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Catalyst 3900 Series Token Ring Switch Release 3.0(1) Release Note

April 29, 1998

This document describes what is new in this release, including a list of the new features and 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.

Sections in this document include the following:

- What's New in This Release on page 1

- Problems Fixed in This Release on page 2

- Known Problems on page 3

- Amendments to the Documentation on page 6

- Availability of Catalyst 3900 Software Upgrades on CCO on page 7

- Obtaining Service and Support on page 7

- Cisco Connection Online on page 7

What's New in This Release

This section lists the updates included in the Catalyst 3900 series software release 3.0(1).

Catalyst 3920 Token Ring Switch

This release includes support for the Catalyst 3920 Token Ring switch, which is a 24-port stackable switch. The Catalyst 3920 provides much of the same functionality as the Catalyst 3900 except that does not contain expansion slots.

For more information about the Catalyst 3920 Token Ring Switch, see the *Catalyst 3920 Token Ring Switch User Guide* that is shipped with each Catalyst 3920 switch.

ISL Expansion Module

This release includes support for the Catalyst 3900 Inter-Switch Link (ISL) expansion module, which is a 2-port, 100 Mbps module that supports the encapsulation of Token Ring frames on a standard Fast Ethernet link to allow Virtual LANs (VLANs) to be distributed across multiple platforms and devices. The module is available with a fiber or unshielded twisted pair (UTP)/shielded twisted pair (STP) copper media interface. The ports of the ISL module can be connected to the ports of another ISL module in another router or switch.

For more information about the ISL expansion module, see the *Catalyst 3900 Token Ring Inter-Switch Link Module Configuration Note* that is shipped with each ISL module.

CiscoView and MIBs

The CiscoView device package for the Catalyst 3900 has been updated to include support for the ISL module and the Catalyst 3920. You can obtain an updated version of the CiscoView Catalyst 3900 package file from CCO.

Also, the Catalyst 3900 software release 3.0(1) supports an updated version of the CISCO-VTP-MIB. If you use MIB files with applications such as MIB browsers, you should obtain revision 9708081138Z of the CISCO-VTP-MIB.

You can obtain copies of the MIBs supported by Cisco products using anonymous FTP or the World Wide Web (WWW) to access Cisco Connection Online (CCO).

To access the MIBs via FTP, perform the following steps:

Step 1 Issue the **ftp ftp.cisco.com** command.

Step 2 Log in with the username anonymous and enter your e-mail address when prompted for the password.

Step 3 Issue the **cd pub/mibs** command to change to the directory that contains the MIBs.

Step 4 Issue the get command to obtain the desired MIB.

To access the MIBs on CCO via the WWW, use one of the following URLs:

http://www.cisco.com/public/mibs or **ftp://www.cisco.com/pub/mibs**.

Problems Fixed in This Release

The following is a list of problems that have been resolved in this release.

Problem Identifier	Problem Description
CSCdj31691	The TrCRF hop counts for ARE and STE explorers displayed on the console can appear as 14, which is outside the valid range.
CSCdj37783	Three MIB objects are returning values with the incorrect magnitude.
CSCdj50465	The switch will not learn a new ring number after the ring number has been set back to "auto".
CSCdj85146	If a switch's serial port is configured for hardware flow control, the switch will not complete the boot sequence without a console connection.

Problem Identifier	Problem Description
CSCdj86124	Connectivity problems may occur between two devices connected to different switches in a stack if one of the devices is moved to a different port.
CSCdj87924	If you are running RMON in a stack of Catalyst 3900 switches, querying the ringStationOrderTable can cause all switches other than the controlling switch to reset.

Known Problems

This section lists the currently known problems.

Problem Pressing Esc During a TFTP Download

Problem Identifier: CSCdj34650

Problem Description: A TFTP code download fails when the user tries to clear a message from a telnet or console screen. This problem occurs if a TFTP code download is in progress and an event occurs that causes a message to be displayed on the screen. The user presses the Esc key to clear the message and the download is aborted.

Recommended Action: Do not press Esc to clear the message until after the code has been downloaded and written to flash. The user will see the prompt to press the Return key below the message box. This problem will be corrected in a future code release.

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.

Incorrect Values in DTR-MAC MIB

Problem Identifier: CSCdj43075

Problem Description: The values for the access protocol, individual address count, and phantom drive support are not correct when read from an SNMP agent.

Recommended Action: Read the information from the switch console.

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.

VTP Trunk Information Not Updated Properly

Problem Identifier: CSCdj84503

Problem Description: If you enable or disable a TrCRF on the ISL module using the console panels, the state may not be reflected properly in SNMP.

Recommended Action: None.

Console Should Not Allow the SPAN Ports to be in the Same TrCRF

Problem Identifier: CSCdj85377

Problem Description: 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 (as stated in the User Guide). If the active monitoring port is in the same TrBRF and TrCRF as another port, frame-forwarding problems may occur.

Recommended Action: Define a separate TrBRF and TrCRF for the SPAN monitoring port, assign the port to be used for monitoring to that TrCRF, and then designate the port as the SPAN monitoring port.

Using IEEE Spanning Tree on Default TrBRF Can Cause a Loop

Problem Identifier: CSCdj87014

Problem Description: If you have multiple boxes in a redundant ISL configuration with the Cisco Spanning Tree running on the default TrCRF (1003), enabling the IEEE Spanning Tree on the default TrBRF (1005) will cause all ISL ports to go to forwarding state.

Recommended Action: Do not enable the Spanning-Tree Protocol for the default TrBRF (1005).

Conflict Between RMON and TFTP

Problem Identifier: CSCdj89368

Problem Description: Software updates cannot be downloaded via TFTP if RMON is enabled.

Recommended Action: Perform the following steps:

Step 1   Disable RMON.

Step 2   Reboot the system.

Step 3   Download the software updates.

Step 4   After the download is complete, re-enable RMON before rebooting with the new image so that RMON will be active immediately with the new image.

Step 5   Reboot the system.

Problems Running in a Redundant Configuration

Problem Identifier: CSCdj89370

Problem Description: Only the default TrCRF (1003) can span an ISL cloud. No other TrCRFs can be distributed across an ISL connection. Therefore, if the switch is running in a redundant configuration and you delete the TrCRFs in a preferred TrBRF, a loop may be created if only one TrCRF remains configured for that TrBRF.

Recommended Action: If running in a redundant configuration, make a preferred TrBRF non-preferred before attempting to delete all TrCRFs for that TrBRF.

Possible Loops with VTP

Problem Identifier: CSCdj89372

Problem Description: The default Ethernet VLAN (1) is used to carry VTP traffic across an ISL cloud. Because the Spanning Tree Protocol is not run on the default Ethernet VLAN, if an ISL cloud is configured redundantly and all switches are in VTP Client or Transparent modes a loop will form.

Recommended Action: Configure at least one of the switches in a redundant ISL configuration as the VTP Server.

Possible Problems Changing the STP Mode of a Port from Auto to Forwarding

Problem Identifier: CSCdj91702

Problem Description: 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.

Recommended Action: None.

Configuration of Passive Monitoring Causes Problems with NVRAM

Problem Identifier: CSCdj91876

Problem Description: If you configure port 19 or 20 for passive monitoring (on the Switch Port Analyzer panel or with SNMP requests) and then set the monitoring port back to zero (to turn off passive monitoring), the port will remain in passive monitoring mode in NVRAM. After a switch is reset the port's insert light will come on with nothing attached and the Operation Mode will be displayed as "passive".

Recommended Action: Do not configure passive monitoring. There are currently no monitoring tools that support passive monitoring.

Configuration not Updated Correctly when a TrCRF's Parent is Changed

Problem Identifier: CSCdj92002

Problem Description: 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. This has the potential to corrupt the forwarding tables.

Recommended Action: Reassign the ports of the TrCRF before changing the parent of the TrCRF.

Spanning Tree not Resolving for Switches or Stacks with More than Six TrBRFs

Problem Identifier: CSCdj92538

Problem Description: If you configure more than six preferred TrBRFs on a Catalyst 3900 that contains an ISL uplink (in either the switch or the stack) and the Spanning-Tree Protocol is to be run on the TrBRFs, the spanning tree may not resolve for the seventh preferred TrBRF configured (or for subsequently configured preferred TrBRFs). The BPDUs are not processed by the Catalyst 3900 for more than six preferred TrBRFs.

Recommended Action: None.

Spanning Tree Problems with two ATM Modules

Problem Identifier: CSCdj92839

Problem Description: 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.

Recommended Action: None.

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.

Note An updated version of the *Catalyst 3900 Token Ring Switch User Guide* is available via CCO.

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.

Interconnecting Catalyst 3900 Switches

If you plan to interconnect your Catalyst 3900 with a Catalyst 5000, your Catalyst 5000 should have Supervisor Card revision 2, or later, with NMP version 3.0(201), or later.

Also, because VTP pruning is currently not supported by the Catalyst 3900, if you extend a TrBRF from a Catalyst 3900 to a Catalyst 5000 that is using VTP pruning, you must set the TrBRF to ineligible on the Catalyst 5000.

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.

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.

Updating the Catalyst 3900 Software

Currently, if you are using RMON, you must disable RMON on the Catalyst 3900 or Catalyst 3920 before you can download new software using TFTP. See CSCdj89368 in the "Known Problems" section.

Availability of Catalyst 3900 Software Upgrades on CCO

When changes are made to the Catalyst 3900 series 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.

Ordering Documentation

Documentation for Cisco products is available in three forms: in a CD-ROM package, printed books, and on the World Wide Web. You have the option of subscribing to the CD ROM package through an update service. Or you can order printed documentation at an additional cost. Refer to the information packet included with the router for detailed ordering information. You can also access Cisco documentation on the World Wide Web URL http://www.cisco.com.