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Catalyst 3900 Series Token Ring Switch Release 2.1(3) Release Note

May 14, 1998

This document describes what is new in this release, including a list of the fixed problems. It also lists the known (open) problems for this release and contains information about the Catalyst 3900 and Catalyst 3920 Token Ring switches that was not included in the User Guides. This document is available on the Cisco Connection Documentation CD-ROM or in print.

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Problems Fixed in This Release

This section lists problems that have been resolved in this release of the Catalyst 3900 series main image and the ATM firmware image.

Problems Fixed in the Catalyst 3900 Series Main Image Release 2.1(3)

The following is a list of problems found in the Catalyst 3900 series main image software that have been resolved in this release.

Problem Identifier	Problem Description
CSCdj34650	A TFTP code download fails when the user tries to clear a message from a telnet or console screen.
CSCdj43071	Creating an entry in the unsupported RMON group alarm halts the SNMP agent in the box.

Problem Identifier	Problem Description
CSCdj43075	The values for the access protocol, individual address count, and phantom drive support are not correct when read from an SNMP agent.
CSCdj73894	The Catalyst 3900 series RMON feature does not reply to Threshold Manager RMON requests properly.
CSCdj81092	An ATM uplink fatal error message is received after changing the MTU size on a LEC and applying the changes.
CSCdj85146	If the serial port of a switch is configured for hardware flow control, the switch will not complete the boot sequence unless there is an actual console connection.
CSCdj85377	The user should not be allowed to set the active SPAN monitoring port to be a port that is in the same TrBRF and TrCRF as any other port.
CSCdj86124	Connectivity problems may occur between two devices that are connected to different switches within a stack of switches when one of the devices is moved to a different port.
CSCdj86879	When ports are operating in cut-through mode, it is possible under certain circumstances for ports to stop forwarding traffic.
CSCdj87312	When two ATM modules are installed in a switch and assigned to the same TrCRF, it is possible for both ATM ports to go into a forwarding state. This situation causes a loop to form on the ATM ELAN, a hung console, and possibly, an ATM module failure.
CSCdj87924	Running RMON and TrafficDirector in a stack of switches and querying the ringStationOrderTable may cause some switches other than the stack controller to crash.
CSCdj91702	If you change the STP mode of a port that is running spanning tree from auto to forwarding (on the Port Spanning Tree Parameters panel), intermittent packet loss is observed.
CSCdj91876	Configuration of passive monitoring leads to NVRAM problems.
CSCdj92002	In a stack of switches, if you reassign a TrCRF that contains ports on more than one switch to another parent, the ports on the remote switch are not updated correctly.
CSCdj92839	In a switch (or a stack of switches) that contains two ATM modules configured for redundancy, if you disconnect the ATM port that is in forwarding mode and then reconnect the port, spanning tree will not reconverge properly to once again send traffic over the port.
CSCdj94852	The Catalyst 3900 ATM module does not appear on the ATM Director topology map. The fix for this problem also requires the ATM image 1.2(2).
CSCdj95037	Under certain circumstances the Catalyst 3900 ATM module may reset when you delete an ELAN.

Problems Fixed in the ATM Firmware Release 1.2(2)

The following is a list of problems found in the Catalyst 3900 ATM firmware that have been resolved in the 1.2.(2) release.

Problem Identifier	Problem Description
CSCdj91551	In a switch (or stack of switches) that contains two ATM modules configured for redundancy, if you disconnect the ATM port that is in forwarding mode and then reconnect the port, spanning tree will not reconverge properly to once again send traffic over the port.
CSCdj94328	An LEC should not respond to a route descriptor LE-ARP request if the bridge number is not local.
CSCdj94852	The Catalyst 3900 ATM module does not appear on the ATM Director topology map. The fix for this problem also requires the Catalyst 3900 software release 2.1(3).
CSCdk00090	Upon resetting the LES, the ATM module may not register all of the route descriptors for which it is acting as proxy. Also, the ATM module might register route descriptors for parallel ATM modules.
CSCdk02025	Spanning Tree is not resolving for multiple ELANs with different spanning-tree modes.

Known Problems

This section lists the currently known problems.

Problems with Large Frames Destined for the Spanning-Tree Functional Address

Problem Identifier: CSCdj23476

Problem Description: If a device attached to a port begins to flood a given port with large frames (over 4Kb) addressed to the spanning-tree functional address, the message STP: Cpubuf_to_Netbuf No More Memory is displayed and a fatal error could occur.

Recommended Action: Identify the faulty device that is flooding the given port and remove it from the network.

Inconsistencies with the TrCRF Maximum Bridge Hop Count Parameters

Problem Identifier: CSCdj31691

Problem Description: The TrCRF hop counts for ARE and STE explorers displayed on the console can appear as 14, which is outside the valid range. This problem occurs if an SNMP manager is used to set the value to 14. This may cause explorers with 30 byte routing information fields to be dropped and not forwarded across a TrBRF.

Recommended Action: Users should only set hop counts to the values 1 through 13.

Problems Inserting into the LAN Master TR 16 Retiming Hub

Problem Identifier: CSCdj33434

Problem Description: There are known problems associated with inserting Catalyst 3900 ports into the Transition Engineering, Inc. LAN Master TR 16 Retiming Hub.

Recommended Action: If you experience problems opening into this particular concentrator, do the following:

Step 1 Check the Operation Mode of the Catalyst 3900 port on the Port Configuration panel. If it is A-unknown, then configure it to be HDX station.

Step 2 Check the Media Speed of the Catalyst 3900 port on the Port Configuration panel. If it is A-unknown, then configure it to be the speed at which the Transition Engineering concentrator is currently running.

Step 3 Insert the Catalyst 3900 port into another MAU. Once the port opens, quickly move it out of that MAU and into the Transition Engineering hub.

Cannot Terminate Telnet Session

Problem Identifier: CSCdj37544

Problem Description: The console cannot always be used to terminate telnet sessions to the switch.

Recommended Action: None

MIB Objects Return Incorrect Values

Problem Identifier: CSCdj37783

Problem Description: The following three MIB objects will return values with the incorrect magnitude. The values should be in 1/100's of a second, instead the values are actually in seconds.

- dtrCRFSpTreeMaxAge
- dtrCRFSpTreeHelloTime
- dtrCRFSpTreeForwardDelay

Recommended Action: Multiply the returned number by 100 to get the value in 1/100's of a second.

Authentication Trap not Being Sent

Problem Identifier: CSCdj42684

Problem Description: If you have a community string "private" defined on the switch and send an SNMP set with "pri" it will not result in an authentication trap. Instead a "No Such Name" error will be returned. If you send a completely different string, such as "xxx" in a SNMP set, then it will time-out and send a trap.

Recommended Action: None.

Conflict Between RMON and SNMP

Problem Identifier: CSCdj43071

Problem Description: Creating an entry in the unsupported RMON group alarm halts the SNMP agent in the box.

Recommended Action: Do not attempt to add entries to the RMON group alarms.

Current Spanning Tree Information May be Incorrect

Problem Identifier: CSCdj44177

Problem Description: After a period of time, the Current Spanning Tree Information panel may show incorrect information for the Root Port and for the Max Message Age. The display is wrong on both serial and Telnet consoles.

Recommended Action: None.

Selecting End does not Scroll to the End of the Message Log

Problem Identifier: CSCdj49835

Problem Description: In some situations, selecting **End** on the Message Log Information panel does not scroll the message log display entirely to the end of the messages.

Recommended Action: If selecting End does not scroll to the bottom of the message log, select **More**.

Switch Forwards STE Frames onto Rings Already in RIF

Problem Identifier: CSCdj53766

Problem Description: The current version of the switching ASIC in the Catalyst 3900 does not reduce STE frames. The ASIC could forward a frame back onto a ring that it has already traversed.

Recommended Action: To prevent this situation, do one of the following:

- Enable the IBM Spanning Tree.

- Do not allow source-route loops in the network.

- Do not allow a source-route loop between TrCRFs in a Catalyst 3900.

One Switch may Hang in a Back-to-Back Configuration

Problem Identifier: CSCdj68288

Problem Description: When using two switches in a back-to-back stack configuration, one of the switches may hang during heavy traffic (when there are 2000 or more addresses to be learned at 50% ring utilization).

Recommended Action: None. This problem does not occur under normal traffic conditions.

Amendments to the Documentation

This section contains information that was not included in the User Guides. The headings in this section correspond with the applicable section titles in the documentation.

RMON Support

The description of the Token Ring Ring Station Group is incorrect. This section should read as follows:

The Catalyst 3900 series Token Ring switches support the ringStationControlTable portion of the Token Ring Ring Station Group. This support allows a Catalyst 3900 series switch to gather segment information from each ring segment to which it is attached. This segment information includes Ring State, Beacon Sender, Beacon NAUN, and Active Monitor MAC Address, as well as Station Order Changes.

Bridging Modes

The Catalyst 3900/3920 Token Ring switches support source-route bridging (SRB), source-route transparent bridging (SRT), and source-route switching. You can choose to enable either SRB or SRT for the logical connections between the TrCRF and the TrBRF. Source-route switching is used for frame forwarding within the TrCRF and is always enabled.

Configuring Basic Switch and Stack Parameters

CiscoView shows the burned-in MAC address and the configured locally administered address (LAA) in non-canonical format. The Switch Configuration panel allows you to choose whether the MAC addresses displayed on the console panels are in canonical or non-canonical format. The default is non-canonical.

Displaying Module Information

The Hw Rev column on the Module Information panel has been updated to reflect the revision numbers of the module and the associated ASICs. For the base switch and the Token Ring fiber and copper expansion modules, the hardware revision is now displayed in the format *x.y.z*, where:

- *x* indicates the revision level of the module.

- *y* indicates the revision level of the switching ASIC.

- *z* indicates the revision level of the MAC Processor ASIC.

Configuring Port Parameters

When configuring a port to operate in adaptive cut-through, you can specify a threshold for errored frames. If this threshold is exceeded, the port will transition from cut-through to store-and-forward mode. Errored frames include frames with CRC errors, aborted frames, and frames that are considered too short.

Monitoring Port Traffic

As the required hardware has not become available in the marketplace to support passive monitoring of network traffic, the Catalyst 3900 no longer allows the configuration of passive SPAN.

As mentioned in the User Guide, you must place your SPAN port in a separate TrCRF and TrBRF that contains no other ports. If you plan to use SPAN, we recommend that you create a TrCRF and TrBRF upon initial configuration specifically for this purpose. It is also a good idea to leave a port on the switch assigned to this TrCRF for the purposes of future SPAN use.

Availability of Catalyst 3900 Software Upgrades on CCO

When changes are made to the Catalyst 3900 software, the new image is posted to CCO. You can then obtain a copy of the image and download it to your switch.

Obtaining Service and Support

For service and support for a product purchased from a reseller, contact the reseller. Resellers offer a wide variety of Cisco service and support programs, which are described in the section "Service and Support" in the information packet that shipped with your product.

Note   If you purchased your product from a reseller, you can access Cisco Connection Online (CCO) as a guest. CCO is Cisco Systems' primary, real-time support channel. Your reseller offers programs that include direct access to CCO's services.

For service and support for a product purchased directly from Cisco, use CCO.

Cisco Connection Online

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

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

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

You can access CCO in the following ways:

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

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

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

- Telnet: cco.cisco.com

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

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

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

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