



3.0.20 Software Release Notes for the Cisco SES PNNI Controller

Contents

This document contains the following sections:

Contents	1
About Release 3.0.20	3
SES PNNI and SVC Controller	3
Feature Overview	3
System Requirements	5
Hardware Compatibility Matrix	5
Software Compatibility	6
Compatible Releases	7
Additional Deliverables	8
New and Changed Information for Release 3.0.20	8
SNTP	8
Priority Routing of Connections	8
Preferred Routing of Connections	8
Per Connection Based Utilization of SPVCs	9
Standards Based Path and Connection Trace	9
Single-ended SPVC/SPVP Configuration	9
100K Connections	9
SPVC and SVC real time statistics with MIB support	9
SPVC Connection Statistics	12
Upgrading the SES Node	12
Upgrading to a New Software Release	13



Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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- Special Installation and Upgrade Requirements 13
 - Upgrading from SES Release 1.0.15, 1.0.16, 1.1.75, 3.0, or 3.0.10 to Release 3.0.20 13
 - Upgrading the Cisco SES PNNI Runtime Image 17
 - Upgrading the Runtime Image on Non-Redundant Systems 18
- Cisco SES PNNI Controller Bring Up Procedure 19
- Limitations and Restrictions 20
 - General Limitations and Restrictions 20
 - Recommendations 21
- Caveats 21
 - Open Anomalies in Release 3.0.20 22
- Problems Fixed in Release 3.0.20 24
 - Open Anomalies in Release 3.0.10 27
- Problems Fixed in Release 3.0.10 31
 - Open Anomalies in Release 3.0 36
 - Open Anomalies in Release 1.1.75 41
 - Problems Fixed in Release 1.1.75 43
 - Problems Fixed in Release 1.1.70 48
 - Anomalies Status Changes for Release 1.1.70 49
 - Fixed Anomalies for Release 1.1.60 49
- Related Documentation 52
 - Cisco WAN Manager Release 11 52
 - Service Expansion Shelf PNNI Controller Release 3 52
 - Cisco WAN Switching Software Release 9.3.40 53
- Conventions 53
- Obtaining Documentation 54
 - World Wide Web 54
 - Documentation CD-ROM 54
 - Ordering Documentation 54
 - Documentation Feedback 54
- Obtaining Technical Assistance 55
 - Cisco.com 55
 - Technical Assistance Center 55

About Release 3.0.20

These release notes describe the system requirements, new and changed procedures, upgrade procedures, and limitations that apply to Release 3.0.20 of the Service Expansion Shelf (SES) controller. These notes also contain Cisco support information. The 3.0.20 software release supports the Cisco WAN switching products: Cisco BPX 8600 series with SES controller.

SES PNNI and SVC Controller

Release 3.0.20 of the SES controller is compatible with the Cisco BPX 8600 series software Release 9.3.30 and with the later 9.3 Releases. The SES controller is connected to the Cisco BPX 8600 series switch via a BXM-155 (or T3/E3) port configured as a trunk. Redundant SES systems contain two controller cards which offer APS protection on the ports connecting to the BPX.

Feature Overview

The SES controller is a Virtual Switch Interface (VSI) controller which provides a Cisco BPX 8600 series wide-area switch the capability to create switched virtual circuits (SVCs) and soft permanent virtual circuits (SPVCs) using the User-to-Network Interface (UNI) and Private Network-to-Network Interface (PNNI) protocols. One SES controller is required for each Cisco BPX 8600 series node that will be originating, transporting, or terminating SVC/SPVC connections. The SES controller is offered in redundant or non-redundant configurations.

Detailed Feature Information

As networks grow in size, PNNI becomes a critical element in the ability to scale a network. PNNI provides a standard, interoperable, and scalable method to grow PVC (SPVC) networks to large sizes. In addition, applications such as voice, video, and LAN require WAN switches to provide dynamic connection capabilities in the form of SVCs. The SES controller provides the Cisco BPX 8600 series switch with a centralized controller for establishing SPVCs and SVCs in both the Cisco BPX 8600 series networks and in mixed vendor environments.

The Cisco BPX 8600 series switch in combination with the SES controller (Release 3.0.20) supports the following features:

- SPVC and SVC real time statistics with MIB support
- SNTP
- Priority routing of connections
- Preferred routing of connections
- Standards based path and connection trace facilities
- Single-ended SPVC and SPVP configuration
- ATM UNI 3.0/3.1, 4.0 (CBR, VBR, UBR)
- PNNI Single Peer Group and Multiple Peer Group (MPG)
- AINI
- 60,000 LCN on BXM-E
- Point-to-Point SVCs, SPVCs, and SPVPs

- IISIP with PNNI Inter-networking
- E.164 and AESA/NSAP (DCC, ICD, E.164) addressing
- Address filtering (source and destination)
- ILMI 4.0
- SPVC and SPVP endpoint provisioning (including ABR)
- OC-3/STM-1, T3/E3 interfaces
- OC-12/STM-4 interfaces
- Intelligent CAC
- Call Processor Redundancy (calls stable across switchover)
- APS on controller uplinks to the Cisco BPX 8600
- Connection and Path Trace facilities
- Integrated management via CWM and SNMP MIBs
- 100,000 K connections (SVC+SVP+SPVC+SPVP) per node. 100K connections for DACS only, or routed SPVC only, or mixed.
- 200,000 K max endpoints per node (if all 100 K connections are DACS).
- 99 UNI/PNNI SVC ports per node
- 100 calls per second
- Dynamic partitioning and soft partitioning
- SPVC support on feeder trunks
- Dedicated Q-bin for control signaling
- SPVC Connection Statistics
- Graceful upgrade on the SES controller from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10 to Release 3.0.20.

System Requirements

This section describes the hardware supported in this release and the software compatibility requirements.

Hardware Compatibility Matrix

[Table 1](#) and [Table 2](#) list the hardware supported in Release 3.0.20, and show which back cards are compatible with each front card.

Table 1 OC3 Hardware Compatibility

OC3 Combinations (Shipping/Customer Configurations)				
No.	Description	Front Card (PXM)	PXM UI Back Card	PXM Uplink Back Card
1	MMF OC3	SES-PXM-CNTL-4-155 (with 4-port OC3) P/N 800-06454-01 or later	PXM-UIA Rev. A0 or later	MMF-4-155 Rev. A0 or later
2	SMF-OC3, Intermediate Range	SES-PXM-CNTL-4-155 (with 4-port OC3) P/N 800-06454-01 or later	PXM-UIA Rev. A0 or later	SMFIR-4-155 Rev. A0 or later SMFIR-4-155/B Rev. A0 or later

Table 2 T3/E3 Hardware Compatibility

T3/E3 Combinations (Shipping/Customer Configurations)				
No.	Description	Front Card (PXM)	PXM UI Back Card	PXM Uplink Back Card
1	T3	SES-PXM-CNTL-2T3E3 (with 2-port T3E3) P/N 800-06699-01	PXM-UIA Rev. A0 or later	BNC-2T3 Rev. A0 or later
2	E3	SES-PXM-CNTL-2T3E3 (with 2-port T3E3) P/N 800-06699-01	PXM-UIA Rev. A0 or later	BNC-2E3 Rev. A0 or later

Table 3 lists the MGX hardware which is compatible with Release 3.0.20 of the SES controller.

Table 3 *MGX Hardware Compatibility*

Feeder	MGX 8850 R1	MGX 8220
Release	1.1.34	5.0.16
HW Cards	PXM-1 PXM1-2T3E3 PXM1-4OC3 PXM1-OC12 SRM-3T3 CESM-8E1 CESM-8T1 AUSMB-8E1 AUSMB-8T1 CESM-T3 CESM-E3 FRSM-8E1 FRSM-8T1 FRSM-HS2 FRSM-2CT3 FRSM-2T3 FRSM-2E3 FRSM-HS1/B VISM-8T1 VISM-8E1 RPM RPM-PR	FRSM-4T1/4E1/4T1-C/4E1-C SRM-T1E1 SRM-3T3 CESM-4T1/4E1 CESM-8T1/8E1 AUSM-4T1/4E1 FRSM-8T1/8E1 AUSM-8T1/8E1 AUSMB-8T1/8E1 AUSMB-8T1/8E1 FRSM-HS1 FRSM-HS1/B FRSM-HS2 IMATM-T3T1/E3E1 IMATMB-T1/E1

Software Compatibility

Table 4 lists the software that is compatible for use in a switch running Release 3.0.20 software.

Table 4 *Software Compatibility Matrix*

Board Pair	SES Controller Release	Latest Boot Code Version	Minimum Boot Code Version	BXM Firmware	SWSW	CWM
PXM1	1.0.10	pxm1_001.000.001.000_bt.fw	1.0.01	MFH	9.3.10	10.3
PXM1	1.0.11	pxm1_001.000.011.001_bt.fw	1.0.11	MFJ	9.3.10	10.4
PXM1	1.0.12	pxm1_001.000.011.001_bt.fw	1.0.11	MFL	9.3.11	10.4

Table 4 Software Compatibility Matrix (continued)

Board Pair	SES Controller Release	Latest Boot Code Version	Minimum Boot Code Version	BXM Firmware	SWSW	CWM
PXM1	1.0.13	pxm1_001.000.013.000_bt.fw	1.0.13	MFM	9.3	10.4
PXM1	1.0.14	pxm1_001.000.013.000_bt.fw	1.0.13	MFN	9.3.11 9.3.24	10.4
PXM1	1.0.15	pxm1_001.000.013.000_bt.fw	1.0.13	MFN	9.3.11 9.3.24	10.4
PXM1	1.1.60	pxm1_001.001.060.102_bt.fw	1.1.60	MFN	9.3.30	10.5
PXM1	1.1.70	pxm1_001.001.070.201_bt.fw	1.1.60	MFR	9.3.35	10.5.10
PXM1	1.1.75	pxm1_001.001.075.101_bt.fw	1.1.60	MFU	9.3.36	10.5.10 Patch 1
PXM1	3.0	pxm1_003.000.000.000_bt.fw	1.1.75	MFV	9.3.40	11.0
PXM1	3.0.10	pxm1_003.000.010.001_bt.fw	3.0.00	MFW	9.3.42	11.0.10
PXM1	3.0.20	pxm1_003.000.020.000_bt.fw	3.0.00	MFW	9.3.45	11.0.10 Patch 1

Compatible Releases

Release 3.0.20 of the SES controller is certified with the following releases:

- Graceful upgrade to Release 3.0.20 from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10
- BPX SWSW Version 9.3.30 or later (see Software Compatibility Notes Matrix, first and second bullets)
- BXM firmware version MFR or later (see Software Compatibility Notes Matrix, first and second bullets)
- CiscoView Version 5.4.1
- Cisco WAN Manager (CWM) Release 11.0.10
- BCC-3-64
- BPX-BCC-4V or BPX-BCC-4V/B
- MGX 8850 Release 1, Release 1.2.11
- MGX 8220 Release 5.0.18
- SNMP MIB for Release 3.0.20 is sesmibs3020.tar

For further information on the BXM card, refer to the *9.3 Version Release Notes Cisco WAN Switching Software*.

Additional Deliverables

The SES controller MIB is being provided with the delivery of Release 3.0.20 of the SES controller software on CCO. The MIB is in standard ASN.1 format, and is included in the same directory where the SES controller software is located within CCO. The SNMP SES controller MIB file can be compiled with most standards-based MIB compilers.

Refer to the *Cisco SES PNNI Controller Software Configuration Guide, Release 3, Appendix D, "SNMP Management Information Base,"* for a description of the MIBs supported by the SES controller.

New and Changed Information for Release 3.0.20

This section describes new and changed features in Release 3.0.20 of the SES controller.

SNTP

The SNTP feature enables BPX SES nodes with Time of Day (TOD) synchronization. This feature allows BPX SES nodes to act as time of day (TOD) servers for the network. Accurate time of day service synchronized to Universal Time Coordinated (UTC). Through SNTP, the BPX SES node can synchronize to any SNTP/NTP time server. This provides accurate time for statistics and alarms generated on the switch and enables accurate synchronization of such events between switches. In a network of BPX SES and MGX switches, the TOD must be set on the BPX in order to be distributed consistently throughout the network.

Priority Routing of Connections

Use the priority routing feature to specify priority of connections, so that high priority connections will be established before low priority connections. During failures, high priority connections are released before low priority connections. High priority connections are rerouted and reestablished before low priority connections.

Preferred Routing of Connections

You can use the preferred routing feature to configure a connection's specific path through the network. Through this feature, a network operator bypasses automatic PNNI route selection. Connections are configured as either preferred routes or directed routes.

- A preferred route follows the configured path if it is available. If the preferred route is not available, the connection reverts to a PNNI-selected route.
- A directed route follows only the configured path. If the configured path is not available, the connection remains un-routed.

In this first implementation of Preferred routes, a set of preferred routes is configured and assigned reference numbers called "route sets." As connections are configured, they can be assigned to a particular route set. Each route set contains one preferred or directed route.

Preferred routes can be specified only across a single PNNI peer group. Preferred routes are interoperable with any standard PNNI implementation. You can control the selection of routes based on criteria other than those allowed in the route selection algorithms offered by PNNI.

Per Connection Based Utilization of SPVCs

The percentage utilization factor for SPVCs improves your control of network utilization for multiple tiers of service on networks supporting various trunk capacities. The percentage utilization factor is used for Connection Admission Control (CAC) for the connection. The actual bandwidth used for CAC is based on the following factors:

- PCR/SCR configured for the connection
- percentage utilization factor configured for the connection
- percent utilization configured for interfaces in the selected path

This feature enables service providers to provide differentiated overbooking on a per connection basis, rather than only on the uniform basis allowed by interface overbooking.

Standards Based Path and Connection Trace

You can determine the path taken by a connection through the path and connection trace feature. The path trace feature collects information about the path of new connections in the process of being established. The connection trace feature is collects information on existing connections that have already been established. The path and connection trace feature conforms to the ATM Forum standard PNNI Addendum for Path and Connection Trace, Version 1.0 [af-cs-0141.000](#). Path and connection trace is a standards based feature that enables SES interoperability with other vendor equipment.

Single-ended SPVC/SPVP Configuration

You can configure both the endpoints of the SPVCs at the master end of the connection. In previous releases, you could only configure double-ended SPVCs, which meant you had to configure both the master and slave ends of a connection. In Release 3.0.20, the slave end of the connection is activated when the connection is established by the master end. This feature enables improved interoperability with other vendor equipment and management stations.

100K Connections

Release 3.0.20 of the SES Controller allows 100 K connections. Since CWM can not support a large number of connections, the number of persistent SPVC connections is limited to 100 K.

SPVC and SVC real time statistics with MIB support

In addition to existing SPVC and SVC real time stats CLI **dsponstats**, the new **dsphanent** command displays more per SPVC and SVC real time stats counters. The **dsponstats** command is a Release 3.0.20 feature, and is described in these release notes.

Table 5 describes the new counters displayed by the **dspchancnt** command contains the following:

Table 5 *New dspchancnt Command Counters*

Ingress	Egress
IngRcvCLP0	EgrRcvCLP0
IngRcvCLP1	EgrRcvCLP1
IngXmtCLP0	EgrXmtCLP0
IngXmtCLP1	EgrXmtCLP1
IngCLP0CoSDiscard	EgrCLP0CoSDiscard
IngCLP1CoSDiscard	EgrCLP1CoSDiscard
IngCLP0UpcDiscard	—
IngCLP1UpcDiscard	—



Note The **dspchancnt** CLI is supported only on the BXM-E card. It is not supported on the legacy BXM card.



Note Both legacy BXM and BXM-E cards will continue supporting **dspconstats** CLI.

The CISCO-WAN-ATM-CONN-STAT-MIB file supports user access of real-time stats counters through the **dspconstats** and **dspchancnt** commands.

To display connection statistics for a port, enter the **dspconstats** command as shown in the following example:

```
SES-2.1.PXM.a > dspconstats <portid> <vpi> [<vci>]
```

Table 6 describes the **dspconstats** command parameters.

Table 6 *dspconstats Command Parameters*

Parameter	Description
portid	Portid interface number in the form of [shelf.slot[:subslot].port[:subport].
vpi	Minimum VPI value for the connection. 0–4095
vci	Minimum VCI value for the connection. The default value for virtual path connections is 0. Range: 0–65535.



Note You can use the **dspconstats** command to display connection statistics on legacy BXM or BXM-E cards, as well as PXM1 cards.

In the following example, the user displays the connection statistics for the Port ID 5.2, with a VPI and VCI of 100.

```
SES-2.1.PXM.a > dspconstats 5.2 100 100

PortId: 0.5:0.2:0 Vpi: 100 Vci: 100
Cells sent total remote ingress: 14506650
Cells discarded (CLP0) remote ingress:317357
Cells discarded (CLP1) remote ingress:372593
Cells discarded total remote ingress :689950
Cells sent total remote egress: 3739091
Cells discarded (CLP0) remote egress: 0
Cells discarded (CLP1) remote egress: 0
Cells discarded total remote egress : 0
PortId: 0.9:0.2:0 Vpi: 100 Vci: 100
Cells sent total local ingress: 4101541
Cells discarded (CLP0) local ingress: 0
Cells discarded (CLP1) local ingress: 0
Cells discarded total local ingress : 0
Cells sent total local egress: 4062654
Cells discarded (CLP0) local egress: 0
Cells discarded (CLP1) local egress: 0
Cells discarded total local egress : 0
```

To display statistical counters for a connection (channel), enter the **dspchancnt** command as shown in the following example:

```
SES-2.1.PXM.a > dspchancnt <portid> <vpi> [<vci>]
```

Table 7 describes the **dspchancnt** command parameters.

Table 7 *dspconstats Command Parameters*

Parameter	Description
portid	Portid Interface number, in the form of [shelf.]slot[:subslot].port[:subport].
vpi	Minimum VPI value for the connection. 0–4095
vci	Minimum VCI value for the connection. The default value for virtual path connections is 0. Range: 0–65535.



Note

The **dspchancnt** command can be used to display connections only on a BXM-E card.

In the following example, the user displays channel counters on a BXM-E for the port ID 5.2, with a VCI and VPI of 100.

```
SES-2.1.PXM.a > dspchancnt 5.2 100 100

PortId: 0.5:0.2:0 Vpi: 100 Vci: 100
Ingress Egress
CLP0 cells received: 4820845 1242205
CLP1 cells received: 9641690 2484414
CLP0 cells transmit: 0 1242205
CLP1 cells transmit: 0 2484414
CLP0 cells COS discard: 0 0
CLP1 cells COS discard: 0 0
CLP0 cells UPC discard: 306811 0
CLP1 cells UPC discard: 351496 0
```

SPVC Connection Statistics

SPVC connection statistics display the statistics generated for the originator node. In MPG nodes, the SPVC connection statistics display the statistics for the border nodes, as well. The SPVC connection statistics show the number of SPVC connections that are successfully routed, the number of connections that failed, and the number of crank backs initiated and received.

Upgrading the SES Node

Use the following procedure to upgrade an SES node:

-
- Step 1** At the BPX node, upgrade the BXM firmware to MFR. For detailed information on BXM firmware upgrades, refer to the *9.3 Version Release Notes Cisco WAN Switching Software*.
 - Step 2** At the BPX node, upgrade the BCC switch software to Release 9.3.35. For detailed information on BCC switch software upgrades, refer to the *9.3 Version Release Notes Cisco WAN Switching Software*.
 - Step 3** Upgrade the SES controller to Release 3.0.20. The current boot image is pxm1_003.000.020.000_bt.fw. The current runtime software is pxm1_003.000.020.000_ses.fw.
The latest upgrade procedures are included in the sections that follow.
 - Step 4** If applicable, upgrade other feeders in your network to a newer release.
-

Upgrading to a New Software Release

This section contains installation and upgrade instructions. For complete details, refer to the *Cisco SES PNNI Controller Software Configuration Guide, Release 3.0*, part number 78-14258-01.



Note

You can gracefully upgrade the SES controller software to Release 3.0.20 from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10. If you are running a release prior to 1.0.15, you must upgrade to Release 1.0.15 before you can upgrade to Release 3.0.20.

When upgrading your node, upgrade the software in the following order:

1. PXM boot software
2. PXM runtime software

The following sections describe how to upgrade the PXM cards.

Special Installation and Upgrade Requirements

This section covers the procedures for upgrading the backup boot and runtime images for the following hardware:

- Redundant controller card
- Single controller card (the PXM)

Upgrading from SES Release 1.0.15, 1.0.16, 1.1.75, 3.0, or 3.0.10 to Release 3.0.20

The procedures for upgrading the boot and runtime software are in the sections that follow.



Note

Graceful upgrades to Release 3.0.20 are supported only from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10. If you are running a release prior to 1.0.15, you must upgrade to Release 1.0.15 before you can upgrade to Release 3.0.20.

Upgrading the Backup Boot Image

This section provides instructions for upgrading the backup boot images from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10 to Release 3.0.20. The boot upgrade can be graceful or non-graceful, depending on the type of card to be upgraded and the configuration of the node.

Upgrading the Backup Boot on Redundant Systems



Note

Use the following procedure to upgrade the boot on both the active and the redundant controller cards. When performing upgrades on redundant cards, run this procedure on the standby card and not on the active card. This keeps the node in service during the upgrades. Before you upgrade the boot image, FTP the new backup boot firmware, `pxm1_003.000.020.000_bt.fw`, to the disk (should be the same as the PXM FW procedure.)

To upgrade the boot image on the active controller cards on redundant systems, follow these steps:

- Step 1** Transfer the backup boot image to the card disk, as follows:
- a. At the SES CLI, enter the **dspipif** command on the active controller card to find the node's IP address. The field internet address for *InPci 0* interface is the node IP address.
 - b. From the workstation containing the PXM backup boot image, enter **ftp** *<Node IP address>*.
 - c. Enter the username **cisco**.
 - d. Enter your password.



Note The default password is *Iciscoinc*. If you have changed the default password to a new password, use your new password.

- e. Enter the **cd** *C:/FW* command to get to the switch directory.
- f. Enter the **bin** command (for a binary transfer).
- g. Enter the **put** *<PXM backup boot image name>* command to transfer the backup boot and runtime files from the server to the switch directory *C:/FW*. See the following example:

```
put pxm1_003.000.020.000_bt.fw
```

Replace *<PXM backup boot image name>* with the boot image name. For Release 3.0.20 of the SES, the boot image name is *pxm1_003.000.020.000_bt.fw*.

- h. Enter the **bye** command to end your session.

Step 2 At the SES controller CLI, enter the **dspcds** command to determine the standby card slot number.

Step 3 To verify that the boot IP for both the active and standby card is unique, enter the **bootchange** command.

Step 4 Press **Enter** until you see inet on ethernet (e). This is the boot IP address for the active PXM. To change the boot IP address to make it unique, type a new address at the inet on ethernet (e) prompt.



Note Changing the boot IP address on the active PXM also changes it on the standby PXM.

Step 5 Enter the **cc** *<slot number>* command to change to the standby card.

```
ses1.1.PXM.a> cc 2
```

Replace *<slot number>* with the slot number of the card you want to work on.

Step 6 Type **sh** to go to the shellConn.

```
ses1.2.PXM.s> sh
```

Step 7 Enter the **sysBackupBoot** command.

```
PXM1> sysBackupBoot
```

Step 8 Press **Return** after you see the disk sync message to get back to active PXM.

Step 9 Exit or open a new telnet window. Telnet into the standby IP host inet address from Step 3.



Note An alternate way to get to the standby card is via the console port on the standby.

- Step 10** Perform the following tasks to reset the card:
- Verify that the card is at the `pxmlbkup>` prompt. If it is not, enter the **sysBackupBoot** shellConn command on the standby card.
 - Enter the **sysPxmRemove** command:

```
pxmlbkup>sysPxmRemove
```

After you enter the **sysBackupBoot** command, it takes about one minute for the active PXM to reset the card. If the active PXM resets the standby PXM, wait until it comes to the standby state (approximately four or five minutes), then telnet into the standby and repeat Step 5 and Step 6. After the **sysPxmRemove** command is entered, the active PXM can not reset the standby.
- Step 11** Enter the **cd** “C:/FW” command from `pxmlbkup>` prompt to get the FW directory.

```
pxmlbkup> cd "C:/FW"
```
- Step 12** Enter the **ls** command to verify that the boot firmware file is there.

```
pxmlbkup>ls
```
- Step 13** Enter the **sysFlashBootBurn** <“boot firmware file name”> command to burn the image on the disk:

```
pxmlbkup>sysFlashBootBurn "3.0"
```

The system will ask if you want to proceed. Enter **Y** for Yes.
- Step 14** When the `pxmlbkup>` prompt returns, enter the **reboot** command.


```
Flash Download completed...
value = 0 = 0x0
pxmlbkup> reboot
```
- Step 15** Log in to the active PXM.
- Enter the **dspcds** command to ensure the standby is in standby state.
 - Enter the **dspcd** <standby slot #> command to verify the firmware was loaded successfully.
- Step 16** Load the backup boot onto the active PXM.
- Enter the **switchcc** command to change cards.

```
ses1.1.PXM.a> switchcc
```
 - Log in to the SES controller.
 - Perform Step 5 to Step 13 on the new standby PXM.
-

Upgrading the Backup Boot on Non-Redundant Systems

The upgrade of the boot on a non-redundant controller card is non-graceful. This means the traffic gets disrupted on the card during this operation. The upgrade can only take place when the card is in the BOOT stage. Because there is only one controller card, there will be a node outage as well.

For non-redundant systems, follow these steps to upgrade the backup boot:

-
- Step 1** Transfer the backup boot image to the card disk using FTP as follows:
- a. At the SES CLI, enter the **dspipif** command at the active controller card to find the Node's IP address. The field internet address for *InPci 0* interface is the node IP address.
 - b. From the workstation containing the PXM backup boot image, enter **ftp** *<Node IP address>*.
 - c. Enter the username **cisco**.
 - d. Enter your password.
-  **Note** The default password is *Iciscoinc*. If you have changed the default password to a new password, use your new password.
-
- e. Enter the **cd** *C:/FW* command to get to the switch directory.
 - f. Enter the **bin** command (for a binary transfer).
 - g. Enter the **put** *<PXM backup boot image name>* command to transfer the backup boot and runtime files from the server to the switch directory *C:/FW*. See the following example:


```
put 3.0
```

Replace *<PXM backup boot image name>* with the boot image name. For Release 3.0 of the SES, the boot image name is *3.0*.
 - h. Enter the **bye** command to end your session.
- Step 2** Log in to the SES.
- Step 3** At the shell, enter the **sysBackupBoot** command to put the controller card into the PXM backup prompt stage.
- ```
pxm1>sysBackupBoot
```
- The PXM card resets.
- Step 4** Log in to the PXM.
- Step 5** Enter the **cd** "*C:/FW*" command at the *pxm1bkup>* prompt to get the FW directory.
- ```
pxm1bkup>cd "C:/FW"
```
- Step 6** Enter the **ls** command to verify the boot firmware file is there.
- ```
pxm1bkup>ls
```
- Step 7** Enter the **sysFlashBootBurn** *<"boot firmware file name">* command to burn the image on the disk.
- ```
pxm1bkup>sysFlashBootBurn"3.0"
```
- The system will ask if you want to proceed. Enter **Y** for Yes.
- Step 8** At the *pxm1bkup>* prompt, enter the **reboot** command.
- ```
pxm1bkup> reboot
```
- The node resets.



- Step 9** Log in to the node.
- Step 10** Log in to active PXM.
- Step 11** Enter the **dspscd** *<active card>* command to determine if the upgrade was successful.

```
ses1.1.PXM.a> dspscd 1
```


## Upgrading the Cisco SES PNNI Runtime Image

This section provides instructions for upgrading the runtime images from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10 to Release 3.0.20.

The upgrade of the runtime image on the redundant controller card is graceful. This means the traffic will not be disrupted. The new runtime image for 3.0.20 is pxm1\_003.000.020.000\_ses.fw.

### Upgrading the Runtime Image on Redundant Systems

Follow these steps to upgrade the runtime image on redundant systems:

- Step 1** Use FTP to transfer the runtime image to the card disk.
- At the SES CLI, enter the **dspipif** command at the active controller card to find the node's IP address. The field internet address for *InPci 0* interface is the node IP address.
  - From the workstation containing the PXM backup boot image, enter **ftp** *<Node IP address>*.
  - Enter the username **cisco**.
  - Enter your password.
-  **Note** The default password is *Iciscoinc*. If you have changed the default password to a new password, use your new password.
- Enter the **cd** *C:/FW* command to get to the switch directory.
  - Enter the **bin** command (for a binary transfer).
  - Enter the **put** *<runtime image name>* command to transfer the runtime files from the server to the switch directory *C:/FW*. See the following example:
 

```
put pxm1_003.000.020.000_ses.fw
```
  - Enter the **bye** command to end your session.
- Step 2** Enter the **dspscds** command to determine the standby slot.
- Step 3** Enter the **loadrev** *<standby slot>* *<image version>* command to load the new version of runtime image on the controller card.
- ```
ses1.1.PXM.a>loadrev 2 3.0(20.0)
```
- The standby card resets and comes up in the new revision.

- Step 4** When the standby card is in the STANDBY state, enter the **runrev** *<standby slot>* *<image version>* command to run the new version of runtime image on the controller card.

```
ses1.1.PXM.a>runrev 2 3.0(20.0)
```

The active card resets and the standby card takes over as active. Both cards are running the new revision.

- Step 5** When the standby card is in STANDBY again, enter the **abortrev** *<standby slot>* *<image version>* command to abort this upgrade if needed, as in the following example:

```
ses1.1.PXM.a>abortrev 1 3.0(20.0)
```

- Step 6** Enter the **commitrev** *<standby slot>* *<image version>* command to commit the new version of the runtime image of the controller card, as in the following example:

```
ses1.1.PXM.a>commitrev 2 3.0(20.0)
```

- Step 7** Enter the **dspcd** command to verify a successful upgrade.

```
ses1.1.PXM.a>dspcd 1
ses1.1.PXM.a>dspcd 2
```

Upgrading the Runtime Image on Non-Redundant Systems

The upgrade of the runtime image on the a non-redundant controller card is non-graceful. That means the traffic is disrupted on the card during this operation.

For non-redundant systems, follow these steps.

- Step 1** Use FTP to transfer the runtime image to the card disk.
- At the SES CLI, enter the **dspipif** command at the active controller card to find the node's IP address. The field internet address for *InPci 0* interface is the node IP address.
 - From the workstation containing the PXM backup boot image, enter **ftp** *<Node IP address>*.
 - Enter the username **cisco**.
 - Enter your password.



Note The default password is *Iciscoinc*. If you have changed the default password to a new password, use your new password.

- Enter the **cd C:/FW** command to get to the switch directory.
 - Enter the **bin** command (for a binary transfer).
 - Enter the **put** *<runtime image name>* command to transfer the runtime files from the server to the switch directory C:/FW. See the following example:
- ```
put pxm1_003.000.020.000_ses.fw
```
- Enter the **bye** command to end your session.

**Step 2** Set the new version of the runtime image on the controller card as in the following procedure:

- a. Enter the **loadrev** *<slot>* *<image version>* command as in the following example:

```
ses1.1.PXM.a>loadrev 1 3.0(20.0)
```




---

**Note** No cards will reset.

---

- b. Reply **Y** (yes) to the proceed question.  
 c. Enter the **dspcd** command in the following example:

```
ses1.1.PXM.a>dspcd 1
```

The secondary revision on the PXM is set to new image version.

**Step 3** Enter the **runrev** *<slot>* *<image version>* command to run the new version of runtime image on the controller card.

```
ses1.1.PXM.a>runrev 1 3.0(20.0)
```

The card will reset and run the new revision when it returns.

**Step 4** Enter the **dspcd** command to verify a successful upgrade.

```
ses1.1.PXM.a>dspcd 1
ses1.1.PXM.a>dspcd 2
```

**Step 5** At this point, you can still abort this upgrade if needed. To abort the upgrade, enter the **abortrev** command.

```
ses1.1.PXM.a> abortrev 1 3.0(20.0)
```

**Step 6** Enter the **commitrev** *<slot>* *<image version>* command to commit the new version of the runtime image of the controller card.

```
ses1.1.PXM.a> commitrev <slot> <image version>
```

```
ses1.1.PXM.a> commitrev 1 3.0(20.0)
```

**Step 7** Enter the **dspcd** command to verify that the runtime image is correct on the card.

```
ses1.1.PXM.a> dspcd 1
```

---

## Upgrade Path

Release 3.0.20 supports upgrades from Release 1.0.15, Release 1.0.16, Release 1.1.75, Release 3.0, and Release 3.0.10. If you are running a release prior to Release 1.0.15, you must upgrade to Release 1.0.15 before you can upgrade to Release 3.0.20.

# Cisco SES PNNI Controller Bring Up Procedure

For detailed procedure changes, refer to the *Cisco SES PNNI Controller Software Configuration Guide* at the following URL:

[http://www.cisco.com/univercd/cc/td/doc/product/wanbu/bpx8600/pnni\\_ses/re111/sescnf/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/wanbu/bpx8600/pnni_ses/re111/sescnf/index.htm)

# Limitations and Restrictions

The following sections describe issues in this release:

- [General Limitations and Restrictions](#)
- [Recommendations](#)

## General Limitations and Restrictions

The following list describes limitations and restrictions that apply to this release:

- A graceful upgrade can only be completed from the SES controller software Releases 1.0.15, 1.0.16, 1.0.75, 3.0, and 3.0.10.
- The number of connections is always less than the max con value used in the **addpart** command. This is due to the fact that each card needs 1 LCN for control VC. If your network is a PNNI network, there is another VC for RCC. Therefore, if the max con value is set to 9000 connections, only 8999 or 8998 connections can be added.
- The **dspscons** command does not support ranges for VPI/VCI. If you enter **dspscons -vpi 2**, all SPVCs with a VPI less than and equal to 2 are displayed; not just the SPVCs with a VPI equal to 2.
- The Route Optimization algorithm is node-by-node and is based on connection mastership. It is not distributed across the node. For example, if Node A is connected to Node C via Node B, Node A only knows about the connections from A to B, and not about the connections from B to C. This limitation does not allow Node A to use route optimization for connections from B to C.
- There is no check for preventing multiple masters of SPVC connections from pointing to the same slave. When provisioning a second connection to a slave VPI/VCI that is already used, there will be no CLI warning that the connection has failed.
- In a large network, it can take up to 30 seconds (or more) to accept new calls after a switchover. This is because PNNI relearns the topology on a switchover. For existing connections, the control plane and the data plane are not affected on a switchover.
- Node names are not required for each node. A node name can be entered and distributed, but there is no check for node name uniqueness within the network. Multiple nodes with the same name do not cause inconsistencies in PNNI routing.
- BXM interface (OC and T3) traffic policing only works if the cell rate is higher than 50 cells per second.
- When the master endpoint is deleted on a DACS SPVC connection, the slave endpoint is also deleted.

- The following limitation is in the BXM firmware release MFL and all the releases that follow: due to limited memory space on the BXM card and increased code size, channel statistics level 0 is no longer supported on BXM cards (BXM-155-4, BXM-155-8, BXM-622, BXM-622-2, BXM-T3-8, BXM-T3-12, BXM-E3-8, BXM-E3-12 models). When the BXM card firmware is upgraded to MFL or any post MFL release, regardless how many connections are provisioned, channel statistics level 0 is no longer supported. If a BXM card has channel statistics level 0 turned on, use one of the following upgrade paths to upgrade BXM firmware to MFL or any post MFL release:
  - Change the BXM card to run channel statistics level 1. Statistics level 1 supports a maximum of 16 K connections on a card. If a card has more than 16 K connections configured, some connections must be relocated to other BXM interfaces to reduce the total number of connections to be less than 16 K. Reset the card after changing to statistics level 1.
  - Upgrade the BXM card to the BXM-E card. The BXM-E card can continue running statistics level 0. Statistics level 0 can support a maximum of 32 K connections on a card.

## Recommendations

The following recommendations apply to Release 3.0.20 of the SES controller:

- SPVC connections are provisioned according to a two-ended provisioning model, similar to the way connections are provisioned using AR. This provisioning model enables more robust management (including fault conditions) of both connection endpoints, as opposed to a model which only provisions the master endpoint.

In order to establish a double-ended DACS or a double-ended routed SPVC, provision the slave endpoint before provisioning the master endpoint. The traffic parameters and QoS parameters on both the master and slave endpoints must match in order to establish an SPVC. To establish a single-ended SPVC connection, you only need to provision the master endpoint.

- For each SPVC addition, deletion, or modification, the SES controller generates a trap to CWM. This trap enables CWM to sync up its connection management database with the BPX SES node in real time. The trap information exchange between CWM and SES is handled by an inter-system communication protocol. The trap-handling rate is much slower than the script driven SPVC setup or delete rate. When you use a script to do burst SPVC addition or deletion, the trap queue may overflow and cause trap loss due to limited trap queue size. If burst SPVC add and delete size is more than 1 K connections, Cisco recommends that you pace your setup and delete rate to be 1 connection per second to avoid trap loss.
- The minSvccVci value for the partition is defaulted to 35. VCI 33 and 34 are marked for future control plane use.
- In the case of obtaining optimized routes while performing PNNI on demand route lookup, Cisco recommends that you change the routing policy to the *best fit* option

## Caveats

This section provides information on the open anomalies in Release 3.0.20.

## Open Anomalies in Release 3.0.20

The following table describes known anomalies in this SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure in Bug Navigator.

**Table 8** Open Anomalies for Release 3.0.20

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                               |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                                                                                                                                                                                                                                                                                           |
| CSCdx60401     | <p><b>Symptom:</b><br/>Node continuously resets.</p> <p><b>Conditions:</b><br/>Node is receiving hello packets at line rate on a PNNI link</p> <p><b>Workaround:</b><br/>None</p>                                                                                                                                                         |
| CSCdz43804     | <p><b>Symptom:</b><br/>IP Ethernet for MGX 8950 and SES are not accessible.</p> <p><b>Conditions:</b><br/>Power outage.</p> <p><b>Workaround:</b><br/>Unknown.</p>                                                                                                                                                                        |
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                                                                           |
| CSCdz32385     | <p><b>Symptom:</b><br/>SVCC RCC does not get established even when resources are available on one of the common outside links.</p> <p><b>Conditions:</b><br/>The common outside link that came up first does not have enough resources.</p> <p><b>Workaround:</b><br/>Down the common outside link with no resources and up it again.</p> |

**Table 8**    *Open Anomalies for Release 3.0.20 (continued)*

| <b>S3 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdy42620     | <p><b>Symptom:</b></p> <p>Danglers remain after using the CLI command <code>delcons</code>. This is the caveat with these commands. While provisioning connections in bulk (<code>copycons/delcons</code>), if the PNNI layer get busy due to re-route/de-route activity, then it will reject the deletion.</p> <p><b>Conditions:</b></p> <p>The <code>delcons</code> command was developed for Dev-test usage only. This command is not recommended to be used on a production node due to resource problems generated by the flood of traps on each con deletion.</p> <p><b>Workaround:</b></p> <p>Use <code>delcon</code> for each individual PVC until a better method is developed see PXM release notes for description of CLI commands <code>delcon</code> and <code>delcons</code> usage.</p> |

## Problems Fixed in Release 3.0.20

The following table describes previous anomalies that are fixed in Release 3.0.20 of the SES controller software delivery.

**Table 9** *Problems Fixed in Release 3.0.20*

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                     |
| CSCdz27235     | <p><b>Symptom:</b><br/>pnccb takes lot of CPU time while derouting connections.</p> <p><b>Conditions:</b><br/>MGX8850 and PXM45/B</p> <p><b>Workaround:</b><br/>Under investigation.</p>                                                                                                                                                                            |
| CSCdz32647     | <p><b>Symptom:</b><br/>NNI links stuck in building vc state.</p> <p><b>Conditions:</b><br/>Ran 2 scripts to reset SMs and up/dn ILMI on all ports.</p> <p><b>Workaround:</b><br/>N/A.</p>                                                                                                                                                                           |
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                     |
| CSCdy36366     | <p><b>Symptom:</b><br/>MPG SPVC cost should include cost of traversing via peer groups.</p> <p><b>Condition:</b><br/>Only includes cost of higher level Hlinks, and source PG cost. Since the via peer group costs are not included, it's possible that we might not take a more optimized route during route optimization.</p> <p><b>Workaround:</b><br/>None.</p> |



Table 9 Problems Fixed in Release 3.0.20 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdy44919 | <p><b>Symptom:</b></p> <p>Assigned route cost incorrectly calculated resulting in abnormally low route-cost via dscon on the PXM45. Also affects potential use of <b>optrte</b> when comparison of costs is performed.</p> <p><b>Conditions:</b></p> <p>Occurs during “On-Demand” route events, on CBR and/or VBR connections which have CTD and or CDV configured from non-default values and “Best-Fit” is configured for On-Demand routing policy with the command <b>cnfpnni-routing-policy</b>.</p> <p><b>Workaround:</b></p> <p>Using <b>rrtcon</b> when the pre-calculated route is available will assign a valid Route cost however the potential still exists for another abnormally low cost to be assigned on the next On-Demand routing event. Disabling “Best-Fit” by using “First-Fit” or configuring CDV or CTD values back to defaults of -1 will disrupt the condition and result in the correct calculation of route cost again during On-Demand.</p> |
| CSCdy63336 | <p><b>Symptom:</b></p> <p>pnRedMan task is leaking memory in ipc pool 0x10002 and 0x10006 in a pxm1e.</p> <p><b>Conditions:</b></p> <p>One possible way to cause this IPC leak is that there are some plug-and-play ports on a given slot A (for example, the port shows up on controller when slot A is active, but disappears when the slot is reset or pulled out), and the slot A is reset/pulled out for a short time.</p> <p><b>Workaround:</b></p> <p>To avoid above condition, make those ports persistent, by <b>dnpnort/cnfpnportsig</b>, and so forth.</p>                                                                                                                                                                                                                                                                                                                                                                                                   |
| CSCdy70426 | <p><b>Symptom:</b></p> <ol style="list-style-type: none"> <li>1. The bypasses are not ordered by AvCR. This means that bypasses with smaller bandwidth can be advertised ahead of ones with more bw. However, in most cases, the bypasses are advertised as full-meshed instead of spanning tree, so that the ordering of bypasses wouldn't matter, since all the bypasses are advertised.</li> <li>2. The routing cost is not calculated correctly for via peer groups that are configured as complex nodes. This could affect finding an optimized route in MPG network.</li> </ol> <p><b>Condition:</b></p> <p>The complex node that is turned on a node with a lot of bypasses.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                                                                                                                          |

Table 9 Problems Fixed in Release 3.0.20 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdy82185 | <p><b>Symptom:</b><br/>error while executing core command on SES</p> <p><b>Conditions:</b><br/>MGX8830 PXM1 3.0(10.0)</p> <p><b>Workaround:</b><br/>Under Investigation</p>                                                                                                                                                                                                                                                              |
| CSCdy86129 | <p><b>Symptom:</b><br/>Routing cost are not getting updated properly.</p> <p><b>Conditions:</b><br/>When downing a <b>pnport</b> to cause the re-route.</p> <p><b>Workaround:</b><br/>none</p>                                                                                                                                                                                                                                           |
| CSCdy88938 | <p><b>Symptom:</b><br/>Active PXM45 reboots after issuing the <b>aesa_ping &lt;aesa&gt; -qos -abr</b> command.</p> <p><b>Conditions:</b><br/>Normal operating conditions. Above command is used.</p> <p><b>Workaround:</b><br/>Do not use the <b>aesa_ping</b> command with the -qos abr switch.</p>                                                                                                                                     |
| CSCdz35390 | <p><b>Symptom:</b><br/>PXM1 card stuck in init state during upgrade</p> <p><b>Conditions:</b><br/>An interim SES engineering version.</p> <p><b>Workaround:</b><br/>Under investigation.</p>                                                                                                                                                                                                                                             |
| CSCdz35621 | <p><b>Symptom:</b><br/>Connections do not get routed to a slave node in a different PGL since the remote node's summary address rule is being advertised as a scope of 56 (instead of 0).</p> <p><b>Conditions:</b><br/>An interim SES engineering version.</p> <p><b>Workaround:</b><br/><b>Switchcc</b> on the PTSE originating node (slave node) so that the node re-sends the PTSEs and the scope of the PTSE is corrected to 0.</p> |

## Open Anomalies in Release 3.0.10

The following table describes known anomalies in this SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure in Bug Navigator.

*Table 10 Open Anomalies for Release 3.0.10*

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CSCdx60401     | <p><b>Symptom:</b><br/>Node continuously resets.</p> <p><b>Conditions:</b><br/>Node is receiving hello packets at line rate on a PNNI link.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CSCdy75595     | <p><b>Symptom:</b><br/>Connections fail on a SES controller.</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>Under investigation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CSCdw03688     | <p><b>Symptom:</b><br/>Software error on handler when executing the <b>runrev</b> command while upgrading.</p> <p><b>Condition:</b><br/>48k DACS SPVCs and 11k routed SPVCs on the SES-BPX node.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CSCdx35791     | <p><b>Symptom:</b><br/>PXM45 fails to come up. If it were a standby PXM45, the dspcds on the active PXM45 indicates that the standby PXM45 slot is empty. Output from the debug console shows junk characters.</p> <p><b>Condition:</b><br/>When the PXM45's console port is connected through a terminal server with echo mode turned on, junk characters come in into the console port of the PXM45. When this card is reset, the runtime image stops its initialization when it received these junk characters on the console port.</p> <p><b>Workaround:</b></p> <ol style="list-style-type: none"> <li>1. Configure the terminal server to disable the echo mode.</li> <li>2. Alternatively, pull out the console port cable and reset the card.</li> </ol> |

Table 10 Open Anomalies for Release 3.0.10 (continued)

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdy51972     | <p><b>Symptom:</b><br/>False channel alarms got stuck after <b>switchyred</b> on BXME.</p> <p><b>Conditions:</b><br/>FW upgrade of BXME cards to MFP caused a line alarm. The customer tried a switchcc on the SES controller to clear the line alarm. This caused false channel alarms. The customer then tried a switchyred to clear the false channel alarms faster. This made the false channel alarms stay. The customer had to reset the FRSM cards to clear the alarms.</p> <p><b>Workaround:</b><br/>Reset the FRSM cards on the MGX(8220) or don't switchyred on the BXME while there are false channel alarms. The false channel alarms would clear in about 30 min.</p> |
| CSCdy59180     | <p><b>Symptom:</b><br/>Once it was observed that 4 SPVC failed to route. This failure was due to slave state of the connections were in the wrong state.</p> <p><b>Conditions:</b><br/>When large number (250k) of SPVC rerouted.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                          |
| CSCdy72593     | <p><b>Symptom:</b></p> <p><b>Conditions:</b></p> <p><b>Workaround:</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CSCdy77568     | <p><b>Symptom:</b><br/>Changing peer group, internal data base, ancestor flag bit is not being cleared.</p> <p><b>Condition:</b><br/>Changing peer group, internal data base, ancestor flag bit is not being cleared.</p> <p><b>Workaround:</b><br/>Unknown.</p>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>S3 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CSCdw51798     | <p><b>Symptom:</b><br/>S-PVC Calling/Called PartySoft PVCC IE is not be corrected encoded.</p> <p><b>Conditions:</b><br/>PNNI conformance test failed under section R3.1.1.4/R3.1.1.5. The following test verifies the initiating PVPC/PVCC establishment procedure as outlined in AF-CS-0127.000 Section 9.2.1 and PICS conformance as described in ATM Forum AF-CS-0127.000 PNNI SPVC Addendum Version 1.0, July, 1999 and ATM Forum AF-CS-012@7.000PNNI SPVC Addendum Version 1.0, July, 1999.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                          |

**Table 10** Open Anomalies for Release 3.0.10 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw57706 | <p><b>Symptom:</b></p> <p>The VCI values are given with a value of “0” for the Calling and Called Party Soft PVPC or PVCC Information Element. The requirement states this octet - VCI is only present in case of a soft PVCC.</p> <p><b>Conditions:</b></p> <p>Called/Calling Soft PVPC or PVCC Information Element as described in Section 6.4.6.1 and Section 6.4.6.2 of AF-CS-0127.000.</p> <p><b>Workaround:</b></p> <p>None.</p> |
| CSCdw64939 | <p><b>Symptom:</b></p> <p>BPX-SES is responding with an incorrect Cause 43d rather than 100d when a SETUP message is received with an “access information element” with invalid content. Per Non conformance to Q2931 para. 5.6.8.2</p> <p><b>Conditions:</b></p> <p>None.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                  |
| CSCdw74433 | <p><b>Symptom:</b></p> <p>PNNI conformance test failed in Q2931 para 5.6.8.2, When a SETUP message is received with invalid length in a non-mandatory IE, The BPX/SES is not taking action on the call.</p> <p><b>Conditions:</b></p> <p>Running a test suite.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                              |
| CSCdx34833 | <p><b>Symptom:</b></p> <p>Popup message seen on the cli display.</p> <p><b>Conditions:</b></p> <p>While the shelf was idle and no cli command where being executed.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                                                                                                         |

Table 10 Open Anomalies for Release 3.0.10 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx76273 | <p><b>Symptom:</b></p> <p>The <b>cnfqosdefault</b> command is unusable and does not provide what the ATM Forum specifications intended. The cnfqosdefault should be port-specific and NOT node-wide.</p> <p><b>Conditions:</b></p> <p>None.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CSCdy42620 | <p><b>Symptom:</b></p> <p>Danglers remain after using the CLI command <b>delcons</b>. This is the caveat with these commands. While provisioning connections in bulk (<b>copycons/delcons</b>), if the PNNI layer get busy due to re-route/de-route activity, then it will reject the deletion.</p> <p><b>Conditions:</b></p> <p>The command <b>delcons</b> was developed for Dev-test usage only. This command is not recommended to be used on a production node due to resource problems generated by the flood of traps on each con deletion.</p> <p><b>Workaround:</b></p> <p>Use the <b>delcon</b> command for each individual PVC until a better method is developed see PXM release notes for description of cli commands delcon and <b>delcons</b> usage.</p> |

## Problems Fixed in Release 3.0.10

The following table describes previous anomalies that are fixed in Release 3.0.10 of the SES controller software delivery.

**Table 11** Problems Fixed in Release 3.0.10

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CSCdx57063     | <p><b>Symptom:</b><br/>Observed resource (e.g. lcn, vpi/vci) leak on NNI trunks.</p> <p><b>Conditions:</b><br/>Enter <b>resetcd</b> on service modules (where SPVC are terminated) and then deroute connections by using one of the following methods:</p> <ol style="list-style-type: none"> <li>1. Reset via/remote node</li> <li>2. Bring down NNI trunks</li> <li>3. <b>rrtcon/dncon</b></li> </ol> <p><b>Workaround:</b><br/>switchcc controller card</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CSCdx69070     | <p><b>Symptom:</b><br/>Several possible symptoms including:</p> <ul style="list-style-type: none"> <li>• Inability or sporadic ability, to connect via telnet</li> <li>• “gray-out” of the node on the CWM topology map</li> <li>• No output from or receipt of an error message from <b>dspllog</b> command or file system listing command 'ls' or other commands.</li> <li>• Standby PXM45 or AXSM service modules remain in the Boot and/or Init state, or alternate between the two after a reload.</li> <li>• Inconsistent connection alarms on slave and master. (one side reporting alarm, the suspect side not)</li> </ul> <p><b>Condition:</b><br/>System memory and/or file handle allocation may get into a marginal or maxed out state due to an ungraceful exit from the <b>dspllog</b> command multiple times. This includes exiting the display of the command with any method other than using the <b>Q</b> option to quit, or going to the end of the output. (Contact Cisco TAC to verify condition)</p> <p><b>Workaround:</b><br/>On redundant systems with healthy standby PXM45 present, enter the <b>switchcc</b> command. On non-redundant systems, reset the single PXM45.</p> |

Table 11 Problems Fixed in Release 3.0.10 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdy07989 | <p><b>Symptom:</b></p> <ol style="list-style-type: none"> <li>Both active and standby PXM1E combo cards are stuck in init state indefinitely.</li> <li>Traffic flow is interrupted 100% and does not resume.</li> <li>LAN IP cannot be pinged at all.</li> <li>IPC buffer congestion is observed due to pnCcb &amp; other PNNI tasks holding on to buffers causing buffer allocation failures.</li> </ol> <p><b>Conditions:</b><br/>switchcc from active to standby card.</p> <p><b>Workaround:</b><br/>Unknown.</p> |
| CSCdy12829 | <p><b>Symptom:</b><br/>Connection end-points lost after power cycle node with approximately 27k connections and 2k pts.</p> <p><b>Conditions:</b><br/>Power cycle node with approximately 27k conns and 2k pts.</p> <p><b>Workaround:</b><br/>Unknown.</p>                                                                                                                                                                                                                                                           |
| CSCdy18142 | <p><b>Symptom:</b><br/>Call fails to route in MPG environment with reason as unallocated or unassigned number.</p> <p><b>Condition:</b><br/>The addresses in the lower level node are not advertised to higher levels on having a Multi peer group network.</p> <p><b>Workaround:</b><br/>None</p>                                                                                                                                                                                                                   |
| CSCdy26902 | <p><b>Symptom:</b><br/>pnCcb and pnSscop tasks are using a lot of memory and CPU usage for a long time.</p> <p><b>Conditions:</b><br/>Power cycle the node.</p> <p><b>Workaround:</b><br/>Unknown.</p>                                                                                                                                                                                                                                                                                                               |



Table 11 Problems Fixed in Release 3.0.10 (continued)

| S2 BUGS    |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx44559 | <p><b>Symptom:</b></p> <p>A phantom level 0 node may appear in a Multiple Peer Group (MPG) It can be seen in the output of the command <b>dsppnni-node-list</b> as shown here:</p> <pre>node # node id node name level ----- ----- 2 0:6:00.000c020000000100106d3839.35302d376200.00 &gt; 0 &lt;==</pre> <p><b>Conditions:</b></p> <p>PNNI hierarchical network running multiple peer groups (MPG).</p> <p><b>Workaround:</b></p> <p>None.</p> |
| CSCdx49157 | <p><b>Symptom:</b></p> <p>Cannot change PCR of SSCOP back to the default value.</p> <p><b>Conditions:</b></p> <p>After modifying it from the default value of 30800 to the lower value of 4000, and then attempting to modify it back to the default value.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                         |
| CSCdx50255 | <p><b>Symptom:</b></p> <p>Nodal State PTSE was updated in less then 10 seconds.</p> <p><b>Conditions:</b></p> <p>After upping and downing a inside trunk with bnPathHoldDown and PTSE holddown set to 10 seconds.</p> <p><b>Workaround:</b></p> <p>None</p>                                                                                                                                                                                    |
| CSCdx55169 | <p><b>Symptom:</b></p> <p>Invalid PTSE flooded causes Cat8510 neighbor links to go into the “exchanging” state.</p> <p><b>Condition:</b></p> <p>Invalid PTSE flooded to Cat8510. Invalid PTSE values seen in <b>dsppnni-ptse</b>.</p> <p><b>Workaround:</b></p> <p>Functionality can be restored by downing and re-enabling the PNNI in the SES controller (<b>cnfpnni 1 -enable false/true</b>)</p>                                           |

Table 11 Problems Fixed in Release 3.0.10 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx76697 | <p><b>Symptom:</b><br/>The master end of a PNNI connection will show ok while the slave end of the connection will show failed.</p> <p><b>Conditions:</b><br/>The connection will report mismatch state.</p> <p><b>Workaround:</b><br/>Unknown.</p>                                                                                                                                                 |
| CSCdy00116 | <p><b>Symptom:</b><br/>Clock source disappeared on executing <b>dnport/upport</b> command.</p> <p><b>Conditions:</b><br/>When one of the clock sources was in LOA.</p> <p><b>Workaround:</b></p> <ol style="list-style-type: none"> <li>1. Do not do a <b>dnport /upport</b> on a clock port while the clock sources are being qualified.</li> <li>2. Else reconfigure the clock source.</li> </ol> |
| CSCdy11595 | <p><b>Symptom:</b><br/><b>dspchancnt/dspconstats</b> locked snmpget on stats counters failed</p> <p><b>Conditions:</b><br/>Simultaneously execute snmpget scripts and CLI (<b>dspchancnt</b>) scripts to collect real time stats on some connections.</p> <p><b>Workaround:</b><br/>Unknown</p>                                                                                                     |
| CSCdy17082 | <p><b>Symptom:</b><br/>PNccb task is using a lot of CPU time.</p> <p><b>Conditions:</b><br/>This happens in some cases when all BSE fail and normal statEnq starts with multiple NNI ports having 60 K connections on controller switchover.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                |
| CSCdy26150 | <p><b>Symptom:</b><br/>svc-rcc does not come up.</p> <p><b>Conditions:</b><br/>After a <b>switchcc</b> is done on the PGL node.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                             |

Table 11 Problems Fixed in Release 3.0.10 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw61915 | <p><b>Symptom:</b><br/>Event logged specified incorrect time data by LMI. Date is being set by BPX on SES feeder.</p> <p><b>Conditions:</b><br/>A new field was added to time structure. This field is not initialized by LMI and can take various values. Under certain conditions, this value is in error and causes the event to be logged.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                               |
| CSCdx78946 | <p><b>Symptoms:</b><br/>MGX 8230/ SES <b>dpsigstats</b> shows “Connect Ack” Messages on AINI SES 1.1.75.103</p> <p><b>Conditions:</b><br/>The configuration is: - 2 SES connected via an AINI. - One SPVC configured with Master endpoint on one SES and Slave endpoint on the other. The problem is that according to ATM Signalling standards the “CONNECT ACK” message only exists in UNI Signalling. It does not exist in AINI. AINI implementation generates a CONNECT ACK message and as a result does not conform with the ATM Forum specification af-cs-0125.000.</p> <p><b>Workaround:</b><br/>Unknown.</p> |

## Open Anomalies in Release 3.0

The following table describes known anomalies in Release 3.0 of the SES controller software. A more in depth discussion of each bug is available in the release note enclosure in Bug Navigator.

*Table 12 Open Anomalies for Release 3.0*

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CSCdx60401     | <p><b>Symptom:</b><br/>Node continuously resets.</p> <p><b>Conditions:</b><br/>Hello packet flooding at line rate.</p> <p><b>Workaround:</b><br/>Unknown</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CSCdw03688     | <p><b>Symptom:</b><br/>Software error on handler when executing <b>runrev</b> while upgrading.</p> <p><b>Conditions:</b><br/>48k DACS SPVCs and 11k routed SPVCs on the SES-BPX node.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CSCdx35791     | <p><b>Symptom:</b><br/>PXM45 fails to come up. If it were a standby PXM, the dspcds on the active PXM indicates that the Standby PXM slot is empty. Output from the debug console shows junk characters.</p> <p><b>Conditions:</b><br/>When the PXM45's console port is connected through a terminal server with echo mode turned on, junk characters come into the console port of the PXM45. When this card is reset, the runtime image stops its initialization when it received these junk characters on the console port.</p> <p><b>Workaround:</b></p> <ol style="list-style-type: none"> <li>1. Configure the terminal server to disable the echo mode.</li> <li>2. Alternatively, pull out the console port cable and reset the card.</li> </ol> |

Table 12 Open Anomalies for Release 3.0 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw51798 | <p><b>Symptom:</b><br/>S-PVC Calling/Called PVCC IE is not be corrected encoded.</p> <p><b>Conditions:</b><br/>PNNI conformance test failed under section R3.1.1.4/R3.1.1.5 The following test verifies the initiating PVPC/PVCC establishment procedure as outlined in AF-CS-0127.000 Section 9.2.1 and PICS conformance as described in ATM Forum AF-CS-0127.000 PNNI SPVC Addendum Version 1.0, July, 1999 and ATM Forum AF-CS-012@7.000PNNI SPVC Addendum Version 1.0, July, 1999.</p> <p><b>Workaround:</b><br/>None.</p> |
| CSCdw57706 | <p><b>Symptom:</b><br/>The VCI values are given with a value of “0” for the Calling and Called Party Soft PVPC or PVCC Information Element. The requirement states that this octet - VCI is only present in case of a soft PVCC.</p> <p><b>Conditions:</b><br/>Called/Calling Soft PVPC or PVCC Information Element as described in Section 6.4.6.1 and Section 6.4.6.2 of AF-CS-0127.000.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                             |
| CSCdw64939 | <p><b>Symptom:</b><br/>BPX-SES is responding with an incorrect Cause 43d rather than 100d when a SETUP message is received with an “access information element” with invalid content. Per Non conformance to Q2931 para. 5.6.8.2.</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                  |
| CSCdw74433 | <p><b>Symptom:</b><br/>PNNI conformance test failed in Q2931 para 5.6.8.2, When a SETUP message is received with invalid length in a non-mandatory IE, The BPX/SES is not taking action on the call.</p> <p><b>Conditions:</b><br/>Running a test suite.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                               |

Table 12 Open Anomalies for Release 3.0 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx32349 | <p><b>Symptom:</b><br/>SES did not add SPVC endpoint.</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CSCdx40378 | <p><b>Symptom:</b><br/>When sending F5 OAM end to end flows through a DACS SPVC, only the “egress” counters of <b>dspconstats</b> increment. This true for F5 end to end AIS, or F5 end to end loopback.</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                 |
| CSCdx40400 | <p><b>Symptom:</b><br/>When the <b>tstdelay</b> command is entered on an SPVC on the SES, the “Cells sent total local egress” counter increments, which suggests that a tstdelay (which measures delay inside the network) results in cells being sent over a UNI, outside of the network (that would be wrong). However, using an HP BSTS to monitor traffic on the other side of the interface, it is clear that no cells are sent. So the counter increment is bogus.</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>None.</p> |

Table 12 Open Anomalies for Release 3.0 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx45385 | <p><b>Symptom:</b></p> <p>On the SES, the <b>dsppnportsrc</b> command is used to check the available VSI resources on a port. Testing shows that <b>dsppnportsrc</b> keeps aligned with the exact state of VSI resources when an SPVC endpoint is added to the port. However, the <b>dsppnportsrc</b> display is not updated following a change of the VSI resources done using the <b>cnfrsrc</b> <i>&lt;slot.port&gt;</i> command on a BPX. This is especially troublesome when a port runs out of LCNs. The <b>dsppnportsrc</b> command display shows “# Avl Tx Chans:” = 0. After going on the BPX and increasing the size of the VSI partition, the <b>dsppnportsrc</b> command display still shows the number of available LCN as being 0, so the SES will reject any provisioning attempt on that port, even though there truly are resources available to accept the SPVC endpoint.</p> <p><b>Conditions:</b></p> <p>Following are screenshots of an example triggering of the problem:</p> <p>On the BPX, on a BXM-T3-12 card, up a single port. The card must have only port (to facilitate VSI management). The bug also happens with more than one port.</p> <p>Configure the port as follows:</p> <p>Up the port.</p> <p>Enable a VSI partition on the port, with overlapping VPI range, half the BW and min VSI LCN = 0, Max VSI LCN = 1. <b>cnfvssiif</b> <i>&lt;slot.port&gt;</i> 2 <b>cnfrsrc</b>.</p> <p>On the SES, do a <b>dsppnportsrc</b> and check the number of available LCNs as seen by the SES (the UNI Signalling Channel is disabled, “<b>cnfnpportsig</b> 3.1 - univ none.”)</p> <p>On the BPX, increase the number of Max VSI LCNs from 1 to 5.</p> <p>On the SES, <b>dsppnportsrc</b> still shows 1. This never gets updated it seems</p> <p>Provision an SPVC endpoint against that port. That gets <b>dsppnportsrc</b> to be updated to the correct value (4).</p> <p>Provision 4 additional SPVC endpoints against that port. This exhausts the VSI LCNs on the port and gets <b>dsppnportsrc</b> to show “0.”</p> <p>On the BPX, via <b>cnfrsrc</b>, increase the Max VSI LCN for the port from 5 to 10.</p> <p>Check <b>dsppnportsrc</b> on the SES. It still shows 0 available LCNs for nrtvbr.</p> <p>As a result the SES rejects a provisioning attempt for nrtvbr SPVC endpoint on that port.</p> <p>On the BPX, increase Max VSI LCN for that port from 10 to 15.</p> <p>On the SES <b>dsppnportsrc</b> is still not accurate and still maintains a discrepancy between nrtvbr and other ATM Service Categories.</p> <p><b>Workaround:</b></p> <p>None.</p> |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*Table 12 Open Anomalies for Release 3.0 (continued)*

|            |                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdx76273 | <p><b>Symptom:</b></p> <p>The <b>cnfqosdefault</b> command is unusable and does not provide what the ATM Forum specifications intended. The <b>cnfqosdefault</b> command should be port-specific and NOT node-wide.</p> <p><b>Conditions:</b></p> <p>SES is running 1.1.75.103.</p> <p><b>Workaround:</b></p> <p>None.</p> |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## Open Anomalies in Release 1.1.75

The following table describes the open anomalies in the 1.1.75 SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure of the problem record in Bug Navigator.

**Table 13** *Open Anomalies for Release 1.1.75*

| Bug ID         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CSCdt12655     | <p><b>Symptom:</b><br/>Too many stat collection FTP errors.</p> <p><b>Conditions:</b><br/>Unknown.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CSCdw03688     | <p><b>Symptom:</b><br/>Software error on handler when executing <b>runrev</b> while upgrading.</p> <p><b>Conditions:</b><br/>None</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>S3 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CSCds74052     | <p><b>Symptom:</b><br/>Given a redundant SES node, pull out the trunk back-card from the active PXM's slot. This causes the active PXM to reboot and the standby PXM to take over as the active front-card. The previously-active PXM card should come up as the standby card but instead, it keeps rebooting.</p> <p><b>Conditions:</b><br/>Not known as yet. It is suspected that some task is trying to access the NOVRAM on the (absent) trunk back-card.</p> <p><b>Workaround:</b><br/>None. The only thing to do is not to pull out the trunk back-card while the front-card is either in the active or standby role.</p> |
| CSCdv22425     | <p><b>Symptom:</b><br/>Standby card goes into rolling boot.</p> <p><b>Conditions:</b><br/>Enter the <b>resetcd</b> command to reset the standby card.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Table 13 Open Anomalies for Release 1.1.75 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw15621 | <p><b>Symptom:</b><br/>Cannot enable diagnostics on SES PNNI.</p> <p><b>Conditions:</b><br/>Enter the <b>cnfdiag</b> command to enable diagnostics (online/offline).</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                  |
| CSCdw57706 | <p><b>Symptom:</b><br/>The VCI values are given with a value of “0” for the Calling and Called Party Soft PVPC or PVCC Information Element. The requirement states (This octet - VCI is only present in case of a soft PVCC.</p> <p><b>Conditions:</b><br/>Called/Calling Soft PVPC or PVCC Information Element as described in Section 6.4.6.1 and Section 6.4.6.2 of AF-CS-0127.000</p> <p><b>Workaround:</b><br/>None.</p> |
| CSCdw64939 | <p><b>Symptom:</b><br/>BPX-SES is responding with an incorrect Cause 43d rather than 100d when a SETUP message is received with an “access information element” with invalid content. Per Non conformance to Q2931 para. 5.6.8.2</p> <p><b>Conditions:</b><br/>None.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                  |

## Problems Fixed in Release 1.1.75

The following table describes the anomalies fixed in the 1.1.75 SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure of the problem record in Bug Navigator.

**Table 14** *Anomalies Fixed in Release 1.1.75*

| Bug ID         | Description                                                                                                                                                                                                                                                                                |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                                                                                                                                                                                                                                            |
| CSCdv59710     | <p><b>Symptom:</b><br/>PNNI link corrupted after upgrade from 1.0.15 to 1.1(60.101). PNNI link in attempt state. PNNI VC entry is corrupted.</p> <p><b>Condition:</b><br/>SES upgrade from 1.0.15 to 1.1(60.101).</p> <p><b>Workaround:</b><br/>None. Fixed in 1.1.75.</p>                 |
| CSCdw34252     | <p><b>Symptom:</b><br/>SES doesn't support MBS less than 9.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                        |
| CSCdw56907     | <p><b>Symptom:</b><br/>An error can occur with management protocol processing. Please use the following URL for further information:<br/><a href="http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCdw65903">http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCdw65903</a></p> |
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                            |
| CSCdv63740     | <p><b>Symptom:</b><br/>After changing SES node name to small one, conn shows part of old name.</p> <p><b>Condition:</b><br/>Occurs whenever user assigns a shorter node name to an SES node with a long node name.</p> <p><b>Workaround:</b><br/>None. Fixed in 1.1.75.</p>                |

Table 14 Anomalies Fixed in Release 1.1.75 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdv74376 | <p><b>Symptom:</b><br/>a-bit alarms not cleared after a switch y-red. Few AXIS connections are in a-bit alarms.</p> <p><b>Condition:</b><br/>Occurs whenever user executes a switch y-red on BXM while connections are in a-bit alarms.</p> <p><b>Workaround:</b><br/>Execute switch y-red again.<br/>OR<br/>Execute <b>dncon</b> and <b>upcon</b> on connections that have a-bit alarms (this is service affecting).</p>                              |
| CSCdv79733 | <p><b>Symptom:</b><br/>DEV: ADDR-5-ADDR_ERROR in dsperrs after reroutes<br/>\$\$prefcs</p>                                                                                                                                                                                                                                                                                                                                                             |
| CSCdv83155 | <p><b>Symptom:</b><br/>CLI: compilation error due to basic CLI prototype definition<br/>\$\$prefcs</p>                                                                                                                                                                                                                                                                                                                                                 |
| CSCdw08130 | <p><b>Symptom:</b><br/>REG21:<b>add/cnfcon</b> is allowed on slave side for SES. <b>dspcon</b> shows frame discard enable on slave side, which has to be on SES.</p> <p><b>Conditions:</b><br/><b>cnfcon/addcon</b> with frame discard enable on SES, which is the slave side.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                 |
| CSCdw10812 | <p><b>Symptom:</b><br/>Few SPVC are in temporary failure.<br/>\$\$prefcs</p>                                                                                                                                                                                                                                                                                                                                                                           |
| CSCdw36332 | <p><b>Symptom:</b><br/>Statistics for connections can't be cleared / reset.<br/>The statistics collection can not be cleared for the connection level statistics and all the counters remain the same after CLI command is executed to clear the statistics.</p> <p><b>Conditions:</b><br/>The statistics collected for a connection cannot be cleared by executing CLI command.</p> <p><b>Workaround:</b><br/>Not known yet other than reset etc.</p> |

Table 14 Anomalies Fixed in Release 1.1.75 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw44217 | <p><b>Symptom:</b></p> <p>CBR.1 S-PVC is allows only through-put 50pcs.<br/>The CBR.1 S-PVC with PCR = 1000 cps only allowed traffic through-put at a rate of 50 cps.</p> <p><b>Condition:</b></p> <ol style="list-style-type: none"> <li>1. Initiate a CBR.1 S-PVC and verify that the UPC functions as specified by the traffic contract. <ul style="list-style-type: none"> <li>- PCR = 1000 cps</li> <li>- CDVt = 150 us</li> <li>- CDV = 10000 us</li> <li>- CTD = 150 ms</li> </ul> </li> <li>2. Generate user traffic at a rate of 500 cps.</li> </ol> <p><b>Workaround:</b></p> <p>Reset interface cards (BXM) then the traffic can run at rate of 500 cps.</p> |
| CSCdw43522 | <p><b>Symptom:</b></p> <p>pnCcb suspended by switchcc on the new active card.<br/>Standby card undergoes system reload on switchcc.</p> <p><b>Conditions:</b></p> <p>If node atm prefix is added as an address on a port and the node is a PGL node which has an SVCC based RCC to PEER MPG LGN.</p> <p><b>Workaround:</b></p> <p>Adding of node prefix as an address on ports is not supported and this address should be deleted. The higher level PNNI node may also be configured with a different ATM address that does not fall under this prefix. This is a configuration problem and will not happen in properly configured nodes.</p>                          |
| CSCdw46658 | <p><b>Symptom:</b></p> <p>Counting of control connections on NNI interfaces.<br/>Control connections are not counted at the originating node. This can lead to mismatch in number of connections at two ends of trunk.</p> <p><b>Conditions:</b></p> <p>Control connections are not counted at the originating node.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                                                                                                                                                                                         |

Table 14 Anomalies Fixed in Release 1.1.75 (continued)

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw47729     | <p><b>Symptom:</b></p> <p>Size mismatch when FTPing statistics files from SES node.<br/>CWM cannot get SES SPVC stats.</p> <p><b>Conditions:</b></p> <p>Due to new changes in CWM, the FTP client in CWM tries to match the size of the file downloaded with the size given via an ftp lib command. This fails and the CWM rejects the downloaded file.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                 |
| CSCdw62579     | <p><b>Symptom:.</b></p> <p>Should be able to do snmp get for CBR CDVT,show should on cli as well<br/>snmp get for CBR CDVT returns wrong value</p> <p><b>Condition:</b></p> <p>Can't do snmp get for CBR CDVT value</p> <p><b>Workaround:</b></p> <p>No work around for snmp get and set (equivalent of cli <b>cnfcon</b>). cdvt can still be set as part of snmp get request (equivalent of cli <b>addcon</b>).</p>                                                                                                               |
| CSCdw74115     | <p><b>Symptom:</b></p> <p>IPCONN: changes to handle low network memory problems.<br/>Workstation or network management system cannot reach node via TCP/IP. Ping, telnet, etc. no longer work.</p> <p><b>Condition:</b></p> <p>IP Connectivity cache and IP routing in an inconsistent state. IP route exists for atm interface (routeShow) but corresponding interface cache entry does not exist (<b>dspipifcache</b>).</p> <p><b>Workaround:</b></p> <p>IP route must be manually deleted using <b>routeDelete</b> command.</p> |
| <b>S3 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CSCdw15621     | <p><b>Symptom:</b></p> <p>REG21:Cannot enable off/online diag on SES<br/>Cannot enable diagnostics on SES PNNI.</p> <p><b>Conditions:</b></p> <p>Enabling diagnostics (online/offline) using <b>cnfdiag</b>.</p> <p><b>Workaround:</b></p> <p>None.</p>                                                                                                                                                                                                                                                                            |

Table 14 Anomalies Fixed in Release 1.1.75 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdw25965 | <p><b>Symptom:</b><br/>REG21:cnfcon -frame option does not work on SES.<br/>dspncon shows frame discard to be disabled.</p> <p><b>Conditions:</b><br/>Use cnfcon to enable frame discard.</p> <p><b>Workaround:</b><br/>Add connection using the -frame option.</p>                                                                                                                                                                                   |
| CSCdw44760 | <p><b>Symptom:</b><br/>Can not telnet to the standby controller during backup boot upgrade.</p> <p><b>Conditions:</b></p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                                                                                                         |
| CSCdv38486 | <p><b>Symptom:</b><br/>REG21:No/Incorrect error displayed when level 105 is assigned.<br/>No/Incorrect error displayed when level changed to 105.</p> <p><b>Conditions:</b><br/>Change the level to 105.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                                                                                      |
| CSCdv69644 | <p><b>Symptom:</b><br/>Environmental Device Traps must be self contained: PER 3917.<br/>The information in Environmental device traps are not sufficient to figure out for which device it is applicable</p> <p><b>Conditions:</b><br/>When any Environmental Device traps are sent</p> <p><b>Workaround:</b><br/>Look at the cwTrapIndex value and perform SNMP Walk on entPhysicalTable with the INDEX value obtained from cwTrapIndex varbind.</p> |

## Problems Fixed in Release 1.1.70

The following table describes anomalies fixed in the 1.1.70 SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure of the problem record in Bug Navigator.

**Table 15** *Anomalies Fixed in Release 1.1.70*

| Bug ID         | Description                                                                  |
|----------------|------------------------------------------------------------------------------|
| <b>S1 BUGS</b> |                                                                              |
| CSCdv48381     | Bulk set on proxy slave not functioning.                                     |
| CSCdv54458     | Upgrade from 1.0 to 1.1.60 does not work due to SHM_REP_RAM_NODE_DB change.  |
| CSCdv57330     | Connection addition fails (disk update failing).                             |
| CSCdv59710     | PNNI link corrupted after upgrade from 1.0.15 to 1.1(60.101).                |
| CSCdv84753     | Call stuck in setup state.                                                   |
| <b>S2 BUGS</b> |                                                                              |
| CSCdt08059     | DLS—Telnet daemon allows access without authentication.                      |
| CSCdt78006     | DLS—switchcc resulted in temporary connection mismatch on 2 nodes.           |
| CSCdu22913     | Pulling out feeder trunk led to pnrredman reset stdby (window timeout).      |
| CSCdu24540     | 1.0.13verify:dbsvr failed to upgrade after stdby pxm1 reset.                 |
| CSCdv49665     | JAN: AIS sent down to VSIS, but not to LSM in slot1 only.                    |
| CSCdv58746     | 60302 not send out when conn created failed, chanID reused in new con.       |
| CSCdv63740     | After changing SES node name to small one, conn shows part of old name.      |
| CSCdv67375     | SLT: PXM got rst in SES shelf and IPC buffer leaks after configuration.      |
| CSCdv79733     | DEV: ADDR-5-ADDR_ERROR in dsperrs after reroutes.                            |
| CSCdv81833     | Port stuck in down in progress.                                              |
| CSCdw07942     | REG21:cnfcon -frame option does not work on SES shelf.                       |
| CSCdw09142     | <b>addshelf</b> command not working in the SES image.                        |
| CSCdw10812     | Few SPVCs are in temporary failure.                                          |
| CSCdw17431     | REG21: standby PXM1 failed after clralcnf/restoreallcnf in SES PNNI.         |
| <b>S3 BUGS</b> |                                                                              |
| CSCdv12060     | BPX report wrong intf physical ID, <b>dsppnport</b> not work, pnccb runaway. |
| CSCdv27904     | Duplicate error message in spvc2cli_errcd.                                   |
| CSCdv37284     | Evt.Log: <ccc session> continuous error message.                             |
| CSCdv46656     | MGX/BPX: Incompatible info_length interpretation in sys_cap IG.              |



## Anomalies Status Changes for Release 1.1.70

The following table describes anomalies set to a state other than resolved in this SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure of the problem record in the Bug Navigator.

*Table 16 Anomalies Status Changes for Release 1.1.70*

| Bug ID         | Description                                                                           |
|----------------|---------------------------------------------------------------------------------------|
| <b>S2 BUGS</b> |                                                                                       |
| CSCdu19130     | 1.0.13Verify:node crashes after <b>abortrev</b> on other node in network; duplicated. |

## Fixed Anomalies for Release 1.1.60

The following table describes fixed anomalies in the Release 1.1.60 SES controller software delivery. A more in depth discussion of each bug is available in the release note enclosure of the problem record in the Bug Navigator.

*Table 17 Fixed Anomalies for Release 1.1.60*

| Bug ID         | Description                                                                                                                                                                                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>S2 BUGS</b> |                                                                                                                                                                                                                                                                                   |
| CSCdt08059     | <p><b>Symptoms:</b><br/>The telnet daemon allowed user access into the switch without authentication.</p> <p><b>Conditions:</b><br/>While in boot mode, you can telnet to the node. Access via telnet during boot mode is not restricted.</p> <p><b>Workaround:</b><br/>None.</p> |
| CSCdt12655     | <p><b>Symptoms:</b><br/>Too many stat collection FTP errors.</p> <p><b>Conditions:</b><br/>Unknown.</p> <p><b>Workaround:</b><br/>None.</p>                                                                                                                                       |

Table 17 Fixed Anomalies for Release 1.1.60 (continued)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdu19130 | <p><b>Symptoms:</b></p> <p>After entering the <b>abortrev</b> command on one node in the network, the other node with 50 K routed connections crashed. It did not respond to certain CLI commands, such as <b>dsppnports</b> and <b>dspcons</b>.</p> <p><b>Conditions:</b></p> <p>There are 50 K routed connections between node pswpop7/pswbpx2 and orses18/svcbpx23 via node pswpop6/pswbpx6. I entered the <b>loadrev</b> and <b>runrev</b> commands to upgrade the orses18 node from 1.0 to 1.1. Everything was fine after upgrade. I then entered the <b>abortrev</b> command to bring the orses18 node back to the 1.0 image. After entering the <b>abortrev</b> command on the pswpop7 node, it suddenly crashed; many tasks were deleted. The pswpop7 node did not respond to some CLI commands, such as <b>dsppnports</b>, <b>dspcons</b>, and <b>dspconinfo</b>. However, the <b>dsptime</b>, <b>dsplogs</b>, and <b>dsperrs</b> commands worked fine.</p> <p><b>Workaround:</b></p> <p>None.</p> |
| CSCdu22913 | <p><b>Symptoms:</b></p> <p>The SSI_SRAM_WIN_TIMEOUT Redman Error caused the standby PXM reset.</p> <p><b>Condition:</b></p> <p>There were about 50 k routed SPVC connections between two Orion/BPX nodes. One Orion node had redundant PXM cards. I pulled out the Y-cable on the feeder trunk. The RedmanError SSI_SRAM_WIN_TIMEOUT caused the standby PXM to reset.</p> <p><b>Workaround:</b></p> <p>Unknown.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CSCdu24540 | <p><b>Symptoms:</b></p> <p>After running the script to <b>dncon/upcon</b> on an SES node, the <b>dbsvr</b> command failed to upgrade after the standby PXM reset.</p> <p><b>Conditions:</b></p> <p>There were about 50 K routed SPVC connections between node orses18/svcbpx23 and node pswpop7/pswbpx2. I ran script to <b>dncon/ upcon</b> on orses18, at the same time reset standby PXM1 on orses18. <b>dbsvr</b> failed to upgrade.</p> <p><b>Workaround:</b></p> <p>Unknown.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Table 17 Fixed Anomalies for Release 1.1.60 (continued)

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCdt78006     | <p><b>Symptoms:</b><br/>Connections went into mismatch after replacing the PXM's in a node and entering the <b>switchcc</b> command.</p> <p><b>Conditions:</b><br/>A customer was going through an exercise of replacing PXM's on their nodes. On two nodes, the standby PXM was replaced, and the <b>switchcc</b> command was entered to make the new PXM the active one. Connections went into mismatch state for a short while, and then cleared. We were not able to get into the node to collect information while this condition existed.</p> <p><b>Workaround:</b><br/>Unknown.</p> |
| <b>S3 BUGS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CSCds74052     | <p><b>Symptoms:</b><br/>I pulled out the trunk back-card from the active PXM's slot on a redundant SES node. This caused the active PXM to reboot and the standby PXM to take over as the active front-card. The previously-active PXM card should have come up as the standby card, but it kept rebooting.</p> <p><b>Conditions:</b><br/>Unknown. It is suspected that some task is trying to access the NOVRAM on the (absent) trunk back-card.</p> <p><b>Workaround:</b><br/>None. Do not pull the trunk back-card out while the front-card is in the active or standby role.</p>       |

## Related Documentation

The following Cisco publications contain additional information related to the operation of this product and associated equipment in a Cisco WAN switching network.

### Cisco WAN Manager Release 11

The product documentation for the Cisco WAN Manager (CWM) network management system for Release 11 is listed in [Table 18](#).

**Table 18** Cisco WAN Manager Release 11 Documentation

| Title                                                                                 | Description                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Cisco WAN Manager Installation Guide for Solaris 7, Release 11</i><br>DOC-7813567= | Provides procedures for installing Release 11 of the CWM network management system and Release 5.4 of CiscoView.                                                                                                      |
| <i>Cisco WAN Manager User's Guide, Release 11</i><br>DOC-78-13568=                    | Describes how to use the CWM Release 11 software, which consists of user applications and tools for network management, connection management, network configuration, statistics collection, and security management. |
| <i>Cisco WAN Manager SNMP Service Agent, Release 11</i><br>DOC-7813569=               | Provides information about the CWM Simple Network Management Protocol Service Agent, an optional adjunct to CWM that is used for managing Cisco WAN switches using SNMP.                                              |
| <i>Cisco WAN Manager Database Interface Guide, Release 11</i><br>DOC-7813542=         | Provides information about accessing the CWM Informix OnLine database that is used to store information about the network elements.                                                                                   |

### Service Expansion Shelf PNNI Controller Release 3

The product documentation for the installation and operation of the Service Expansion Shelf (SES) PNNI Controller is listed in [Table 19](#).

**Table 19** SES PNNI Controller Release 3 Documentation

| Title                                                                                                    | Description                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Cisco SES PNNI Controller Software Configuration Guide, Release 3</i><br>DOC-7814258=                 | Describes how to configure, operate, and maintain the SES PNNI Controller.                                                                                                                                                          |
| <i>Cisco SES PNNI Controller Command Reference, Release 3</i><br>DOC-7814260=                            | Provides a description of the commands used to configure and operate the SES PNNI Controller.                                                                                                                                       |
| <i>Cisco MGX and SES PNNI Network Planning Guide for MGX Release 3 and SES Release 3</i><br>DOC-7814261= | Provides guidelines for planning a PNNI network that uses the MGX 8850 and the MGX 8950 switches and the BPX 8600 switches. When connected to a PNNI network, each BPX 8600 series switch requires a SES for PNNI route processing. |

## Cisco WAN Switching Software Release 9.3.40

The product documentation for the installation and operation of the Cisco WAN Switching Software Release 9.3.40 is listed in [Table 20](#).

**Table 20** Cisco WAN Switching Software Release 9.3.40 Documentation

| Title                                                                                               | Description                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Cisco BPX 8600 Series Installation and Configuration, Release 9.3.30</i><br>DOC-7812907=         | Provides a general description and technical details of the BPX broadband switch.                                                                                         |
| <i>Cisco WAN Switching Command Reference, Release 9.3.30</i><br>DOC-7812906=                        | Provides detailed information on the general command line interface commands.                                                                                             |
| <i>Cisco IGX 8400 Series Installation Guide</i><br>OL-1165-01 (online only)                         | Provides hardware installation and basic configuration information for IGX 8400 Series switches that are running Switch Software Release 9.3.30 or earlier.               |
| <i>Cisco IGX 8400 Series Provisioning Guide</i><br>OL-1166-01 (online only)                         | Provides information for configuration and provisioning of selected services for the IGX 8400 Series switches that are running Switch Software Release 9.3.40 or earlier. |
| <i>Cisco IGX 8400 Series Regulatory Compliance and Safety Information</i><br>DOC-7813227=           | Provides regulatory compliance, product warnings, and safety recommendations for the IGX 8400 Series switch.                                                              |
| <i>9.3.40 Version Software Release Notes for Cisco WAN Switching System Software</i><br>78-13538-01 | Provides new feature, upgrade, and compatibility information, as well as known and resolved anomalies.                                                                    |

## Conventions

This publication uses the following conventions.

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 or variables 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 ( [ ] ).

Notes use the following conventions and symbols



Note

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

## Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

### Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

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<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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San Jose, CA 95134-9883

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## Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.

- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

## Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://www.cisco.com/register/>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

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This document is to be used in conjunction with the documents listed in the Related Documentation section.

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