CISCO SYSTEMS

Catalyst 5000 Series Release Notes for ATM Module Software Release 3.2

These release notes describe the features, modifications and caveats for the Catalyst 5000 Series ATM Module Software Release 3.2.

Note   See the *Catalyst 5000 series ATM LAN Emulation Module Installation and Configuration Note* publication, part number 78-3486-01 or above, for information regarding new features, module installation, and operating procedures for Catalyst 5000 Series ATM Module Software Release 3.2.

Caution   Catalyst 5000 Series Supervisor Engine Module Software Release 1.4 or above and Catalyst 5000 ATM Module Software Release 2.1 or above are required to use Catalyst 5000 ATM LAN Emulation Single PHY modules (product numbers WS-X5153, WS-X5154, and WS-X5155). Catalyst 5000 Series Supervisor Engine Module Software Release 2.1(5) or above and Catalyst 5000 ATM Module Software Release 3.2 or above are required to use Catalyst 5000 ATM LAN Emulation Dual PHY modules (product numbers WS-X5156, WS-X5157, and WS-X5158).

Documentation

The following documents are available for the Catalyst 5000 series switch:

- *Catalyst 5000 Series Installation Guide*

- *Catalyst 5000 Series Configuration Guide and Command Reference*

Cisco documentation and additional literature are available on a CD called Cisco Connection Documentation, Enterprise Series. The CD is updated and shipped monthly, so it might be more up to date than printed documentation. To order the Cisco Connection Documentation, Enterprise Series CD, contact your local sales representative or call Customer Service. The CD is available both as a single CD and as an annual subscription. You can also access Cisco technical documentation on the World Wide Web URL `http://www.cisco.com`.

Usage Guidelines and Restrictions

This section describes features, warnings, and cautions about using Catalyst 5000 Series ATM Module Software Release 3.2. It also describes ATM module software problems that are fixed by specific Catalyst 5000 supervisor engine module software releases.

- If you have an LECS, LES, or BUS configured on an ATM module, and you replace the supervisor engine module or move the ATM module from one slot to another, the default ATM addresses (NSAPs) become modified. Be sure to update the LECS database configuration with new NSAP values.

- When you insert or replace ATM modules, use the command **clear config all** or **clear config** *mod_num* to clear the ATM module configuration information in the supervisor engine module and obtain the correct spanning tree parameters for the modules. Perform this command from the supervisor engine module command prompt.

- Catalyst 5000 Series Supervisor Engine Module Software Release 2.1(5) corrects the following two ATM module software problems:

  — When you remove or hot-swap an ATM module while the system is operating, the slot and virtual circuit number in the CAM table become invalid. (CSCdi42681)

  — You cannot use the **session** command for an ATM card if the supervisor engine module IP address is not set (that is, if the supervisor engine module IP address is set to 0.0.0.0). (CSCdi44641)

- Catalyst 5000 Series Supervisor Engine Module Software Release 1.5 corrects the following ATM module software problem:

  Do not hot-swap faulty ATM modules if you are using Catalyst 5000 Series Supervisor Engine Module Software Releases 1.1, 1.2. 1.3, and 1.4. In these releases, modules remain off line if faulty ATM modules have been hot-swapped from their slots. To bring the modules on line, you must reset the Catalyst 5000. (CSCdi45212)

ATM Module Software Modifications and Caveats

This section describes ATM module software modifications that correct problems in earlier ATM module software releases. It also describes possible unexpected behavior and other miscellaneous caveats for ATM module software releases.

Differences Between ATM Module Software Releases 2.2 and 3.2

This section describes the Catalyst 5000 Series ATM Module Software Release 2.2 problems that were resolved in Catalyst 5000 Series ATM Module Software Release 3.2.

Note Catalyst 5000 Series ATM Module Software Release 3.2 caveats are listed in the section "ATM Module Software Release 3.2 Caveats."

- When you enter the **write memory** command from the ATM module, an ARP entry appears in the configuration file. In ATM Module Software Release 3.2, this problem has been corrected. (CSCdi37977)

- You cannot set the port level on an ATM port; the Catalyst 5000 reports an error message indicating the feature is not supported. In ATM Module Software Release 3.2, this problem has been corrected. (CSCdi44488 and CSCdi62448)

- When an ATM module link goes down, the Catalyst 5000 does not generate a link-down trap, to indicate that the ATM link is down. This problem is fixed in ATM Module Software Release 3.2. (CSCdi45044)

- Removing a media cable from an ATM module that contains LECs can bring down LECs on other ATM modules. This problem has been corrected in ATM Module Software Release 3.2. (CSCdi62648)

Differences Between ATM Module Software Releases 2.1 and 2.2

This section describes ATM Module Software Release 2.2 modifications that correct problems in ATM Module Software Release 2.1.

Note   Problems existing in ATM Module Software Release 1.1 and not resolved in releases 1.2, 1.3, or 2.1 are also present in ATM Module Software Release 2.2.

The LEC has been modified; the control distribute virtual circuit (VC) is now optional. Additionally, the LEC does not accept the VC after processing a "join" response. When the control or multicast VC does not come up due to an incorrect B-LLI (Broadband Low Layer Information) or wrong calling party, the LEC removes all associated VCs and returns to the IDLE state. (CSCdi43013)

ATM Module Software Release 2.1 Modifications

This section describes ATM Module Software Release 2.1 modifications that correct problems in previous ATM module software releases.

Note   Problems existing in ATM Module Software Release 1.1 and not resolved in releases 1.2, or 1.3 are also present in ATM Module Software Release 2.1.

- The LEC LE-ARP cache reverification timer does not update changed entries. In ATM Module Software Release 2.1, this problem is corrected. (CSCdi50465)

- The Catalyst 5000 uses an incorrect Object Identifier (OID) to get the LECS address from an ATM switch. In ATM Module Software Release 2.1, this problem is corrected. (CSCdi50537)

- The LEC cannot receive messages from the BUS on the point-to-point multicast send VCC. Although the ATM Forum specification allows for the BUS to send packets to the LEC on this VCC, Cisco's BUS is not implemented in this way. This LEC problem is corrected in ATM Module Software Release 2.1. (CSCdi50945)

- The LEC software must be modified to allow it to operate with a Cisco LS2020 ATM switch. This problem is corrected in ATM Module Software Release 2.1. (CSCdi51791)

- The ATM module may stop forwarding packets if it receives a normally-sized packet that has an incorrect, very large value in the AAL5 length field. In ATM Module Software Release 2.1, this problem is corrected. (CSCdi51872)

- If you remove the media cable from an active module, stale entries in the transmitter's content-addressable memory (TSAR CAM) can cause a race condition that forces traffic to a specific MAC address through the BUS instead of through a data direct virtual connection (VC). In ATM Module Software Release 2.1, this problem is corrected.

New Features for ATM Module Software Release 1.3

ATM Module Software Release 1.3 contains improved startup system diagnostics for manufacturability.

Differences Between ATM Module Software Releases 1.1 and 1.2

This section describes ATM Module Software Release 1.2 modifications that correct problems in ATM Module Software Release 1.1.

Note   ATM Module Software Release 1.1 caveats also apply to ATM Module Software Release 1.2 unless they are described in this section as resolved caveats.

- Sometimes CRC errors result when the ATM module transmits certain sizes of frame combinations. In ATM Module Software Release 1.2, this problem is corrected. (CSCdi47110)

- If a data VC on an ATM card receives a CRC error in a LANE control frame, the ATM card may reset. This problem is corrected in ATM Module Software Release 1.2. (CSCdi47110)

ATM Module Software Release 3.2 Caveats

This section describes possible unexpected behavior and other miscellaneous caveats for Catalyst 5000 ATM Module Software Release 3.2. The caveats listed here describe only serious problems.

- When a PVC exists, there is an instance of the **lecsConfigDirectConnSrc** SNMP object; that is, the **lecsConfigDirectConnSrc** fails to be omitted. (CSCdi68849)

- After entering the **session** command to access the ATM module, enter the **terminal monitor** command so that additional informational messages are displayed. (CSCdi41337)

- You cannot use the **show cam** *mod_num/port_num* command to display all CAM entries on an ATM port because the *port_num* on an ATM module corresponds to a virtual circuit number instead of to a port number. An error is produced if you use this command on an ATM port. For example:

```
Console> (enable) show cam dynamic 4/301
Module 4 Port number must be in the range 1..1
```
(CSCdi44444)

- On the ATM module, the **copy**, **configure network**, and **write network** commands do not function. Do not use these commands. (CSCdi44899)

- Do not hot-swap faulty ATM modules if you are using Catalyst 5000 Series Supervisor Engine Module Software Release 1.4. In these releases, modules remain off line if faulty ATM modules have been hot-swapped from their slots. To bring the modules on line, you must reset the Catalyst 5000. This problem has been fixed in Catalyst 5000 Series Supervisor Engine Module Software Release 1.5. (CSCdi45212)

- You cannot perform an **SNMP set** to a Catalyst 5000 ATM module—this capability has temporarily been disabled. (CSCdi70688)

ATM Module Software Release 1.1 Caveats

This section describes possible unexpected behavior and other miscellaneous caveats for ATM Module Software Release 1.1. The caveats listed here describe only serious problems.

- When you enter the **write memory** command from the ATM module, an ARP entry appears in the configuration file. Do not delete this ARP entry. (CSCdi37977)

- After entering the **session** command to access the ATM module, enter the **terminal monitor** command so that additional informational messages are displayed. (CSCdi41337)

- When you remove or hot-swap an ATM module while the system is operating, the port number and virtual circuit addresses in the CAM table become invalid. Use the **clear cam** command to delete them. (CSCdi42681)

- You cannot use the **show cam** *mod_num/port_num* command to display all CAM entries on an ATM port because the *port_num* on an ATM module corresponds to a virtual circuit number instead of a port number. An error is produced if you use this command on an ATM port. For example:

```
Console> (enable) show cam dynamic 4/301
Module 4 Port number must be in the range 1..1
```
<div align="right">(CSCdi44444)</div>

```
You cannot use the session command for an ATM card if the supervisor engine module IP
address is not set (that is, if the supervisor engine module IP address is set to 0.0.0.0).
To determine whether the supervisor engine module IP address is set, use the show
interface command. (CSCdi44641)
```
- On the ATM module, the **copy**, **configure network**, and **write network** commands do not function. Do not use these commands. (CSCdi44899)

- When an ATM module link goes down, the Catalyst 5000 does not generate a link-down trap to indicate that the ATM link is down. (CSCdi45044)

- Do not hot-swap faulty ATM modules if you are using Supervisor Engine Module Software Releases 1.1, 1.2. 1.3, and 1.4. In these releases, modules remain off line if faulty ATM modules have been hot-swapped from their slots. To bring the modules on line, you must reset the Catalyst 5000. (CSCdi45212)

- The Catalyst 5000 does not support PVCs for LAN emulation in the ATM 1.1 Module Software Release.

- Sometimes CRC errors result when the ATM module transmits certain sizes of frame combinations. (CSCdi47110)

- If a data VC on an ATM card receives a CRC error in a LANE control frame, the ATM card may reset. (CSCdi47110)

- The LEC LE-ARP cache reverification timer does not update changed entries. (CSCdi50465)

- The Catalyst 5000 uses an incorrect Object Identifier (OID) to get the LECS address from an ATM switch. (CSCdi50537)

- The LEC cannot receive messages from the BUS on the point-to-point multicast send VCC. Although the ATM Forum specification allows for the BUS to send packets to the LEC on this VCC, Cisco's BUS is not implemented in this way. (CSCdi50945)

- The LEC software must be modified to allow it to operate with a Cisco LS2020 ATM switch. (CSCdi51791)

- The ATM module may stop forwarding packets if it receives a normally-sized packet that has an incorrect, very large value in the AAL5 length field. (CSCdi51872)

- If you remove the media cable from an active module, stale entries in the transmitter's content-addressable memory (TSAR CAM) can cause a race condition that forces traffic to a specific MAC address through the BUS instead of through a data direct virtual connection (VC).

- When you insert or replace ATM modules, clear the module configuration information, using the command **clear config all** or **clear config** *mod_num*, to obtain the correct spanning tree parameters for the modules.

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

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You can access CCO in the following ways:

- WWW: http://www.cisco.com.

- WWW: http://www-europe.cisco.com.

- WWW: http://www-china.cisco.com.

- Telnet: cco.cisco.com.

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

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

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