the *ModuleName* entry.
ModuleName	Module name.
-sev	Command delineator that precedes the *Severity#* entry.
Severity#	Severity number.
-sl	Command delineator that precedes the *Slot#* entry.
Slot#	Slot number that contains the card associated with the event log.
-task	Command delineator that precedes the *TaskName* entry.
TaskName	Task name.
-tge	Command delineator that precedes the *MM/DD/YYYY-HH:MM:SS* entry.
MM/DD/YYYY-HH:MM:SS	Events displayed after (and including) a particular time–month, day, year, hour, minute, second.
-tle	Command delineator that precedes the *MM/DD/YYYY-HH:MM:SS* entry.
MM/DD/YYYY-HH:MM:SS	Events displayed prior to (and including) a particular time–month, day, year, hour, minute, second.

Related Commands

clrlog, **dsplogs**

Attributes

Log: No State: Any Privilege: Any

Example 1-271 Display all log files

```
spirit3.1.7.PXM.a > dsplog

dsplog
04/01/70-13:10:03 tRootTask    2 Illegal msg received
04/01/70-13:10:07 aum        1312 local IP address not programmed
03/01/70-20:11:31 smm        1207 slave ack timeout

spirit3.1.7.PXM.a >
```

dsplogs

Display Logs

Use the **dsplogs** command to view information from all event log files.

Card(s) on Which This Command Executes

PXM, FRSM

Syntax

dsplogs

Related Commands

clrlog, **dsplog**

Attributes

Log: No State: Any Privilege: Any

Example 1-272 Display all log files

```
spirit11.1.7.PXM.a > dsplogs

spirit11.1.7.PXM.a > dsplogs
log_file:   C:/LOG/event04.log
    created when 11/08/1998-19:19:58
    error sequence # :     0

log_file:   C:/LOG/event03.log
    created when 11/04/1998-03:34:38
    error sequence # :     0

log_file:   C:/LOG/event02.log
    created when 11/04/1998-03:18:26
    error sequence # :     0

log_file:   C:/LOG/event01.log
    created when 11/04/1998-03:15:22
    error sequence # :     0

spirit11.1.7.PXM.a >
```

dspmaptbl

Display Map Table

Use the **dspmaptbl** command to view the numbers assigned to Frame Relay ports or ATM ports on the FRSM or AUSM, respectively.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

dspmaptbl

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display map table for the current FRSM
- Display map table for the current AUSM

Example 1-273 Display map table for the current FRSM

```
spirit3.1.17.FRSM.a > dspmaptbl
PortNum  DLCI  ChanNum  LineNum
  -------  ----  -------  -------
   1       100    69        1
   1       101    70        1
   1       102    71        1
   1       103    72        1
   1       104    73        1
   1       105    74        1
   1       106    75        1
   1       107    76        1
   1       108    77        1
   1       109    78        1
   1       110    79        1
   1       111    80        1
   1       112    81        1
   1       113    82        1
   1       114    83        1
   1       115    84        1
   2       100    85        1
   2       101    86        1
   2       102    87        1
   2       103    88        1

spirit3.1.17.FRSM.a >
```

Example 1-274 Display map table for the current AUSM

```
spirit3.1.20.AUSM.a > dspmaptbl
 PortNum  VPI  VCI ChanNum  Channel Type
  -------  ---  --- -------  ------------
   1       1    16   16        VCC
   1       1    17   17        VCC
   1       1    18   18        VCC
   1       1    19   19        VCC
   1       1    20   20        VCC
   1       1    21   21        VCC
   1       1    22   22        VCC
   1       1    23   23        VCC
   1       1    24   24        VCC
   1       1    25   25        VCC
   1       1    26   26        VCC
   1       1    27   27        VCC
   1       1    28   28        VCC
   1       1    29   29        VCC
   1       1    30   30        VCC
   1       1    31   31        VCC
   1       1    32   32        VCC
   1       1    33   33        VCC
   1       1    34   34        VCC
   1       1    35   35        VCC

spirit3.1.20.AUSM.a >
```

dspmsgcnt

Display Control Message Counters

Use the **dspmsgcnt** command to view the control message counters for the card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM, VISM

Syntax

dspmsgcnt

Related Commands

clrmsgcnt

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display control message counters for the current AUSM
- Display control message counters for the current VISM

Example 1-275 Display control message counters for the current AUSM

```
spirit.1.19.AUSM8.a > dspmsgcnt

  RiscXmtCtrlMsg:            88006
  RiscRcvCtrlMsg:            53494
  SARXmtCtrlMsg:             88006
  SARRcvCtrlMsg:             53494
  SARCtrlMsgDiscLenErr:      0
  SARCtrlMsgDiscCRCErr:      0
  SARCtrlMsgDiscUnknownChan: 0
  SARCtrlMsgLastUnknownChan: 0

spirit.1.19.AUSM8.a >
```

Example 1-276 Display control message counters for the current VISM

```
spirit.1.5.VISM8.a > dspmsgcnt

  RiscXmtCtrlMsg:           83606
  RiscRcvCtrlMsg:           83606
  SARXmtCtrlMsg:            83445
  SARRcvCtrlMsg:            83606
  SARCtrlMsgDiscLenErr:     0
  SARCtrlMsgDiscCRCErr:     0
  SARCtrlMsgDiscUnknownChan: 0
  SARCtrlMsgLastUnknownChan: 0

spirit.1.5.VISM8.a >
```

dspname

Display Name

Use the **dspname** command to view the name of the node.

Card(s) on Which This Command Executes

PXM

Syntax

dspname

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-277 Display the name of the node

```
wilco.1.7.PXM.a > dspname

Node Name : wilco

wilco.1.7.PXM.a >
```

dspnwip

Display Network IP Address

Use the **dspnwip** command to view the network IP address for the MGX 8250.

Card(s) on Which This Command Executes

PXM

Syntax

dspnwip

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-278 Display network IP address for the switch

```
wilco.1.7.PXM.a > dspnwip

Node IP : 192.0.0.0

wilco.1.7.PXM.a >
```

dspoamlpbk

Display OAM Loopback

Use the **dspoamlpbk** command to display the status of an OAM loopback test. The display indicates the PVCs currently under OAM loopback alarm, and the transmission rate of the OAM loopback cells.

Card(s) on Which This Command Executes

FRSM 2T3/E3, FRSM HS2

Syntax

dspoamlpbk

Related Commands

cnfoamlpbk

Attributes

Log: No State: Any Privilege: Any

Example 1-279 Display loopback command without loopback configured on module

```
popeye1r.1.17.VHS2CT3.s > dspoamlpbk


RasOamlpbkAllowedState:  Disabled
RasOamlpbkFrequency   :  1


Channels
   16  : 0000000000 0000000000 0000000000 0000000000
   56  : 0000000000 0000000000 0000000000 0000000000
   96  : 0000000000 0000000000 0000000000 0000000000
  136  : 0000000000 0000000000 0000000000 0000000000
  176  : 0000000000 0000000000 0000000000 0000000000
  216  : 0000000000 0000000000 0000000000 0000000000
  256  : 0000000000 0000000000 0000000000 0000000000
  296  : 0000000000 0000000000 0000000000 0000000000
  336  : 0000000000 0000000000 0000000000 0000000000
  376  : 0000000000 0000000000 0000000000 0000000000
  416  : 0000000000 0000000000 0000000000 0000000000
  456  : 0000000000 0000000000 0000000000 0000000000
  496  : 0000000000 0000000000 0000000000 0000000000
  536  : 0000000000 0000000000 0000000000 0000000000
```

Example 1-280 Display loopback command with loopback configured on channels 17 and 18

```
popeye1r.1.17.VHS2CT3.a > dspoamlpbk


RasOamlpbkAllowedState:  Enabled
RasOamlpbkFrequency   :  2

Following Channels are under Ras Alarm :

Channels
   16  : 0000000000 0000000000 0000000000 0000000000
   56  : 0000000000 0000000000 0000000000 0000000000
   96  : 0000000000 0000000000 0000000000 0000000000
  136  : 0000000000 0000000000 0000000000 0000000000
  176  : 0000000000 0000000000 0000000000 0000000000
  216  : 0000000000 0000000000 0000000000 0000000000
  256  : 0000000000 0000000000 0000000000 0000000000
  296  : 0000000000 0000000000 0000000000 0000000000
  336  : 0000000000 0000000000 0000000000 0000000000
  376  : 0000000000 0000000000 0000000000 0000000000
  416  : 0000000000 0000000000 0000000000 0000000000
  456  : 0000000000 0000000000 0000000000 0000000000
  496  : 0000000000 0000000000 0000000000 0000000000
  536  : 0000000000 0000000000 0000000000 0000000000
```

dsponoff

Display Onoff Command Settings

Use the **dsponoff** command to view all parameters activated by the **onoff** command for the current PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dsponoff

Related Commands

None

Attributes

Log: No State: Active Privilege: Group 2

Example 1-281 Display all parameters activated by the onoff command for the current PXM

```
spirit4.1.8.PXM.a > dsponoff

    1   Background Updates        NO
    2   Dynamic BW Allocation     YES
    3   Cm Updates                YES
    4   Cm_Rerouting              YES
    5   Comm Fail Test            YES
    6   Deroute Delay             YES
    7   Auto Renum Fail Recov     YES

spirit4.1.8.PXM.a >
```

dspparifs

Display PAR Interfaces

Use the **dspparifs** command to view all Portable AutoRoute (PAR) interfaces for the current PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dspparifs

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-282 Display all PAR interfaces for the current PXM

```
spirit.1.7.PXM.a > dspparifs

slot.port   type         status      vpi           vci          txRate     rxRae
-------------------------------------------------------------------------------
      7.1   UNI_IF       FAILED    0 to 4095     0 to 65535      96000      9600
     0.33   CLK_IF       FAILED    0 to    0     0 to     0          0         0
     7.33   UNI_IF           UP    0 to  255     0 to 65535     176604     17664
     7.34   UNI_IF           UP    0 to  255     0 to 65535     176604     17664

 spirit.1.7.PXM.a >
```

dsppasswd

Display User Password

Use the **dsppasswd** command to display the current password of a user.

Card(s) on Which This Command Executes

PXM

Syntax

dsppasswd [<*user_id*>]

Syntax Description

user_id	User name.

Related Commands

cnfpasswd, **passwd**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-283 Display the password for a user with a user ID of johndoe

```
spirit4.1.2.PXM.a > dsppasswd johndoe

The password for johndoe is newuser

This screen will self-destruct in ten seconds.........

spirit4.1.2.PXM.a >
```

dspplpp

Display PLPP

Use the **dspplpp** command to view the configured Physical Layer Protocol Processor (PLPP) parameters on the current AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

dspplpp <*port number*>

Syntax Description

port number Port number, in the range 1–8.

Related Commands

cnfplpp

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-284 Display PLPP parameters for port 1 on the current AUSM card

```
spirit.1.19.AUSM8.a > dspplpp 1

  PhysicalPortNumber:            1
  CellFraming:                   ATM
  CellScramble:                  Scramble
  Plpp Loopback:                 No Loopback
  Single-bit error correction:   Disabled

spirit.1.19.AUSM8.a >
```

dspport

Display Port

Use the **dspport** command on an FRSM and CESM to view the port configuration for the specified port.

Use the **dspport** command on an AUSM to view the Physical Layer Protocol Processor (PLPP) configuration for the specified port.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

dspport <*port number*>

Syntax Description

port number Port number, in the range appropriate for the card.

- FRSM
  - T1 range = 1–192
  - E1 range = 1–248
- AUSM range = 1–8
- CESM range = 1–8

Related Commands

FRSM: **addport**, **cnfport**, **delport**

AUSM: **upport**, **dnport**

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display port 1 on the current AUSM
- Display a port in the IMA group on the current AUSM-8
- Display port configuration for port 1 on the current FRSM8-T1
- Display port 1 on the current FRSM-VHS2CT3
- Display port 1 on the current FRSM-HS1

Example 1-285 Display normal UNI port on the current AUSM-8

```
popeye.1.29.AUSMB8.a > dspport 1


  LogicalPortNumber:            1
  Port Enable:                  UP
  Port State:                   Line alarm
  PortType:                     UNI
  PhysicalPortNumber:           1
  CellFraming:                  ATM
  CellScramble:                 Scramble
  Plpp Loopback:                No Loopback
  Single-bit error correction:  Disabled
```

Example 1-286 Display a port in the IMA group on the current AUSM-8

```
popeye.1.27.AUSMB8.a > dspport 1  (or dspimagrp 1)

   IMA Group number                 : 1
   Port type                        : UNI
   Lines configured : 1.2.4
   Enable                           : Enabled
   IMA Port state                   : Active
   IMA Group Ne state               : operational
   PortSpeed (cells/sec)            : 10773
   GroupTxAvailCellRate (cells/sec) : 7182
   ImaGroupTxFrameLength(cells)     : 128
   LcpDelayTolerance (IMA frames)   : 1
   ReadPtrWrPtrDiff  (cells)        : 4
   Minimun number of links          : 2
   MaxTolerableDiffDelay (msec)     : 275
   Lines Present                    : 1.2
   ImaGroupRxImaId                  : 0x0
   ImaGroupTxImaId                  : 0x0
   Observed Diff delay (msec)       : 0
   Clock Mode                       : CTC
   GroupAlpha                       : 2
   GroupBeta                        : 2
   GroupGamma                       : 1
   GroupConfiguration               : 1
   IMAGrp Failure status            : No Failure
   Timing reference link            : 1
```

Example 1-287 Display port configuration for port 1 on the current FRSM8-T1

```
popeye.1.17.FRSM.a > dspport 1

  SlotNum:                      17
  PortLineNum:                  1
  PortNum:                      1
  PortRowStatus:                Add
  PortDs0Speed:                 64k
  PortDs0ConfigBitMap(1stDS0):  0xffffff(1)
  PortEqueueServiceRatio:       1
  PortFlagsBetweenFrames:       1
  PortSpeed:                    1536kbps
  SignallingProtocolType:       NoSignalling
  AsynchronousMsgs:             UPD_UFS disabled
  T391LineIntegrityTimer:       10
  T392PollingVerificationTimer: 15
  N391FullStatusPollingCounter: 6
  N392ErrorThreshold:           3
  N393MonitoredEventCount:      4
  EnhancedLmi:                  Off
  PortState:                    Active
  PortSignallingState:          No Signalling Failure
  CLLMEnableStatus:             Disable
  CLLMxmtStatusTimer:           0

Type <CR> to continue, Q<CR> to stop:

  portType:                     frameRelay
  PortIngrPercentUtil:          0
  PortEgrPercentUtil:           0
  PortOversubscribed:           False
 PortSvcStatus:                Disable
 PortSvcInUse:                 Not In-Use
 PortSvcShareLcn:              Card-based
 PortSvcLcnLow:                0
 PortSvcLcnHigh:               0
 PortSvcDlciLow:               0
 PortSvcDlciHigh:              0

  PortDs0UsedLine1:             0x00ffffff
  PortDs0UsedLine2:             0x00ffffff
  PortDs0UsedLine3:             0x00ffffff
  PortDs0UsedLine4:             0x00000000
  PortDs0UsedLine5:             0x00000000
  PortDs0UsedLine6:             0x00000000
  PortDs0UsedLine7:             0x00000000
  PortDs0UsedLine8:             0x00000000
  PortNumNextAvailable:         31
```

Example 1-288 Display port 1 on the current FRSM-VHS2CT3

```
golden.1.5.VHS2CT3.a > dspport 1

    SlotNum:                    5
    PortLineNum:                1
    PortNum:                    1
    PortRowStatus:              Add
    PortDs0Speed:               64k
    PortDs0ConfigBitMap(1stDS0): 0xffffff(1)
    PortEqueueServiceRatio:     n/a
    PortFlagsBetweenFrames:     0
    PortSpeed:                  1536 kbps
    SignallingProtocolType:     NoSignalling
    AsynchronousMsgs:           UPD_UFS disabled
    T391LineIntegrityTimer:     10 sec
    T392PollingVerificationTimer:15 sec
    N391FullStatusPollingCounter:6
    N392ErrorThreshold:         3
    N393MonitoredEventCount:    4
    EnhancedLmi:                Off
    PortState:                  FailedDuetoLineFailure
    PortSignallingState:        No Signalling Failure
    CLLMEnableStatus:           Disable
    CLLMxmtStatusTimer:         40 ms
    portType:                   frameRelay
portEnhancedSIW:            Disable
    PortIngrPercentUtil:        0
    PortEgrPercentUtil:         0
    PortOversubscribed:         False
    PortSvcStatus:              Disable
    PortSvcInUse:               Not In-Use
    PortSvcShareLcn:            Card-based
    PortSvcLcnLow:              0
    PortSvcLcnHigh:             0
    PortSvcDlciLow:             0
    PortSvcDlciHigh:            0

  PortNumNextAvailable:       2
```

Example 1-289 Display port 1 on the current FRSM-HS1

```
golden.1.25.FRSM.a > dspport 1

  SlotNum:                     25
  PortNum:                     1
  PortRowStatus:               Add
  PortEqueueServiceRatio:      1
  PortFlagsBetweenFrames:      1
  PortSpeed:                   48 Kbps
  SignallingProtocolType:      NoSignalling
  AsynchronousUpdates:         dis
  T391LineIntegrityTimer:      10
  T392PollingVerificationTimer:15
  N391FullStatusPollingCounter:6
  N392ErrorThreshold:          3
  N393MonitoredEventCount:     4
  EnhancedLmi:                 Off
  PortState:                   FailedDuetoLineFailure
  PortSignallingState:         No Signalling Failure
  CLLMEnableStatus:            dis
  CLLMxmtStatusTimer:          0
  portType:                    frameRelay
  PortIngrPercentUtil:         0
  PortEgrPercentUtil:          0
  PortOversubscribed:          False
```

dspportcnt

Display Port Counters

Use the **dspportcnt** command to view counters for a specified port.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

dspportcnt <*port number*>

Syntax Description

port number Port number, in the range appropriate for the card.

- PXM range = 1–32
- FRSM
  - T1 range = 1–192
  - E1 range = 1–248
  - X.21 range = 1–4
  - HSSI range = 1–2
- CESM
  - T1 range = 1–192
  - E1 range = 1–248
- AUSM range = 1–8

Related Commands

dspcds

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display port counters on port 1 of the current AUSM
- Display port counters on port 1 of the current FRSM
- Display port counters on port 1 of the current PXM

Example 1-290 Display port counters on port 1 of the current AUSM

```
spirit3.1.20.AUSM.a > dspportcnt 1
  PortNum:                              1
  PortState:                            Sig. Failure
  IngressRcvCells:                      0
  IngressRcvCellRate (cells/sec):       0
  IngressRcvUtilization (percentage):   0
  IngressXmtCells:                      0
  IngressGFCErrorCells:                 0
  IngressVpiVciErrCells:                0
  IngressUnknownVpiVci:                 0x0
  IngressRcvClpSetCells:                0
  EgressRcvCells:                       0
  EgressRcvCellRate (cells/sec):        0
  EgressRcvUtilization (percentage):    0
  EgressXmtCells:                       0
  EgressXmtCellRate (cells/sec):        0
  EgressXmtUtilization (percentage):    0
  EgressPortAlarmDiscardCells:          0
  EgressXmtClpSetCells:                 0
  EgressXmtEfciSetCells:                0
  PortXmtAisCells:                      0
  PortXmtSgmtLpbkCells:                 0
  PortRcvAisCells:                      0
  PortRcvFerfCells:                     0
  PortRcvSgmtLpbkCells:                 0
  PortRcvCrcErrOAMCells:                0
  TotalIngressQFullDiscardCells:        0
  TotalIngressClpSetDiscardCells:       0
  TransmitFIFOFullCount (per card):     0
  ReceivedHECErrorCells:                0
  HECErroredSeconds:                    0
  SeverelyHECErroredSeconds:            0

spirit3.1.20.AUSM.a >
```

Example 1-291 Display port counters on port 1 of the current FRSM

```
spirit3.1.17.FRSM.a > dspportcnt 1
                                    Tx                 Rx
                                ---------------    ---------------
  Total Frames:                 0                  0
  Total Bytes:                  0                  0
  Frames FECN:                  0                  0
  Frames BECN:                  0                  0
  Frames Abort:                 0                  0
  Buf Not Available:            0                  0
  KbpsAIR:                      0                  0
  XmtFramesDiscXceedQDepth:     0
  XmtBytesDiscXceedQDepth:      0
  XmtFramesDuringLMIAlarm:      0
  XmtByteDuringLMIAlarm:        0
  XmtFramesUnderrun:            0
  RcvFramesDE:                                     0
  RcvFramesDiscCRCError:                           0
  RcvFramesDiscIllegalHeader:                      0
  RcvFramesDiscAlignmentError:                     0
  RcvFramesDiscIllegalLen:                         0
  RcvFramesDiscXceedDEThresh:                      0
  RcvFramesUnknownDLCI:                            0
  RcvLastUnknownDLCI:                              0
  RcvFramesTaggedFECN:                             0
  RcvFramesTaggedBECN:                             0
  RcvFramesTaggedDE:                               0
  Status:                       0                  0
  StatusInquiry:                0                  0
  AsynchUpdate:                 0                  0
  RcvInvalidRequest:                               0
  RcvUNISeqMismatch:                               0
  RcvNNISeqMismatch:                               0
  UNISignallingTimeout:                            0
  NNISignallingTimeout:                            0
  FramesCLLM:                   0                  0
  BytesCLLM:                    0                  0
  CLLMFailures:                                    0

spirit3.1.17.FRSM.a >
```

Example 1-292 Display port counters on port 1 of the current PXM

```
spirit4.1.8.PXM.a > dspportcnt 1


Interface Num                 :          1
Interface State               : Line Failure
Total Cells                   :          0
Received OAM Cells            :          0
Received RM Cells             :          0
Received CLP0 Cells           :          0
Received CLP1 Cells           :          0
Received CLP0,Discarded Cells :          0
Received CLP1,Discarded Cells :          0
Transmitted OAM Cells         :          0
Transmitted RM Cells          :          0
Transmitted CLP0 Cells        :     256656
Transmitted CLP1 Cells        :          0

spirit4.1.8.PXM.a >
```

dspportq

Display Port Queue Information

Use the **dspportq** command to view queue information for a specified port and egress queue on the AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

dspportq <*port_num*> <*egress_q*>

Syntax Description

port_num	Port number, in the range 1–8.
egress_q	Egress queue number, in the range 1–16.

Related Commands

dspportqs

Attributes

Log: No State: Any Privilege: Any

Example 1-293 Display queue information for egress queue 1 on port 1

```
spirit3.1.20.AUSM.a > dspportq 1 1

  ServicePortNum:                1
  QueueNumber:                   1
  PortBinState:                  Disable
  ServiceSequence:               255
  QueueDepth(cells):             500
  CLPThresholdHigh(cells):       450
  CLPThresholdLow(cells):        400
  EFCIThreshold(cells):          400
  QueueAlgorithm:                255
  MaxBandwidthIncrement:         4096
  MinBandwidthIncrement:         0
  QCLPState:                     Low
  QFullDiscardedCells:           0
  CLPSetDiscardedCells:          0


Syntax : dspportq "port_num egress_q"
         port number -- values ranging from 1-8
         queue # -- queue number : 1 - 16, 0 - for default in addchan

spirit3.1.20.AUSM.a >
```

dspportqs

Display Port Queue Information

Use the **dspportqs** command to view queue information for all the egress queues on an AUSM port.

Card(s) on Which This Command Executes

AUSM

Syntax

dspportqs

Related Commands

dspportq

Attributes

Log: No State: Any Privilege: Any

Example 1-294 Display egress queue information for all the egress queues on the AUSM

```
spirit.1.19.AUSM8.a > dspportqs

Port   Q Num  State   Q-Algo Service-Seq Depth-Max  CLP-High  CLP-Low  EFCI-Thrsh
----  -----  -----   ------ ----------- ---------  --------  -------  ----------
  1     1    Enabled    3       1           200      180        160      160
  1     2    Enabled    3       2           900      800        700      700
  1     3    Enabled    3       3           900      800        700      700
  4     1    Enabled    3       1           200      180        160      160
  4     2    Enabled    3       2           900      800        700      700
  4     3    Enabled    3       3           900      800        700      700


Syntax : dspportqs
```

dspportrscprtn

Display Port Resource Partition Information

Use the **dspportrscprtn** command to view the port resource partition on the current PXM.

Card(s) on Which This Command Executes

PXM

Syntax

dspportrscprtn

Related Commands

dspcdrscprtn, **dsplnrsc**, **dsprscprtn**

Attributes

Log: No State: Any Privilege: Any

Example 1-295 Display port resource partition on the current PXM

```
spirit4.1.8.PXM.a > dspportrscprtn

    Port  Ctrlr  Row    PctBw       VPI          VCI       Max
    Num   Type   Stat   In/Out    min/max      min/max    GLCNs
    ------------------------------------------------------------
      1   PAR     ON   100/100      0/255        0/65535  32767
      1   PNNI    ON   100/100      0/255        0/65535  32767
      1   TAG     ON   100/100      0/255        0/65535  32767
      2   PAR     ON   100/100      0/255        0/65535  32767
      2   PNNI    ON   100/100      0/255        0/65535  32767
      2   TAG     ON   100/100      0/255        0/65535  32767

spirit4.1.8.PXM.a >
```

dspports

Display Ports

Use the **dspports** command to view information about all ports on the current card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

dspports

Related Commands

addport, **cnfport**, **delport**, **dspport**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display ports on the current FRSM
- Display ports on the current PXM
- Display ports on the current AUSM
- Display ports on the current CESM

Example 1-296 Display ports on the current FRSM

```
spirit3.1.17.FRSM.a > dspports

   Port   Ena/Speed EQService  SignalType  T391 T392 N391 N392 N393 InAlarm
                      Ratio
  --------  --- ----- --------- ------------ ---- ---- ---- ---- ---- -------
  17.2.1    Add/1536k    1      NoSignalling   10   15    6    3    4   No
  17.2.2    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.3    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.4    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.5    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.6    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.7    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.8    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.9    Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.10   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.11   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.12   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.13   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.14   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.15   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.16   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.17   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.18   Add/  64k    1      NoSignalling   10   15    6    3    4   No
  17.2.19   Add/  64k    1      NoSignalling   10   15    6    3    4   No
```

Example 1-297 Display ports on the current PXM

```
pop_oc12.1.8.PXM.a > dspports

    Port  Status  Line  PctBw  minVpi  maxVpi
    ------------------------------------------------------
       1    ON      1    100       0    4095
       2    ON      2    100       0    4095
```

Example 1-298 Display ports on the current AUSM

```
spirit.1.19.AUSM8.a > dspports

No ATM T1/E1 UNI ports currently active

 List of IMA groups:
 ===================

ImaGrp PortType Speed  Lines configured  Lines present  Tol Diff  Port State
                                                       Delay(ms)
------ -------- -----  ----------------  -------------  --------- ----------
 19.1   NNI     13470  1.2.3                             200      Sig. Failure

  NextPortNumAvailable:  2


spirit.1.19.AUSM8.a >
```

Example 1-299 Display ports on the current CESM

```
MGX-01.1.1.CESM.a > dspports


  Port     Ena/Speed   Type
  ------   --- ------ --------
  1.1.1    Add/1536k structur

  Number of ports:    1

  PortDs0UsedLine1:             0x00ffffff
  PortDs0UsedLine2:             0x00000000
  PortDs0UsedLine3:             0x00000000
  PortDs0UsedLine4:             0x00000000
  PortDs0UsedLine5:             0x00000000
  PortDs0UsedLine6:             0x00000000
  PortDs0UsedLine7:             0x00000000
  PortDs0UsedLine8:             0x00000000
  PortNumNextAvailable:         10


MGX-01.1.1.CESM.a >
```

dspportstats

Display Port Statistics

Use the **dspportstats** command to view statistics information for a specified port on the FRSM.

Card(s) on Which This Command Executes

FRSM

Syntax

dspportstats <*line#*> <*1st_DS0*>

Syntax Description

line#	Line number, in the range 1–8.
1st_DS0	First DS0, in the range appropriate for the interface. • T1 range = 1–24 • E1 range = 1–32

Related Commands

dspchstats

Attributes

Log: No State: Any Privilege: Any

Example 1-300 Display statistics information for port 1 on first DS0 of 12

```
spirit3.1.17.FRSM.a > dspportstats 1 12

Line Num:1
Physical Port Num: 12
Logical Port Num: 4
                                    Tx                 Rx
                                ---------------    ---------------
  Total Frames:                 0                  0
  Total Bytes:                  0                  0
  Frames FECN:                  0                  0
  Frames BECN:                  0                  0
  Frames Abort:                 0                  0
  Buf Not Available:            0                  0
  KbpsAIR:                      0                  0
  XmtFramesDiscXceedQDepth:     0
  XmtBytesDiscXceedQDepth:      0
  XmtFramesDuringLMIAlarm:      0
  XmtByteDuringLMIAlarm:        0
  XmtFramesUnderrun:            0
  RcvFramesDE:                                     0
  RcvFramesDiscCRCError:                           0
  RcvFramesDiscIllegalHeader:                      0
  RcvFramesDiscAlignmentError:                     0
  RcvFramesDiscIllegalLen:                         0
  RcvFramesDiscXceedDEThresh:                      0
  RcvFramesUnknownDLCI:                            0
  RcvLastUnknownDLCI:                              0
  RcvFramesTaggedFECN:                             0
  RcvFramesTaggedBECN:                             0
  RcvFramesTaggedDE:                               0
  Status:                       0                  0
  StatusInquiry:                0                  0
  AsynchUpdate:                 0                  0
  RcvInvalidRequest:                               0
  RcvUNISeqMismatch:                               0
  RcvNNISeqMismatch:                               0
  UNISignallingTimeout:                            0
  NNISignallingTimeout:                            0
  FramesCLLM:                   0                  0
  BytesCLLM:                    0                  0
  CLLMFailures:                                    0


spirit3.1.17.FRSM.a >
```

dspprf

Display Profiler Data

Use the **dspprf** command to view profiler data. The profiler is organized in terms of resources that are being monitored. The data being collected for a particular resource can be of "interval" or "total" nature. If the total option is specified, the last 150 tasks executed, or that are executing, are displayed. If no options are specified, the **dspprf** command shows interval data. The interval is configured using the **cnfprfparam** command.

If the abort option is added to the command, the latest profiler data that is saved during a Controller Card abort is displayed; for example, 1 million 3, 3 million, 2 million 1000, 52, 252. If the profiler is examined without the "abort" (a) option, then the real-time data that is being collected every "x" seconds (configured using **cnfprfparam**) is displayed. By default, the real-time data is collected every 20 seconds.

Card(s) on Which This Command Executes

PXM

Syntax

dspprf [*t*|*i*] [*m*|*n*|*r*]

Syntax Description

t Total data collected from the time when the system is initialized.

i Interval data collected every "x" seconds, as specified using the **cnfprfparam** command. If no options are specified, interval data is displayed.

m Displays memory data.

n Displays node information.

r Displays region usage.

Related Commands

dspprfhist

Attributes

Log: No State: Active Privilege: Any

All valid combinations possible with the **dspprf** command are listed below. The [a] and [s] options specify abort or standby data.

- dspprf i m
- dspprf t m
- dspprf i n
- dspprf t n
- dspprf i r
- dspprf t r

Example 1-301 Display interval profiler data for memory resources (dspprf i m)

```
NODENAME.1.7.PXM.a > dspprf i m
                     HP    LP  Free Assgn
INTERRUPT
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0

UNKOWN
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0
tRootTask
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0
tLOGD
                      2     0     2     0
                      2     0     2     0
                      2     0     2     0
tSPM
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0
tParRoot
                    358     0   358     0
                   1000     0  1000     0
                   1000     0  1000     0
tIpatm
                      0     0     0     0
                      2     0     2     0
                      2     0     2     0
tRVT
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0
tCliAuthTra
                      0     0     0     0
                      0     0     0     0
                      0     0     0     0
tTnInTsk01
                     28     0    28     0
                      1     0     2     0
                     20     0    20     0
```

Data Components

Task names Names for the tasks that are spawned.

Note Dynamic tasks are repeated since they are spawned, exited, and repeated.

HP Number of times the task made a high-priority memory allocation.

LP Number of times the task made a low-priority memory allocation.

Free Number of times the task made a free memory call.

Assgn Number of times memory was assigned to this process.

Example 1-302 Display total profiler data for memory resources (dspprf t m)

```
NODENAME.1.7.PXM.a > dspprf t m
                      Blk       Size     MaxBlk      MaxSz
UNKOWN                204      24896        204      24896
tRootTask              80    5129696         80    5129696
tLOGD                   1         80          2        160
tSAR                    0          0          0          0
tSCM                  201      19296        202      19376
tRPC                    2        144          5        400
tDBM                  201     192240        232     202656
tDbmDisk                2        160          2        160
tDbmRam                 1         80          1         80
tPMM                    9        592         12        864
tLDRV                   7     459136          9     459312
tOAM                    0          0          1      16432
tTFTPD                 20      11200         20      11200
tFILED                  0          0          0          0
tDbgInTask              8       3200         10       4512
tTelnetD                2        304          6      27296
tRed                    7        576         10    1216992
tRMM                 2241     267712       2241     267712
tAutoCard               4        272          7        672
tVsmCMM                 2        368          3    1216928
tVsmConMgr             25       1808         26      18240
tVsmIlmi                0          0          0          0
                  BlkAssgn    AssgnSz    BlkFree     FreeSz       Fail
UNKOWN                 0          0          0          0          0
tRootTask              0          0          0          0          0
tLOGD                  0          0       2170     173600          0
tSAR                   0          0          0          0          0
tSCM                   7        560       2923     233840          0
tRPC                   2        176         18       1504          0
tDBM                  62      20832        121      33680          0
tDbmDisk               0          0          0          0          0
tDbmRam                0          0          0          0          0
tPMM                   6        544          5        432          0
tLDRV                  2        176          0          0          0
tOAM                   0          0          1      16432          0
tTFTPD                 0          0          0          0          0
tFILED                 0          0          0          0          0
tDbgInTask            21      20032         21      18880          0
tTelnetD               0          0         22      81632          0
tRed                   4    1219696      43274    5456384          0
tRMM                   0          0          0          0          0
tAutoCard              1        176          2        224          0
tVsmCMM                0          0          4    1216800          0
tVsmConMgr             1      16432          0          0          0
tVsmIlmi               0          0          0          0          0
```

Data Components

Task names Names for the tasks that are spawned.

Note Dynamic task names are repeated because they are spawned, exited, and repeated.

Blks Number of memory blocks currently owned by the task. Blks provides an approximation of the memory consumption by a task under "normal" circumstances (assuming the command was executed when the node was "normal"). This value should not be negative. A negative value could indicate a preemptive update issue with the statistics.

Size The total size of memory owned by task, in bytes. This value should not be negative. A negative value could indicate a preemptive update issue with the statistics.

MaxBlks Maximum number of blocks currently used by a given task. This data helps in debugging memory-related aborts or problems.

MaxSize Maximum total memory used by a given task.

BlkAssgn When memory is sent or passed from one task to another task, its ownership is assigned to the task that is receiving the responsibility for the memory. BlkAssign and AssgnSz counts keep track of blocks that have been assigned ownership to another task.

AssgnSz When memory is sent or passed from one task to another task, its ownership is assigned to the task that is receiving the responsibility for the memory. BlkAssign and AssgnSz counts keep track of blocks that have been assigned ownership to another task.

BlkFree Number of available memory blocks.

FreeSz Maximum total memory available.

Fails Number of times memory allocation failed for the task.

Example 1-303 Display interval profiler data for node resources (dspprf i n). The results list the statistics on the amount of SAR buffer used for messaging with other cards or nodes.

```
NODENAME.1.7.PXM.a > dspprf in

                          Fail       HP       LP
CELL
                             0       63        0
                             0       63        0
                             0       64        0
SMALL
                             0        1        0
                             0       27        0
                             0       27        0
MEDIUM
                             0        0        0
                             0        0        0
                             0        0        0
LARGE
                             0        0        0
                             0        0        0
                             0        0        0

Pk Tx Low(APP->SCM)
                           0        0        0
Pk Tx High(APP->SCM)
                           0        0        0
Pk Rx Low(SAR->SCM)
                           1        1        1
Pk Rx High(SAR->SCM)
                           0        0        0
popftx43.1.8.PXM.a >
```

Data Components

CELL Size of one ATM cell.

SMALL Buffers that are approximately six cells of frame payload in size.

MEDIUM Buffers that are approximately 41 cells of frame payload in size.

LARGE Buffers that are approximately 171 cells of frame payload in size.

Pk Tx Low (APP->SCM) Interval counts of messages transmitted from the Shelf Control Module (SCM) of Type Low.

Pk Tx High (APP->SCM) Interval counts of messages transmitted from the Shelf Control Module (SCM) of Type High.

Pk Rx Low (SAR->SCM) Interval counts of messages received by the Shelf Control Module (SCM) of Type Low.

Pk Rx High (SAR->SCM) Interval counts of messages received by the Shelf Control Module (SCM) of Type High.

Fail Number of buffer allocations that have failed in the interval.

HP High-priority allocation of buffer in the interval.

LP Low-priority allocation of buffer in the interval.

Example 1-304 Display total profiler data for node resources (dspprf t n). The results list information about some of the node-wide resources. Currently, message buffers usage for messaging between different processes are stored.

```
NODENAME.1.7.PXM.a > dspprf tn

Pool Name:        TotlChnk  FreeChnk   LoWatMk  AllocOks  AllcFail     Frees
----------------  --------  --------  --------  --------  --------  --------
Nw_Prot_Pkt            100       100       100         0         0         0
Nw_Msg_Ltr            1000       999       999         1         0         0
Cm_SCon_Bmap            10        10        10         0         0         0
Cm_Mcon_Bmap            10         9         9         1         0         0
IPC port info          100       100       100         0         0         0
```

Data Components

Pool names The following chunk pool names are used for IPC to the RPM:

- Nw_Prot_Pkt = Network Protocol Packet
- Nw_Msg_Ltr = Network Message Letter
- Cm_SCon_Bmap = Connection Management Standby Connection Bit Map
- Cm_Mcon_Bmap = Connection Management Mandatory Connection Bit Map
- IPC port info = Interprocess Communication Port Information

TotlChnk Total number of chunks in a particular memory pool.

FreeChnk Number of chunks currently free.

LoWatMk Low-water mark indicates how low the number of free chunks has gone.

AllocOks Allocations OK is the total number of allocations that succeeded.

AllcFail Allocations Fail is the total number of allocation failures.

Frees Number of chunks that have been freed over time.

Example 1-305 Interval profiler data for region resources (dspprf i r)

```
NODENAME.1.7.PXM.a > dspprf ir

                              HP       LP     Fail
STATIC     Smple 0            21        0        0
STATIC     Smple -1           27        0        0
STATIC     Smple -2           22        0        0
DYNAMIC    Smple 0          1057        0        0
DYNAMIC    Smple -1         1057        0        0
DYNAMIC    Smple -2         1061        0        0
STATISTC   Smple 0             0        0        0
STATISTC   Smple -1            0        0        0
STATISTC   Smple -2            0        0        0
```

Data Components

HP High-priority allocation to the various regions that succeeded in the interval.

LP Low-priority allocation to the various regions that succeeded in the interval.

Fail The high-priority and low-priority allocation failures to the various regions that occurred during the interval.

Static Static region.

Dynamic Dynamic region. A high-priority allocation in the dynamic region will go to the static region if necessary. Low-priority allocation in the region is blocked once the amount of free memory goes below a threshold.

Statistic Statistic region.

Example 1-306 Total profiler data for region resources (dspprf t r)

```
NODENAME.1.7.PXM.a > dspprf tr
                       Aval     Fail
STATIC             34649040        0
DYNAMIC            30099744        0
STATISTIC           6078464        0
```

Data Components

Aval Number of bytes available in the three memory regions.

Fail Memory allocations that have failed over time.

Static Static region.

Dynamic Dynamic region.

Statistic Statistic region.

dspprfhist

Display Performance History

Use the **dspprfhist** command to view performance history. The history maintains the real-time usage (historical) of all the tasks in the system. It can maintain 120 intervals worth of real-time data before it is overwritten. The actual time then depends on the interval time as configured by **cnfprfparam 1** command (Interval Time). By default, the interval time is 20 seconds. Multiplied by 120 intervals, this would result in 120 * 20 = 2400 seconds of data. Therefore, you can display 2400 seconds of real-time usage by the different tasks in the system. Unlike the regular **dspprf** screens, this data is NOT saved on an abort.

This command is useful to determine the real-time usage after a particular event. For example, after a switchover or a rebuild, run **dspprfhist** to view how the real time was being used to recover from the switchover or rebuild.

Card(s) on Which This Command Executes

PXM

Syntax

dspprfhist [*intervals*]

Syntax Description

intervals	Number of samples to display, in the range 1–120. Default = 10

Related Commands

dspprf

Attributes

Log: No State: Active Privilege: Any

Example 1-307 View two samples on the current PXM

```
NODENAME.1.7.PXM.a > dspprfhist
CURRENT TIME         19:4:53
Sample #     0
19:4:31(From)-19:4:51(To)
TASK                 TaskId           %
--------------------------------------
INTERRUPT            -              0.2000
KERNEL               -              0.6000
IDLE                 -             55.1000
UNKOWN               -              0.1000
tSpmLmi              41             1.4500
tBgndCheck           59             0.0500
tTnCmdTsk01          84            42.2500
tTnOutTsk01          85             0.2500

Sample #    -1
19:4:11(From)-19:4:31(To)
TASK                 TaskId           %
--------------------------------------
INTERRUPT            -              0.2500
KERNEL               -              0.3500
IDLE                 -             45.2000
UNKOWN               -              0.2500
tSpmLmi              41             1.4500
PAR:Lmi              53             0.0500
PAR:Netw             56             0.0500
tBgndCheck           59             0.0500
tTnCmdTsk01          84            52.2500
tTnOutTsk01          85             0.1000

Sample #    -2
19:3:51(From)-19:4:11(To)
TASK                 TaskId           %
--------------------------------------
INTERRUPT            -              0.0000
KERNEL               -              0.0000
IDLE                 -             98.6000
UNKOWN               -              0.0000
tSpmLmi              41             1.4000
```

Data Components

Task — Task name that is running.

Task ID — ID number assigned to the task that is running.

% — Utilization percentage. In each sample, only those processes/tasks that are actually being used in the respective time sample are presented with a %utilization, (except for the INTERRUPT, KERNEL, IDLE, UNKNOWN processes/tasks).

dspred

Display Redundancy

Use the **dspred** command to view the current redundant slot links.

Card(s) on Which This Card Executes

PXM

Syntax

dspred

Related Commands

addred, **delred**

Attributes

Log: No State: Active Privilege: Any

Example 1-308 Display current redundant slot links

```
spirit.1.7.PXM.a > dspred

  Primary  Primary  Primary  Secondary  Secondary  Secondary  Red.  Red.Slot
  SlotNum   Type     State    SlotNum     Type       State    Type   Cover
  -------  -------  -------  ---------  ---------  ---------  ----  --------
    3      FRSM-8T1  Active      4        FRSM-8T1   Standby   1:N     0


spirit.1.7.PXM.a >
```

dsprscprtn

Display Resource Partition

Use the **dsprscprtn** command to view the resource partition information for the specified interface.

Card(s) on Which This Command Executes

PXM

Syntax

dsprscprtn <*if_num*> <*ctrlr_num*>

Syntax Description

if_num	Interface Number, in the range 1–32.
ctrlr_num	Controller type. • 1 = PAR • 2 = PNNI • 3 = TAG

Related Commands

addrscprtn, **cnfrscprtn**

Attributes

Log: No State: Any Privilege: Any

Example 1-309 Display resource partition information for PAR controller on broadband interface 1 on the current PXM

```
MGX-01.1.7.PXM.a > dsprscprtn 1 1

 bbIfNum Ctrlr Status ingrPctBw egrPctBw minVpi maxVpi minVci maxVci maxChans
-------------------------------------------------------------------------------
    1      1    Ena       100      100       0   4095       0  65535   32767
MGX-01.1.7.PXM.a >
```

dsprscprtns

Display Resource Partitions

Use the **dsprscprtns** command to view the resource partition information for all the interfaces.

Card(s) on Which This Command Executes

PXM

Syntax

dsprscprtns

Related Commands

addrscprtn, **cnfrscprtn**

Attributes

Log: No State: Any Privilege: Any

Example 1-310 Display resource partition information for all broadband interfaces on the current PXM

```
MGX-01.1.7.PXM.a > dsprscprtns

 bbIfNum Ctrlr Status ingrPctBw egrPctBw minVpi maxVpi minVci maxVci maxChans
-------------------------------------------------------------------------------
    1      1    Ena       100      100       0   4095       0  65535   32767

MGX-01.1.7.PXM.a >
```

dspsarchans

Display SAR Channels

Use the **dspsarchans** command to view the segmentation and reassembly (SAR) channels for the current card.

Card(s) on Which This Command Executes

PXM

Syntax

dspsarchans

Related Commands

dspchans

Attributes

Log: No State: Any Privilege: Any

Example 1-311 Display SAR channels

```
penguin.1.7.PXM.a > dspsarchans

   GLCN        SLOT        LCN    RX/TX
----------------------------------------
Intercard Channels:
      1         23          0      TX
      3          8          2      TX
      6          8          2      RX
     68          1          2      TX
     69          1          2      RX
     70          1          3      TX
     71          1          3      RX
     78          1          7      TX
     79          1          7      RX
     88          2          2      TX
     89          2          2      RX
     90          2          3      TX
     91          2          3      RX
     98          2          7      TX
     99          2          7      RX
    108          3          2      TX
    109          3          2      RX
     .           .          .       .
     .           .          .       .
     .           .          .       .
    568         26          2      TX
    569         26          2      RX
    570         26          3      TX
    571         26          3      RX
    658         30          7      TX
    659         30          7      RX


External Channels:

   GLCN       IF      VPI      VCI      RX/TX
-----------------------------------------------
     720       1       3       31        RX
     721       1       3        8        RX
   32824       1       3       31        TX
   32825       1       3        8        TX

penguin.1.7.PXM.a >
```

dspsarcnt

Display SAR Counters

Use the **dspsarcnt** command to view the segmentation and reassembly (SAR) counters for the current card.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM-8T1E1, CESM, VISM

Syntax: PXM

dspsarcnt <*glcn*>

Syntax Description

glcn	Global logical connection number in the range 1–65535.

Syntax: FRSM, CESM, VISM

dspsarcnt <*ChanNum*>

Syntax Description

ChanNum	Channel number, in the range appropriate for the card. • FRSM – 8T1/E1 range = 16–1015 – HS1/B range = 16–1015 – T3/E3/HS2 range = 16–2015 – 2CT3 range = 16–4015 • CESM – 8T1/E1 range = 32–279 – T3/E3 = one connection starting at 32 • VISM range = 32–255

Syntax: AUSM-8T1E1

dspsarcnt <*port.VPI.VCI* | *ChanNum*>

Syntax Description

port.VPI.VCI	Connection identifier in the format *port.VPI.VCI*. • Port range = 1–*N*, as appropriate for the physical installation. • VPI range = 1–4095. • VCI range = 1–65535.
ChanNum	Channel number, in the range 16–1015.

Related Commands

dspsarcnts

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display SAR count on the current CESM, channel 22
- Display SAR count on the current FRSM, channel 17
- Display SAR count for channel 98 on the AUSM
- Display SAR count for channel 37 on the VISM

Example 1-312 Display SAR count on the current CESM, channel 22

```
spirit3.1.13.CESM.a > dspsarcnt 22

                        SarShelfNum:         1
                        SarSlotNum:          13
                        SarChanNum:          22
                              Tx                    Rx
                        ---------------       ---------------
  Total Cells:          11227853              11529804
  Total CellsCLP:       0                     0
  Total CellsAIS:       498805                0
  Total CellsFERF:      0                     302222
  Total CellsEnd2EndLpBk: 0                   0
  Total CellsSegmentLpBk: 0                   0
  RcvCellsDiscOAM:                            0

Syntax : dspsarcnt "chan_num"
         channel number—value ranging from 32 to 279

        possible errors are :
        a) illegal/invalid parameters
        b) channel doesn't exist
spirit3.1.13.CESM.a >
```

Example 1-313 Display SAR count on the current FRSM, channel 17

```
wilco.1.1.FRSM.a > dspsarcnt 17

                         SarShelfNum:         1
                         SarSlotNum:          1
                         SarChanNum:          17
                               Tx                    Rx
                         ---------------       ---------------
  Total Cells:           0                     0
  Total CellsCLP:        0                     0
  Total CellsAIS:        3852                  0
  Total CellsFERF:       0                     0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0

Syntax : dspsarcnt "chan_num"
         channel number -- value ranging from 16 to 1015

        possible errors are :
        a) illegal/invalid parameters
        b) channel doesn't exist
wilco.1.1.FRSM.a >
```

Example 1-314 Display SAR count for channel 98 on the AUSM

```
spirit3.1.4.AUSM.a > dspsarcnt 98

                         SarShelfNum:         1
                         SarSlotNum:          4
                         SarChanNum:          98
                               Tx                    Rx
                         ---------------       ---------------
  Total Cells:           141357                0
  Total CellsCLP:        0                     0
  Total CellsAIS:        0                     0
  Total CellsFERF:       0                     0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0
spirit3.1.4.AUSM.a >
```

Example 1-315 Display SAR count for channel 37 on the VISM

```
spirit.1.5.VISM8.a > dspsarcnt 37

                         SarShelfNum:         1
                         SarSlotNum:          5
                         SarChanNum:          37
                               Tx                    Rx
                         ---------------       ---------------
  Total Cells:           667605215             2717092629
  Total CellsCLP:        0                     0
  Total CellsAIS:        2151235452            2150307780
  Total CellsFERF:       229                   33554690
  Total CellsEnd2EndLpBk: 2150293128           15
  Total CellsSegmentLpBk: 50331906             2151235408
  RcvCellsDiscOAM:                             2

Syntax : dspsarcnt "chan_num"
         channel number -- values : 32 - 255

        possible errors are :
        a) illegal/invalid parameters
        b) channel doesn't exist

spirit.1.5.VISM8.a >
```

dspsarcnts

Display SAR Counters

Use the **dspsarcnts** command to view current segmentation and reassembly (SAR) counter values.

Card(s) on Which This Command Executes

PXM, FRSM, CESM

Syntax

dspsarcnts

Related Commands

dspsarcnt

Attributes

Log: No State: Any Privilege: Any

Example 1-316 Show current SAR counts for the FRSM

```
wilco.1.1.FRSM.a > dspsarcnts

                        SarShelfNum:         1
                        SarSlotNum:          1
                        SarChanNum:          0
                              Tx                    Rx
                        ---------------       ---------------
  Total Cells:          0                      0
  Total CellsCLP:       0                      0
  Total CellsAIS:       0                      0
  Total CellsFERF:      0                      0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0

Type <CR> to continue, Q<CR> to stop:

                        SarShelfNum:         1
                        SarSlotNum:          1
                        SarChanNum:          2
                              Tx                    Rx
                        ---------------       ---------------
  Total Cells:          3912                   9611
  Total CellsCLP:       0                      0
  Total CellsAIS:       0                      0
  Total CellsFERF:      0                      0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0

Type <CR> to continue, Q<CR> to stop:

                        SarShelfNum:         1
                        SarSlotNum:          1
                        SarChanNum:          3
                              Tx                    Rx
                        ---------------       ---------------
  Total Cells:          0                      0
  Total CellsCLP:       0                      0
  Total CellsAIS:       0                      0
  Total CellsFERF:      0                      0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0

Type <CR> to continue, Q<CR> to stop:

                        SarShelfNum:         1
                        SarSlotNum:          1
                        SarChanNum:          15
                              Tx                    Rx
                        ---------------       ---------------
  Total Cells:          0                      0
  Total CellsCLP:       0                      0
  Total CellsAIS:       0                      0
  Total CellsFERF:      0                      0
  Total CellsEnd2EndLpBk: 0                    0
  Total CellsSegmentLpBk: 0                    0
  RcvCellsDiscOAM:                             0
```

```
Type <CR> to continue, Q<CR> to stop:

                          SarShelfNum:         1
                          SarSlotNum:          1
                          SarChanNum:          17
                                Tx                    Rx
                          ---------------       ---------------
  Total Cells:            0                     0
  Total CellsCLP:         0                     0
  Total CellsAIS:         3952                  0
  Total CellsFERF:        0                     0
  Total CellsEnd2EndLpBk: 0                     0
  Total CellsSegmentLpBk: 0                     0
  RcvCellsDiscOAM:                              0
```

dspserialif

Display Serial Interface

Use the **dspserialif** command to view the speed of a serial port.

Card(s) on Which This Command Executes

PXM

Syntax

dspserialif -if <*serial_port_num*>

Syntax Description

serial_port_num	Serial port number, either: • 1 = console • 2 = slip

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Examples

Example 1-317 Display the speed setting on a console port

```
NODENAME.1.7.PXM.a > dspserialif -if 1
  SerialPortNum         : 1
  SerialPortType        : debug
  SerialPortEnable      : Enable
  SerialPortBps         : 9600bps
```

Example 1-318 Display the speed setting on a slip port

```
NODENAME.1.7.PXM.a > dspserialif -if 2
  SerialPortNum         : 2
  SerialPortType        : main
  SerialPortEnable      : Enable
  SerialPortBps         : 9600bps
```

dspservrate

Display Service Rate

Use the **dspservrate** command to view the service rate in cells per second on the selected channel.

Card(s) on Which This Command Executes

FRSM

Syntax

dspservrate <*ChanNum*>

Syntax Description

ChanNum	Channel number, in the range appropriate for the interface. • FRSM-8T1/E1 range = 16–1015 • FRSM-T3/E3/HS2 range = 16–2015 • FRSM-2CT3 range = 16–4015 • FRSM HS1/B range = 16-271

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-319 Display service rate on channel 22 on the current card

```
spirit3.1.17.FRSM.a > dspservrate 22

Service Rate (cells/sec):      1000

spirit3.1.17.FRSM.a >
```

dspshelfalm

Display Shelf Alarms

Use the **dspshelfalm** command to view the shelf alarms for the MGX 8250 shelf. The status of every alarm appears in the display unless you include the optional argument and include a specific alarm number. See the example for the number for each alarm.

In the **dspshelfalm** display, the State column shows whether the alarm has been asserted. “Normal” means that no alarm has been asserted. If an alarm exists, State shows “Above Normal” or “Below Normal.” The presence of the word “missing” in the State column means that the input is missing or ignored. The content of the Severity column indicates the severity of the alarm.

Card(s) on Which This Command Executes

PXM

Syntax

dspshelfalm [-alm <*alarm number*>]

Syntax Description

-alm	Command delineator that precedes the *alarm number* entry.
alarm number	Alarm number to display, in the range 1–27.

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display status of all shelf alarms
- Display status of shelf alarm 6

Example 1-320 Display status of all shelf alarms

```
spirit3.1.7.PXM.a > dspshelfalm

manish.1.7.PXM.a > dspshelfalm
 Alarm     Type     Unit Thresh Severity Measurable  Val   State
 ----- ------------ ---- ------ -------- ---------- ----- -------
   1   Temperature    1  50      Minor      Yes     28     Normal
   2   Power Supply   1  0       Minor      No      0      Missing
   3   Power Supply   2  0       Minor      No      0      Missing
   4   Power Supply   3  0       Minor      No      0      Normal
   5   Power Supply   4  0       Minor      No      0      Missing
   6   Power Supply   5  0       Minor      No      0      Missing
   7   Power Supply   6  0       Minor      No      0      Missing
   8   DC Level       1  6       Minor      Yes     0      Below normal
   9   DC Level       2  6       Minor      Yes     49     Normal
   10  Fan Unit       1  2000    Minor      Yes     0      Missing
   11  Fan Unit       2  2000    Minor      Yes     0      Missing
   12  Fan Unit       3  2000    Minor      Yes     0      Missing
   13  Fan Unit       4  2000    Minor      Yes     0      Missing
   14  Fan Unit       5  2000    Minor      Yes     0      Missing
   15  Fan Unit       6  2000    Minor      Yes     0      Missing
   16  Fan Unit       7  2000    Minor      Yes     0      Missing
   17  Fan Unit       8  2000    Minor      Yes     0      Missing
   18  Fan Unit       9  2000    Minor      Yes     0      Missing
   19  Fan Unit      10  2000    Minor      Yes     3582   Normal
   20  Fan Unit      11  2000    Minor      Yes     3588   Normal

Type <CR> to continue, Q<CR> to stop:
 Alarm     Type     Unit Thresh Severity Measurable  Val   State
 ----- ------------ ---- ------ -------- ---------- ----- -------
   21  Fan Unit      12  2000    Minor      Yes     3666   Normal
   22  Fan Unit      13  2000    Minor      Yes     3630   Normal
   23  Fan Unit      14  2000    Minor      Yes     3528   Normal
   24  Fan Unit      15  2000    Minor      Yes     3534   Normal
   25  Fan Unit      16  2000    Minor      Yes     3498   Normal
   26  Fan Unit      17  2000    Minor      Yes     3468   Normal
   27  Fan Unit      18  2000    Minor      Yes     3420   Normal
  ASMNumOfValidEntries: 27
  ASMShelfAlarmState:   2

manish.1.7.PXM.a >
```

Example 1-321 Display status of shelf alarm 6

```
spirit3.1.7.PXM.a > dspshelfalm -alm 6

Alarm     Type     Unit Thresh Severity Measurable Val State
----- ------------ ---- ------ -------- ---------- --- -----
   6   Power Supply   4  ?       Minor      No      0   Normal

ASMNumOfValidEntries: 27
ASMShelfAlarmState:   2

spirit.1.7.PXM.a >
```

dspslftst

Display Self-Test

Use the **dspslftst** command to view the self-test routine on the current card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

dspslftst

Related Commands

clrslftst, **cnfslftst**, **runslftstno**

Attributes

Log: No State: Any Privilege: Any

Example 1-322 Display self-test results for the switch

```
wilco.1.1.FRSM.a > dspslftst

SelfTestEnable:            Enabled
SelfTestPeriod:            5
SelfTestState:             SelfTest Passed
SelfTestResultDescription: No failure information available

wilco.1.1.FRSM.a >
```

dspslftsttbl

Display Self-Test Table

Use the **dspslftsttbl** command to view the current contents of the self-test table.

Card(s) on Which This Command Executes

FRSM

Syntax

dspslftsttbl

Related Commands

dspslftst

Attributes

Log: No State: Any Privilege: Any

Example 1-323 Display current statistics for self-test table on the FRSM

```
wilco.1.3.VHS2CT3.a > dspslftsttbl

Test #  Test Name                Thold Fail Pass Last Enab Destr Card Rst
  1     CPU DRAM access test      1     0    0    P    Y    N     Y
  2     SAR self test             1     0    0    P    Y    N     Y
  3     ISE self test             1     0    0    P    Y    N     Y
  4     ESE self test             1     0    0    P    Y    N     Y
  5     CODE checksum test        1     0    0    P    Y    N     Y
  6     Line loopback test        1     0    0    P    Y    Y     Y
  7     FREEDM test               1     0    0    P    Y    Y     Y
  8     Data loopback test        1     0    0    P    Y    Y     Y
  9     CellBus test              1     0    0    P    Y    N     N

wilco.1.3.VHS2CT3.a >
```

dspslotlink

Display Slot Link

Use the **dspslotlink** command to view SRM-3T3 link information for all the lines on the specified service module slot.

Card(s) on Which This Command Executes

PXM

Syntax

dspslotlink <*slot number*>

Syntax Description

slot number Slot number of the card from which to view the SRM-3T3 link information.

Related Commands

delslotlink

Attributes

Log: No State: Active Privilege: Group 1

Example 1-324 Display SRM-3T3 link information for slot 1

```
spirit3.1.7.PXM.a > dspslotlink 1

Slot Num    : 1
Max Lines   : 0
Link Counter: 0

Slot  Line#  T3 Line#  T1 Slot#
====  =====  ========  =========
  1     1       0        0
  1     2       0        0
  1     3       0        0
  1     4       0        0
  1     5       0        0
  1     6       0        0
  1     7       0        0
  1     8       0        0

spirit3.1.7.PXM.a >
```

dspsmcnf

Display Service Module Configuration

Use the **dspsmcnf** command to view summaries of the configurations for service modules in the system.

Card(s) on Which This Command Executes

PXM

Syntax

dspsmcnf

Related Commands

clrsrmcnf

Attributes

Log: Yes State: Active Privilege: Any

Example 1-325 Display configuration of all the service modules in the switch

```
MGX 88003.1.3.PXM.a > dspsmcnf

    slot      Card        Rate     Channel                          MIB     Feature
     No.      Type       Control    ized       IMA     MULTRKS   Version    Bits
   ------   ----------   -------   -------   -------   -------   -------   -------
     1     ------>  No configuration file exist for this slot  <------
     2     ------>  No configuration file exist for this slot  <------
     3     FRSM-8T1       On        On        Off       Off        20      0x3

     4     FRSM-8T1       On        On        Off       Off        20      0x3

     5     ------>  No configuration file exist for this slot  <------
     6     ------>  No configuration file exist for this slot  <------


     9     ------>  No configuration file exist for this slot  <------
    10     ------>  No configuration file exist for this slot  <------
    11     ------>  No configuration file exist for this slot  <------
    12     ------>  No configuration file exist for this slot  <------
    13     ------>  No configuration file exist for this slot  <------
    14     ------>  No configuration file exist for this slot  <------


    17     ------>  No configuration file exist for this slot  <------
    18     ------>  No configuration file exist for this slot  <------
    19     ------>  No configuration file exist for this slot  <------
    20     FRSM-8E1       Off       Off       Off       Off        20      0x0

    21     ------>  No configuration file exist for this slot  <------
    22     ------>  No configuration file exist for this slot  <------


    25     ------>  No configuration file exist for this slot  <------
    26     ------>  No configuration file exist for this slot  <------
    27     ------>  No configuration file exist for this slot  <------
    28     ------>  No configuration file exist for this slot  <------
    29     ------>  No configuration file exist for this slot  <------
    30     ------>  No configuration file exist for this slot  <------
```

dspsnmp

Display SNMP

Use the **dspsnmp** command to view the community string configured on a service module.

Card(s) on Which This Command Executes

PXM

Syntax

dspsnmp

Related Commands

cnfsnmp

Attributes

Log: No State: Active Privilege: SuperUser

Example 1-326 Display SNMP community string

```
popeye.1.7.PXM.a > dspsnmp

Community String:POPEYE
```

dspsrmclksrc

Display SRM Clock Source

Use the **dspsrmclksrc** command to view the SRM-3T3 clock source for a specified T3 line.

Card(s) on Which This Command Executes

PXM, SRM-3T3

Syntax

dspsrmclksrc -ds3 <*LineNum*>

Syntax Description

-ds3	Command delineator for the *LineNum* entry.
LineNum	Line number is in the format *slot.line*. • Slot = 7, 8, 15, 16, 31, 32 • Line range = 1–3

Related Commands

cnfsrmclksrc

Attributes

Log: No State: Active Privilege: Group 1

Example 1-327 Display clock source for T3 line 1 on the SRM-3T3 in slot 15

```
spirit.1.7.PXM.a > dspsrmclksrc -ds3 15.1

  LineNum:               1
  LineXmtClockSource:    backplane clock from BNM

spirit.1.7.PXM.a >
```

dspstatparms

Display Statistics Parameters

Use the **dspstatparms** command to view statistics parameters on the current card.

Card(s) on Which This Command Executes

PXM, AUSM, CESM, FRSM

Syntax

dspstatparms

Related Commands

None

Attributes

Log: No State: Active Privilege: Group 1

Example 1-328 Display statistics parameter settings on the current card (FRSM-2CT3)

```
wilco.1.3.VHS2CT3.a > dspstatparms

TFTP Retry Count:              1
TFTP ACK time-out (sec):      60
Bucket Interval:               0
File Interval:                 0
Peak Enable Flag:        Disabled
Object Count:                  0         STATS COLLECTION: Disabled
Object Subtype Counts:    0  0  0  0
Total File Memory Used:        0
Number of File Allocated:      0
Current File Size:             0
Stat Memory Allocated:         0
Auto Memory Allocated:         0
Auto Mem Rgn Size:       6291456

wilco.1.3.VHS2CT3.a >
```

dspswfunc

Display Software Function

Use the **dspswfunc** command to view status of certain node-level, paid features on the node. The features are the feeder implementation (or default routing implementation) of the switch and virtual source/virtual destination (VSVD) control for ABR traffic.

Card(s) on Which This Command Executes

PXM

Syntax

dspswfunc

Related Commands

cnfswfunc

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-329 Display whether or not paid features (feeder implementation or default routing implementation) of the switch and VSVD control for ABR traffic have been enabled

```
spirit.1.8.PXM.a > dspswfunc

     1.   ABR VSVD(enable(yes)/disable(no):    NO
     2.   Node Type(routing(routing)/Feeder(fdr):   ROUTING

spirit.1.8.PXM.a >
```

dspsysparm

Display System Parameters

Use the **dspsysparm** command to view system parameters.

Card(s) on Which This Command Executes

PXM

Syntax

dspsysparm

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-330 Display system parameters for the node

```
spirit.1.8.PXM.a > dspsysparm
    Max Time Stamped Packet Age(msec)                                32
    Fail Connections On Communication Break                          YES
    Interval Statistics polling rate for VCs                         5
    Max Network Delay for 'v' connections(msec)                      112
    Max Network Delay for 'c' connections(msec)                      112
    Max Network Delay for 't' & 'p' connections(msec)                112
    Max Network Delay for 'a' connections(msec)                      216
    Max Network Delay for High Speed Data connections(msec)          256
    Max Network Delay for CDP-CDP 'v' connections(msec)              512
    Max Network Delay for CDP-CDP 'c' connections(msec)              512
    Max Network Delay for CDP-CDP 't' & 'p' connections(msec)        512
    Max Network Delay for CDP-CDP 'a' connections(msec)              512
    Max Network Delay for CDP-CDP High Speed Data connections(msec)  512
    Max Local Delay for Interdom CDP-CDP 'v' conns (msec)            216
    Max Local Delay for Interdom CDP-CDP 'c' conns (msec)            216
    Max Local Delay for Interdom CDP-CDP 't' & 'p' conns(msec)       216
    Max Local Delay for Interdom CDP-CDP 'a' conns(msec)             216
    Max Local Delay for Interdom CDP-CDP High Speed Data conns(msec) 216
    Max Local Delay for Interdom High Speed Data conns (msec)        216
    FastPAD Jitter Buffer Size  (msec)                               3
    Enable Discard Eligibility                                       0
    Use Frame Relay Standard Parameters Bc and Be                    0
    Enable Connection Deroute Delay feature                          0
    Number of Consecutive Invalid Login Attempts to Cause Major Alarm 0

spirit.1.8.PXM.a >
```

dsptotals

Display Totals

Use the **dsptotals** command to view line, port, and channel totals for the current card.

Card(s) on Which This Command Executes

FRSM

Syntax

dsptotals

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-331 Show total active lines, ports, and channels on the current card

```
spirit.1.13.VHS2CT3.a > dsptotals

       total active lines = 0/56
       total active ports = 0/256
       total active chans = 0/1000

spirit.1.13.VHS2CT3.a >
```

dsptrafficgen

Display Traffic Generation Test

Use the **dsptrafficgen** command to display the status of a traffic generation test. This traffic generation test is used to determine and troubleshoot cell loss and is intended for defective PVCs.

Card(s) on Which This Command Executes

FRSM-VHS (2CT3/2T3/2E3/HS2)

Syntax

dsptrafficgen

Related Commands

cnftrafficgen

Attributes

Log: No State: Any Privilege: Any

Example 1-332 Display traffic generation test on connection 16

```
spirit.1.1.VHS2CT3.a > dsptrafficgen

Pvc Under Test :  16
Pattern type   :  1( All 0's )
Total Test Frames To Send     : 100
Total Test Frames Transmitted : 100
Total Test Frames Received    : 0
```

dsptrapip

Display Outgoing Trap IP Address

Use the **dsptrapip** command to view the IP address of the interface associated with outgoing traps. The identity of this interface is derived from your settings using the **cnftrapip** command.

Card(s) on Which This Command Executes

PXM

Syntax

dsptrapip

Related Commands

cnftrapip, **addtrapmgr**, **deltrapmgr**, **xdsptrapmgr**

Attributes

Log: No State: Active Privilege: Any

Example 1-333 Display IP address that will be placed in outgoing traps

```
spirit.1.8.PXM.a > dsptrapip

Trap IP Address :172.29.22.214

spirit.1.8.PXM.a >
```

dsptrapmgr

Display Trap Managers

Use the **dsptrapmgr** command to view a list of all the SNMP Managers that are registered to receive traps. This display also presents the current aging parameter set for the traps, as defined by using the **agetrapmgr** command.

Card(s) on Which This Command Executes

PXM

Syntax

dsptrapmgr

Related Commands

agetrapmgr

Attributes

Log: No State: Any Privilege: Any

Example 1-334 Display configuration of all SNMP Managers that are registered to receive traps on the switch

```
wilco.1.7.PXM.a> dsptrapmgr
ipAddress     PortNum  RowStatus   ReadTrapFlag   NextTrapSeqNum   Aging
------------  -------  ----------  ------------   --------------   ------
171.71.0.54        69       Add          Off        0              ENABLE
171.71.54.65      162       Add          Off        0              ENABLE
171.71.54.69      162       Add          Off        0              ENABLE
172.29.37.75      2500      Add          Off        100023         ENABLE
172.29.37.209     2500      Add          Off        100150         ENABLE

  LastTrapSeqNum:    100150
  NumOfValidEntries: 5

All the trap managers have aging enabled (default).

wilco.1.7.PXM.a>
```

dsptrkcnf

Display Trunk Configuration

Use the **dsptrkcnf** command to view the configuration for a trunk.

Card(s) on Which This Command Executes

PXM

Syntax

dsptrkcnf <*slot.port*>

Syntax Description

slot.port	Slot and port number. • Slot = 7, or 15, or 31 • Port range = 1–*N*, as appropriate for the physical installation

Related Commands

addtrk, **dsptrks**, **cnftrk**, **dsptrkload**

Attributes

Log: No State: Any Privilege: Any

Example 1-335 Display configuration on trunk 1 on the card in slot 7

```
spirit3.1.8.PXM.a > dsptrkcnf 7.1

      TRUNK   CONFIGURATION
     -----------------------
     Statistical Reserve     : 1000
     CC Restriction          : NO
     Line Type               :
     Pass Sync               : TRUE
     Deroute Delay           : 0
     Traffic Classes         : FST FR NTS TS VOICE CBR VBR ABR
     Routing Cost            : 10
     Vcc Conids              : 0
     Vpc Conids              : 0

spirit3.1.8.PXM.a >
```

dsptrkload

Display Trunk Load

Use the **dsptrkload** command to view load information for a trunk. This command applies to only the routing node implementation.

Card(s) on Which This Command Executes

PXM

Syntax

dsptrkload <*slot.port*>

Syntax Description

slot.port	Slot and port number. • Slot = 7, or 15, or 31 • Port range = 1–*N*, as appropriate for the physical installation

Related Commands

addtrk, **dsptrks**, **cnftrk**, **dsptrkcnf**

Attributes

Log: No State: Any Privilege: Any

dsptrks

Display Trunks

Use the **dsptrks** command to view all trunks on the node.

Card(s) on Which This Command Executes

PXM

Syntax

dsptrks

Related Commands

addtrk, **cnftrk**, **dsptrkcnf**, **dsptrkload**

Attributes

Log: No State: Any Privilege: Any

dspunit391

Display UNI T391

Use the **dspunit391** command to view the current setting for UNI T391 on a specified FRSM card.

Card(s) on Which This Command Executes

FRSM

Syntax

dspunit391

Related Commands

addtrk, **cnftrk**, **dsptrkcnf**, **dsptrkload**

Attributes

Log: No State: Any Privilege: Any

Example 1-336 Display current setting for T391

```
spirit.1.1.FRSM.a > dspunit391

System UNI T391 = 5 seconds

spirit.1.1.FRSM.a >
```

dspupgrade

Display Upgrade State

Use the **dspupgrade** command to view the current upgrade status of the active and the standby PXM cards.

Card(s) on Which This Command Executes

PXM

Syntax

dspupgrade

Related Commands

rstupgrade, **newrev**, **install**, **abort**, **commit**, **dspfwrevs**, **printrev**

Attributes

Log: No State: Any Privilege: Any

Example 1-337 Display upgrade state for the two PXM cards

```
spirit4.1.8.PXM.a > dspupgrade

active: 'upgrade idle'
standby: 'upgrade idle'

spirit4.1.8.PXM.a >
```

dspusers

Display Users

Use the **dspusers** command to view the user IDs that have been added to the PXM configuration. The screen shows the user name, highest privilege level, and the number of those levels above user-privilege.

Card(s) on Which This Command Executes

PXM

Syntax

dspusers

Related Commands

adduser, **deluser**

Attributes

Log: No State: Any Privilege: Any

Example 1-338 Display users configured for this shelf. The users in this example are Raoul and Duke.

```
wilco.1.7.PXM.a > dspusers

UserId        AccessLevel
-------------------------
cisco         CISCO_GP
service       SERVICE_GP
superuser     SUPER_GP
raoul         GROUP3
duke          GROUP1

wilco.1.7.PXM.a >
```

dspver

Display Firmware Version

Use the **dspver** command to view firmware versions currently running in both PXM cards.

Card(s) on Which This Command Executes

PXM

Syntax

dspver [*bt*]

Syntax Description

[bt] Backup boot.

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-339 Display the firmware versions running in both PXM cards

```
raviraj.1.7.PXM.a > dspver
PXM FW versions:

active: 1.1.10
standby: 1.1.10
```

dspvismip

Display VISM IP Parameters

Use the **dspvismip** command to view the IP configuration information for the VISM card. This command displays the results of **cnfvismip** configurations.

Card(s) on Which This Command Executes

VISM

Syntax

dspvismip

Related Commands

cnfvismip

Attributes

Log: No State: Active Privilege: Any

Example 1-340 Display IP configuration information for the current VISM card

```
spirit.1.5.VISM8.a > dspvismip

VismIpAddress:       198.45.26.101
NetMask:             255.255.255.0

spirit.1.5.VISM8.a >
```

dth

Display Transaction Trace Handler

Use the **dth** command to view transaction trace handler statistics.

Card(s) on Which This Command Executes

PXM

Syntax

dth

Related Commands

cth

Attributes

Log: No State: Active Privilege: Any

Example 1-341 Display transaction trace handler detail

```
spirit.1.5.VISM8.a > dth

Trace Buffer is empty

spirit.1.5.VISM8.a >
```

dvsi

Display VSI

Use the **dvsi** command to view the VSI trace buffer.

Card(s) on Which This Command Executes

PXM

Syntax

dvsi

Related Commands

cvsi

Attributes

Log: No State: Any Privilege: Cisco

Example 1-342 Display VSI trace buffer

```
porky.1.7.PXM.a > dvsi
VSI Trace Buffer is empty


porky.1.7.PXM.a >
```

exit

Exit from CLI

Use the **exit** command to exit the current CLI shell.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

exit

Related Commands

bye, **logout**

Attributes

Log: No State: Any Privilege: Any

Example 1-343 Exit from the current CLI shell

```
spirit4.1.8.PXM.a > exit

(session ended)
```

formatdisk

Format Disk

Use the **formatdisk** command to format the disk and remove all disk contents. Before this command is executed, a warning prompt displays an option to cancel the command. If you acknowledge the prompt, the command executes, taking about 30 minutes to format a 2 GB disk.

Card(s) on Which This Command Executes

PXM

Syntax

formatdisk

Related Commands

syncdisk

Attributes

Log: No State: Any Privilege: SuperUser

help

Help

Use the **help** command to view commands associated with the current card. The **help** command is case-sensitive.

This command takes no arguments and therefore does not provide information about specific commands.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

help

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display current PXM card command suite
- Display current AUSM card command suite
- Display current FRSM card command suite
- Display current VISM card command suite
- Display current CESM card command suite

Example 1-344 Display current PXM card command suite

```
popeye3.1.8.PXM.a > help
Available commands
    ------------------
    ?
    abort
    addapsln
    addcdrscprtn
    addchan
    addcon
    addlink
    addlmiloop
    addln
    addlnloop
    addport
    addred
    addrscprtn
    addserialif
    addtrapmgr
    adduser
    agetrapmgr
    arpAdd
    arpDelete
Type <CR> to continue, Q<CR> to stop:

Available commands
    ------------------
    arpFlush
    arpShow
    bootChange
    bye
    cc
    cd
    checkStack
    clidbxlevel
    cliPlugin
    cliPlugout
    clmi
    clrallcnf
    clralm
    clralmcnt
    clratmlncnt
    clratmlncnts
    clrchancnt
    clrchancnts
    clrconcnt
Type <CR> to continue, Q<CR> to stop:

 Available commands
    ------------------
    clrconcnts
    clrerr
    clrifcnt
    clrifcnts
    clrlmistats
    clrlog
    clrportcnt
    clrportcnts
    clrscrn
    clrsmcnf
    clrsrmcnf
    cmdhistory
    cnfapsln
```

```
    cnfatmln
    cnfbert
    cnfcdprtntype
    cnfcdrscprtn
    cnfchan
    cnfchanq
Type <CR> to continue, Q<CR> to stop:

Available commands
    ------------------
    cnfclksrc
    cnfcon
    cnfdate
    cnfextclk
    cnfif
    cnfifastrk
    cnfifip
    cnfilmi
    cnfln
    cnfname
    cnfpasswd
    cnfport
    cnfportrscprtn
    cnfprfparam
    cnfrscprtn
    cnfserialif
    cnfsrmclksrc
    cnfstatsmgr
    cnfswfunc
Type <CR> to continue, Q<CR> to stop:

 Available commands
    ------------------
    cnftime
    cnftmzn
    cnftmzngmt
    cnftrapip
    cnftrk
    cnfupcabr
    cnfupccbr
    cnfupcubr
    cnfupcvbr
    commit
    copy
    cp
    cth
    cvsi
    dbxclierrcode
    dcct
    dcondb
    del
    delapsln
Type <CR> to continue, Q<CR> to stop:

Available commands
    ------------------
    delbert
    delcdrscprtn
    delchan
    delcon
    delelete
    delifip
    dellink
    dellmiloop
```

```
    delln
    dellnloop
    delport
    delred
    delrscprtn
    delserialif
    delslotlink
    deltrapmgr
    deltree
    deluser
    dir
Type <CR> to continue, Q<CR> to stop:

 Available commands
    ------------------
    dlmi
    dnibname
    dnibnum
    dnif
    dnilmi
    downloadflash
    dspalm
    dspalmcnf
    dspalmcnt
    dspalms
    dspapsCfg
    dspapsln
    dspatmlncnf
    dspatmlncnt
    dspbert
    dspcd
    dspcderrs
    dspcdprtntype
    dspcdrscprtn
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    dspcds
    dspchan
    dspchancnt
    dspchans
    dspclkinfo
    dspclksrc
    dspcon
    dspconcnt
    dspcons
    dspcurclk
    dsperr
    dspfw
    dspfwrevs
    dspif
    dspifcnt
    dspifip
    dspifrsc
    dspifs
    dspilmi
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    dspilmicnt
    dspilmis
    dsplink
```

```
    dsplmiloop
    dsplmistats
    dspln
    dsplnrsc
    dsplns
    dsplog
    dsplogs
    dspname
    dspnwip
    dsponoff
    dspparifs
    dspportcnt
    dspportrscprtn
    dspports
    dspprf
    dspprfhist
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    dspred
    dsprscprtn
    dsprscprtns
    dspsarchans
    dspsarcnt
    dspsarcnts
    dspserialif
    dspshelfalm
    dspslotlink
    dspsmcnf
    dspsrmclksrc
    dspstatparms
    dspswfunc
    dsptrapip
    dsptrapmgr
    dsptrkcnf
    dsptrkload
    dsptrks
    dspupgrade
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    dspusers
    dspver
    dth
    dumpaps
    dumptrace
    dvsi
    exit
    formatdisk
    Help
    history
    ifShow
    install
    lkAddr
    lkup
    ll
    lmitrace
    logout
    ls
    memShow
Type <CR> to continue, Q<CR> to stop:
```

```
    Available commands
    ------------------
    mkdir
    mkfs
    modbert
    mv
    myid
    newrev
    onoff
    pagemode
    passwd
    ping
    printlog
    printrev
    pwd
    remove
    rename
    resetcd
    resetsys
    restoreallcnf
    rm
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    rmdir
    routeAdd
    routeDelete
    routeNetAdd
    routeShow
    routestatShow
    rstupgrade
    saveallcnf
    sesntimeout
    sesnwatchdog
    shellConn
    showsyserr
    shutdisk
    smclrscrn
    softswitch
    stackdump
    stacktrace
    switchapsln
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    switchback
    switchcc
    syncdisk
    syserr
    taskRegsShow
    taskShow
    thtrace
    timeout
    tmOff
    tmOn
    tstcon
    tstconseg
    tstdelay
    uncnfifastrk
    upif
    upilmi
    users
```

```
    version
    vsistats
Type <CR> to continue, Q<CR> to stop:
    Available commands
    ------------------
    vsitrace
    vxcd
    vxcopy
    vxd
    vxi
    vxll
    vxls
    vxm
    vxpwd
    vxreboot
    vxrename
    vxrm
    vxsp
    vxsysToMonitor
    vxtd
    vxti
    vxtr
    vxts
    vxtt
Type <CR> to continue, Q<CR> to stop:


    Available commands
    ------------------
    who
    whoami
    xclratmlncnt
    xclrchancnt
    xclrifcnt
    xcnfatmln
    xcnfbert
    xcnfcdprtntype
    xcnfcdrscprtn
    xcnfchan
    xcnfif
    xcnfifip
    xcnfilmi
    xcnfred
    xcnfrscprtn
    xcnfshelf
    xcnfsrmlink
    xcnftrapmgr
    xcnfupcchan
Type <CR> to continue, Q<CR> to stop:

    Available commands
    ------------------
    xcnfuser
    xdspatmlncnf
    xdspatmlncnt
    xdspcdprtntype
    xdspcdrscprtn
    xdspcds
    xdspchancnt
    xdspchans
    xdspifcnt
    xdspifs
    xdspilmi
    xdspilmicnt
```

```
    xdspport
    xdspred
    xdsprscprtns
    xdspshelf
    xdspsrmlink
    xdsptrapmgr
    xdspusers

popeye3.1.8.PXM.a >Display AUSM card command suite
popeye3.1.6.AUSM8.a > help

Command               Logging  State   Priority
--------------------  -------  ------  -------------------------
?                     No       Any     Any User
Help                  No       Any     Any User
addaimgrp             Yes      Active  Group 1
addchan               Yes      Active  Group 2
addchanloop           No       Active  Group 4
addcon                Yes      Active  Group 2
addimagrp             Yes      Active  Group 1
addln                 Yes      Active  Group 1
addlnloop             Yes      Active  Service Group (-1)
addlns2aimgrp         Yes      Active  Group 1
addlns2imagrp         Yes      Active  Group 1
addport               Yes      Active  Group 1
addrscprtn            Yes      Active  Group 1
aimhelp               No       Any     Any User
chkflash              No       Any     Strata Group (-2)
clear                 No       Any     Any User
clraimgrpcnt          No       Active  Group 1
clraimlncnt           No       Active  Group 1
clralm                No       Any     Group 5
clralmcnt             No       Any     Group 5
clralmcnts            No       Any     Group 5
clralms               No       Any     Group 5
clrcderrs             No       Any     Super Group (0)
clrchancnt            No       Any     Group 5
clrchancnts           No       Any     Group 3
clrimagrpcnt          No       Active  Group 1
clrimalncnt           No       Active  Group 1
clrimatst             No       Any     Group 1
clrmsgcnt             No       Any     Group 5
clrportcnt            No       Any     Group 5
clrportcnts           No       Any     Group 5
clrsarcnt             No       Any     Group 5
clrsarcnts            No       Any     Group 5
clrscrn               No       Any     Any User
clrslftst             No       Any     Any User
clrtaskinfo           No       Any     Service Group (-1)
cls                   No       Any     Any User
cnfaimgrp             Yes      Active  Group 1
cnfcdprtntype         Yes      Active  Group 2
cnfcdrscprtn          Yes      Active  Group 1
cnfchan               Yes      Active  Group 2
cnfchanfst            Yes      Active  Group 2
cnfchanq              Yes      Active  Group 2
cnfcon                Yes      Active  Group 2
cnffst                Yes      Active  Super Group (0)
cnfilmi               Yes      Active  Group 1
cnfimaalmparm         No       Any     Group 1
cnfimagrp             Yes      Active  Group 1
cnfimatst             No       Active  Group 1
cnfln                 Yes      Active  Group 1
cnflnloop             Yes      Active  Service Group (-1)
```

```
cnfplpp              Yes      Active  Group 1
cnfportq             Yes      Active  Strata Group (-2)
cnfportrscprtn       Yes      Active  Group 1
cnfrscprtn           Yes      Active  Group 1
cnfslftst            Yes      Active  Any User
cnfsvcrange          Yes      Active  Group 1
cnfupcabr            Yes      Active  Group 2
cnfupccbr            Yes      Active  Group 2
cnfupcubr            Yes      Active  Group 2
cnfupcvbr            Yes      Active  Group 2
copychans            Yes      Active  Group 1

delaimgrp            Yes      Active  Group 1
delcdrscprtn         Yes      Active  Group 1
delchan              Yes      Active  Group 2
delchanloop          No       Active  Group 4
delchans             Yes      Active  Group 1
delcon               Yes      Active  Group 2
delimagrp            Yes      Active  Group 1
delln                Yes      Active  Group 1
dellnloop            Yes      Active  Service Group (-1)
dellnsfmaimgrp       Yes      Active  Group 1
dellnsfmimagrp       Yes      Active  Group 1
delport              Yes      Active  Group 1
delrscprtn           Yes      Active  Group 1
dnport               Yes      Active  Group 1
dspaimgrp            No       Active  Group 1
dspaimgrpcnt         No       Active  Group 1
dspaimgrps           No       Active  Group 1
dspaimlncnt          No       Active  Group 1
dspalm               No       Any     Any User
dspalmcnf            No       Any     Any User
dspalmcnt            No       Any     Any User
dspalms              No       Any     Any User
dspcd                No       Any     Any User
dspcderrs            No       Any     Any User
dspcdprtntype        Yes      Active  Group 2
dspcdrscprtn         Yes      Active  Group 1
dspchan              No       Any     Any User
dspchancnt           No       Any     Any User
dspchans             No       Any     Any User
dspcon               No       Any     Any User
dspcons              No       Any     Any User
dspfeature           No       Any     Strata Group (-2)
dspfst               No       Any     Strata Group (-2)
dspilmi              No       Any     Any User
dspilmicnt           No       Any     Any User
dspimaalmparm        No       Any     Group 1
dspimagrp            No       Active  Group 1
dspimagrpcnt         No       Active  Group 1
dspimagrps           No       Active  Group 1
dspimainfo           No       Active  Any User
dspimaln             No       Any     Group 1
dspimalncnt          No       Active  Group 1
dspimatst            No       Any     Group 1
dsplcn               No       Any     Any User
dspln                No       Any     Any User
dsplns               No       Any     Any User
dsploads             No       Active  Any User
dspmsgcnt            No       Any     Any User
dspplpp              Yes      Active  Group 1
dspport              No       Any     Any User
dspportcnt           No       Any     Any User
dspportq             No       Any     Any User
```

```
dspportqs             No       Any     Any User
dspportrscprtn        Yes      Active  Group 1
dspports              No       Any     Any User
dsprscprtn            Yes      Active  Group 1
dspsarcnt             No       Any     Any User
dspsarcnts            No       Any     Any User
dspslftst             No       Any     Any User
dspslftsttbl          No       Any     Any User
dspstatparms          No       Any     Any User
dspsvcrange           Yes      Any     Any User
dsptaskinfo           No       Any     Service Group (-1)

dsptotals             No       Any     Any User
i                     No       Any     Service Group (-1)
memShow               No       Any     Any User
myid                  No       Any     Any User
oldcnfcdrscprtn       Yes      Active  Group 1
runslftstno           No       Any     Any User
setcmdc               No       Any     Any User
setpagemode           No       Any     Any User
shellConn             Yes      Any     Strata Group (-2)
tstcon                No       Active  Group 4
tstconseg             No       Active  Group 4
tstconsti             No       Active  Group 4
tstdelay              No       Active  Group 4
tstdelaysti           No       Active  Group 4
upport                Yes      Active  Group 1
version               No       Any     Any User
xaddcon               Yes      Active  Group 1
xclrchancnt           No       Any     Group 3
xclrportcnt           No       Any     Group 3
xcnfalm               Yes      Active  Service Group (-1)
xcnfalmcnt            Yes      Active  Group 3

xcnfcon               Yes      Active  Group 1
xcnfilmi              Yes      Active  Group 1
xcnfln                Yes      Active  Service Group (-1)
xcnfportq             Yes      Active  Group 1
xdelcon               Yes      Active  Group 1
xdnport               Yes      Active  Group 1
xdspcon               No       Any     Any User
xdspcons              No       Any     Any User
xdspilmi              No       Any     Any User
xdspln                No       Any     Any User
xdsplns               No       Any     Any User
xdspport              No       Any     Any User
xdspportq             No       Any     Any User
xdspportqs            No       Any     Any User
xdspports             No       Any     Any User
xupport               Yes      Active  Group 1

popeye3.1.6.AUSM8.a >
```

Example 1-345 Display FRSM card command suite

```
popeye3.1.3.FRSM.a > help
Command               Logging  State   Priority
--------------------  -------  ------  -------------------------
?                     No       Any     Any User
Help                  No       Any     Any User
addcdrscprtn          Yes      Active  Group 1
addchan               Yes      Active  Group 2
addchanloop           No       Active  Group 4
addcon                Yes      Active  Group 2
addln                 Yes      Active  Group 1
addlnloop             Yes      Active  Service Group (-1)
addport               Yes      Active  Group 1
addrscprtn            Yes      Active  Group 1
chkflash              No       Any     Strata Group (-2)
clear                 No       Any     Any User
clrportcnt            No       Any     Group 5
clrportcnts           No       Any     Group 5
clrsarcnt             No       Any     Group 5
clrsarcnts            No       Any     Group 5
clrscrn               No       Any     Any User
clrslftst             No       Any     Any User
clrtaskinfo           No       Any     Service Group (-1)
cls                   No       Any     Any User
cnfcdprtntype         Yes      Active  Group 1
cnfcdrscprtn          Yes      Active  Group 1
cnfchancacoff         Yes      Active  Group 2
cnfchanegressq        Yes      Active  Group 2
cnfchanfst            Yes      Active  Group 2
cnfchaningressq       Yes      Active  Group 2
cnfchanmap            Yes      Active  Group 2
cnfchanpol            Yes      Active  Group 2
cnfcon                Yes      Active  Group 2
cnffst                Yes      Active  Super Group (0)
cnfln                 Yes      Active  Group 1
cnflnloop             Yes      Active  Service Group (-1)
cnfoamlpbk            No       Any     Any User
cnfport               Yes      Active  Group 1
cnfportcllm           Yes      Active  Group 1
cnfportrscprtn        Yes      Active  Group 1
cnfrscprtn            Yes      Active  Group 1
cnfslftst             Yes      Any     Any User
cnftrafficgen         No       Any     Any User
cnfunit391            No       Active  Super Group (0)
copychans             Yes      Active  Group 1
copyports             Yes      Active  Group 1
delcdrscprtn          Yes      Active  Group 1
delchan               Yes      Active  Group 2
delchanloop           No       Active  Group 4
delchans              Yes      Active  Group 1
delcon                Yes      Active  Group 2
delln                 Yes      Active  Group 1
dellnloop             Yes      Active  Service Group (-1)
delport               Yes      Active  Group 1
delports              Yes      Active  Group 1
downport              Yes      Active  Group 2
dspalm                No       Any     Any User
dspalmcnf             No       Any     Any User
dspalmcnt             No       Any     Any User
dspalms               No       Any     Any User
dspbufoverflow        No       Any     Super Group (0)
dspcd                 No       Any     Any User
dspcderrs             No       Any     Any User
```

```
dspcdprtntype         No       Any     Any User
dspcdrscprtn          No       Any     Any User
dspchan               No       Any     Any User
dspchancnt            No       Any     Any User
dspchanmap            No       Any     Any User
dspchans              No       Any     Any User
dspchstats            No       Any     Any User
dspcon                No       Any     Any User
dspcons               No       Any     Any User
dspfeature            No       Any     Strata Group (-2)
dspfst                Yes      Active  Group 4
dsplcn                No       Active  Any User
dspln                 No       Any     Any User
dsplns                No       Any     Any User
dspmaptbl             No       Any     Any User
dspmsgcnt             No       Any     Any User
dspoamlpbk            No       Any     Any User
dsppport              No       Any     Any User
dsppportcnt           No       Any     Any User
dsppportrscprtn       No       Any     Any User
dspports              No       Any     Any User
dspportstats          No       Any     Any User
dsprscprtn            No       Any     Any User
dspsarcnt             No       Any     Any User
dspsarcnts            No       Any     Any User
dspservrate           No       Any     Super Group (0)
dspslftst             No       Any     Any User
dspslftsttbl          No       Any     Any User
dspstatparms          No       Any     Any User
dsptaskinfo           No       Any     Service Group (-1)
dsptotals             No       Any     Any User
dsptrafficgen         No       Any     Any User
dspunit391            No       Active  Any User
i                     No       Any     Service Group (-1)
memShow               No       Any     Any User
myid                  No       Any     Any User
oldcnfcdrscprtn       Yes      Active  Group 1
queDsp                No       Active  Any User
runslftstno           No       Any     Any User
setcmdc               No       Any     Any User
setpagemode           No       Any     Any User
shellConn             Yes      Any     Strata Group (-2)
tstcon                No       Active  Group 4
tstconsti             No       Active  Group 4
tstdelay              No       Active  Group 4
tstdelaysti           No       Active  Group 4
upport                Yes      Active  Group 2
version               No       Any     Any User
xclrchancnt           No       Any     Group 3
xclrportcnt           No       Any     Group 3
xcnfalm               Yes      Active  Service Group (-1)
xcnfalmcnt            Yes      Active  Group 3
xcnfchan              Yes      Active  Group 2
xcnfln                Yes      Active  Service Group (-1)
xcnfport              Yes      Active  Group 1
xdspchan              No       Any     Any User
xdspchancnt           No       Any     Any User
xdspchans             No       Any     Any User
xdspln                No       Any     Any User
xdsplns               No       Any     Any User
xdsppport             No       Any     Any User
xdsppportcnt          No       Any     Any User
xdspports             No       Any     Any User
clralm                No       Any     Group 5
```

Example 1-346 Display VISM card command suite

```
spirit1.1.VISM.a > help
?
Help
addchan
addcon
addendpt
addln
addlnloop
chkflash
clralm
clralmcnt
clralmcnts
clralms
clrmsgcnt
clrsarcnt
clrsarcnts
clrscrn
clrtaskinfo
cnfalm
cnfcompsize
cnfcompvad
cnfdomain
cnfecancnt
cnfecanidle
cnfecannoise
cnfecannr
cnfecannrn
cnfecanrec
cnfecantail
cnfecantone
cnfln
cnfsuip
cnfvismip
delchan
delcon
delendpt
delln
dellnloop
dmShellConn
dspalm
dspalmcnf
dspalmcnt
dspalms
dspcarddsp
dspcd
dspchan
dspchans
dspcon
dspcons
dspdomain
dspendpt
dspendpts
dsplinedsp
dspln
dsplns
dspmsgcnt
dspsarcnt
dspsarcnts
dspsuip
dsptaskinfo
dspvismip
i
```

```
memShow
shellConn
versionDisplay CESM card command suite
```

Example 1-347 Display CESM card command suite

```
porky.1.12.CESM.a > help
Command               Logging  State   Priority
--------------------  -------  ------  ------------------------
?                     No       Any     Any User
Help                  No       Any     Any User
addcdrscprtn          No       Any     Any User
addchan               Yes      Active  Group 2
addcon                Yes      Active  Group 2
addln                 Yes      Active  Group 1
addlnloop             Yes      Active  Service Group (-1)
addport               Yes      Active  Group 1
addrscprtn            No       Any     Strata Group (-2)
chkflash              No       Any     Strata Group (-2)
clear                 No       Any     Any User
clralm                No       Any     Group 5
clralmcnt             No       Any     Group 5
clralmcnts            No       Any     Group 5
clralms               No       Any     Group 5
clrcderrs             No       Any     Super Group (0)
clrchancnt            No       Any     Group 5
clrchancnts           No       Any     Group 3
clrmsgcnt             No       Any     Group 5
clrsarcnt             No       Any     Group 5
clrsarcnts            No       Any     Group 5
clrscrn               No       Any     Any User
clrslftst             No       Any     Any User
clrtaskinfo           No       Any     Service Group (-1)
cls                   No       Any     Any User
cnfcdprtntype         No       Any     Any User
cnfcdrscprtn          No       Any     Any User
cnfchan               Yes      Active  Group 2
cnfcon                Yes      Active  Group 2
cnfln                 Yes      Active  Group 1
cnfportrscprtn        No       Any     Any User
cnfrscprtn            No       Any     Strata Group (-2)
cnfslftst             Yes      Active  Any User
cnfswparms            No       Any     Any User
delcdrscprtn          No       Any     Any User
delchan               Yes      Active  Group 2
delchans              Yes      Active  Group 1
delcon                Yes      Active  Group 2
delln                 Yes      Active  Group 1
dellnloop             Yes      Active  Service Group (-1)
delport               Yes      Active  Group 1
delports              Yes      Active  Group 1
delrscprtn            No       Any     Strata Group (-2)
dspalm                No       Any     Any User
dspalmcnf             No       Any     Any User
dspalmcnt             No       Any     Any User
dspalms               No       Any     Any User
dspcd                 No       Any     Any User
dspcderrs             No       Any     Any User
dspcdprtntype         No       Any     Strata Group (-2)
dspcdrscprtn          No       Any     Any User
dspchan               No       Any     Any User
dspchancnt            No       Any     Any User
dspchans              No       Any     Any User
```

```
dspcon                No       Any     Any User
dspcons               No       Any     Any User
dspfeature            No       Any     Strata Group (-2)
dsplcn                No       Active  Any User
dspln                 No       Any     Any User
dsplns                No       Any     Any User
dspmsgcnt             No       Any     Any User
dspport               No       Any     Any User
dspportrscprtn        No       Any     Any User
dspports              No       Any     Any User
dspsarcnt             No       Any     Any User
dspsarcnts            No       Any     Any User
dspslftst             No       Any     Any User
dspslftsttbl          No       Any     Any User
dspstatparms          No       Any     Any User
dsptaskinfo           No       Any     Service Group (-1)
i                     No       Any     Service Group (-1)
memShow               No       Any     Any User
myid                  No       Any     Any User
oldcnfcdrscprtn       No       Any     Any User
oldcnfportrscprtn     No       Any     Any User
runslftstno           No       Any     Any User
setpagemode           No       Any     Any User
shellConn             Yes      Any     Strata Group (-2)
tstchan               No       Active  Group 4
tstchansti            No       Active  Group 4
tstcon                No       Active  Group 4
tstconsti             No       Active  Group 4
tstdelay              No       Active  Group 4
tstdelaysti           No       Active  Group 4
version               No       Any     Any User
xclrchancnt           No       Any     Group 3
xcnfalm               Yes      Active  Service Group (-1)
xcnfalmcnt            Yes      Active  Group 3
xcnfcdprtntype        No       Any     Strata Group (-2)
xcnfcdrscprtn         No       Any     Strata Group (-2)
xcnfchan              Yes      Active  Group 2
xcnfln                Yes      Active  Service Group (-1)
xcnfport              Yes      Active  Group 1
xcnfrscprtn           No       Any     Strata Group (-2)
xdspchan              No       Any     Any User
xdspchancnt           No       Any     Any User
xdspchans             No       Any     Any User
xdspln                No       Any     Any User
xdsplns               No       Any     Any User
xdspport              No       Any     Any User
xdspports             No       Any     Any User
clralm                No       Any     Group 5
clralmcnt             No       Any     Group 5

porky.1.12.CESM.a >
```

history

Display Command History

Use the **history** command to view the last ten commands executed on the current card.

Card(s) on Which This Command Executes

PXM

Syntax

history

Related Commands

cmdhistory

Attributes

Log: No State: Any Privilege: Any

Example 1-348 Display the last ten commands executed on the PXM card

```
spirit4.1.8.PXM.a > history

Size of cmdHistory is currently 10 line(s)
  1 dspconcnt 2.39.45
  2 dsplmistats
  3 dsplmiloop
  4 dsplm
  5 clrportcnt
  6 dspportcnts
  7 dspportcnt
  8 dspportcnt 1
  9 dsplmistats
 10 history

spirit4.1.8.PXM.a >
```

ifShow

Show Interfaces

Use the **ifShow** command to view the contents of all the currently configured interfaces.

Card(s) on which This Command Executes

PXM

Syntax

ifShow

Related Commands

memShow, **routeShow**

Attributes

Log: No State: Any Privilege: Any

Example 1-349 Display contents of the configured interfaces

```
spirit4.1.8.PXM.a > ifShow
lnPci (unit number 0):
     Flags: (0x63) UP BROADCAST ARP RUNNING
     Internet address: 172.29.23.149
     Broadcast address: 172.29.23.255
     Netmask 0xffff0000 Subnetmask 0xffffff00
     Ethernet address is 00:c0:43:00:2d:c7
     Metric is 0
     Maximum Transfer Unit size is 1500
     599468 packets received; 34476 packets sent
     0 input errors; 0 output errors
     0 collisions
lo (unit number 0):
     Flags: (0x69) UP LOOPBACK ARP RUNNING
     Internet address: 127.0.0.1
     Netmask 0xff000000 Subnetmask 0xff000000
     Metric is 0
     Maximum Transfer Unit size is 4096
     4 packets received; 4 packets sent
     0 input errors; 0 output errors
     0 collisions
sl (unit number 0):
     Flags: (0x71) UP POINT-TO-POINT ARP RUNNING
     Internet address: 0.0.0.0
     Destination Internet address: 0.0.0.0
     Netmask 0xff000000 Subnetmask 0xff000000
     Metric is 0
     Maximum Transfer Unit size is 576
     0 packets received; 0 packets sent
     0 input errors; 0 output errors
     0 collisions
atm (unit number 0):
     Flags: (0x43) UP BROADCAST TRAILERS ARP RUNNING
     Internet address: 172.1.1.149
     Broadcast address: 172.1.1.255
     Netmask 0xffff0000 Subnetmask 0xffffff00
     Ethernet address is 00:00:00:00:00:00
     Metric is 0
     Maximum Transfer Unit size is 1500
     0 packets received; 47272 packets sent
     0 input errors; 47272 output errors
     0 collisions
spirit4.1.8.PXM.a >
```

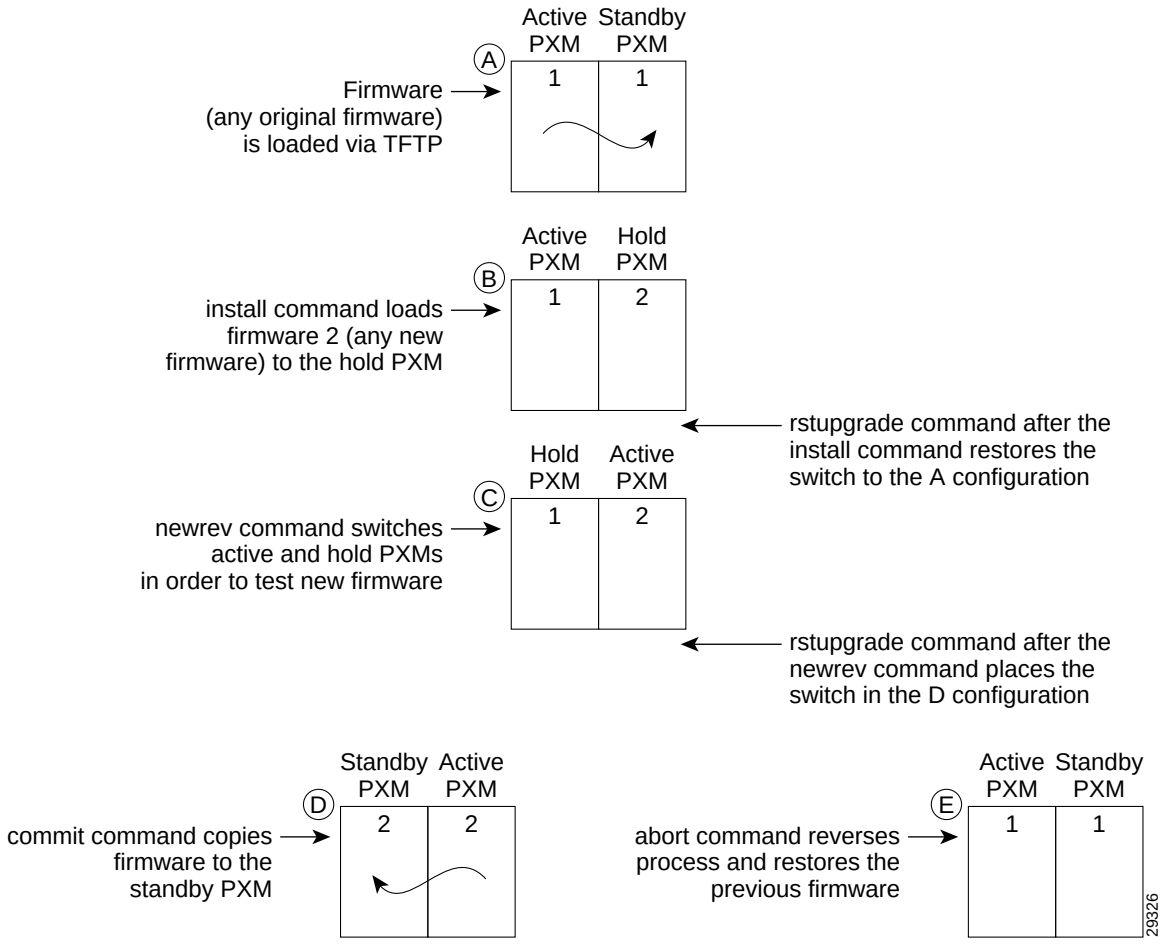
install

Install the Firmware Load

Use the **install** command after transferring a PXM firmware image (using the **downloadflash** command) during a system upgrade session.

See Figure 1-6 for an illustration of how the **install** command is used in the upgrade process.

Figure 1-6 Install Command Used in the Upgrade Process



Card(s) on Which This Command Executes

PXM

Syntax

install [bt] [sm <*slot*>] <*version*>

Syntax Description

bt	Backup boot.
sm <*slot*>	Location of the service module card and the slot number.
version	Firmware file version.

Related Commands

dspupgrade, **rstupgrade**, **newrev**, **abort**, **commit**, **dspfwrevs**, **printrev**

Attributes

Log: No State: Active Privilege: Any

Example 1-350 Begin loading firmware 1.1.10

```
NODENAME.1.7.PXM.a > install 1.1.10
this may take a while ...
install command completed ok.
please wait for the other card to enter the hold state.
```

Example 1-351 Begin loading firmware 1.1.10, no redundancy

```
NODENAME.1.8.PXM.a > install 1.1.10
redundancy is not available
the other card is not available
you are not in redundant mode,
do you want to try an ungraceful upgrade
(yes or no)?
```

Example 1-352 Begin ungraceful upgrade (with redundancy)

```
NODENAME.1.8.PXM.a > install 1.1.11
the new version is not compatible with the current version,
do you want to try an ungraceful upgrade
(yes or no)?
```

Example 1-353 Begin loading firmware on backup boot

```
NODENAME.1.8.PXM.a > install bt 1.1.11
writing pxm_bkup_masukawa.fw to flash...
Board recognised as a PXM1B board ...
Checksum size is 1261544 ...
Erasing the flash ....
FLASH erase complete
Downloading C:/FW/pxm_bkup_1.1.11.fw into the flash ...
verifying flash contents ....
Flash ok ....

Flash download completed ...
copying pxm_bt_1.1.11.fw to standby...
writing flash on other card...
command completed ok on both pxms.
The new boot code will be used after the next reset
```

Example 1-354 View errors encountered during install command on a PXM (multiple cases)

```
NODENAME.1.8.PXM.a > install 1.1.10
file "C:/FW/ComMat.dat" not found
A graceful upgrade cannot be performed; these two versions are not
compatible.
ERR: command "install" failed

NODENAME.1.8.PXM.a > install 1.1.13
FW version C:/FW/pxm_1.1.13.fw is not in the appropriate directory
ERR: command "install" failed

NODENAME.1.8.PXM.a > install 1.1.12
A graceful upgrade cannot be performed; these two versions are not
compatible.
ERR: command "install" failed

NODENAME.1.8.PXM.a > install bt 1.1.12
writing pxm_bkup_1.1.12.fw to flash...
Board recognised as a PXM1B board ...
Backup boot file not found in the FW directory ...
Cannot proceed ...
error writing to flash
ERR: command "install" failed
```

Example 1-355 Begin loading firmware on a service module

```
golden1.1.7.PXM.a > install sm 11 10.0.05
Do you want to proceed (Yes/No)? yes
```

Example 1-356 Begin loading firmware on a service module, no redundancy

```
NODENAME.1.8.PXM.a > install sm 5 10.0.05
you are not in redundant mode,
do you want to try an ungraceful upgrade
(yes or no)?
```

Example 1-357 Begin loading firmware for a service module for backup boot

```
NODENAME.1.8.PXM.a > install bt sm 5 FR8_BT_1.0.01
downloading and burning flash on SM 5...
Command completed ok
The new boot code will be used after the next reset
```

Example 1-358 View errors encountered during install command on an SM (multiple cases)

```
NODENAME.1.8.PXM.a > install sm 5 1.1.11

Incorrect version : 1.1.11
Version 1.1.11 is not available
ERR: command "install" failed

NODENAME.1.8.PXM.a > install bt sm 5 1.1.11

Incorrect version : 1.1.11
The file is not found
ERR: command "install" failed
```

logout

Log Out

Use the **logout** command to exit the current CLI shell.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

logout

Related Commands

bye, **exit**

Attributes

Log: Yes State: Any Privilege: Any

Example 1-359 Log out of the current CLI shell

```
spirit4.1.8.PXM.a > logout

(session ended)
```

ls

List

Use the **ls** command to list the contents of the working directory. The filename is listed for each entry. The total space of the file system and free space is also summarized at the end of the output.

Card(s) on Which This Command Executes

PXM

Syntax

ls

Related Commands

cd, **pwd**, **rename**, **deltree**, **copy**

Attributes

Log: No State: Any Privilege: Any

Example 1-360 Display contents of the working directory

```
raviraj.1.7.PXM.a > ls
SM
FW
DIAG
STATS
TMP
CNF
RPM
LOG
clrDB
upgrade.state
config.sys
DB
frsm_vhs_5.0.01_27May99_1_rmenon.fw
frsm_vhs_5.0.01_16Jun99_1_rmenon.fw

In the file system :
    total space :  819200 K bytes
    free  space :  700583 K bytes

raviraj.1.7.PXM.a >
```

memShow

Show Memory

Use the **memShow** command to view the current memory map.

Card(s) on Which This Command Executes

PXM

Syntax

memShow

Related Commands

ifShow, **routeShow**

Attributes

Log: No State: Any Privilege: Any

Example 1-361 Show current memory allocation on the PXM

```
spirit4.1.8.PXM.a > memShow

status    bytes       blocks   avg block  max block
------  ---------    -------- ---------- ----------
current
free      2967104         37      80192   2879008
alloc     2561600       1774       1443         -
cumulative
alloc     241511616  1019558        236         -

spirit4.1.8.PXM.a >
```

mkdir

Make Directory

Use the **mkdir** command to create a new directory.

Card(s) on Which This Command Executes

PXM

Syntax

mkdir <*path_name*>

Syntax Description

path_name	Name of the target directory.

Related Commands

dir

Attributes

Log: Yes State: Any Privilege: Service

modbert

Modify BERT

Use the **modbert** command to inject errors into the bit stream for bit error rate testing (BERT).

Card(s) on Which This Command Executes

PXM

Syntax

modbert <*slot*>

Syntax Description

slot	Slot number

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 1

moddsx3bert

Modify DSX3 BERT

Use the **moddsx3bert** command to inject multi-rate errors into the bit error rate testing (BERT) bit stream.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax

moddsx3bert <*EIR*>

Syntax Description

EIR Error insertion rate.

- 0 = no error
- 2 = 1 in 10
- 3 = 1 in 100
- 4 = 1 in 1000
- 5 = 1 in 10**4
- 6 = 1 in 10**7

Related Commands

acqdsx3bert, **cnfdsx3bert**, **deldsx3bert**, **dspdsx3bert**, **startdsx3bert**, **xcnfdsx3bert**, **xdspdsx3bert**

Attributes

Log: No State: Active Privilege: Any

Example 1-362 Inject EIR 1-in-10 for the current BERT session

```
popeye1.1.21.CESMT3.a > moddsx3bert 2
popeye1.1.21.CESMT3.a >
```

Example 1-363 Display results

```
popeye1.1.21.CESMT3.a > dspdsx3bert
Bert Control:                           Modify dsx3Bert
Bert Resource Status State:             In Use
Bert Owner:                             CLI
Bert Status:                            In Sync
Bert Test Medium:                       Line
Bert Port:                              1
Line Number :                           1
Bert Mode :                             bertPatternTest
Bert Pattern :                          doubleOneZero
Loopback type:                          metallicLoopback
Start time (secs.)                      14:14:44
Start Date                              FRI JUL 02 1999
Bit countupper:                         3
Bit countlower:                         389194075
Bit Error Countupper                    0
Bit Error Countlower                    14363002
Error Insertion Rate:                   oneInTenPowerTwo
Error Insertion count:                  0
        DSX3 BERT in Sync
Syntax : dspdsx3bert
```

mv

Move

Use the **mv** command to rename a file or directory.

Card(s) on Which This Command Executes

PXM

Syntax

mv <*path_name*> <*tgt_path_name*>

Syntax Description

path_name	Name of the existing file or directory.
tgt_path_name	Name of the target file or directory.

Related Commands

rename

Attributes

Log: Yes State: Any Privilege: SuperUser

myid

My Identification

Use the **myid** command to view information about the user of the current terminal session.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

myid

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-364 Display login name of the current user—"cisco" in this case

```
manish.1.7.PXM.a > myid

    User ID:        cisco
    Access Level:   CISCO_GP
    Terminal Port:  telnet.01

manish.1.7.PXM.a >
```

newrev

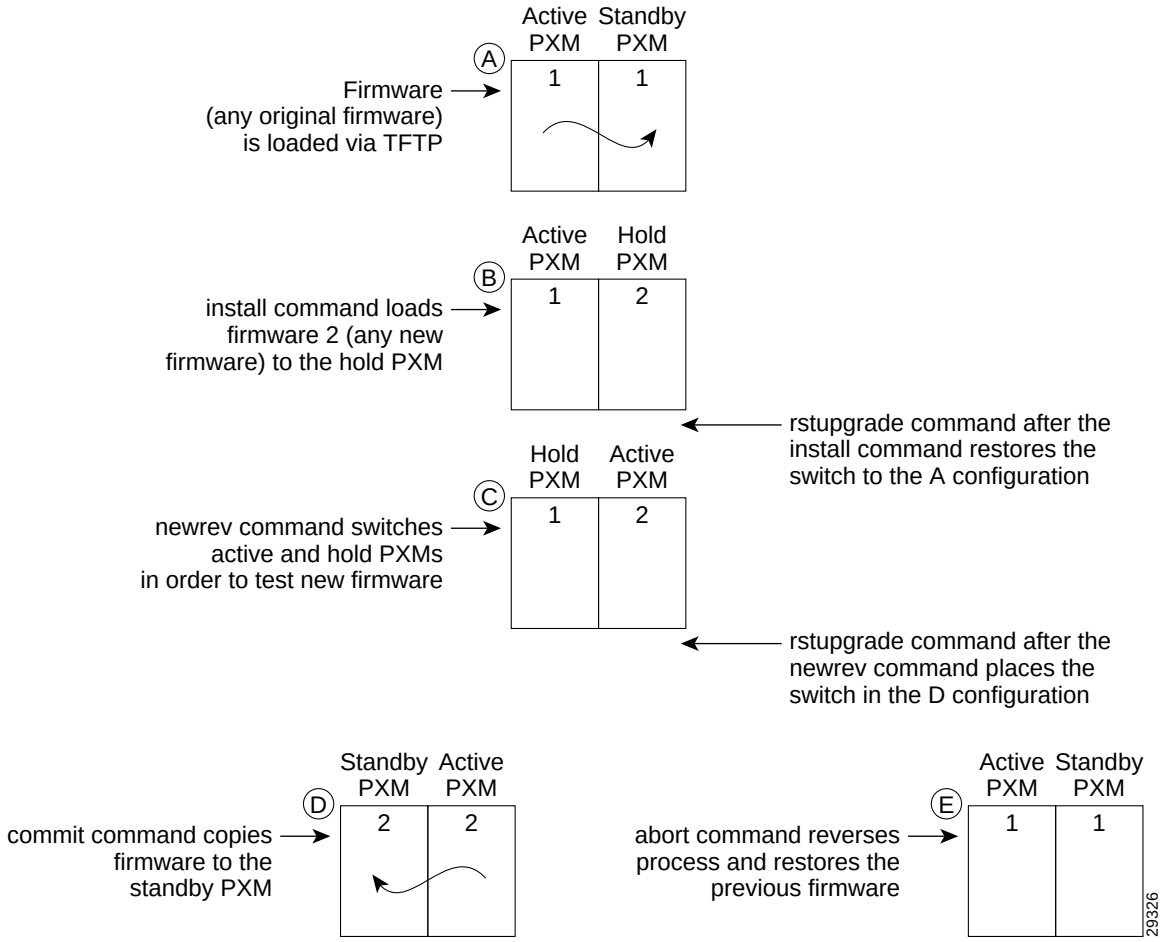
New Revision

Use the **newrev** command to complete an upgrade/downgrade procedure on the PXM. This operation assumes that the **install** command has been successfully completed.

When this command executes normally, no output is returned, but the card is reset.

See Figure 1-7 for an illustration of how the **newrev** command is used in the firmware upgrade process.

Figure 1-7 newrev Command Used in the Upgrade Process



Card(s) on Which This Command Executes

PXM

Syntax

newrev [sm <*slot*>] <*version*>

Note The "sm <*slot*>" parameter is optional; used only when a service module image is being upgraded.

Syntax Description

slot	Slot number of the service module slot that needs to be upgraded or downgraded.
version	Firmware version.

Related Commands

rstupgrade, **dspupgrade**, **install**, **abort**, **commit**, **dspfwrevs**, **printrev**

Attributes

Log: Yes State: Active Privilege: Any

Example 1-365 View loading firmware errors (multiple cases)

```
NODENAME.1.8.PXM.a > newrev 1.1.11
in 'upgrade idle', must be in 'upgrade install'
ERR: command "newrev" failed

NODENAME.1.8.PXM.a > newrev 1.1.11
1.1.11 is not the PXM FW seondary image
ERR: command "newrev" failed
```

Example 1-366 Load firmware on a Service Module

```
golden1.1.7.PXM.a > newrev sm 11 10.0.05
Do you want to proceed (Yes/No)? yes
```

Example 1-367 View loading firmware errors for a Service Module

```
golden1.1.7.PXM.a > newrev sm 11 10.0.05

Incorrect version : 10.0.05
usage: newrev [sm <slot>] <version>
ERR: command "newrev" failed
```

pagemode

Page Mode

Use the **pagemode** command to adjust the way information is presented in the console display. Set **pagemode** off to enable continuous scrolling of displayed information, or set **pagemode** on to view incremental portions of the display.

Card(s) on Which This Command Executes

PXM

Syntax

pagemode [*off*]

Syntax Description

off Present uninterrupted results of command.

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-368 Set display for continuous scroll

```
raviraj.1.7.PXM.a > pagemode off
Value of pageMode is now turned OFF

raviraj.1.7.PXM.a >
```

Example 1-369 Set display for incremental views

```
raviraj.1.7.PXM.a > pagemode on
Value of pageMode is now turned ON

raviraj.1.7.PXM.a >
```

passwd

Password

Use the **passwd** command to set the password on the PXM.

Note The default password is *newuser.*

Card(s) on Which This Command Executes

PXM

Syntax

password

Related Commands

cnfpasswd

Attributes

Log: Yes State: Active Privilege: Any

Example 1-370 Set password on the PXM

```
raviraj.1.7.PXM.a > passwd
Enter password:
(default password "newuser" will be used)

raviraj.1.7.PXM.a >
```

ping

Ping

Use the **ping** command to send an ICMP packet to a destination address to find out if the host is operational.

Card(s) on Which This Command Executes

PXM

Syntax

ping <*IP_Addr*> <*Num_Packets*>

Syntax Description

IP_Addr	IP address of the destination host in dotted decimal format <n>.<n>.<n>.<n>, where <n> is an integer in the range 0–255.
Num_Packets	Number of packets, in the range 0–65535. • 0 = infinite • 3 = default

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-371 Display operational information of the destination address

```
raviraj.1.7.PXM.a > ping 172.29.23.148
PING 172.29.23.148: 56 data bytes
64 bytes from 172.29.23.148: icmp_seq=0. time=0. ms
64 bytes from 172.29.23.148: icmp_seq=1. time=0. ms
64 bytes from 172.29.23.148: icmp_seq=2. time=0. ms
----172.29.23.148 PING Statistics----
3 packets transmitted, 3 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 0/0/0

raviraj.1.7.PXM.a >
```

printrev

Display Firmware Version

Use the **printrev** command to view the primary and secondary versions of firmware saved in the BRAM.

Card(s) on Which This Command Executes

PXM

Syntax

printrev

Related Commands

dspupgrade, **rstupgrade**, **newrev**, **dspfwrevs**, **copy**, **install**, **commit**, **abort**

Attributes

Log: No State: Any Privilege: Any

Example 1-372 Display firmware versions running in both PXM cards

```
spirit4.1.8.PXM.a > printrev

primary : 1.0.00
secondary : 1.0.00

spirit4.1.8.PXM.a >
```

pwd

Present Working Directory

Use the **pwd** command to view the current working directory on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

pwd

Related Commands

dir, **mkdir**

Attributes

Log: No State: Any Privilege: Any

Example 1-373 Display current working directory on the PXM

```
raviraj.1.7.PXM.a > pwd
C:
raviraj.1.7.PXM.a >
```

remove

Remove

Use the **remove** command to delete a file or directory from the PXM hard drive.

Card(s) on Which This Command Executes

PXM

Syntax

remove <*path_name*>

Syntax Description

path_name	Name of an existing file or directory.

Related Commands

None

Attributes

Log: Yes State: Any Privilege: SuperUser

rename

Rename

Use the **rename** command to modify the current name of a file or directory.

Card(s) on Which This Command Executes

PXM

Syntax

rename <*path_name*> <*tgt_path_name*>

Syntax Description

path_name	Name of an existing file or directory.
tgt_path_name	Name of target file or directory.

Related Commands

None

Attributes

Log: Yes State: Any Privilege: SuperUser

resetcd

Reset Card

Use the **resetcd** command to reset either the hardware of a selected service module or the failure history of the current card.

Using the **resetcd** command without defining a slot number results in an ungraceful (disruptive) upgrade. This is the fastest method to upgrade a card, but interrupts service.

A graceful (non-disruptive) upgrade requires that the **install**, **newrev**, and **commit** commands have already been executed, and that the card is identified in the command string.

Card(s) on Which This Command Executes

PXM

Syntax

resetcd [*slot number*]

Syntax Description

slot number	Slot number, in the range 1–32.

Related Commands

install, **newrev**, **commit**

Attributes

Log: Yes State: Active Privilege: Group 3

Example 1-374 Reset PXM without interrupting service

```
porky.1.7.PXM.a > resetcd 5
```

resetsys

Reset System

Use the **resetsys** command to reset the system.

Card(s) on Which This Command Executes

PXM

Syntax

resetsys

Related Commands

resetcd

Attributes

Log: Yes State: Active Privilege: Group 3

Example 1-375 Reset the system

```
porky.1.7.PXM.a > resetsys
Do you want to proceed (Yes/No)? y
Syncing ......
Warning: firmware reset on active PXM card by cisco@telnet.01 (172.29.52.18)
(session ended)
```

restoreallcnf

Restore All Configurations

Use the **restoreallcnf** command to save the shelf configuration into a file. This file can then be used to restore the configuration at a later time.

Card(s) on Which This Command Executes

PXM

Syntax

restoreallcnf [-f] <*FILENAME*> [-v]

Syntax Description

-f	Command delineator that precedes the *FILENAME* entry.
FILENAME	Filename to be stored.
-v	Command delineator to print the restored file.

Related Commands

clrallcnf, **saveallcnf**

Attributes

Log: Yes State: Active Privilege: SuperUser

rnmnd

Renumber Node

Use the **rnmnd** command to renumber a routing node.

Note This command is not applicable for a feeder node, and by default is set to 1.

Card(s) on Which This Command Executes

PXM

Syntax

rnmnd *<1 | 2>*

Syntax Description

<1 | 2>	Indicates the node type. • 1 = feeder node • 2 = routing node

Related Commands

routeShow, **routestatShow**

Attributes

Log: No State: Any Privilege: Group 1

Example 1-376 Renumber node error on a feeder node

```
NODENAME.1.8.PXM.a > rnmnd 2
Node renumber not allowed for Feeder Node
```

routeShow

Show Routing

Use the **routeShow** command to view the current IP routing of the network layer of the operating system.

Card(s) on Which This Command Executes

PXM

Syntax

routeShow

Related Commands

routestatShow

Attributes

Log: No State: Any Privilege: Any

Example 1-377 Display current IP routing of the network layer of the operating system

```
spirit4.1.8.PXM.a > routeShow

ROUTE NET TABLE
destination      gateway          flags  Refcnt  Use           Interface
-------------------------------------------------------------------------
0.0.0.0          172.29.23.149    1      1       21778         lnPci0
0.0.0.0          172.29.23.1      3      0       2755          lnPci0
172.1.1.0        172.1.1.149      1      0       0             atm0
172.29.23.0      172.29.23.149    1      2       5275          lnPci0
-------------------------------------------------------------------------

ROUTE HOST TABLE
destination      gateway          flags  Refcnt  Use           Interface
-------------------------------------------------------------------------
0.0.0.0          0.0.0.0          5      0       0             sl0
127.0.0.1        127.0.0.1        5      1       0             lo0
172.29.23.3      172.1.1.149      5      0       3555          atm0
172.29.23.5      172.1.1.149      5      0       3304          atm0
172.29.23.7      172.1.1.149      5      0       3335          atm0
171.71.29.18     172.1.1.149      5      0       3304          atm0
172.29.23.18     172.1.1.149      5      0       3304          atm0
172.29.23.28     172.1.1.149      5      0       6127          atm0
172.29.23.29     172.1.1.149      5      1       6065          atm0
171.71.29.32     172.1.1.149      5      0       5842          atm0
171.71.29.44     172.1.1.149      5      0       3304          atm0
172.29.23.53     172.1.1.149      5      0       3304          atm0
171.71.29.59     172.1.1.149      5      0       3304          atm0
171.71.28.126    172.1.1.149      5      0       3309          atm0
-------------------------------------------------------------------------

spirit4.1.8.PXM.a >
```

routestatShow

Show Routing Statistics

Use the **routestatShow** command to view the current IP routing statistics for the network layer of the operating system.

Card(s) on Which This Command Executes

PXM

Syntax

routestatShow

Related Commands

routeShow

Attributes

Log: No State: Any Privilege: Any

Example 1-378 Display current IP routing statistics for the network layer of the operating system

```
spirit4.1.8.PXM.a > routestatShow

routing:
        0 bad routing redirect
        0 dynamically created route
        0 new gateway due to redirects
        0 destination found unreachable
        11095 uses of a wildcard route

spirit4.1.8.PXM.a >
```

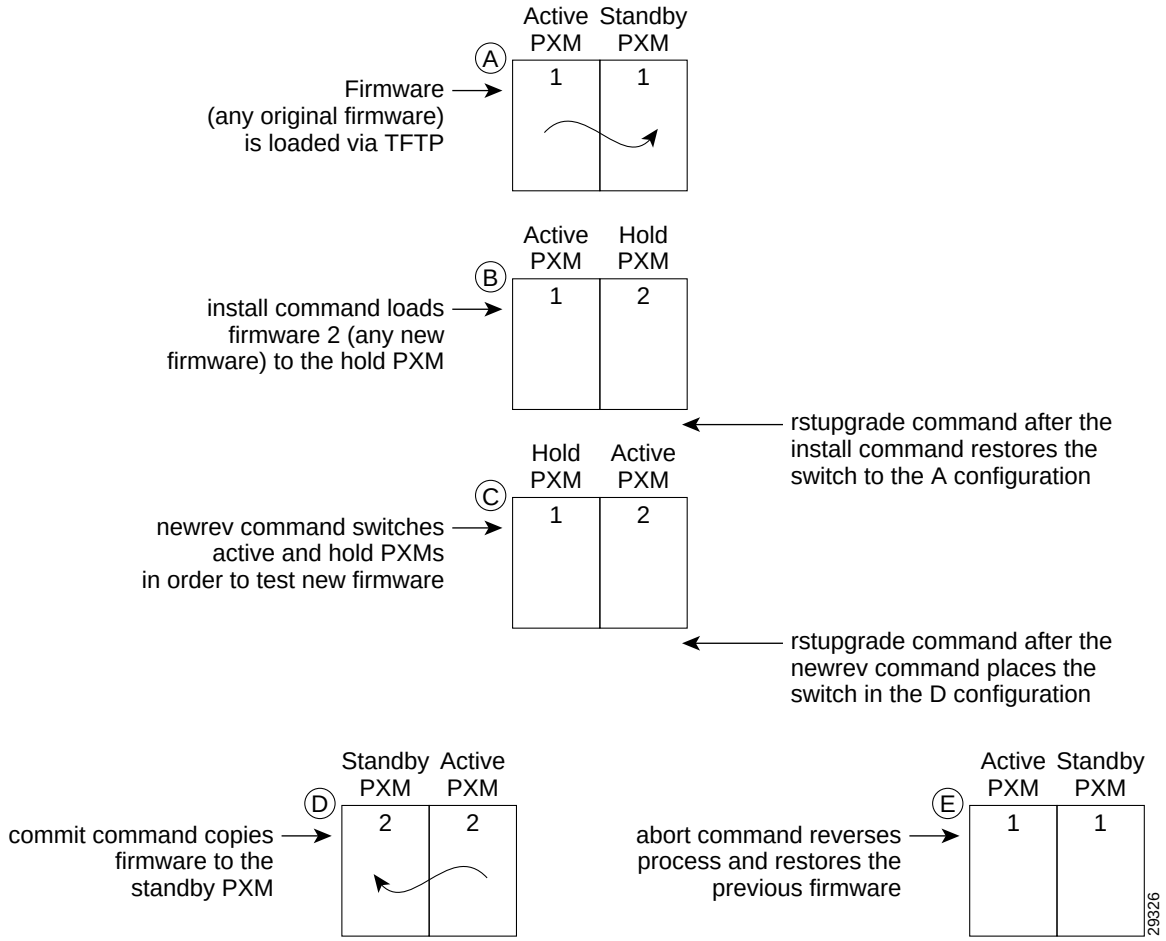
rstupgrade

Reset Upgrade

Use the **rstupgrade** command to cancel the software upgrade process. In normal circumstances, the **abort** command is the best way to stop the software upgrade process. However, if a hardware failure or other error occurs during the installation, run the **rstupgrade** command to cancel the installation. Run the **dspupgrade** command to display the status. The status "upgrade idle" indicates that the upgrade has been cancelled. You then can correct the cause of the error, and start the upgrade process again.

See Figure 1-8 for an illustration of how the **rstupgrade** command is used in the upgrade process.

Figure 1-8 rstupgrade Command Used in the Upgrade Process



Card(s) on Which This Command Executes

PXM

Syntax

rstupgrade

Related Commands

dspupgrade, **newrev**, **install**, **abort**, **commit**, **dspfwrevs**, **printrev**

Attributes

Log: No State: Active Privilege: Any

Example 1-379 Reset upgrade and display upgrade

```
spirit4.1.8.PXM.a >rstupgrade
spirit4.1.8.PXM.a > dspupgrade

active: 'upgrade idle'
standby: 'upgrade idle'

spirit4.1.8.PXM.a >
```

runslftstno

Run Self-Test Number

Use the **runslftstno** command to activate the self-test for the specified self-test number on the current card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

runslftstno <*Test #*>

Syntax Description

Test #	Number of the test to run during this session. If this parameter is omitted, all tests are run.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Any

Examples

This section contains the following examples:

- Run all self-tests on an installed AUSM card
- Run self-test on an installed FRSM 2CT3 card
- Run specified self-test on the current card
- Run self-test with specified self-test number on the current card

Example 1-380 Run all self-tests on the current AUSM card

```
spirit.1.19.AUSM8.a > runslftstno

Test #  Test Name          Thold Fail Pass Last Enab Destr Card Rst
  1     DRAM access test     1     0    0    P    Y    N     Y
  2     SRAM access test     1     0    0    P    Y    N     Y
  3     GRAM access test     1     0    0    P    Y    N     Y
  4     BRAM checksum test   1     0    0    P    Y    Y     Y
  5     CODE checksum test   1     0    0    P    Y    N     Y
  6     Line loopback test   1     0    0    P    Y    Y     Y
  7     CellBus test         1     0    0    P    Y    N     N
  8     DPRAM test           1     0    0    P    Y    N     Y
  9     CSERAM test          1     0    0    P    Y    N     Y
 10     CAM test             1     0    0    P    Y    Y     Y
 11     IMA grp lpbk test    1     0    0    P    Y    Y     Y
runslftstno "Test #"

spirit.1.19.AUSM8.a >
```

Example 1-381 Run all self-tests on the current FRSM card

```
spirit.1.1.FRSM.a > runslftstno
Test #  Test Name          Thold Fail Pass Last Enab Destr Card Rst
  1     DRAM access test     1     0    0    P    Y    N     Y
  2     SRAM access test     1     0    0    P    Y    N     Y
  3     GRAM access test     1     0    0    P    Y    N     Y
  4     BRAM checksum test   1     0    0    P    Y    N     Y
  5     CODE checksum test   1     0    0    P    Y    N     Y
  6     Line loopback test   1     0    0    P    Y    Y     Y
  7     M32 test             1     0    0    P    Y    Y     N
  8     Data loopback test   1     0    0    P    N    Y     Y
  9     CellBus test         1     0    0    P    Y    N     N
runslftstno "Test #"

spirit.1.1.FRSM.a >
```

Example 1-382 Run all self-tests on the current FRSM-2CT3 card

```
spirit.1.3.VHS2CT3.a > runslftstno

Test #  Test Name           Thold Fail Pass Last Enab Destr Card Rst
  1     CPU DRAM access test    1     0    0    P    Y    N     Y
  2     SAR self test           1     0    0    P    Y    N     Y
  3     ISE self test           1     0    0    P    Y    N     Y
  4     ESE self test           1     0    0    P    Y    N     Y
  5     CODE checksum test      1     0    0    P    Y    N     Y
  6     Line loopback test      1     0    0    P    Y    Y     Y
  7     FREEDM test             1     0    0    P    Y    Y     Y
  8     Data loopback test      1     0    0    P    Y    Y     Y
  9     CellBus test            1     0    0    P    Y    N     N
runslftstno "Test #"

spirit.1.3.VHS2CT3.a >
```

Example 1-383 Run self-test with specified self-test number on the current card

```
spirit.1.3.VHS2CT3.a > runslftstno 1
Test Number 1 Result: PASS

spirit.1.3.VHS2CT3.a >
```

saveallcnf

Save All Configuration

Use the **saveallcnf** command to save the shelf configuration into a file. This file can then be used to restore the configuration at a later time.

Card(s) on Which This Command Executes

PXM

Syntax

saveallcnf -v

Syntax Description

-v Command delineator that prints the configuration file.

Related Commands

clrallcnf, **restoreallcnf**

Attributes

Log: Yes State: Active Privilege: Any

sesntimeout

Session Timeout

Use the **sesntimeout** command to define maximum idle time, in seconds, for the current session. If you do not specify a timeout period in seconds, the system displays the current timeout. To disable the session timeout function, enter a 0.

Card(s) on Which This Command Executes

PXM

Syntax

sesntimeout [*time_out*]

Syntax Description

time_out	Number of idle time seconds allowed for the session.

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display current timeout
- Modify current timeout and display the new configuration

Example 1-384 Display current timeout

```
spirit.1.7.PXM.a > sesntimeout
The timeout period for this session is currently 600 second(s)
spirit.1.7.PXM.a >
```

Example 1-385 Set session timeout threshold to 12 minutes (720 seconds)

```
spirit.1.7.PXM.a > sesntimeout 720
The timeout period for this session is now set to 720 second(s)
spirit.1.7.PXM.a >
```

shutdisk

Shut Down Disk

Use the **shutdisk** command to quiesce the disk.

Note You must execute a **shutdisk** on the PXM prior to rebooting the PXM.

Note You must execute a **shutdisk** on the PXM prior to removing a PXM from the system.

Card(s) on Which This Command Executes

PXM

Syntax

shutdisk

Related Commands

syncdisk, **formatdisk**

Attributes

Log: No State: Any Privilege: SuperUser

softswitch

Switch to Redundant from Primary

Use the **softswitch** command to transfer control from the active primary service module to the active secondary (or redundant) service module. The primary service module will reboot and come up in standby mode. Use the **switchback** command to revert to normal operation after a **softswitch**.

Card(s) on Which This Command Executes

PXM

Syntax

softswitch <*fromSlot*> <*toSlot*>

Syntax Description

fromSlot — Slot number of the primary card, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

toSlot — Slot number of the secondary card, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

Related Commands

switchback, **addred**, **delred**, **dspred**

Attributes

Log: No State: Active Privilege: Any

startdsx3bert

Start DSX3 BERT

Use the **startdsx3bert** command to start a bit error rate test (BERT) session. You must reset the BERT counters, using the **clrbertcntrs** command, prior to using the **startdsx3bert** command.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax

startdsx3bert

Related Commands

acqdsx3bert, **clrbertcntrs**, **cnfdsx3bert**, **dspdsx3bert**

Attributes

Log: No State: Active Privilege: Any

Example 1-386 Start a BERT session on the selected service module

```
popeye1.1.21.CESMT3.a > startdsx3bert

popeye1.1.21.CESMT3.a >
```

switchapsln

Switch APS Line

Use the **switchapsln** command to control APS switching actions. This function applies to OC-3 and OC-12 lines.

Card(s) on Which This Command Executes

PXM

Syntax

switchapsln <*line number*> [<*operation*>] [<*slotnumber*>]

Syntax Description

line number	OC-3 or OC-12 line number on which to apply APS.
operation	Type of APS switch functionality to use on the PXM line. • 1 = clear • 2 = forced • 3 = manual • 4 = lock-out • 5 = service
slot number	The slot number to which the APS lines are switched. • 1 = switch all APS lines to slot 1 • 2 = switch all APS lines to slot 2

Related Commands

addapsln, **cnfapsln**, **delapsln**, **dspapsln**

Attributes

Log: Yes State: Active Privilege: Group 1

switchback

Switch Back to Primary from Redundant

Use the **switchback** command to revert to normal operation after a softswitch. The **switchback** command transfers control from the active secondary (or redundant) service module back to the active primary service module. The secondary (or redundant) service module will reboot and will come up in standby mode

Card(s) on Which This Command Executes

PXM

Syntax

switchback <*PrimarySlotNum*> <*SecondarySlotNum*>

Syntax Description

PrimarySlotNum Slot number of the primary card, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

SecondarySlotNum Slot number of the secondary card, in the following ranges:

- 1–6
- 9–14
- 17–22
- 25–30

Related Commands

softswitch, **addred**, **delred**, **dspred**

Attributes

Log: No State: Active Privilege: Any

switchcc

Switch Core Cards

Use the **switchcc** command to transfer control of the MGX 8250 shelf from the active PXM to the standby PXM. If a standby PXM is not available, the command is not executed.

During a config copy, this command is disabled. If the command is attempted during a config copy, a "Can't execute, BRAM or FLASH is being updated" message is displayed.

Card(s) on Which This Command Executes

PXM

Syntax

switchcc

Related Commands

None

Attributes

Log: Yes State: Active Privilege: Group 3

Example 1-387 Attempt to switchcc without a standby PXM on the shelf

```
raviraj.1.7.PXM.a > switchcc
Do you want to proceed (Yes/No)? y

Core card redundancy unavailable

raviraj.1.7.PXM.a >
```

syncdisk

Synchronize Disk

Use the **syncdisk** command to flush out the write buffers to the disk and put the device in standby mode. Use the **syncdisk** command before you remove the PXM card or reset the shelf.

Card(s) on Which This Command Executes

PXM

Syntax

syncdisk

Related Commands

formatdisk

Attributes

Log: No State: Any Privilege: Any

timeout

Session Timeout

Use the **timeout** command to set maximum idle time, in seconds, for the current session on the PXM. If you do not specify a timeout period in seconds, the system displays the current timeout. To disable the session timeout function, enter a zero.

Card(s) on Which This Command Executes

PXM

Syntax

timeout [*time_out*]

Syntax Description

time_out	Number of idle time seconds allowed prior to automatically logging off the current user.

Related Commands

sesntimeout

Attributes

Log: No State: Any Privilege: SuperUser

Examples

This section contains the following examples:

- Display current timeout
- Modify current timeout and display the new configuration

Example 1-388 Display current timeout

```
spirit.1.7.PXM.a > timeout

The timeout period for this session is currently 600 second(s)

spirit.1.7.PXM.a >
```

Example 1-389 Set session timeout threshold to 12 minutes (720 seconds)

```
spirit.1.7.PXM.a > timeout 720

The timeout period for this session is now set to 720 second(s)

spirit.1.7.PXM.a >
```

tstcon

Test Connection

Use the **tstcon** command to test the integrity of a connection between an MGX 8250 card and a remote end within the WAN switching network by sending a single collection of supervisory cells to the remote end. The terminal displays only a pass or fail message.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: FRSM, CESM

tstcon <*channel number*>

Syntax Description

channel number A number in the range appropriate for the card.

- FRSM
  - 8T1/E1 range = 16–1015
  - HS1/B range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - 2CT3 range = 16–4015
- CESM
  - 8T1/E1 range = 32–279
  - T3/E3, one connection starting at 32

Syntax: PXM

tstcon <*con_id*>

Syntax Description

con_id Connection identifier, in the format *port.vpi.vci*.

- Port range = 1–*N*, as appropriate for the physical installation
- vpi range = 1–4095
- vci range = 1–65535

Syntax: AUSM

tstcon <*port.VPI.VCI | channel number*>

Syntax Description

port.VPI.VCI	Connection identifier, in the format *port.vpi.vci*. • Port range = 1–*N*, as appropriate for the physical installation • vpi range = 1–4095 • vci range = 1–65535
channel number	Channel number, in the range 16–1015.

Related Commands

dspcons, **tstconseg**, **tstdelay**

Attributes

Log: No State: Any Privilege: Group 4

Example 1-390 Test a connection on the current AUSM (using the port.VPI.VCI argument)

```
s1.1.12.AUSM8.a > tstcon 2.1.1
```

Example 1-391 Test a connection on the current AUSM (using the channel number argument)

```
s1.1.12.AUSM8.a > tstcon 21

Output:
tstcon in progress

Test passed.
```

tstconseg

Test Connection Segment

Use the **tstconseg** command to test the integrity of a connection between an MGX 8250 card and service equipment (CPE) by sending a single collection of supervisory cells to the remote end. The terminal displays only a pass or fail message.

Card(s) on Which This Command Executes

PXM, AUSM-8T1E1

Syntax for PXM

tstconseg <*channel number*>

Syntax Description

channel number	Channel number, in the range 16–4111.

Syntax for AUSM-8T1E1

tstconseg <*port.VPI.VCI* | *channel number*>

Syntax Description

port.VPI.VCI	Connection identifier, in the format *port.VPI.VCI*. • Port range = 1–*N*, as appropriate for the physical installation • VPI range = 1–4095 • VCI range = 1–65535
channel number	Channel number, in the range 16–1015

Related Commands

dspcons, **tstcon**, **tstdelay**

Attributes

Log: No State: Any Privilege: Group 4

Example 1-392 Test connection between the current AUSM card and the service equipment (CPE) using the port.VPI.VCI argument

```
s1.1.12.AUSM8.a > tstconseg 2.1.1
Output:
tstcon in progress

Test passed.
```

Example 1-393 Test connection between the current AUSM card and the service equipment (CPE) using the channel number argument

```
s1.1.12.AUSM8.a > tstconseg 21

Output:
tstcon in progress

Test passed.
```

tstdelay

Test Round Trip Delay

Use the **tstdelay** command to conduct an external connectivity test by sending a single collection of supervisory cells to the remote end to the network and back. The terminal displays a pass or fail message and the round-trip time in milliseconds.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: FRSM, CESM

tstdelay <*channel number*>

Syntax Description

channel number Channel number, in the range appropriate for the card.

- FRSM
  - 8T1/E1 range = 16–1015
  - HS1/B range = 16–1015
  - T3/E3/HS2 range = 16–2015
  - 2CT3 range = 16–4015
- CESM
  - 8T1/E1 range = 32–279
  - T3/E3, one connection starting at 32

Syntax: PXM

tstdelay <*con_id*>

Syntax Description

con_id Connection identifier, in the format *port.vpi.vci*.

- Port range = 1–*N*, as appropriate for the physical installation
- vpi range = 1–4095
- vci range = 1–65535

Syntax: AUSM-8T1E1

tstdelay < *port.VPI.VCI* | *channel number*>

Syntax Description

port.VPI.VCI	Connection identifier, in the format *port.VPI.VCI*. • Port range = 1–*N*, as appropriate for the physical installation. • VPI range = 1–4095. • VCI range = 1–65535.
channel number	Channel number, in the range 16–1015.

Related Commands

dspcons, **tstcon**

Attributes

Log: No State: Active Privilege: Group 4

Example 1-394 Test the delay for a round trip to and from the network on channel 16

```
MGX 880061.1.10.AUSM.a > tstdelay 16

TestDelay in progress.
TestDelay Passed with 2 ms.
```

Example 1-395 Test the delay for a round trip to and from the network from the current AUSM card on port 2, VPI 1, VCI 1

```
s1.1.12.AUSM8.a > tstdelay  2.1.1
Output:
tstdelay in progress

Delay Test Passed with 2 ms.
```

Example 1-396 Test the delay for a round trip to and from the network from the current AUSM card on channel 21

```
s1.1.12.AUSM8.a > tstdelay 21

Output:
tstdelay in progress

Delay Test Passed with 1 ms.
```

uncnfifastrk

Unconfigure Interface as Trunk

Use the **uncnfifastrk** command to restore trunk routing operations on a PXM line.

Note Delete all trunk connections prior to using this command.

Card(s) on Which This Command Executes

PXM

Syntax

uncnfifastrk <*slot.port*> <*iftype*>

Syntax Description

slot.port	Slot and port number of the line to be designated for trunking. • Slot = 7 (typical) or 8. • Port = 1–*N*, as appropriate for the physical installation.
iftype	Type of trunk. • ftrk = feeder trunk • rtrk = routing trunk (default)

Related Commands

cnfifastrk

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-397 Return the line on port 1 in slot 7 to use as a routing trunk

```
MGX-01.1.7.PXM.a > uncnfifastrk 7.1 rtrk
MGX-01.1.7.PXM.a >
```

An error message occurs if trunks are not deleted prior to invoking the **uncnfifastrk** command.

upcon

Up Connection

Use the **upcon** command to bring up a connection that was previously brought down by the **dncon** command. (The typical purpose of **dncon** is some form of operational modification or troubleshooting.)

Card(s) on Which This Command Executes

AUSM, FRSM, VISM, CESM

Syntax

upcon <*slot*>.<*port*>.<*vpi*>.<*vci*>

Syntax Description

slot	Slot number, in the following ranges: • 1–6 • 9–14 • 17–22 • 25–31
port	Port number, in the range 1–255.
vpi	Virtual path identifier (VPI) number, in the range 0–4095.
vci	Virtual channel identifier (VCI) number, in the range 0–65535.

Related Commands

dncon

Attributes

Log: No State: Active Privilege: Group 1

upif

Up Interface

Use the **upif** command to add a logical interface to a broadband port on a PXM. The purpose of configuring logical interfaces for a line is to create a structure for *resource partitioning*. The network control applications (PAR, Tag, and so on) require resources linked to the logical interfaces.

A PXM can have 1–32 logical interfaces regardless of the number of physical lines. With multiple lines serving as uplinks, you can divide the 32 logical interfaces between the active lines according to need, yet each line would still have the full range of VPIs and VCIs.

The number of logical interfaces per line can vary, but the *maximum* number of VPIs and VCIs is fixed (with the actual range subject to your configuration). To change the configuration of an existing logical interface on the PXM, use the **cnfif** command.

Note On a virtual trunk, the *min_vpi* and *max_vpi* should be the same. Only a routing node can support virtual trunking.

Card(s) on Which This Command Executes

PXM

Syntax

upif <*if_num*> <*line_num*> <*pct_bw*> <*min_vpi*> <*max_vpi*>

Syntax Description

if_num — Number of the logical interface, in the range 1–32.

line_num — PXM line number, in the range 1–4.

- 1 port on the OC-12 card
- 2 ports on the T3/E3 card
- 4 ports on the OC-3 card

pct_bw — Percentage of the line bandwidth to be allocated to the logical interface, in the range 0–100. The value applies to both the ingress and egress.

min_vpi Minimum virtual path identifier value, in the range appropriate for either UNI or NNI.

- UNI = 0–255
- NNI = 0–4095

The UNI range typically applies to a line connecting a stand-alone node to a workstation.

max_vpi Maximum virtual path identifier value, in the range appropriate for either UNI or NNI.

- UNI = 0–255
- NNI = 0–4095

Typically, the UNI range applies to a line connecting a stand-alone node to a workstation.

Related Commands

upif

Attributes

Log: No State: Active Privilege: Group 4

Example 1-398 Add logical interface to a PXM port

```
spirit.1.7.PXM.a > upif 1 1 100 1 2000
spirit.1.7.PXM.a >
```

upport

Up Port

Use the **upport** command to activate a specified AUSM port.

Card(s) on Which This Command Executes

AUSM

Syntax

upport <*port_num*> <*port_type*> <*line_num*>

Syntax Description

port_num	Port number, in the range 1–8.
port_type	Type of port. • 1 = UNI • 2 = NNI
line_num	Line number, in the range 1–8.

Related Commands

dnport

Attributes

Log: Yes State: Active Privilege: Group 1

A system response does not occur unless an error is detected. Possible errors include:

- Parameters are incorrect.
- Line is not present.
- Line is part of another IMA port orATM port.
- Port is already in use.

users

Display Names of All Users Currently Logged Into Switch

Use the **users** command to view details associated with currently active users on the PXM. The screen display shows the means through which each user logged into the switch, the slot number of the current card, and the login name of the users.

Card(s) on Which This Command Executes

PXM

Syntax

users

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-399 Display users logged into the switch

```
spirit.1.7.PXM.a > users

Port        Slot      Idle       UserId       From
-------------------------------------------------------------
telnet.01 *    7     0:00:00     cisco        171.71.25.240
telnet.02      3     0:07:03     cisco        171.71.25.240

spirit.1.7.PXM.a >
```

version

Display Versions

Use the **version** command to view different types of version-related information, such as firmware version, operating system kernel version, and the date of the software build (see screen examples).

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM, VISM

Syntax

version

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display version information on the current PXM card
- Display version information on the current FRSM card
- Display version information on the current VISM card
- Display version information on the current AUSM card

Example 1-400 Display version information on the current PXM card

```
spirit.1.7.PXM.a > version

VxWorks (for MGX 8250) version 5.3.1.
Kernel: WIND version 2.5.
Made on Feb 13 1999, 07:40:57.
Boot line:
lnPci(0,0) e=172.29.37.40 g=172.29.37.1
PXM firmware version : 1.0.00cp1
Boot Image Version   : 1.0.00av

spirit.1.7.PXM.a >
```

Example 1-401 Display version information on the current FRSM card

```
spirit.1.11.FRSM.a > version

***** Cisco Systems, Inc. MGX 8250 FRSM Card *****
    Firmware Version    = eqa2.0.1g
    Backup Boot version = model-B BT_2.0.0
    PXMFRSM Xilinx file = frsm025.h
VxWorks (for STRATACOM) version 5.1.1-R3000.
Kernel: WIND version 2.4.
Made on Wed Jan 13 19:45:10 PST 1999.
Boot line:

spirit.1.11.FRSM.a >
```

Example 1-402 Display version information on the current VISM card

```
spirit.1.5.VISM8.a > version

***** Cisco Systems. AXIS VISM Card *****
    Firmware Version    = rangar
    Backup Boot version = 3.2.02
    Xilinx Firmware version = 10/ 2/1998
    DSPCOM FPGA version     =  1/20/1999
    DSPM Firmware Details:
        Major Release   = 3
        Minor Release   = 0
        Build number    = 12
    DSPM ecan Firmware Details:
        Major Release   = 7
        Minor Release   = 3
        Build number    = 9e1
VxWorks (for R5k PDC) version 5.3.1.
Kernel: WIND version 2.5.
Made on Mar  9 1999, 14:19:21.
Boot line:

spirit.1.5.VISM8.a >
```

Example 1-403 Display version information on the current AUSM card

```
spirit.1.14.AUSM.a > version

***** Cisco Systems, Inc. MGX 8250 AUSM Card *****
    Firmware Version    = model-A 2.0.00
    Backup Boot version = model-A BT_eqa2.0.1
    AUSM Xilinx file    = ausmfract.h
VxWorks (for STRATACOM) version 5.1.1-R3000.
Kernel: WIND version 2.4.
Made on Thu Jan 21 17:57:59 GMT 1999.
Boot line:

spirit.1.14.AUSM.a >
```

who

Who

Use the **who** command to view details associated with user IDs currently active on the PXM.

Card(s) on Which This Command Executes

PXM

Syntax

who

Related Commands

adduser, **deluser**, **whoami**

Attributes

Log: No State: Any Privilege: Any

Example 1-404 Display users logged into the current card

```
spirit.1.7.PXM.a > who

Port        Slot      Idle       UserId       From
-------------------------------------------------------------
telnet.01 *    7     0:00:00     cisco        171.71.25.240

spirit.1.7.PXM.a >
```

whoami

Who Am I

Use the **whoami** command to view the current login ID, access level, and associated terminal port.

Card(s) on Which This Command Executes

PXM

Syntax

whoami

Related Commands

adduser, **deluser**, **who**

Attributes

Log: No State: Any Privilege: Any

Example 1-405 Display information about the user of the current terminal session

```
spirit.1.7.PXM.a > whoami

User ID:        cisco
Access Level:   CISCO_GP
Terminal Port:  telnet.01

spirit.1.7.PXM.a >
```

xaddcon

Add Connection

Use the **xaddcon** command to adds a connection to the current AUSM. No messages appear on-screen after command entry unless the command cannot execute as entered.

Card(s) on Which This Command Executes

AUSM

Syntax

xaddcon -chn <*ChanNum*> -rs <*RowStatus*> -ct <*ConnectionType*> -st <*ServiceType*> -pt <*PortNum*> -vpi <*VirtualPathId*> -vci <*VirtualChannelId*> -pqn <*QNum*> -qdm <*IngressQDepth*> -icth <*IngressCLPHigh*> -ictl <*IngressCLPLow*> -iet <*IngressQEfciThreshold*> -cte <*CLPTagEnable*> -lvp <*LocalVpID*> -osub <*OvrSubFlag*> -dis <*DiscardOption*> -epd <*EPDThreshold*> -conTp <*connType*> -cdr <*CDRNumber*> -locvpi <*LocalVpi*> -locvci <*LocalVci*> -locnsap <*LocalNSAP*> -rmtvpi <*RemoteVpi*> -rmtvci <*RemoteVci*> -rmtnsap <*RemoteNSAP*> -master <*MasterShip*> -vpcflag <*vpcFlag*> -cos <*ConnServiceType*> -rtngpri <*RoutingPriority*> -maxcost <*maxCost*> -type <*RestrictedType*> -pcr <*ConnPCR*> -mcr <*ConnMCR*> -pctutil <*ConnPercentUtil*> -upce <*UpcEnable*> -pcr01 <*IngrUpcPCR*[0+1]> -ccdv <*CDVT*[0+1]> -scrp <*SCRPolicing*> -scr <*IngrUpcSCR*> -cbs <*MaxBurstSize*> -ibs <*InitialBurstSize*> -fge <*FrameGCRAEnable*> -fe <*ForesightEnable*> -mir <*ForesightMIR*> -qir <*ForesightQIR*> -pir <*ForesightPIR*> -esr <*EgrSrvRate*> -ipcu <*IPUtil*> -epcu <*EPUtil*>

Syntax Description

-chan	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number, in the range 16–1015.
-rs	Command delineator that precedes the *RowStatus* entry.
RowStatus	Row status. • 1 = add • 2 = delete • 3 = modify
-ct	Command delineator that precedes the *ConnectionType* entry.
ConnectionType	Connection type as either VPC or VCC. • 1 = VPC • 2 = VCC
-st	Command delineator that precedes the *ServiceType* entry.

ServiceType	Type of service, in the range 1–4. • 1 = CBR • 2 = VBR • 3 = ABR • 4 = UBR
-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.
-vpi	Command delineator that precedes the *VirtualPathId* entry.
VirtualPathId	Virtual path identifier (VPI), in the range 0–255.
-vci	Command delineator that precedes the *VirtualChannelId* entry.
VirtualChannelId	Virtual channel identifier (VCI), in the range 0–65535.
-pqn	Command delineator that precedes the *QNum* entry.
QNum	Egress queue number, in the range 1–16.
-qdm	Command delineator that precedes the *IngressQDepth* entry.
IngressQDepth	Ingress queue depth, in the range 1–16000.
-icth	Command delineator that precedes the *IngressCLPHigh* entry.
IngressCLPHigh	Highest ingress cell loss priority (CLP), in the range 1– 16000.
-ictl	Command delineator that precedes the *IngressCLPLow* entry.
IngressCLPLow	Lowest ingress CLP, in the range 1–16000.
-iet	Command delineator that precedes the *IngressQEfciThreshold* entry.
IngressQEfciThreshold	Ingress queue explicit forward congestion indication (EFCI), in the range 1–16000. EFCI is one of the congestion feedback modes allowed by available bit rate (ABR) service.
-cte	Command delineator that precedes the *CLPTagEnable* entry.
CLPTagEnable	CLP tag is either enabled or disabled. • 1 = disable • 2 = enable
-lvp	Command delineator that precedes the *LocalVpID* entry.
LocalVpID	Local virtual path ID, in the range 1 – 1000.

-osub	Command delineator that precedes the *OvrSubFlag* entry.
OvrSubFlag	Override option. • 1 = no override • 2 = override
-dis	Command delineator that precedes the *DiscardOption* entry.
DiscardOption	Basis for discarding a frame. • 1 = CLP hysterisis • 2 = frame based
-epd	Command delineator that precedes the *EPDThreshold* entry.
EPDThreshold	Early packet discard threshold, in the range 1–16000. EPD prevents congestion that would jeopardize the node's ability to properly support existing connections.
-contp	Command delineator that precedes the *connType* entry.
connType	Controller type. • 1 = SVC • 2 = PVC • 3 = SPVC • 4 = PAR • 5 = PNNI • 6 = TAG
-cdr	Command delineator that precedes the *CDRNumber* entry.
CDRNumber	Call detail record number in the format 0–0xffffffff.
-locvpi	Command delineator that precedes the *LocalVpi* entry.
LocalVpi	Local VPI number, in the range 1–4095.
-locvci	Command delineator that precedes the *LocalVci* entry.
LocalVci	Local VCI number, in the range 1–65536.
-locnsap	Command delineator that precedes the *LocalNSAP* entry.
LocalNSAP	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in network service access point (NSAP) format. An NSAP is the point at which OSI Network Service is made available to a transport layer (Layer 4) entity.

-rmtvpi	Command delineator that precedes the *RemoteVpi* entry.
RemoteVpi	Remote VPI number, in the range 1–4095.
-rmtvci	Command delineator that precedes the *RemoteVci* entry.
RemoteVci	Remote VCI number, in the range 1–65536.
-rmtnsap	Command delineator that precedes the *RemoteNSAP* entry.
RemoteNSAP	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in network service access point (NSAP) format.
-master	Command delineator that precedes the *MasterShip* entry.
MasterShip	Status of current end, either master or slave. • 1 = master • 2 = slave • 3 = unknown
-vpcflag	Command delineator that precedes the *vpcFlag* entry.
vpcFlag	Virtual path connection (VPC) flag indicates the connection type. • 1 = VPC • 2 = VCC
-cos	Command delineator that precedes the *ConnServiceType* entry.
ConnServiceType	Connection service type. • 1 = CBR • 2 = VBR • 3 = not used • 4 = UBR • 5 = ATFR • 6 = ABR-STD • 7 = ABR-FST
-rtngpri	Command delineator that precedes the *RoutingPriority* entry.
RoutingPriority	Routing priority, in the range 1–15.
-maxcost	Command delineator that precedes the *maxCost* entry.
maxCost	Maximum cost.
-type	Command delineator that precedes the *RestrictedType* entry.

RestrictedType	Type of trunk restriction. • 1 = no restriction • 2 = terrestrial trunk • 3 = satellite trunk
-pcr	Command delineator that precedes the *ConnPCR* entry.
ConnPCR	Peak cell rate (PCR), in the range 1–65525 cells per second.
-mcr	Command delineator that precedes the *ConnMCR* entry.
ConnMCR	Minimum cell rate (MCR), in the range 1–65525 cells per second.
-pctutil	Command delineator that precedes the *ConnPercentUtil* entry.
ConnPercentUtil	Percentage of utilization, in the range 1–100.
-upce	Command delineator that precedes the *UpcEnable* entry.
UpcEnable	Usage parameter control (UPC), either disabled or enabled. • 1 = disable • 2 = enable
-pcr01	Command delineator that precedes the *IngrUpcPCR[0+1]* entry.
IngrUpcPCR[0+1]	Ingress peak cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the logical port speed.
-ccdv	Command delineator that precedes the *CDVT[0+1]* entry.
CDVT[0+1]	Cell delay variation tolerance (CDVT), in the range 1–250000 microseconds.
-scrp	Command delineator that precedes the *SCRPolicing* entry.
SCRPolicing	Sustainable cell rate (SCR) policing, in the range 1–3. • 1 = CLP[0] • 2 = CLP[0+1] • 3 = no SCR policing
-scr	Command delineator that precedes the *IngrUpcSCR* entry.
IngrUpcSCR	Ingress sustainable cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the logical port speed.
-cbs	Command delineator that precedes the *MaxBurstSize* entry.

MaxBurstSize	Maximum burst size (MBS), in the range 1–5000 cells.
-ibs	Command delineator that precedes the *InitialBurstSize* entry.
InitialBurstSize	Initial burst size, in the range 10–5000.
-fge	Command delineator that precedes the *FrameGCRAEnable* entry.
FrameGCRAEnable	Frame generic cell rate algorithm (GCRA) is either disabled or enabled. GCRA determines cell conformity to the traffic contract of the connection.
-fe	Command delineator that precedes the *ForesightEnable* entry.
ForesightEnable	Foresight is either disabled or enabled. • 1 = disable • 2 = enable
-mir	Command delineator that precedes the *ForesightMIR* entry.
ForesightMIR	Minimum information rate, as appropriate for the card type. • 8T1/E1 the range = 10–8000 in cells per second. • T3/E3/HS2/2CT3 range = 10–400000 in cells per second. Default = 1000
-qir	Command delineator that precedes the *ForesightQIR* entry.
ForesightQIR	Quiescent information rate, as appropriate for the card type. • 8T1/E1 range = 0–8000 in cells per second. • T3/E3/HS2/2CT3 range = 10–400000 in cells per second. Default = 1000
-pir	Command delineator that precedes the *ForesightPIR* entry.
ForesightPIR	Peak information rate, as appropriate for the card type. • 8T1/E1 range = 10–8000 in cells per second. • T3/E3/HS2/2CT3, the range is 10–400000 in cells per second. Default = 1000
-esr	Command delineator that precedes the *EgrSrvRate* entry.
EgrSrvRate	Egress service rate.
-ipcu	Command delineator that precedes the *IPUtil* entry.
IPUtil	Ingress percentage utilization, in the range 1–127.

-epcu	Command delineator that precedes the *EPUtil* entry.
EPUtil	Egress percentage utilization, in the range 1–127

Related Commands

delcon, **dspcons**, **dspcon**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-406 Add a VCC connection to channel 16 on port 1 with vpi=1, vci=1, ABR service type, and an egress queue number of 1

```
MGX 88003.1.14.AUSM.a > xaddcon 16 2 1 1 1 3 1
MGX 88003.1.14.AUSM.a >
```

A system response does not occur unless an error is detected.

xclrchancnt

Clear Channel Counters

Use the **xclrchancnt** command to clear the channel counters for a specified Frame Relay channel on a specified card. Counting resumes after the command executes.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax: PXM

xclrchancnt -cnt <*chanNum*> -cc <*clrButton*>

Syntax Description

-cnt	Command delineator that precedes the PXM *chanNum* entry.
chanNum	PXM channel number, in the range 16–4111.
-cc	Command delineator that precedes the *ClrButton* entry.
clrButton	Underline MIB object to clear or retain the counters. • 1 = no action • 2 = clear counts

Syntax: FRSM, AUSM, CESM

xclrchancnt -chn <*channel number*>

Syntax Description

-chn	Command delineator that precedes the *channel number* entry.
channel number	Channel number in the range appropriate for the current card interface. • FRSM – 8T1/E1 range = 16–1015 – T3/E3/HS2 range = 16–2015 – 2CT3 range = 16–4015 • AUSM range = 16–1015 • CESM – 8T1/E1 range = 32–279 – T3/E3 = 32–*N*

Related Commands

dspchan, **clrchancnts**, **dspchancnt**

Attribute

Log: No State: Any Privilege: Group 3

xclrportcnt

Clear Port Counters

Use the **xclrportcnt** command to clear port counter values from the current AUSM or FRSM.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

xclrportcnt -pt <*port number*>

Syntax Description

-pt	Command delineator that precedes the *port number* entry.
port number	Port number, in the range appropriate for the current card. • AUSM range = 1–8 • FRSM range as appropriate for the interface. – T1 range = 1–92 – E1 range = 1–248

Related Commands

clrportcnts, **xdspportcnt**, **dspportcnt**

Attributes

Log: No State: Any Privilege: Group 3

A system response does not occur unless an error is detected.

xcnfalm

Configure Extended Alarm Counters and Statistics

Use the **xcnfalm** command to configure extended alarm counters and statistics for the specified line.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

xcnfalm -ds1 <*LineNum*> -red <*RedSeverity*> -rai <*RAISeverity*> -neu <*NEAlarmUpcount*> -ned <*NEAlarmDncount*> -net <*NEAlarmThreshold*> -feu <*FEAlarmUpcount*> -fed <*FEAlarmDncount*> -fet <*FEAlarmThreshold*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number, in the range 1–*N*, as appropriate for the current card.
-red	Command delineator that precedes the *RedSeverity* entry.
RedSeverity	RedSeverity is either major or minor. • 1 = minor • 2 = major
-rai	Command delineator that precedes the *RAISeverity* entry.
RAISeverity	RAISeverity is either major or minor. • 1 = minor • 2 = major
-neu	Command delineator that precedes the *NEAlarmUpcount* entry.
NEAlarmUpcount	NEAlarmUpcount, in the range 1–65335.
-ned	Command delineator that precedes the *NEAlarmDncount* entry.
NEAlarmDncount	NEAlarmDncount, in the range 1–65335.
-net	Command delineator that precedes the *NEAlarmThreshold* entry.
NEAlarmThreshold	NEAlarmThreshold, in the range 1–65335.
-feu	Command delineator that precedes the *FEAlarmUpcount* entry.
FEAlarmUpcount	FEAlarmUpcount, in the range 1–65335.

-fed	Command delineator that precedes the *FEAlarmDncount* entry.
FEAlarmDncount	FEAlarmThreshold, in the range 1–65335.
-fet	Command delineator that precedes the *FEAlarmThreshold* entry.
FEAlarmThreshold	FEAlarmThreshold, in the range 1–65335.

Related Commands

xcnfalmcnt

Attributes

Log: Yes State: Active Privilege: Service

Example 1-407 Configure the DS1 line 1 alarms so that RED and RAI are both minor alarms, and the up and down counts and threshold for both FE and NE are all set to 100

```
MGX 88003.1.14.AUSM.a > xcnfalm -ds1 1 -red 1 -rai 1 -neu 100 -ned 100 -net 100 -feu 100
-fed 100 -fet 100

MGX 88003.1.14.AUSM.a >
```

xcnfalmcnt

Configure Alarm Counters

Use the **xcnfalmcnt** command to configure the extended alarm counters for the specified line.

Card(s) on Which This Command Executes

AUSM, FRSM, CESM

Syntax

xcnfalmcnt -ds1 <*LineNum*> -sev <*StatisticalAlarmSeverity*> -lcv15 <*lCV15minThreshold*> -lcv24 <*lCV24hrThreshold*> -les15 <*lES15minThreshold*> -les24 <*lES24hrThreshold*> -lses15 <*lSES15minThreshold*> -lses24 <*lSES24hrThreshold*> -crc15 <*cRC15MinThreshold*> -crc24 <*cRC24HrThreshold*> -crces15 <*cRCES15MinThreshold*> -crces24 <*cRCES24HrThreshold*> -crcses15 <*cRCSES15MinThreshold*> -crcses24 <*cRCSES24hrThreshold*> -sefs15 <*sEFS15minThreshold*> -sefs24 <*sEFS24hrThreshold*> -aiss15 <*aISS15minThreshold*> -aiss24 <*aISS24hrThreshold*> -uas15 <*uAS15minThreshold*> -uas24 <*uAS24hrThreshold*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number, in the range 1–*N*, as appropriate for the current card.
-sev	Command delineator that precedes the *StatisticalAlarmSeverity* entry.
StatisticalAlarmSeverity	Severity of the alarm. • 1 = minor • 2 = major
-lcv15	Command delineator that precedes the *1CV15minThreshold* entry.
1CV15minThreshold	Code violations during a 15-minute period.
-lcv24	Command delineator that precedes the *1VC24hrThreshold* entry.
1CV24hrThreshold	Code violations during a 24-hour period.
-les15	Command delineator that precedes the *1ES15minThreshold* entry.
1ES15minThreshold	Line errored seconds during a 15-minute period.
-les24	Command delineator that precedes the *1ES24hrThreshold* entry.
1ES24hrThreshold	Line errored seconds during a 24-hour period.
-lses15	Command delineator that precedes the *1SES15minThreshold* entry.

1SES15minThreshold	Line severity errored seconds during a 15-minute period.
-lses24	Command delineator that precedes the *1SES24hrThreshold* entry.
1SES24hrThreshold	Line severity errored seconds during a 24-hour period.
-crc15	Command delineator that precedes the *cRC15MinThreshold* entry.
cRC15MinThreshold	Cyclic redundancy check (CRC) during a 15-minute period.
-crc24	Command delineator that precedes the *cRC24HrThreshold* entry.
cRC24HrThreshold	CRC during a 24-hour period.
-crces15	Command delineator that precedes the *cRCES15MinThreshold* entry.
cRCES15MinThreshold	Errored seconds of a CRC check during a 15-minute period.
-crces24	Command delineator that precedes the *cRCES24HrThreshold* entry.
cRCES24HrThreshold	Errored seconds of a CRC during a 24-hour period.
-crcses15	Command delineator that precedes the *cRCSES15MinThreshold* entry.
cRCSES15MinThreshold	Severely errored seconds of a CRC during a 15-minute period.
-crcses24	Command delineator that precedes the *cRCSES24hrThreshold* entry.
cRCSES24hrThreshold	Severely errored seconds of a CRC during a 24-hour period.
-sefs15	Command delineator that precedes the *sEFS15minThreshold* entry.
sEFS15minThreshold	Severely errored frame seconds during a 15-minute period.
-sefs24	Command delineator that precedes the *sEFS24hrThreshold* entry.
sEFS24hrThreshold	Severely errored frame seconds during a 24-hour period.
-aiss15	Command delineator that precedes the *aISS15minThreshold* entry.
aISS15minThreshold	Alarm indication signalling seconds during a 15-minute period.
-aiss24	Command delineator that precedes the *aISS24hrThreshold* entry.
aISS24hrThreshold	Alarm indication signalling seconds during a 24-hour period.
-uas15	Command delineator that precedes the *uAS15minThreshold* entry.
uAS15minThreshold	Unavailable seconds during a 15-minute period.

-uas24	Command delineator that precedes the *uAS24hrThreshold* entry.
uAS24hrThreshold	Unavailable seconds during a 24 hour period.

Related Commands

dspalmcnt

Attributes

Log: Yes State: Active Privilege: Group 3

xcnfbert

Configure Bit Error Rate Test

Use the **xcnfbert** command to set up a bit error rate test (BERT) and to add or remove loops on the ports and lines of a specified SM.

A BERT session does not time out automatically. Use the **delbert** command to conclude the test.

Note BERT is a disruptive test. Activation of this test will stop the data flow on all the channels configured on the port under test. BERT requires the presence of an SRM-3T3/B card in the service bay, in which the card under test is located.

Card(s) on Which This Command Executes

PXM

Syntax

xcnfbert -bcntl <*bertControl*> -bsl <*bertSlotNum*> -bmed <*bertTestMedium*> -bpt <*bertPort*> -bline <*bertLine*> -bmode <*bertMode*> -bdtl <*bertDeviceToLoop*> -bcnt <*bertDS0DPIterationCount*> -bpat <*bertPattern*> -blpbk <*bertLoopback*> -blpbkop <*bertLoopbackOperation*> -buid <*bertUserId*>

Syntax Description

-bcntl	Command delineator that precedes the *bertControl* entry.
bertControl	BERT control. • 1 = acquire • 2 = release • 3 = configure • 4 = start • 5 = modify • 6 = delete
-bsl	Command delineator that precedes the *bertSlotNum* entry.
bertSlotNum	BERT slot number, in the range 1-6, or 9-14, or 17-22, or 25-30.
-bmed	Command delineator that precedes the *bertTestMedium* entry.
bertTestMedium	Test medium, either port or line. • 1 = port • 2 = line
-bpt	Command delineator that precedes the *bertPort* entry.

bertPort	BERT port number, as a number greater than 0 (zero).
-bline	Command delineator that precedes the *bertLine* entry.
bertLine	BERT line number, as a number greater than 0 (zero).
-bmode	Command delineator that precedes the *bertMode* entry.
bertMode	BERT function as a pattern test, DDS seek, or loopback. • 1 = pattern test • 2 = DDS seek • 3 = loopback
-bdtl	Command delineator that precedes the *bertDeviceToLoop* entry.
bertDeviceToLoop	Type of BERT device to loop. • 1 = noLatchOCUwith1 • 2 = noLatchOCUwithout1 • 3 = noLatchCSU • 4 = noLatchDSU • 5 = latchDS0Drop • 6 = latchDS0Line • 7 = latchOCU • 8 = latchCSU • 9 = latchDSU • 10 = latchHL96 • 11 = v54Polynomial • 12 = inband • 13 = esf • 14 = metallic • 15 = noDevice
-bcnt	Command delineator that precedes the *bertDS0DPIterationCount* entry.
bertDS0DPIterationCount	BERT DS0 DP iteration count, in the range 1-32.
-bpat	Command delineator that precedes the *bertPattern* entry.

bertPattern	Type of BERT pattern to use. • 1 = allZeros • 2 = allOnes • 3 = alternateOneZero • 4 = doubleOneZero • 5 = fifteenBit • 6 = twentyBit • 7 = twentyBitQRSS • 8 = twentyThreeBit • 9 = oneInEight • 10 = threeInTwentyFour • 11 = dds-1 • 12 = dds-2 • 13 = dds-3 • 14 = dds-4 • 15 = dds-5 • 16 = nineBit • 17 = elevenBit
-blpbk	Command delineator that precedes the *bertLoopback* entry.
bertLoopback	Type of BERT loopback to use. • 1 = farEndRemoteLoopback • 2 = portRemoteFacilityLoopback • 3 = metallicLoopback
-blpbkop	Command delineator that precedes the *bertLoopbackOperation* entry.
bertLoopbackOperation	BERT loopback, either loop up or loop down. • 1 = loopUp • 2 = loopDown
-buid	Command delineator that precedes the *bertUserId* entry.
bertUserId	BERT user identifier. • User name • IP address = 32 bit IP address in dotted decimal format.

Related Commands

delbert

Attributes

Log: Yes State: Active Privilege: SuperUser

xcnfdsx3bert

Configure DS3 BERT

Use the **xcnfdsx3bert** command to specify a pattern for bit error rate testing (BERT) on the FRSM.

Card(s) on Which This Command Executes

FRSM 2T3E3

Syntax

xcnfdsx3bert -dsx3bct <*state*> -dsx3btm <*medium*> -dsx3bln <*line num*> -dsx3bmo <*mode*> -ds3bei <*EIR*> -ds3bpt <*test pattern*>

Syntax Description

-dsx3bct	Command delineator that precedes the *state entry.*
state	Type of DSX3 BERT control. • 1 = acquire BERT • 2 = Release BERT • 3 = Configure BERT • 4 = Start BERT • 5 = Modify BERT • 6 = Delete BERT
-dsx3btm	Command delineator that precedes the *medium entry.*
medium	DSX3 BERT medium. • 1 = Port • 2 = Line
-dsx3bln	Command delineator that precedes the *line num entry.*
line num	Line number, in the range 1–2.
-dsx3bmo	Command delineator that precedes the *mode entry*.
mode	BERT mode as pattern or loopback. • 1 = pattern • 2 = loopback
-ds3bei	Command delineator that precedes the *EIR entry.*

EIR	DSX3 excess information rate. • 1 = no error • 2 = 1 in 10 • 3 = 1 in 100 • 4 = 1 in 1000 • 5 = 1 in 10^^4 • 6 = 1 in 10^^5 • 7 = 1 in 10 ^^6 • 8 = 1 in 10 ^^7
-ds3bpt	Command delineator that precedes the *test pattern entry.*
test pattern	DSX3 BERT pattern, in the range 1–33.

Related Commands

xdspdsx3bert

Attributes

Log: No State: Active Privilege: Any

xcnfif

Configure Broadband Interface

Use the **xcnfif** command to modify parameters for an existing broadband interface on a PXM. System software does not allow you to conflict with existing configurations. You may need to reduce the bandwidth allocation or VPI/VCI range on one or more interfaces before you expand the resources for an interface. For more information on resource partitioning, see **upif**, page 1-535.

Card(s) on Which This Command Executes

PXM

Syntax

xcnfif -if <*bbIfNum*> -bl <*lineNum*> -ie <*rowStatus*> -ib <*ingrPctBw*> -eb <*egrPctBw*> -iv <*minVpi*> -av <*maxVpi*>

Syntax Description

-if	Command delineator that precedes the *bbIfNum* entry.
bbIfNum	Number of the logical interface, in the range 1–32.
-bl	Command delineator that precedes the *lineNum* entry.
lineNum	Number of the line to tie the logical interface to, in the range 1–4.
-ie	Command delineator that precedes the *rowStatus* entry.
rowStatus	Value to enable, disable, or modify the row status. • 1 = enable • 2 = disable • 3 = modify
-ib	Command delineator that precedes the *ingrPctBw* entry.
ingrPctBw	Percentage of interface bandwidth to be allocated to ingress traffic, in the range 0–100.
-eb	Command delineator that precedes the *egrPctBw* entry.
egrPctBw	Percentage of line egress queue bandwidth to be allocated for the logical interface, in the range 0–100.
-iv	Command delineator that precedes the *minVpi* entry.
minVpi	Minimum virtual path identifier (VPI) value, in the range 0–4095.

-av	Command delineator that precedes the *maxVpi* entry.
maxVpi	Maximum VPI value, in the range 0–4095.

Related Commands

upif

Attributes

Log: Yes State: Any Privilege: Cisco

Examples

This section contains the following examples:

- Configure and enable a specific broadband interface to use a specified percentage of the line bandwidth for both ingress and egress traffic, and set VPI for minimum 0 and maximum 19
- Verify the broadband configuration on the PXM

Example 1-408 Configure and enable broadband interface number 1 on line 4 to use 10% of the line bandwidth for both ingress and egress, have a minimum virtual path interface (VPI) of 0, and a maximum virtual path interface (VPI) of 19

```
wilco.1.7.PXM.a > xcnfif -if 1 -bl 4 -ie 1 -ib 10 -eb 10 -iv 0 -av 19
wilco.1.7.PXM.a >
```

A system response does not occur unless an error is detected. To verify your entries, use the **dspifip** command.

Example 1-409 Verify broadband configuration on the PXM

```
wilco.1.7.PXM.a > dspif

 ifNum  Status  Line  ingrPctBw egrPctBw minVpi maxVpi
-------------------------------------------------------
  1     Ena       1       10       10        0     19

 wilco.1.7.PXM.a >
```

xcnfifip

Configure Interface for IP

Use the **xcnfifip** command to set the IP address for the LAN, SLIP, andATM interfaces.

Card(s) on Which This Command Executes

PXM

Syntax:

xcnfifip -ifn <*Interface*> -ipa <*ip_addr*> -msk <*NetMask*> -bc <*Brocast addr*> -ipo <*Operation*>

Syntax Description

-ifn	Command delineator that precedes the *Interface* entry.
Interface	Interface type. • 26 = Ethernet • 28 = SLIP • 37 = ATM
-ipa	Command delineator that precedes the *ip_addr* entry.
ip_addr	IP address in dotted decimal format.
-msk	Command delineator that precedes the *NetMask* entry.
NetMask	NetMask = *nnn.nnn.nnn.nnn*, *n* = 0–9, *nnn* < 256
-bc	Command delineator that precedes the *Brocast Addr* entry.
Brocast Addr	Broadcast Address = *nnnnnnnn*, *n* is hexadecimal, Ethernet only.
-ipo	Command delineator that precedes the *Oper* entry.
Operation	Value to enable or disable IP Address. • 1 = Add • 2 = Delete

Related Commands

None

Attributes

Log: Yes State: Any Privilege: SuperUser

Examples

This section contains the following examples:

- Configure and enable an Ethernet interface to use a specified IP address, netmask, and broadband address
- Verify the configuration

Example 1-410 Configure and enable the Ethernet interface to use the IP address 172.29.37.40, the netmask 255.255.255.000, and the broadcast address 255.255.255.000

```
spirit4.1.7.PXM.a > xcnfifip -if 26 -ipa 172.29.37.40 -msk 255.255.255.000 -bc
255.255.255.000 -ipo 1
spirit4.1.7.PXM.a >
```

A system response does not occur unless an error is detected. To verify your entries, use the **dspifip** command.

Example 1-411 Verify the IP Address configuration

```
spirit4.1.7.PXM.a > dspifip

   Interface     IPAddress             NetMask       BroadcastAddress
  -----------  ----------------  ----------------- -----------------
   Ethernet     172.29.37.40        255.255.255.000  255.255.255.000
   Slip         192.169.3.18        255.255.255.000
   ATM                              255.255.255.000

spirit4.1.7.PXM.a >
```

xcnfilmi

Configure ILMI

Use the **xcnfilmi** command to configure local management interface (LMI) for a port. No messages appear on screen unless an error occurs.

Card(s) on Which This Command Executes

AUSM

Syntax

xcnfilmi -ifNum <*sigPortNum*> -ilmi <*ilmiEnable*> -type <*protocolType*> -vpi <*vpi*> -vci <*vci*> -trap <*ilmiTrapEnable*> -trapint <*minTrapInterval*> -keepalive <*keepAliveEnable*> -err491 <*errorThresholdN491*> -event492 <*eventThresholdN492*> -pollint491 <*pollingIntervalT491*> -enqint493 <*minEnquiryIntervalT493*> -addrreg <*addrRegEnable*>

Syntax Description

-ifNum	Command delineator that precedes the *sigPortNum* entry.
sigPortNum	Broadband interface signal port number, in the range 1–32.
-ilmi	Command delineator that precedes the *ilmiEnable* entry.
ilmiEnable	ILMI, either disabled or enabled. • 1 = disable • 2 = enable
-type	Command delineator that precedes the *protocolType* entry.
protocolType	Signal protocol type. • 1 = other • 2 = no signalling • 3 = ILMI
-vpi	Command delineator that precedes the *vpi* entry.
vpi	Signalling virtual path identifier (VPI), in the range 0–4095.
-vci	Command delineator that precedes the *vci* entry.
signallingVCI	Signalling virtual channel identifier (VCI), in the range 0–4095.
-trap	Command delineator that precedes the *ilmiTrapEnable* entry.

ilmiTrapEnable	ILMI trap, either disabled or enabled. • 1 = disable • 2 = enable
-trapint	Command delineator that precedes the *minTrapInterval* entry.
minTrapInterval	Minimum trap interval, in the range 1–10 seconds.
-keepalive	Command delineator that precedes the *keepAliveEnable* entry.
keepAliveEnable	Keepalive function, either disabled or enabled. • 1 = disable • 2 = enable
-err491	Command delineator that precedes the *errorThresholdN491* entry.
errorThresholdN491	Error threshold N491, in the range 1–10.
-event492	Command delineator that precedes the *eventThresholdN492* entry.
eventThresholdN492	Event threshold N492, in the range 1–10.
-pollint491	Command delineator that precedes the *pollingIntervalT491* entry.
pollingIntervalT491	Polling interval T491, in the range v1–v12.
-enqint493	Command delineator that precedes the *minEnquiryIntervalT493* entry.
minEnquiryIntervalT493	Minimum enquiry interval, in the range 1–20.
-addrreg	Command delineator that precedes the *addrRegEnable* entry.
addrRegEnable	Address registration, either disabled or enabled. • 1 = disable • 2 = enable

Syntax: AUSM

xcnfilmi -pti <*PortNum*> -s <*SignallingProtocol*> -vpi <*VirtualPathID*> -vci <*VirtualChannelID*> -t <*TrapEnable*> -mti <*MinimumTrapInterval*> -kap <*KeepAlivePollingEnable*> -eth <*ErrorThreshold*> -evh <*EventThreshold*> -pi <*PollingInterval*> -mei <*MinimumEnquiryInterval*> -ar <*AddrRegEnable*>

Syntax Description

-pti	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.

-s	Command delineator that precedes the *SignallingProtocol* entry.
SignallingProtocol	Signalling type. • 1 = other • 2 = no signalling • 3 = ILMI
-vpi	Command delineator that precedes the *VirtualPathID* entry.
VirtualPathID	Virtual path identifier (VPI), in the range 1–255.
-vci	Command delineator that precedes the *VirtualChannelID* entry.
VirtualChannelID	Virtual channel identifier (VCI), in the range 1–65535.
-t	Command delineator that precedes the *TrapEnable* entry.
TrapEnable	ILMI trap, either disabled or enabled. • 1 = disable • 2 = enable
-mti	Command delineator that precedes the *MinimumTrapInterval* entry.
MinimumTrapInterval	Minimum trap interval value, in the range 1–10 seconds.
-kap	Command delineator that precedes the *KeepAlivePollingEnable* entry.
KeepAlivePollingEnable	Keepalive polling, either disabled or enabled. • 1 = disable • 2 = enable
-eth	Command delineator that precedes the *ErrorThreshold* entry.
ErrorThreshold	Error Threshold, in the range 1–10 seconds.
-evh	Command delineator that precedes the *EventThreshold* entry.
EventThreshold	Event Threshold, in the range 1–10 seconds.
-pi	Command delineator that precedes the *PollingInterval* entry.
PollingInterval	Polling interval, in the range 5–60 seconds.
-mei	Command delineator that precedes the *MinimumEnquiryInterval* entry.
MinimumEnquiryInterval	Minimum enquiry interval, in the range 1–20 seconds.

-ar	Command delineator that precedes the *AddrRegEnable* entry.
AddrRegEnable	Address registration, either disabled or enabled. • 1 = disable • 2 = enable

Related Commands

xdspilmi, **dspilmi**, **dspilmicnt**

Attributes

Log: Yes State: Active Privilege: Group 1

xcnfln

Configure Line

Use the **xcnfln** command to configure a line on the current card to be either T1 or E1. If the command line does not include the E1 signalling parameter, the line is a T1.

For an FRSM-HS1 card, the **xcnfln** command is used to configure either an X.21 or aV.35 line.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax: FRSM, AUSM, CESM RS232 Line

xcnfln -rs232 <*PortNum*> -e <*enabled*> -b <*PortBps*>

Syntax Description

-rs232	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, either 1 or 2.
-e	Command delineator that precedes the *Enabled* entry.
Enabled	Port is either disabled or enabled. • 1 = disable • 2 = enable
-b	Command delineator that precedes the *PortBps* entry.
PortBps	Port speed in bps. • 9600 • 2400 • 19200

Syntax: FRSM, AUSM, CESM DS1 Line

xcnfln -ds1 <*LineNum*> -ct <*ConnectorType*> -e <*Enable*> -lt <*LineType*> -lc <*LineCoding*> -len <*LineLength*> -clk <*XmtClkSource*> -lpb <*LoopCmd*> -sc <*SendCode*> -be <*BertEnable*> -bert <*BertPattern*> -detect <*LoopbackCodeDetection*>

Syntax Description

-ds1	Command delineator that precedes the *LineNum* entry.
LineNum	Line number, in the range 1–*N*.

-ct	Command delineator that precedes the *ConnectorType* entry.
ConnectorType	Connector type. • 2 = SMB • 3 = RJ48
-e	Command delineator that precedes the *Enable* entry.
Enable	Line coding, in the range 1–3. • 1 = disable • 2 = enable • 3 = modify
-lt	Command delineator that precedes the *LineType* entry.
LineType	LineType, in the range 1–7.
-lc	Command delineator that precedes the *LineCoding* entry.
LineCoding	Line coding. • 2 = dsx1B8ZS (T1 line) • 3 = dsx1HDB3 • 4 = dsx1AMI (E1 line)
-len	Command delineator that precedes the *LineLength* entry.
LineLength	Line length, in the range 8–15. • 8 = E1 SMB 75ohm • 9 = E1 RJ48 120ohm • 10 = 0–131 ft. • 11 = 131–262 ft. • 12 = 262–393 ft. • 13 = 393–524 ft. • 14 = 524–655 ft. • 15 = greater than 655 ft.
-clk	Command delineator that precedes the *XmtClkSource* entry.
XmtClkSource	Transmit clock source. • 1 = loop clock • 2 = local clock
-lpb	Command delineator that precedes the *LoopCmd* entry.

LoopCmd	Loop command, in the range 1–3. • 1 = no loop • 2 = remote loop • 3 = local loop
-sc	Command delineator that precedes the *SendCode* entry.
SendCode	Send code, in the range 1–4. • 1 = no code • 2 = line code • 3 = payload code • 4 = reset code
-be	Command delineator that precedes the *BertEnable* entry.
BertEnable	BERT, either disabled or enabled. • 1 = disable • 2 = enable
-bert	Command delineator that precedes the *BertPattern* entry.
BertPattern	BERT pattern, in the range 0–11. • 0 = 0000 • 1 = 1111 • 2 = 0101 • 3 = 0011 • 4 = user one word • 5 = user two words • 6 = user three words • 7 = user four words • 8 = 2^15-1 • 9 = 2^20-1 • 10 = QRSS • 11 = 2^23-1
-detect	Command delineator that precedes the *LoopbackCodeDetection* entry.
LoopbackCodeDetection	Loopback code detection, either disabled or enabled. • 1 = disable • 2 = enable

Related Commands

cnfln, **addln**, **delln**

Attributes

Log: Yes State: Active Privilege: Service

Example 1-412 Configure line 4 to be T1 with B8ZS line coding, have a length of 1, and use the loop clock as a clock source

```
MGX 88003.1.11.FRSM.a > xcnfln 4 2 1 1

MGX 88003.1.11.FRSM.a >
```

Example 1-413 Configure line 1 for remote loopback and send codes for remote loop on the current FRSM card

```
man.1.4.FRSM.a > xcnfln -hs1 1 -e 3 -lpb 4 -sc 5
```

xcnfport

Configure Port

Use the **xcnfport** command to configure a service port on an FRSM or an AUSM.

The screen does not display a message after successful command entry. The configuration can be verified using the **xdspport** or **dspport** command.

The syntax for this command differs according to the service module being addressed.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax: FRSM

xcnfport -pt <*PortNum*> -ln <*PortLineNum*> -en <*PortEnable*> -sp <*PortDs0Speed*> -ts <*PortDs0ConfigBitMap*> -rat <*PortEqueueServiceRatio*>-flag <*PortFlagsBetweenFrames*> -sig <*SignalingProtocol*>-asy <*AsynchMsg*> -t391 <*T391Timer*> -t392 <*T392Timer*> -n391 <*N391Counter*> -n392 <*N392Counter*> -n393 <*N393Counter*> -enhancedLmi <*enhancedLmi*> -cllmen <*cllmEnable*> -cllmtm <*cnfFrXmtCLLMStatusTimer*> -ptp <*portType*> -pta <*portAdmin*> -svcen <*portSvcStatus*> -svcuse <*portSvcInUse*> -pbe <*portBertEnable*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range appropriate for the card. • 1–192 = T1 • 1–248 = E1
-ln	Command delineator that precedes the *PortLineNum* entry.
PortLineNum	Line number, in the range 1–8.
-en	Command delineator that precedes the *PortEnable* entry.
PortEnable	Port row status, in the range 1–3. • 1 = add • 2 = delete • 3 = modify
-sp	Command delineator that precedes the *PortDs0Speed* entry.
PortDs0Speed	Speed of the port in kbps. • 1 = 56 • 2 = 64

-ts	Command delineator that precedes the *PortDs0ConfigBitMap* entry.
PortDs0ConfigBitMap	Port configuration bit map, in the range 0–2^32-1
-rat	Command delineator that precedes the *PortEqueueServiceRatio* entry.
PortEqueueServiceRatio	Port egress queue service ratio, in the range 1–15.
-flag	Command delineator that precedes the *PortFlagsBetweenFrames* entry.
PortFlagsBetweenFrames	Number of port flags between frames, in the range 1–10.
-sig	Command delineator that precedes the *SignalingProtocol* entry.
SignalingProtocol	Type of LMI signalling to be used on the card. • 1 = other • 2 = no signalling • 3 = StrataLMI • 4 = AnnexAUNI • 5 = AnnexDUNI • 6 = AnnexANNI • 7 = AnnexDNNI
-asy	Command delineator that precedes the *AsynchMsg* entry.
AsynchMsg	Asynch updates include update status (UPD) and unsolicited full status (UFS), in the range 1–4. • 1 = UPD and UFS disabled • 2 = UPD enabled • 3 = UFS enabled • 4 = UPD and UFS enabled
-t391	Command delineator that precedes the *T391Timer* entry.
T391Timer	T391 timer value, in the range 5–30 seconds.
-t392	Command delineator that precedes the *T392Timer* entry.
T392Timer	T392 timer value, in the range 5–30 seconds.
-n391	Command delineator that precedes the *N391Counter* entry.
N391Counter	N391 counter value, in the range 1–255.

-n392	Command delineator that precedes the *N392Counter* entry.
N392Counter	N392 counter value, in the range 1–10.
-n393	Command delineator that precedes the *N393Counter* entry.
N393Counter	N393 counter value, in the range 1–10.
-enhancedLmi	Command delineator that precedes the *enhancedLmi* command.
enhancedLmi	Enhanced LMI is either disabled or enabled. • 1 = disable • 2 = enable
-cllmen	Command delineator that precedes the *cllmEnable* entry.
cllmEnable	Consolidated link management, either disabled or enabled. • 1 = disable • 2 = enable
-cllmtm	Command delineator that precedes the *cnfFrXmtCLLMStatusTimer* entry.
cnfFrXmtCLLM StatusTimer	Consolidated link management timer value, in the range 40–5000 ms.
-ptp	Command delineator that precedes the *portType* entry.
portType	Port type, in the range 1–3. • 1 = Frame Relay • 2 = FUNI-mode • 3 = frame forward
-pta	Command delineator that precedes the *portAdmin* entry.
portAdmin	Port administrator is either up or down. • 1 = up • 2 = down
-svcen	Command delineator that precedes the *portSvcStatus* entry.
portSvcStatus	Port service status is either disabled or enabled. • 1 = disable • 2 = enable
-svcuse	Command delineator that precedes the *portSvcInUse* entry.

portSvcInUse	A value that determines whether or not the port service is in use. • 1 = not in use • 2 = in use
-pbe	Command delineator that precedes the *portBertEnable* entry.
portBertEnable	BERT is either disabled or enabled on the port. • 1 = disable • 2 = enable

Syntax: CESM

xcnfport -pt <*PortNum*> -ln <*PortLineNum*> -en <*PortEnable*> -ts <*PortDs0ConfigBitMap*> -ptp <*PortType*> -pbe <*BertEnable*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range appropriate for the card. • 1–192 = T1 • 1–248 = E1
-ln	Command delineator that precedes the *PortLineNum* entry.
PortLineNum	Line number, in the range 1–8.
-en	Command delineator that precedes the *PortEnable* entry.
PortEnable	Port row status, in the range 1–3. • 1 = add • 2 = delete • 3 = modify
-ts	Command delineator that precedes the *PortDs0ConfigBitMap* entry.
PortDs0ConfigBitMap	Port configuration bit map, in the range 0–2^32-1
-ptp	Command delineator that precedes the *portType* entry.
portType	Port type, in the range 1–3. • 1 = structured • 2 = unstructured • 3 = framing on VC disconnect

-pbe	Command delineator that precedes the *portBertEnable* entry.
portBertEnable	BERT is either disabled or enabled on the port. • 1 = disable • 2 = enable

Related Commands

addport, **delport**, **dspport**, **dspports**, **xdspport**, **xdspports**

Attributes

Log: Yes State: Active Privilege: Group 1

xcnfportq

Configure Port Queue

Use the **xcnfportq** command to configure queue parameters on a port associated with the current AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

xcnfportq -pt <*ServicePortNum*> -pqn <*PortQNumber*> -e <*Enable*> -sn <*SequenceNo*> -qdm <*QueueDepthMax*> -clph <*EgressQCLPThreshHigh*> -clpl <*EgressQCLPThresLow*> -clpt <*EgressQEFCIThresh*> -qa <*EgressQAlgorith*> -mxbi <*EgressMaxBandwidthInc*> -mibi <*MinimumBandwidthInc*>

Syntax Description

-pt	Command delineator that precedes the *ServicePortNum* entry.
ServicePortNum	Port number, in the range 1–8.
-pqn	Command delineator that precedes the *PortQNumber* entry.
PortQNumber	Queue number, in the range 1–16.
-e	Command delineator that precedes the *Enable* entry.
Enable	A value to enable or disable the queue. • 1 = enable • 2 = disable
-sn	Command delineator that precedes the *SequenceNo* entry.
SequenceNo	Service sequence number, in the range 1–16.
-qdm	Command delineator that precedes the *QueueDepthMax* entry.
QueueDepthMax	Size of the queue. Set number of cells allowable in the queue, in the range 1–16000.
-clph	Command delineator that precedes the *EgressQCLPThresHigh* entry.
EgressQCLPThresHigh	Cell loss priority high-threshold value for traffic exiting the physical interface of the AUSM, in the range 1–16000.
-clpl	Command delineator that precedes the *EgressQCLPThresLow* entry.

EgressQCLPThresLow	Cell loss priority low-threshold value, in the range 1–16000. Once the low cell loss priority threshold is passed, cells do not have the CLP bit set, making them eligible for discard.
-clpt	Command delineator that precedes the *EgressQEFCIThresh* entry.
EgressQEFCIThresh	Explicit forward congestion indicator threshold value, in the range 1–16000. An explicit forward congestion indicator is sent to the sending node when the threshold is exceeded.
-qa	Command delineator that precedes the *EgressQAlgorith* entry.
EgressQAlgorith	Queue algorithm, in the range 1–5. To disable the queue, set value at 0 (zero).
-mxbi	Command delineator that precedes the *EgressMaxBandwidthInc* entry.
EgressMaxBandwidthInc	Egress maximum bandwidth Increment value, in the range 0–4096. An explicit forward congestion indicator is sent to the sending node when the threshold is exceeded.
-mibi	Command delineator that precedes the *MinimumBandwidthInc* entry.
MinimumBandwidthInc	Minimum bandwidth Increment value, in the range 0–4096.

Related Commands

cnfportq

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-414 Display queue parameters on an AUSM port

```
spirit3.1.22.AUSM8.a > xcnfportq -pt 1
spirit3.1.22.AUSM8.a >
```

A system response does not occur unless an error is detected.

xcnfred

Configure Redundancy

Use the **xcnfred** command to set redundancy between two PXM slots, and to set the primary and secondary PXMs in the pair. Redundancy can be 1:1 or 1:*N*. If the redundancy is 1:*N*, repeat the **xcnfred** command for each secondary slot to be linked to the primary slot.

Card(s) on Which This Command Executes

PXM

Syntax

xcnfred -pri <*redPrimarySlotNum*> -en <*rowStatus*> -sec <*redSecondarySlotNum*> -type <*redType*>

Syntax Description

-pri	Command delineator that precedes the *redPrimarySlotNum* entry.
redPrimarySlotNum	Slot number that contains the primary card of the card pair. Ranges = 1–6, 9–14, 17–22, and 25–30.
-en	Command delineator that precedes the *rowStatus* entry.
rowStatus	Row status, either enable, disable, or modify. • 1 = enable • 2 = disable • 3 = modify
-sec	Command delineator that precedes the *redSecondarySlotNum* entry.
redSecondarySlotNum	Slot number that contains the secondary card of the card pair. Ranges = 1–6, 9–14, 17–22, and 25–30.
-type	Command delineator that precedes the *redType* entry.
redType	Type of redundancy to be used. • 1 = 1:1 • 2 = 1:*N*

Related Commands

dspred, **delred**

Attributes

Log: No State: Active Privilege: Any

Example 1-415 Add 1:1 redundancy between the card in slot 4 and the card in slot 1

```
node501.1.7.PXM.a > xcnfred -pri 1 -en 1 -ser 4 -type 1
node501.1.7.PXM.a >
```

xcnfrscprtn

Configure Resource Partition Extended Parameters

Use the **xcnfrscprtn** command to partition PXM resources (bandwidth) as broadband interfaces.

Card(s) on Which This Command Executes

PXM

Syntax

xcnfrscprtn -pn <*bbIfNum*> -cn <*ctrlrNum*> -pr <*rowStatus*> -ps <*inUse*> -pi <*ingrPctBw*> -pe <*egrPctBw*> -pv <*minVpi*> -pu <*maxVpi*> -pc <*minVci*> -pd <*maxVci*> -pch <*maxGLCNs*>

Syntax Description

-pn	Command delineator that precedes the *bbIfNum* entry.
bbIfNum	Broadband interface number, in the range 1–32.
-cn	Command delineator that precedes the *ctrlrNum* entry.
ctrlrNum	Type of controller to be used on the interface. • 1 = PAR • 2 = PNNI • 3 = TAG
-pr	Command delineator that precedes the *rowStatus* entry.
rowStatus	Row status, either enable, disable, or modify. • 1 = enable • 2 = disable • 3 = modify
-ps	Command delineator that precedes the *inUse* entry.
inUse	Operational status of the interface. • 1 = In Use • 2 = Not In Use
-pi	Command delineator that precedes the *ingrPctBw* entry.
ingrPctBw	Percentage of interface bandwidth to be allocated to ingress traffic, in the range 0–100.
-pe	Command delineator that precedes the *egrPctBw* entry.

egrPctBw	Percentage of interface bandwidth to be allocated to egress traffic, in the range 0–100.
-pv	Command delineator that precedes the *minVpi* entry.
minVpi	Minimum virtual path identifier (VPI) value, in the range 0–4095.
-pu	Command delineator that precedes the *maxVpi* entry.
maxVpi	Maximum VPI value. Enter a value that is greater than that defined for *bbIfRscPrtVpiLow* and less than 4095.
-pc	Command delineator that precedes the *minVci* entry.
minVci	Minimum virtual channel identifier (VCI) value, in the range 0–65535.
-pn	Command delineator that precedes the *maxVci* entry.
maxVci	Maximum VCI, in the range 0–65535.
-pch	Command delineator that precedes the *maxGLCNs* entry.
maxGLCNs	Maximum global logical connection number (GLCN) value, in the range 0–32767.

Related Commands

None.

Attributes

Log: Yes State: Any Privilege: Cisco

Example 1-416 Configure and enable a resource partition

```
spirit4.1.7.PXM.a > xcnfrscprtn -pn 1 -cn 1 -pr 1 -ps 1 -pi 100 -pe 100 -pi 0 -pu 4095
-pc 0 -pd 65535 - pth 32767

spirit4.1.7.PXM.a >
```

xcnfsrmlink

Configure Link

Use the **xcnfsrmlink** command to configure and to enable a link between a T1 line within a T3 line on an SRM-3T3 card and a slot and line number on a T1 service module.

Card(s) on Which This Command Executes

PXM

Syntax

xcnfsrmlink -srmt3 <*T3LineNumber*> -srmt1 <*T1slot*> -en <*T1RowStatus*> -srms1 <*TargetSlotNum*> -srmln <*TargetSlotLineNumber*>

Syntax Description

-srmt3	Command delineator that precedes the *T3LineNumber* entry.
T3LineNumber	SRM-3T3 T3 line number in the format *slot.line*. • slot = 15 or 31 Slot number 15 is used for the cards in slot and 15 and 16 (whichever is active). Slot 31 is used for cards in 31 and 32. • line range = 1–3
-srmt1	Command delineator that precedes the *T1slot* entry.
T1slot	T1 line number, in the range 1–28.
-en	Command delineator that precedes the *T1RowStatus* entry.
T1RowStatus	Row status. • 1 = enable • 2 = disable • 3 = modify
-srms1	Command delineator that precedes the *Target Slot number* entry.
Target Slot number	Number of the T1 service module slot to be linked. Target Slot number ranges = 1–6|9–14|17–22|25–30
-srmln	Command delineator that precedes the *TargetSlotLineNumber* entry.
TargetSlotLine Number	T1 line number in the slot to be linked (range 1–4 or 1–8) as appropriate for the installed service module.

Related Commands

addlink, **dsplink**, **dellink**, **xdspsrmlink**

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-417 Configure and enable a link between T1 line 1 within T3 line 2 on the SRM-3T3 card in slot 15 and T1 line number 5 on the T1 service module in slot 3

```
spirit4.1.7.PXM.a > xcnfsrmlink -srmt3 15.2 -srmt1 1 -en 1 -srmsl 3 -srmln 5
spirit4.1.7.PXM.a >
```

xcnftrapmgr

Configure Trap Manager

Use the **xcnftrapmgr** command to configure, enable, and to disable the trap manager function on the PXM. If you enable the trap manager, this command allows you configure the number and IP address of the trap manager you intend to receive traps.

Card(s) on Which This Command Executes

PXM

Syntax

xcnftrapmgr -ip <*ip_addr*> -pt <*portnum*> -en <*enabled*> -tf <*TrapFlag*> -seq <*SeqNum*>

Syntax Description

-ip	Command delineator that precedes the *ip_addr* entry.
ip_addr	IP address of the trap manager in dotted decimal format *nnn.nnn.nnn.nnn*.
-pt	Command delineator that precedes the *portnum* entry.
portnum	Port number, in the range 1–*N*, as appropriate for the card.
-en	Command delineator that precedes the *enabled* entry.
enabled	A value that enables or disables the flag action on the row. • 1 = add row • 2 = delete row
-tf	Command delineator that precedes the *TrapFlag* entry.
TrapFlag	Trap flag entry.
-seq	Command delineator that precedes the *SeqNum* entry.
SeqNum	Sequence number entry.

Related Commands

None

Attributes

Log: Yes State: Active Privilege: SuperUser

Example 1-418 Enable trap manager on the current PXM

```
spirit4.1.8.PXM.a > xcnftrapmgr -ip 192.169.3.102 -pt 3 -tf 1 -seq 100 -en 1
spirit4.1.8.PXM.a >
```

xdelcon

Delete Connection

Use the **xdelcon** command to remove a connection on an AUSM. A system response does not occur unless an error is detected.

Card(s) on Which This Command Executes

AUSM

Syntax

xaddcon -chn <*ChanNum*> -rs <*RowStatus*> -ct <*ConnectionType*> -st <*ServiceType*> -pt <*PortNum*> -vpi <*VirtualPathId*> -vci <*VirtualChannelId*> -pqn <*QNum*> -qdm <*IngressQDepth*> -icth <*IngressCLPHigh*> -ictl <*IngressCLPLow*> -iet <*IngressQEfciThreshold*> -cte <*CLPTagEnable*> -lvp <*LocalVpID*> -osub <*OvrSubFlag*> -dis <*DiscardOption*> -epd <*EPDThreshold*> -conTp <*connType*> -cdr <*CDRNumber*> -locvpi <*LocalVpi*> -locvci <*LocalVci*> -locnsap <*LocalNSAP*> -rmtvpi <*RemoteVpi*> -rmtvci <*RemoteVci*> -rmtnsap <*RemoteNSAP*> -master <*MasterShip*> -vpcflag <*vpcFlag*> -cos <*ConnServiceType*> -rtngpri <*RoutingPriority*> -maxcost <*maxCost*> -type <*RestrictedType*> -pcr <*ConnPCR*> -mcr <*ConnMCR*> -pctutil <*ConnPercentUtil*> -upce <*UpcEnable*> -pcr01 <*IngrUpcPCR*[0+1]> -ccdv <*CDVT*[0+1]> -scrp <*SCRPolicing*> -scr <*IngrUpcSCR*> -cbs <*MaxBurstSize*> -ibs <*InitialBurstSize*> -fge <*FrameGCRAEnable*> -fe <*ForesightEnable*> -mir <*ForesightMIR*> -qir <*ForesightQIR*> -pir <*ForesightPIR*> -esr <*EgrSrvRate*> -ipcu <*IPUtil*> -epcu <*EPUtil*>

Syntax Description

-chan	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number, in the range 16–1015.
-rs	Command delineator that precedes the *RowStatus* entry.
RowStatus	Row status. • 1 = add • 2 = delete • 3 = modify
-ct	Command delineator that precedes the *ConnectionType* entry.
ConnectionType	Connection type as either VPC or VCC. • 1 = VPC • 2 = VCC
-st	Command delineator that precedes the *ServiceType* entry.

ServiceType	Type of service, in the range 1–4. • 1 = CBR • 2 = VBR • 3 = ABR • 4 = UBR
-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.
-vpi	Command delineator that precedes the *VirtualPathId* entry.
VirtualPathId	Virtual path identifier (VPI), in the range 0–255.
-vci	Command delineator that precedes the *VirtualChannelId* entry.
VirtualChannelId	Virtual channel identifier (VCI), in the range 0–65535.
-pqn	Command delineator that precedes the *QNum* entry.
QNum	Egress queue number, in the range 1–16.
-qdm	Command delineator that precedes the *IngressQDepth* entry.
IngressQDepth	Ingress queue depth, in the range 1–16000.
-icth	Command delineator that precedes the *IngressCLPHigh* entry.
IngressCLPHigh	Highest ingress cell loss priority (CLP), in the range 1– 16000.
-ictl	Command delineator that precedes the *IngressCLPLow* entry.
IngressCLPLow	Lowest ingress CLP, in the range 1–16000.
-iet	Command delineator that precedes the *IngressQEfciThreshold* entry.
IngressQEfciThreshold	Ingress queue explicit forward congestion indication (EFCI), in the range 1–16000. EFCI is one of the congestion feedback modes allowed by available bit rate (ABR) service.
-cte	Command delineator that precedes the *CLPTagEnable* entry.
CLPTagEnable	CLP tag is either enabled or disabled. • 1 = disable • 2 = enable
-lvp	Command delineator that precedes the *LocalVpID* entry.
LocalVpID	Local virtual path ID, in the range 1 – 1000.

-osub	Command delineator that precedes the *OvrSubFlag* entry.
OvrSubFlag	Override option. • 1 = no override • 2 = override
-dis	Command delineator that precedes the *DiscardOption* entry.
DiscardOption	Basis for discarding a frame. • 1 = CLP hysterisis • 2 = frame based
-epd	Command delineator that precedes the *EPDThreshold* entry.
EPDThreshold	Early packet discard threshold, in the range 1–16000. EPD prevents congestion that would jeopardize the node's ability to properly support existing connections.
-contp	Command delineator that precedes the *connType* entry.
connType	Controller type. • 1 = SVC • 2 = PVC • 3 = SPVC • 4 = PAR • 5 = PNNI • 6 = TAG
-cdr	Command delineator that precedes the *CDRNumber* entry.
CDRNumber	Call detail record number in the format 0–0xffffffff.
-locvpi	Command delineator that precedes the *LocalVpi* entry.
LocalVpi	Local VPI number, in the range 1–4095.
-locvci	Command delineator that precedes the *LocalVci* entry.
LocalVci	Local VCI number, in the range 1–65536.
-locnsap	Command delineator that precedes the *LocalNSAP* entry.
LocalNSAP	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the local node name, slot, and port in network service access point (NSAP) format. An NSAP is the point at which OSI Network Service is made available to a transport layer (Layer 4) entity.

-rmtvpi	Command delineator that precedes the *RemoteVpi* entry.
RemoteVpi	Remote VPI number, in the range 1–4095.
-rmtvci	Command delineator that precedes the *RemoteVci* entry.
RemoteVci	Remote VCI number, in the range 1–65536.
-rmtnsap	Command delineator that precedes the *RemoteNSAP* entry.
RemoteNSAP	A 20-byte string, which is the hexadecimal form of the ASCII character string that identifies the remote node name, slot, and port in network service access point (NSAP) format.
-master	Command delineator that precedes the *MasterShip* entry.
MasterShip	Status of current end, either master or slave. • 1 = master • 2 = slave • 3 = unknown
-vpcflag	Command delineator that precedes the *vpcFlag* entry.
vpcFlag	Virtual path connection (VPC) flag indicates the connection type. • 1 = VPC • 2 = VCC
-cos	Command delineator that precedes the *ConnServiceType* entry.
ConnServiceType	Connection service type. • 1 = CBR • 2 = VBR • 3 = not used • 4 = UBR • 5 = ATFR • 6 = ABR-STD • 7 = ABR-FST
-rtngpri	Command delineator that precedes the *RoutingPriority* entry.
RoutingPriority	Routing priority, in the range 1–15.
-maxcost	Command delineator that precedes the *maxCost* entry.
maxCost	Maximum cost.
-type	Command delineator that precedes the *RestrictedType* entry.

RestrictedType	Type of trunk restriction. • 1 = no restriction • 2 = terrestrial trunk • 3 = satellite trunk
-pcr	Command delineator that precedes the *ConnPCR* entry.
ConnPCR	Peak cell rate (PCR), in the range 1–65525 cells per second.
-mcr	Command delineator that precedes the *ConnMCR* entry.
ConnMCR	Minimum cell rate (MCR), in the range 1–65525 cells per second.
-pctutil	Command delineator that precedes the *ConnPercentUtil* entry.
ConnPercentUtil	Percentage of utilization, in the range 1–100.
-upce	Command delineator that precedes the *UpcEnable* entry.
UpcEnable	Usage parameter control (UPC), either disabled or enabled. • 1 = disable • 2 = enable
-pcr01	Command delineator that precedes the *IngrUpcPCR[0+1]* entry.
IngrUpcPCR[0+1]	Ingress peak cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the logical port speed.
-ccdv	Command delineator that precedes the *CDVT[0+1]* entry.
CDVT[0+1]	Cell delay variation tolerance (CDVT), in the range 1–250000 microseconds.
-scrp	Command delineator that precedes the *SCRPolicing* entry.
SCRPolicing	Sustainable cell rate (SCR) policing, in the range 1–3. • 1 = CLP[0] • 2 = CLP[0+1] • 3 = no SCR policing
-scr	Command delineator that precedes the *IngrUpcSCR* entry.
IngrUpcSCR	Ingress sustainable cell rate, in the range 10–38328 cells per second. This setting is the peak cell rate for cells with CLP = 0 and CLP = 1. The actual value depends on the logical port speed.
-cbs	Command delineator that precedes the *MaxBurstSize* entry.

MaxBurstSize	Maximum burst size (MBS), in the range 1–5000 cells.
-ibs	Command delineator that precedes the *InitialBurstSize* entry.
InitialBurstSize	Initial burst size, in the range 10–5000.
-fge	Command delineator that precedes the *FrameGCRAEnable* entry.
FrameGCRAEnable	Frame generic cell rate algorithm (GCRA) is either disabled or enabled. GCRA determines cell conformity to the traffic contract of the connection.
-fe	Command delineator that precedes the *ForesightEnable* entry.
ForesightEnable	Foresight is either disabled or enabled. • 1 = disable • 2 = enable
-mir	Command delineator that precedes the *ForesightMIR* entry.
ForesightMIR	Minimum information rate, as appropriate for the card type. • 8T1/E1 the range = 10–8000 in cells per second. • T3/E3/HS2/2CT3 range = 10–400000 in cells per second. Default = 1000
-qir	Command delineator that precedes the *ForesightQIR* entry.
ForesightQIR	Quiescent information rate, as appropriate for the card type. • 8T1/E1 range = 0–8000 in cells per second. • T3/E3/HS2/2CT3 range = 10–400000 in cells per second. Default = 1000
-pir	Command delineator that precedes the *ForesightPIR* entry.
ForesightPIR	Peak information rate, as appropriate for the card type. • 8T1/E1 range = 10–8000 in cells per second. • T3/E3/HS2/2CT3, the range is 10–400000 in cells per second. Default = 1000
-esr	Command delineator that precedes the *EgrSrvRate* entry.
EgrSrvRate	Egress service rate.
-ipcu	Command delineator that precedes the *IPUtil* entry.
IPUtil	Ingress percentage utilization, in the range 1–127.

-epcu	Command delineator that precedes the *EPUtil* entry.
EPUtil	Egress percentage utilization, in the range 1–127

Related Commands

delcon, **xdspcon**, **dspcon**, **xdspcons**, **dspcons**, **xaddcon**, **addcon**

Attributes

Log: Yes State: Active Privilege: Group 1

xdnport

Down Port

Use the **xdnport** command to deactivate a port. A system response does not occur unless an error is detected.

Card(s) on Which This Command Executes

AUSM

Syntax

xdnport -pt <*PortNum*> -e <*PortEnable*> -ptyp <*PortType*> -ln <*LineNum*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.
-e	Command delineator that precedes the *PortEnable* entry.
PortEnable	A value that disables or enables the port. • 1 = disable • 2 = enable
-ptyp	Command delineator that precedes the *PortType* entry.
PortType	Port type, either NNI or UNI. • 1 = NNI • 2 = UNI
-ln	Command delineator that precedes the *LineNum* entry.
LineNum	Physical line number, in the range 1–8.

Related Commands

xupport

Attributes

Log: No State: Active Privilege: Group 1

xdspchan

Display Channel

Use the **xdspchan** command to view a channel on the current service card.

Card(s) on Which This Command Executes

FRSM, CESM

Syntax

xdspchan -chn <*ChanNum*>

Syntax Description

-chn	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number, using the range appropriate for the current card. • FRSM – 8T1/E1 range = 16–1015 – T3/E3/HS2 range = 16–2015 – 2CT3 range = 16–4015 • CESM – 8T1/E1 range = 32–279 – T3/E3 = one connection starting at 32

Related Commands

xdspchans, **dspchans**, **cnfchan**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display channel characteristics of channel 22 on the FRSM card in slot 20
- Display channel characteristics of channel 33 on the CESM card in slot 22

Example 1-419 Display channel characteristics of channel 22 on the FRSM card in slot 20

```
spirit3.1.20.FRSM.a > xdspchan 22

  ChanNum:                  22
  ChanRowStatus:            Add
  ChanPortNum:              1
  ChanDLCI:                 1000
  EgressQSelect:            2
  IngressQDepth:            65535
  IngressQDEThresh:         32767
  IngressQECNThresh:        6553
  EgressQDepth:             65535
  EgressQDEThresh:          32767
  EgressQECNThresh:         6553
  DETaggingEnable:          Disabled
  CIR:                      9600
  Bc:                       5100
  Be:                       5100
  IBS:                      100
  ForeSightEnable:          Disabled
  QIR:                      25
  MIR:                      25
  PIR:                      25
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanType:                 SIW-Xlat
  ChanFECNmap:              setEFCIzero
  ChanDEtoCLPmap:           mapCLP
  ChanCLPtoDEmap:           mapDE
  ChanFrConnType:           PVC
  ChanIngrPercentUtil:      100
  ChanEgrPercentUtil:       100
  ChanEgrSrvRate:           9600
  ChanOvrSubOvrRide:        Enabled
  ChanLocalVpi:             0
  ChanLocalVci:             1000
  ChanLocalNSAP:            504f5045594533000000000000000000014000100
  ChanRemoteVpi:            0
  ChanRemoteVci:            0
  ChanRemoteNSAP:           NULL NSAP
  ChanMastership:           Slave
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      ATFR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              25
  ChanConnMCR:              25
  ChanConnPercentUti:       100
  ChanNum:                  42
  ChanRowStatus:            Mod
  ChanPortNum:              20
  ChanDLCI:                 300
  EgressQSelect:            2

Type <CR> to continue, Q<CR> to stop:

  IngressQDepth:            65535
  IngressQDEThresh:         32767
  IngressQECNThresh:        6553
  EgressQDepth:             65535
```

```
  EgressQDEThresh:          32767
  EgressQECNThresh:         6553
  DETaggingEnable:          Disabled
  CIR:                      9600
  Bc:                       5100
  Be:                       5100
  IBS:                      100
  ForeSightEnable:          Disabled
  QIR:                      25
  MIR:                      25
  PIR:                      25
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanType:                 NIW
  ChanFECNmap:              setEFCIzero
  ChanDEtoCLPmap:           mapCLP
  ChanCLPtoDEmap:           mapDE
  ChanFrConnType:           PVC
  ChanIngrPercentUtil:      100
  ChanEgrPercentUtil:       100
  ChanEgrSrvRate:           9600
  ChanOvrSubOvrRide:        Enabled
  ChanLocalVpi:             0
  ChanLocalVci:             300
  ChanLocalNSAP:            504f5045594533000000000000000000014001400
  ChanRemoteVpi:            17
  ChanRemoteVci:            18
  ChanRemoteNSAP:           504f5045594533000000000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      ATFR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              25
  ChanConnMCR:              25
  ChanConnPercentUti:       100

  ChanNumNextAvailable:  25

spirit3.1.20.FRSM.a >
```

Example 1-420 Display channel characteristics of channel 33 on the CESM card in slot 22

```
spirit3.1.21.CESM.a > xdspchan 33

  ChanNum:                  33
  ChanRowStatus:            Add
  ChanLineNum:              1
  ChanMapVpi:               5
  ChanMapVci:               33
  ChanCBRService:           structured
  ChanClockMode:            Synchronous
  ChanCAS:                  Basic
  ChanPartialFill:          47
  ChanMaxBufSize:           124 bytes
  ChanCDVT:                  1000 micro seconds
  C L I P:                  2500 milliseconds
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            NotInProgress
  ChanRTDresult:            65535 ms
  ChanPortNum               2
  ChanConnType              PVC
  ISDetType                 DetectionDisabled
  CondData                  255
  CondSignalling            0
  ExtISTrig                 DisableIdleSupression
  ISIntgnPeriod             4095 seconds
  ISSignallingCode          0
  OnHookCode                1
  ChanLocalVpi:             0
  ChanLocalVci:             0
  ChanLocalNSAP:            504f5045594533000000000000000000015000200
  ChanRemoteVpi:            0
  ChanRemoteVci:            0
  ChanRemoteNSAP:           NULL NSAP
  ChanMastership:           Slave
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              688
  ChanConnMCR:              688
  ChanConnPercentUtil:      100
  ChanNum:                  41
  ChanRowStatus:            Mod
  ChanLineNum:              3
  ChanMapVpi:               5
  ChanMapVci:               41
  ChanCBRService:           unstructured
  ChanClockMode:            Synchronous
  ChanCAS:                  Basic
  ChanPartialFill:          47
  ChanMaxBufSize:           7680 bytes
  ChanCDVT:                  20000 micro seconds
  C L I P:                  30000 milliseconds
  ChanLocalRemoteLpbkState: Disabled
  ChanTestType:             TestOff
  ChanTestState:            Failed
  ChanRTDresult:            65535 ms
  ChanPortNum               10
  ChanConnType              PVC
  ISDetType                 DetectionDisabled
  CondData                  255
```

```
  CondSignalling            8

Type <CR> to continue, Q<CR> to stop:

  ExtISTrig                 DisableIdleSupression
  ISIntgnPeriod             4095 seconds
  ISSignallingCode          0
  OnHookCode                1
  ChanLocalVpi:             0
  ChanLocalVci:             0
  ChanLocalNSAP:            504f5045594533000000000000000000015000a00
  ChanRemoteVpi:            11
  ChanRemoteVci:            111
  ChanRemoteNSAP:           504f5045594533000000000000000000000000100
  ChanMastership:           Master
  ChanVpcFlag:              Vcc
  ChanConnServiceType:      CBR
  ChanRoutingPriority:      1
  ChanMaxCost:              255
  ChanRestrictTrunkType:    No Restriction
  ChanConnPCR:              4107
  ChanConnMCR:              4107
  ChanConnPercentUtil:      100

  ChanNumNextAvailable:  49

spirit3.1.21.CESM.a >
```

xdspchancnt

Display Channel Count

Use the **xdspchancnt** command to view the counter contents of all channels (or the specified channel with the optional -chn parameter).

Card(s) on Which This Command Executes

PXM, FRSM, CESM

Syntax

xdspchancnt -chn <*ChanNum*>

Syntax Description

-chn	Command delineator that precedes the *ChanNum* entry.
ChanNum	Channel number, using the range appropriate for the current card. • FRSM – 8T1/E1 range = 16–1015 – T3/E3/HS2 range = 16–2015 – 2CT3 range = 16–4015 • PXM range = 16–4111 • CESM – 8T1/E1 range = 32–279 – T3/E3 = one connection starting at 32

Related Commands

dspchancnt, **dspchstats**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display channel counters of all the channels on the FRSM card in slot 20
- Display channel counters of channel 17 on the PXM card in slot 7
- Display channel counters of all the channels on the CESM card in slot 21

- Display channel counters of channel 33 on the CESM card in slot 21
- Display channel counters of channel 22 on the FRSM card in slot 20

Example 1-421 Display channel counters of all the channels on the FRSM card in slot 20

```
spirit3.1.20.FRSM.a > xdspchancnt -chn 22

  ChanNum:                  22
  ChanState:                okay
  ChanUpTime:               1634994

                                Tx                   Rx
                            ---------------      ---------------
  AbitState:                Sending A=1          Off
  ATMState:                 Not sending any state Not receiving any state
  Total Frames:             64187                57994
  Total Bytes:              3410008              3317254
  Frames DE:                0                    0
  Bytes DE:                 0                    0
  Frames Discarded:         2                    7079
  Bytes Discarded:          118                  410582
  FramesDiscXceedQDepth:    0                    0
  BytesDiscXceedQDepth:     0                    0
  FramesDiscXceedDEThresh:  0                    0
  Frames FECN:              0                    0
  Frames BECN:              0                    0
  FramesTagged FECN:        0                    0
  FramesTagged BECN:        0                    0
  KbpsAIR:                  0                    0

Type <CR> to continue, Q<CR> to stop:

                              Tx                   Rx
                            ---------------      ---------------
  FramesTaggedDE:           0                    0
  BytesTaggedDE:            0                    0
  RcvFramesDiscShelfAlarm:                       0
  XmtFramesDiscPhyLayerFail: 0
  XmtFramesDiscCRCError:    0
  XmtFramesDiscReAssmFail:  0
  XmtFramesDiscSrcAbort:    0
  XmtFramesDuringLMIAlarm:  14
  XmtBytesDuringLMIAlarm:   794
  RcvFramesDiscUPC:                              0
  XmtFramesInvalidCPIs:     0
  XmtFramesLengthViolations: 0
  XmtFramesOversizedSDUs:   0
  XmtFramesUnknownProtocols: 0
  RcvFramesUnknownProtocols:                     7079
 Type <CR> to continue, Q<CR> to stop:

  ChanNum:                  42
  ChanState:                alarm
  ChanUpTime:               4

                                Tx                   Rx
                            ---------------      ---------------
  AbitState:                Sending A=0          Off
  ATMState:                 Sending AIS OAM state Receiving AIS OAM
  Total Frames:             0                    0
  Total Bytes:              0                    0
  Frames DE:                0                    0
```

```
  Bytes DE:                  0                    0
  Frames Discarded:          0                    0
  Bytes Discarded:           0                    0
  FramesDiscXceedQDepth:     0                    0
  BytesDiscXceedQDepth:      0                    0
  FramesDiscXceedDEThresh:   0                    0
  Frames FECN:               0                    0
  Frames BECN:               0                    0
  FramesTagged FECN:         0                    0
  FramesTagged BECN:         0                    0
  KbpsAIR:                   0                    0

Type <CR> to continue, Q<CR> to stop:

                                    Tx                   Rx
                                ---------------      ---------------
  FramesTaggedDE:               0                    0
  BytesTaggedDE:                0                    0
  RcvFramesDiscShelfAlarm:                           0
  XmtFramesDiscPhyLayerFail: 0
  XmtFramesDiscCRCError:     0
  XmtFramesDiscReAssmFail:   0
  XmtFramesDiscSrcAbort:     0
  XmtFramesDuringLMIAlarm:   0
  XmtBytesDuringLMIAlarm:    0
  RcvFramesDiscUPC:                                  0
  XmtFramesInvalidCPIs:      0
  XmtFramesLengthViolations: 0
  XmtFramesOversizedSDUs:    0
  XmtFramesUnknownProtocols: 0
  RcvFramesUnknownProtocols:                         0
```

Example 1-422 Display channel counters of channel 17 on the PXM card in slot 7

```
spirit4.1.7.PXM.a > xdspchancnt -cnt 17


Channel Number               :        17
Channel State                :     alarm
Channel Ingress State        :     alarm
Channel Egress State         :     other
CLP=0  Rcvd. Cells           :         0
CLP=1  Rcvd. Cells           :         0
GCRA1  Non Conforming Cells  :         0
GCRA2  Non Conforming Cells  :         0
EOF    Cells Rcvd.           :         0
CLP=0  Discard Cells         :         0
CLP=1  Discard Cells         :         0
Total  Xmtd. Cells           :      2125
CLP=0  Xmtd. Cells           :         0
CLP=1  Xmtd. Cells           :      3203
CLP=0  Discard Cells to Port :         0
CLP=1  Discard Cells to Port :         0

spirit4.1.7.PXM.a >
```

Example 1-423 Display channel counters of all the channels on the CESM card in slot 21

```
spirit3.1.21.CESM.a > xdspchancnt


ChanNum:                  33
Chan State:               alarm
Chan RCV ATM State:       Normal
Chan XMT ATM State:       Sending AIS OAM
Cell Loss Status:         No Cell Loss
Reassembled Cells:        0
Generated Cells:          1234508943
Header Errors:            0
Seqence Mismatches :      0
Lost Cells:               0
Channel Uptime (secs.)    1808376
Signalling Status         Offhook

Type <CR> to continue, Q<CR> to stop:

ChanNum:                  41
Chan State:               alarm
Chan RCV ATM State:       Normal
Chan XMT ATM State:       Sending AIS OAM
Cell Loss Status:         Cell Loss
Reassembled Cells:        0
Generated Cells:          317857344
Header Errors:            0
Seqence Mismatches :      0
Lost Cells:               0
Channel Uptime (secs.)    77406
Signalling Status         Offhook

spirit3.1.21.CESM.a >
```

Example 1-424 Display channel counters of channel 33 on the CESM card in slot 21

```
spirit3.1.21.CESM.a > xdspchancnt -chn 33

ChanNum:                  33
Chan State:               alarm
Chan RCV ATM State:       Normal
Chan XMT ATM State:       Sending AIS OAM
Cell Loss Status:         No Cell Loss
Reassembled Cells:        0
Generated Cells:          1234551200
Header Errors:            0
Seqence Mismatches :      0
Lost Cells:               0
Channel Uptime (secs.)    1808438
Signalling Status         Offhook


spirit3.1.21.CESM.a >
```

Example 1-425 Display channel counters of channel 22 on the FRSM card in slot 20

```
spirit3.1.20.FRSM.a > xdspchancnt -chn 22

  ChanNum:                  22
  ChanState:                okay
  ChanUpTime:               1635192

                                  Tx                   Rx
                            ---------------      ---------------
  AbitState:                Sending A=1          Off
  ATMState:                 Not sending any state Not receiving any state
  Total Frames:             64187                58001
  Total Bytes:              3410008              3317660
  Frames DE:                0                    0
  Bytes DE:                 0                    0
  Frames Discarded:         2                    7079
  Bytes Discarded:          118                  410582
  FramesDiscXceedQDepth:    0                    0
  BytesDiscXceedQDepth:     0                    0
  FramesDiscXceedDEThresh:  0                    0
  Frames FECN:              0                    0
  Frames BECN:              0                    0
  FramesTagged FECN:        0                    0
  FramesTagged BECN:        0                    0
  KbpsAIR:                  0                    0

Type <CR> to continue, Q<CR> to stop:

                                  Tx                   Rx
                            ---------------      ---------------
  FramesTaggedDE:           0                    0
  BytesTaggedDE:            0                    0
  RcvFramesDiscShelfAlarm:                       0
  XmtFramesDiscPhyLayerFail: 0
  XmtFramesDiscCRCError:    0
  XmtFramesDiscReAssmFail:  0
  XmtFramesDiscSrcAbort:    0
  XmtFramesDuringLMIAlarm:  14
  XmtBytesDuringLMIAlarm:   794
  RcvFramesDiscUPC:                              0
  XmtFramesInvalidCPIs:     0
  XmtFramesLengthViolations: 0
  XmtFramesOversizedSDUs:   0
  XmtFramesUnknownProtocols: 0
  RcvFramesUnknownProtocols:                     7079


spirit3.1.20.FRSM.a >
```

xdspchans

Display Channels

Use the **xdspchans** command to view the current channels on the card.

Card(s) on Which This Command Executes

PXM, FRSM, CESM

Syntax

xdspchans

Related Commands

xdspchan, **dspchan**, **addchan**, **delchan**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display channels on the current PXM
- Display channels on the current FRSM
- Display channels on the current CESM

Example 1-426 Display channels on the current PXM

```
spirit4.1.7.PXM.a > xdspchans

Chan Stat Intf locVpi locVci conTyp srvTyp PCR[0+1] Mst rmtVpi rmtVci State
-------------------------------------------------------------------------
  17 ADD    2     39      45  VCC    VBR     353208 Slv     0       0  alarm

spirit4.1.7.PXM.a >
```

Example 1-427 Display channels on the current FRSM

```
spirit3.1.20.FRSM.a > xdspchans

      DLCI      Chan EQ  I/EQDepth  I/EQDEThre  I/EECNThre  Fst/ DE Type  Alarm
  ------------ ---- -- ----- ----- ----- ----- ----- ----- --- --- ----- -----
  20.1.1.1000   22   2  65535/65535 32767/32767  6553/6553  Dis/Dis SIW-X  No
  20.8.20.300   42   2  65535/65535 32767/32767  6553/6553  Dis/Dis NIW    Yes

Number of channels:    2
ChanNumNextAvailable:  26

spirit3.1.20.FRSM.a >
```

Example 1-428 Display channels on the current CESM

```
spirit3.1.21.CESM.a > xdspchans

    Channel     ChanNum   Status   CDVT   MaxBufSize   CLIP    CBRservice
  ------------  -------   ------  -----  ----------  ------  ------------
  21.1.2.33       33       Add     1000      124      2500   structured
  21.3.10.41      41       Mod    20000     7680     30000   unstructured

Number of channels:    2
ChanNumNextAvailable:  47

spirit3.1.21.CESM.a >
```

xdspcon

Display Connection

Use the **xdspcon** command to view AUSM configuration data.

Card(s) on Which This Command Executes

AUSM

Syntax

xdspcon -chn <*ChannelNumber*>

Syntax Description

-chn	Command delineator that precedes the *ChannelNumber* entry.
ChannelNumber	Channel number, in the range 16–1015.

Related Commands

dspcon, **xaddcon**, **addcon**, **xdelcon**, **delcon**, **xdspcons**, **dspcons**

Attributes

Log: No State: Any Privilege: Any

Example 1-429 Display connection parameters for channel 16

```
spirit3.1.22.AUSM8.a > xdspcon -chn 16

  ChanNum:                          16
  RowStatus:                        Del
  ConnectionType:                   VCC
  ServiceType:                      CBR
  PortNum:                          1
  VPI:                              0
  VCI (For VCC):                    0
  Local VPId(for VPC):              0
  EgressQNum:                       0
  IngressQDepth(cells):             1000
  IngressDiscardOption:             CLP hysterisis
  IngressFrameDiscardThreshold      1000
  IngressQCLPHigh(cells):           900
  IngressQCLPLow(cells):            800
  QCLPState:                        LOW
  IngressEfciThreshold(cells):      1000

  UPCEnable:                        Enabled
  PeakCellRate[0+1](cells/sec):     50
  CellDelayVariation[0+1]:          10000 (micro secs)
  PeakCellRate[0](cells/sec):       50
  CellDelayVariation[0]:            10000 (micro secs)
  SustainedCellRate(cells/sec):     50
Type <CR> to continue, Q<CR> to stop:

  MaximumBurstSize(cells):          1000
  SCRPolicing:                      CLP[0]
  CLPTagEnable:                     Enabled
  FrameGCRAEnable:                  Disable

  ForesightEnable:                  Disable
  InitialBurstSize(cells):          0
  ForeSightPeakCellRate(cells/sec): 50
  MinimumCellRate(cells/sec):       0
  InitialCellRate(cells/sec):       1

  LocalRemoteLpbkState:             Disable
  ChanTestType:                     No Test
  ChanTestState:                    Not In Progress
  ChanRTDresult:                    65535 ms

  Ingress percentage util:          100
  Egress percentage util :          100
  Egress Service Rate:              50
  LocalVpi:                         0
  LocalVci:                         0

spirit3.1.22.AUSM8.a >

Type <CR> to continue, Q<CR> to stop:

  LocalNSAP:                        546869732069732061206475 6d79204e534150
  RemoteVpi:                        0
  RemoteVci:                        0
  RemoteNSAP:                       546869732069732061206475 6d79204e534150
  Mastership:                       Slave
  VpcFlag:                          Vcc
  ConnServiceType:                  CBR
  RoutingPriority:                  1
  MaxCost:                          255
```

```
  RestrictTrunkType:                No Restriction
  ConnPCR:                          50
  ConnMCR:                          0
  ConnPercentUtil:                  100

  ChanNumNextAvailable     :  16
  Local VpId NextAvailable :  4

spirit3.1.22.AUSM8.a >
```

xdspcons

Display Connections

Use the **xdspcons** command to view details of all connections between the current AUSM and the card to which the current shelf is attached.

Card(s) on Which This Command Executes

AUSM

Syntax

xdspcons

Related Commands

dspcons, **xaddcon**, **addcon**, **xdelcon**, **delcon**, **xdspcon**

Attributes

Log: No State: Any Privilege: Any

Example 1-430 Display parameters for the connections on the current AUSM

```
spirit.1.19.AUSM8.a > xdspcons

Chan    Port.VPI.VCI    ConnType    Service Type    PCRlot1   Q-Depth     State
30        1.10.100       VCC            ABR          3622      2000       Active
33        1.10.200       VPC            CBR          3622      100        Alarm

spirit.1.19.AUSM8.a >
```

xdspdsx3bert

Display DSX3 BERT

Use the **xdspdsx3ber**t command to view parameters and results of the current bit error rate test (BERT) session.

Card(s) on Which This Command Executes

FRSM 2T3E3, CESMT3

Syntax

xdspdsx3bert

Related Commands

None

Attributes

Log: No State: Active Privilege: Any

Example 1-431 Display results of the current BERT session

```
popeye1.1.21.CESMT3.a > xdspdsx3bert


Bert Control:                           Start dsx3Bert
Bert Resource Status State:             In Use
Bert Owner:                             CLI
Bert Status:                            In Sync
Bert Test Medium:                       Line
Bert Port:                              1
Line Number :                           1
Bert Mode :                             bertPatternTest
Bert Pattern :                          doubleOneZero
Loopback type:                          metallicLoopback
Start time (secs.)                      14:14:44
Start Date                              FRI JUL 02 1999
Bit countupper:                         0
Bit countlower:                         1553476045
Bit Error Countupper                    0
Bit Error Countlower                    0
Error Insertion Rate:                   Error injection disabled
Error Insertion count:                  0

         DSX3 BERT in Sync

popeye1.1.21.CESMT3.a >
```

xdspilmi

Display ILMI

Use the **xdspilmi** command to view the interim local management interface (ILMI) configuration.

Card(s) on Which This Command Executes

PXM, AUSM

Syntax: PXM

xdspilmi -ifNum <*sigPortNum*>

Syntax Description

-ifNum	Command delineator that precedes the *sigPortNum* entry.
sigPortNum	Number of the broadband interface port.

Syntax: AUSM

xdspilmi -pt <*PortNum*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Number of the broadband interface port.

Related Commands

cnfilmi, **xcnfilmi**, **dspilmicnt**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display ILMI configuration for port 1 on the PXM
- Display ILMI configuration for port 1 on the AUSM

Example 1-432 Display ILMI configuration for port 1 on the PXM

```
porky.1.7.PXM.a > xdspilmi -ifNum 1

    Sig.    Ilmi     Sig  Sig   Ilmi          T491       T492   T493   Addr
    Port State/Type  Vpi  Vci Trap/Int KA ErrTh/Pollint EvntTh EnqInt  Reg.
    ---- ---------  ---- ---- -------- --- ------------- ------ ------ ----
       1 Off/none     0   16  Off/01   Off     3/v6         4     10     Off

porky.1.7.PXM.a >
```

Example 1-433 Display ILMI configuration for port 1 on the AUSM

```
porky.1.19.AUSM8.a > xdspilmi -pt 1

Port Num:1
Signalling:No signalling
SignallingVPI:0
SignallingVCI:0
ILMITrap:Disabled
ILMI-Min-Trap-Interval (secs):1
KeepAlivePolling:Disabled
ErrorThreshold:3
EventThreshold:4
PollingInterval (secs):30
MinimumEnquiryInterval (secs)10
EXT Operation:port 2

porky.1.19.AUSM8.a >
```

xdspln

Display Line Configuration

Use the **xdspln** command to view configuration for a specified line.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

xdspln -ds1 <*line number*>

or

xdspln -rs232 <*line number*>

Syntax Description

-ds1	Command delineator that precedes T1 *line number* entry.
-rs232	Command delineator that precedes RS232 *line number* entry.
line number	Line number of the DS1 or RS232 interface. • -DS1 range = 1–8 (on 8-port service modules) • -RS232 range = 1–2

Related Commands

addln, **xcnfln**, **cnfln**, **delln**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display line 2 on the current AUSM card
- Display line 8 on the current CESM card
- Display line 1 on the current FRSM card
- Display RS232 line 1 on the current CESM card

Example 1-434 Display line 2 on the current AUSM card

```
spirit3.1.22.AUSM8.a > xdspln -ds1 2

  LineNum:                  2
  LineConnectorType:        RJ-48
  LineType:                 dsx1ESF
  LineEnable:               Disable
  LineCoding:               dsx1B8ZS
  LineLength:               0-131 ft
  LineXmtClockSource:       LocalTiming
  LineLoopbackCommand:      NoLoop
  LineSendCode:             NoCode
  LineUsedTimeslotsBitMap:  0xffffffff
  LineLoopbackCodeDetection: codeDetectDisabled
  LineBERTEnable:           Disable

  LineNumOfValidEntries: 8

spirit3.1.22.AUSM8.a >
```

Example 1-435 Display line 8 on the current CESM card

```
spirit.1.17.CESM.a > xdspln -ds1 8

  LineNum:                  8
  LineConnectorType:        SMB
  LineEnable:               Enabled
  LineType:                 dsx1E1CAS
  LineCoding:               dsx1HDB3
  LineLength:               G.703 75 ohm
  LineXmtClockSource:       LocalTiming
  LineLoopbackCommand:      NoLoop
  LineSendCode:             NoCode
  LineUsedTimeslotsBitMap:  0x0
  LineLoopbackCodeDetection: codeDetectDisabled

  LineNumOfValidEntries: 8

spirit.1.17.CESM.a >
```

Example 1-436 Display line 1 on the current FRSM card

```
spirit.1.1.FRSM.a > xdspln -ds1 1

  LineNum:                  1
  LineConnectorType:        RJ-48
  LineType:                 dsx1ESF
  LineEnable:               Disable
  LineCoding:               dsx1B8ZS
  LineLength:               0-131 ft
  LineXmtClockSource:       LocalTiming
  LineLoopbackCommand:      NoLoop
  LineSendCode:             NoCode
  LineUsedTimeslotsBitMap:  0x0
  LineLoopbackCodeDetection: codeDetectDisabled
  LineBertEnable:           Disable

  LineNumOfValidEntries: 8

spirit.1.1.FRSM.a >
```

Example 1-437 Display RS232 line 1 on the current CESM card

```
spirit3.1.21.CESM.a > xdspln -rs232 1

  Port            Type          Enable   Baudrate
  ----  ----------------------  --------  --------
  21.1  Maintenance RS232 Port  Disable    19200

 SerialPortNumOfValidEntries: 1

spirit3.1.21.CESM.a >
```

xdsplns

Display Lines

Use the **xdsplns** command to view the configuration parameters for all lines on the current card.

Card(s) on Which This Command Executes

PXM FRSM, AUSM, CESM

Syntax

xdsplns

Related Commands

dsplns, **addln**, **cnfln**, **xcnfln**, **delln**

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display DS1 lines on the current FRSM card
- Display RS-232 lines on the current FRSM card
- Display lines on the current PXM with a T3 trunk back card
- Display lines on the current PXM with a SONET 155 back card
- Display E1 lines on the current CESM card

Example 1-438 Display DS1 lines on the current FRSM card

```
spirit.1.1.FRSM.a > xdsplns -ds1

  Line  Conn      Type     Status/Coding      Length     XmtClock Alarm Stats
        Type                                           Source         Alarm
  ----  ----- ------------ ------ -------- ------------- -------- ----- -----
  1.1   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.2   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.3   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.4   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.5   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.6   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.7   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim
  1.8   RJ-48 dsx1ESF         Dis/dsx1B8ZS 0-131 ft      LocalTim

  LineNumOfValidEntries: 8

spirit.1.1.FRSM.a >
```

Example 1-439 Display RS-232 lines on the current FRSM card

```
spirit.1.1.FRSM.a > xdsplns -rs232

  Port            Type          Enable   Baudrate
  ----  ----------------------  --------  --------
  1.1   Maintenance RS232 Port  Disable    19200

 SerialPortNumOfValidEntries: 1
spirit.1.1.FRSM.a >
```

Example 1-440 Display lines on the current PXM with a T3 trunk back card

```
spirit.1.7.PXM.a > xdsplns

Line       Type        Coding      Length       Criteria   AIScBitsCheck
----  --------------  --------  -------------  ----------- -------------
2.1   dsx3CbitParity  dsx3B3ZS  LessThan450ft  3 out of 8  Check C-bits

LineNumOfValidEntries: 1

spirit.1.7.PXM.a >
```

Example 1-441 Display lines on the current PXM with a SONET 155 back card

```
spirit.1.7.PXM.a > xdsplns

    Medium   Medium   Medium    Medium
    Sonet     Line      Line      HSC      Payload      Frame      Time      Valid
    Line      Line
    Line      Type      Lpbk      mask     Scramble     Scramble Elapsed     Intvls
    Coding    Type
    ----  --------------  --------  -------------  ----------- ------------------

LineNumOfValidEntries: 1

spirit.1.7.PXM.a >
```

Example 1-442 Display E1 lines on the current CESM

```
spirit.1.17.CESM.a > xdsplns -ds1

  Line  Conn      Type     Status/Coding      Length     XmtClock Alarm Stats
        Type                                           Source         Alarm
  ----  ----- ------------ ------ -------- ------------- -------- ----- -----
  17.1  SMB   dsx1E1CAS       Ena/dsx1HDB3 G.703 75 ohm  LocalTim  Yes   No
  17.2  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.3  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.4  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.5  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.6  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.7  SMB   dsx1E1CAS       Dis/dsx1HDB3 G.703 75 ohm  LocalTim
  17.8  SMB   dsx1E1CAS       Ena/dsx1HDB3 G.703 75 ohm  LocalTim  Yes   No

  LineNumOfValidEntries: 8

spirit.1.17.CESM.a >
```

xdspport

Display Port

Use the **xdspport** command on the PXM, FRSM, and CESM to view the port configuration for the specified port.

Use the **xdspport** command on an AUSM to view the Physical Layer Protocol Processor (PLPP) of a port on the current AUSM.

Card(s) on Which This Command Executes

PXM, FRSM, AUSM, CESM

Syntax

xdspport <*port number*>

or

xdspport -port <*port number*>
(for PXM)

Syntax Description

-port	Command delineator that precedes PXM *port number* entry.
port number	Port number, using the range appropriate for the current card. • PXM – Range = 1–32 • FRSM – T1 range = 1–192 – E1 range = 1–248 • AUSM range = 1–8 • CESM – 8T1 range = 1–192 – 8E1 range = 1–248 – T3/E3 = enter the value 1

Related Commands

FRSM and CESM: **addport**, **xcnfport**, **cnfport**, **delport**

AUSM: xupport, upport, xdnport, dnport

Attributes

Log: No State: Active Privilege: Any

Examples

This section contains the following examples:

- Display port configuration for port 2 on the PXM
- Display port configuration for port 1 on the current FRSM
- Display port 1 on the current AUSM

Example 1-443 Display port configuration for port 2 on the PXM

```
raviraj.1.7.PXM.a > xdspport -port 1

    Port  Status  Line  PctBw  minVpi  maxVpi
    -----------------------------------------------------
       1    OFF     0      0       0       0

raviraj.1.7.PXM.a >
```

Example 1-444 Display port configuration for port 1 on the current FRSM

```
spirit.1.17.FRSM.a > xdspport 1

  SlotNum:                      17
  PortLineNum:                  1
  PortNum:                      1
  PortRowStatus:                Add
  PortDs0Speed:                 64k
  PortDs0ConfigBitMap:          0xffffff
  PortEqueueServiceRatio:       1
  PortFlagsBetweenFrames:       1
  PortSpeed:                    1536kbps
  SignallingProtocolType:       NoSignalling
  AsynchronousUpdates:          Disable
  T391LineIntegrityTimer:       10
  T392PollingVerificationTimer: 15
  N391FullStatusPollingCounter: 6
  N392ErrorThreshold:           3
  N393MonitoredEventCount:      4
  PortState:                    FailedDuetoLineFailure
  PortSignallingState:          No Signalling Failure
  CLLMEnableStatus:             Disable
  CLLMxmtStatusTimer:           0

  PortDs0UsedLine1:             0x00ffffff
  PortDs0UsedLine2:             0x00ffffff
  PortDs0UsedLine3:             0x00ffffff
  PortDs0UsedLine4:             0x00ffffff
  PortNumNextAvailable:         60
Syntax : dspport "port_num"
         port number–values ranging from 1–192 are accepted

spirit.1.17.FRSM.a >
```

Example 1-445 Display port 1 on the current AUSM

```
spirit.1.20.AUSM.a > xdspport 1

  PortNumber:     1
  Cell Framing:   ATM
  Cell Scramble:  No Scramble
  Plpp Loopback:  No Loopback

spirit.1.20.AUSM.a >
```

xdspportcnt

Display Port Counters

Use the **xdspportcnt** command to view counters for a specified port on an FRSM or AUSM.

Card(s) on Which This Command Executes

FRSM, AUSM

Syntax

xdspportcnt <*port number*>

Syntax Description

port number Port number, using the range appropriate for the current card.

- FRSM
  - T1 range = 1–192
  - E1 range = 1–248
- AUSM range = 1–8

Related Commands

dspcds

Attributes

Log: No State: Any Privilege: Any

Examples

This section contains the following examples:

- Display port counters on port 1 of the current AUSM
- Display port counters on port 1 of the current FRSM

Example 1-446 Display port counters on port 1 of the current AUSM

```
spirit.1.20.AUSM.a > dspportcnt 1

  PortNum:                              1
  PortState:                            Sig. Failure
  IngressRcvCells:                      0
  IngressRcvCellRate (cells/sec):       0
  IngressRcvUtilization (percentage):   0
  IngressXmtCells:                      0
  IngressGFCErrorCells:                 0
  IngressVpiVciErrCells:                0
  IngressUnknownVpiVci:                 0x0
  IngressRcvClpSetCells:                0
  EgressRcvCells:                       0
  EgressRcvCellRate (cells/sec):        0
  EgressRcvUtilization (percentage):    0
  EgressXmtCells:                       0
  EgressXmtCellRate (cells/sec):        0
  EgressXmtUtilization (percentage):    0
  EgressPortAlarmDiscardCells:          0
  EgressXmtClpSetCells:                 0
  EgressXmtEfciSetCells:                0
  PortXmtAisCells:                      0
  PortXmtSgmtLpbkCells:                 0
  PortRcvAisCells:                      0
  PortRcvFerfCells:                     0
  PortRcvSgmtLpbkCells:                 0
  PortRcvCrcErrOAMCells:                0
  TotalIngressQFullDiscardCells:        0
  TotalIngressClpSetDiscardCells:       0
  TransmitFIFOFullCount (per card):     0
  ReceivedHECErrorCells:                0
  HECErroredSeconds:                    0
  SeverelyHECErroredSeconds:            0

spirit.1.20.AUSM.a >
```

Example 1-447 Display port counters on port 1 of the current FRSM

```
spirit.1.17.FRSM.a > dspportcnt   1

  PortNum:                    1

                                    Tx                  Rx
                             ---------------      ---------------
  Total Frames:                233706                228459
  Total Bytes:                 6181533               5892272
  Frames FECN:                 0                     0
  Frames BECN:                 0                     0
  Frames Abort:                0                     2
  Buf Not Available:           0                     0
  KbpsAIR:                     0                     0
  XmtFramesDiscXceedQDepth:    0
  XmtBytesDiscXceedQDepth:     0
  XmtFramesDuringLMIAlarm:     17
  XmtByteDuringLMIAlarm:       791
  XmtFramesUnderrun:           0
  RcvFramesDE:                                       0
  RcvFramesDiscCRCError:                             0
  RcvFramesDiscIllegalHeader:                        0
  RcvFramesDiscAlignmentError:                       0
  RcvFramesDiscIllegalLen:                           0
  RcvFramesDiscXceedDEThresh:                        0
  RcvFramesDiscNoChan:                               0
  RcvFramesUnknownDLCI:                              2
  RcvLastUnknownDLCI:                                0
  RcvFramesTaggedFECN:                               0
  RcvFramesTaggedBECN:                               0
  RcvFramesTaggedDE:                                 0
  Status:                      169459                0
  StatusInquiry:               0                     169459
  AsynchUpdate:                0                     0
  RcvInvalidRequest:                                 0
  RcvUNISeqMismatch:                                 1
  RcvNNISeqMismatch:                                 0
  UNISignallingTimeout:                              3
  NNISignallingTimeout:                              0
  FramesCLLM:                  0                     0
  BytesCLLM:                   0                     0
  CLLMFailures:                                   0Type <CR> to continue, Q<CR> to stop:

  PortNum:                    20

                                    Tx                  Rx
                             ---------------      ---------------
  Total Frames:                0                     0
  Total Bytes:                 0                     0
  Frames FECN:                 0                     0
  Frames BECN:                 0                     0
  Frames Abort:                0                     0
  Buf Not Available:           0                     0
  KbpsAIR:                     0                     0
  XmtFramesDiscXceedQDepth:    0
  XmtBytesDiscXceedQDepth:     0
  XmtFramesDuringLMIAlarm:     0
  XmtByteDuringLMIAlarm:       0
  XmtFramesUnderrun:           1
  RcvFramesDE:                                       0
  RcvFramesDiscCRCError:                             0
  RcvFramesDiscIllegalHeader:                        0
  RcvFramesDiscAlignmentError:                       0
```

```
  RcvFramesDiscIllegalLen:                        0
  RcvFramesDiscXceedDEThresh:                     0
  RcvFramesDiscNoChan:                            0
  RcvFramesUnknownDLCI:                           0
  RcvLastUnknownDLCI:                             0
  RcvFramesTaggedFECN:                            0
  RcvFramesTaggedBECN:                            0
  RcvFramesTaggedDE:                              0
  Status:                    0                    0
  StatusInquiry:             0                    0
  AsynchUpdate:              0                    0
  RcvInvalidRequest:                              0
  RcvUNISeqMismatch:                              0
  RcvNNISeqMismatch:                              0
  UNISignallingTimeout:                           0
  NNISignallingTimeout:                           0
  FramesCLLM:                0                    0
  BytesCLLM:                 0                    0
  CLLMFailures:                           0

spirit3.1.20.FRSM.a >
```

xdspportq

Display Specified Egress Queue on Specified Port

Use the **xdspportq** command to view queue information for a specified port and egress queue on the AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

xdspportq -pt <*PortNum*> -pqn <*PortQNumber*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.
-pqn	Command delineator that precedes the *PortQNumber* entry.
PortQNumber	Egress queue number, in the range 1–16.

Related Commands

dspportq, **dspportqs**

Attributes

Log: No State: Any Privilege: Any

Example 1-448 Display queue information for egress queue 1 on port 1

```
spirit3.1.22.AUSM8.a > xdspportq -pt 1 -pqn 1

  ServicePortNum:                1
  QueueNumber:                   1
  PortBinState:                  Disable
  ServiceSequence:               255
  QueueDepth(cells):             500
  CLPThresholdHigh(cells):       450
  CLPThresholdLow(cells):        400
  EFCIThreshold(cells):          400
  QueueAlgorithm:                255
  MaxBandwidthIncrement:         4096
  MinBandwidthIncrement:         0
  QCLPState:                     Low
  QFullDiscardedCells:           0
  CLPSetDiscardedCells:          0

spirit3.1.22.AUSM8.a >
```

xdspportqs

Display All Egress Queues on Specified Port

Use the **xdspportqs** command to view queue information for all the egress queues on an AUSM port.

Card(s) on Which This Command Executes

AUSM

Syntax

xdspportqs <*port number*>

Syntax Description

port number	Port number, in the range 1–8.

Related Commands

dspportqs, **xdspportq**, **dspportq**

Attributes

Log: No State: Any Privilege: Any

Example 1-449 Display egress queue information for all egress queues on port 1

```
spirit.1.20.AUSM.a > xdspportqs 1

Port   Q Num  State   Q-Algo Service-Seq Depth-Max  CLP-High  CLP-Low  EFCI-Thrsh
----  -----  -----   ------ ----------- ---------  --------  -------  ----------
  1     1    Enabled    3       1           200      180        160      160
  1     2    Enabled    3       2           900      800        700      700
  1     3    Enabled    3       3           900      800        700      700
  4     1    Enabled    3       1           200      180        160      160
  4     2    Enabled    3       2           900      800        700      700
  4     3    Enabled    3       3           900      800        700      700

spirit.1.20.AUSM.a >
```

xdspports

Display Ports

Use the **xdspports** command to view information on all the ports associated with the current card.

Card(s) on Which This Command Executes

FRSM, AUSM, CESM

Syntax

xdspports

Related Commands

dspport, **addport**, **cnfport**, **delport**, **dspport**

Attributes

Log: No State: Any Privilege: Any

Example 1-450 Display ports on the current FRSM

```
raviraj.1.3.FRSM.a > xdspports

Port   Ena/Speed EQServ  SignalType  T391 T392 N391 N392 N393   Type   Alarm ELMI
                    Ratio
-------- --- ----- ------ ------------ ---- ---- ---- ---- ---- -------- ----- ----
3.1.1    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.2    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.3    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.4    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.5    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.6    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.7    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off
3.1.8    Add/ 192k   1    NoSignalling   10   15    6    3    4 frameRel  No Off

  Number of ports:             8

  PortDs0UsedLine1:            0x00ffffff
  PortDs0UsedLine2:            0x00000000
  PortDs0UsedLine3:            0x00000000
  PortDs0UsedLine4:            0x00000000
  PortDs0UsedLine5:            0x00000000
  PortDs0UsedLine6:            0x00000000
  PortDs0UsedLine7:            0x00000000
  PortDs0UsedLine8:            0x00000000
  PortNumNextAvailable:        89

raviraj.1.3.FRSM.a >
```

xdspred

Display Redundancy

Use the **xdspred** command to view the currently configured redundant slot links on the MGX 8250.

Card(s) on Which This Card Executes

PXM

Syntax

xdspred

Related Commands

addred, **delred**, **dspred**, **xcnfred**

Attributes

Log: No State: Active Privilege: SuperUser

Example 1-451 Show the status of redundant slot links

```
raviraj.1.7.PXM.a > xdspred

  Primary  Primary  Primary  Secondary  Secondary  Secondary  Red.  Red.Slot
  SlotNum   Type     State    SlotNum     Type       State    Type   Cover
  -------  -------  -------  ---------  ---------  ---------  ----  --------
    4      FRSM-2CT  Active      10       FRSM-2CT   Standby   1:1     0

raviraj.1.7.PXM.a >
```

xdspshelf

Display Shelf

Use the **xdspshelf** command to view shelf information on card and line status.

Card(s) on Which This Command Executes

PXM

Syntax

xdspshelf

Related Commands

None

Attributes

Log: No State: Any Privilege: Cisco

Example 1-452 Display characteristics of the shelf information on card and line status

```
spirit.1.8.PXM.a > xdspshelf

    NumOfValidEntries:    32
    NodeName:             spirit
    Date:                 01/29/1999
    Time:                 18:12:48
    TimeZone:             GMT
    TimeZoneGMTOff:       0
    StatsMasterIpAddress: 0.0.0.0
    shelfIntegratedAlarm: Clear
    BkplnSerialNum:       12345
    BkplnType:            2
    BkplnFabNumber:
    BkplnHwRev:           80

spirit.1.8.PXM.a >
```

xdspsrmlink

Display Link

Use the **xdspsrmlink** command to view a link on a specific T3 line on an SRM-3T3 card.

Card(s) on Which This Command Executes

PXM

Syntax

xdspsrmlink -srmt3 <*T3LineNum*> -srmt1 <*T1Slot*> -srmsl <*TargetSlotNum*> <*T3LineNum*>

Syntax Description

-srmt3	Command delineator that precedes the *T3LineNum* entry.
T3LineNum	T3 line number expressed in the form *slot.line*. • Slot = 15 or 31 • Line range = 1–3
-srmt1	Command delineator that precedes the *T1Slot* entry.
T1Slot	T1 slot number, in the range 1–28.
-srmsl	Command delineator that precedes *TargetSlotNum* and *T3LineNum* entry.
TargetSlotNum	T1 service module slot number to be linked to the T1 line, in the following ranges: • 1–6 • 11–14 • 17–22 • 27–30
T3LineNum	T3 line number in the form *slot.line*. Slot range = 15 or 31 Line range = 1–3

Related Commands

dellink, **addlink**

Attributes

Log: No State: Any Privilege: Any

Example 1-453 Display characteristics of the SRM T3 link

```
spirit.1.8.PXM.a > xdspsrmlink 7.1
```

T3Line	StartT	TRowStatus	TargetSlot	TargetSlotLine
1	1	Add	7	1
1	2	Add	7	2
1	3	Add	7	3
1	4	Add	7	4

xdsptrapmgr

Display Trap Manager

Use the **xdsptrapmgr** command to view trap information collected by the PXM trap manager. This information contains the IPAddress, port number, trap flag operational status, row status, and the current sequence number of the next trap.

Card(s) on Which This Command Executes

PXM

Syntax

xdsptrapmgr

Related Commands

None

Attributes

Log: No State: Any Privilege: Any

Example 1-454 Display trap information on the current PXM

```
raviraj.1.7.PXM.a > xdsptrapmgr

ipAddress        PortNum  RowStatus   ReadTrapFlag  NextTrapSeqNum
---------------  -------  ----------  ------------  --------------
172.29.28.41      2500       Add           Off         260338

LastTrapSeqNum:     260837
NumOfValidEntries:  1

raviraj.1.7.PXM.a >
```

xdspusers

Display User(s)

Use the **xdspusers** command to view the list of currently configured user identifications and associated access levels.

Card(s) on Which This Command Executes

PXM

Syntax

xdspusers
or
xdspusers -u <*userId*>

Syntax Description

-u	Command delineator that precedes the *userId* entry.
userId	String of up to12 characters that identify a specific user.

Related Commands

dspusers

Attributes

Log: No State: Any Privilege: Cisco

Examples

This section contains the following examples:

- Show all currently configured users
- Show the access level for a specified user

Example 1-455 Show all currently configured users

```
raviraj.1.7.PXM.a > xdspusers

UserId        AccessLevel
------------------------
cisco         CISCO_GP
service       SERVICE_GP
superuser     SUPER_GP

raviraj.1.7.PXM.a >
```

Example 1-456 Show access level for a specified user

```
raviraj.1.7.PXM.a > xdspuser -u superuser

UserId        AccessLevel
------------------------
superuser     SUPER_GP

raviraj.1.7.PXM.a >
```

xupport

Up Port

Use the **xupport** command to bring up a port on the AUSM.

Card(s) on Which This Command Executes

AUSM

Syntax

xupport -pt <*PortNum*> -e <*PortEnable*> -ptyp <*PortType*> -ln <*LineNum*>

Syntax Description

-pt	Command delineator that precedes the *PortNum* entry.
PortNum	Port number, in the range 1–8.
-e	Command delineator that precedes the *PortEnable* entry.
PortEnable	Value that enables or disables the port. • 1 = disable • 2 = enable
-ptyp	Command delineator that precedes the *PortType* entry.
PortType	Value that represents either NNI or UNI port type. • 1 = NNI • 2 = UNI
-ln	Command delineator that precedes the *LineNum* entry.
LineNum	Physical line number, in the range 1–8.

Related Commands

upport, **xdnport**, **dnport**

Attributes

Log: Yes State: Active Privilege: Group 1

Example 1-457 Bring up port 1 on physical line 1 on the AUSM in slot 22 as an NNI port

```
spirit3.1.22.AUSM8.a > xupport -pt 1 -e 2 -ptyp 1 -ln 1
spirit3.1.22.AUSM8.a >
```

A system message does not occur unless an error is detected.