CISCO SYSTEMS

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Catalyst 2600 Release 2.3.2 Release Note

These Release Notes provide specific information regarding this release of the Cisco Catalyst 2600 Token Ring Switch. These Release Notes document important operating environment considerations and known problem areas. References to the User Guide refer to the "Catalyst 2600 Token Ring Switch User Guide" (part # 78-3209-01) shipped with the Catalyst 2600.

Known Problems

This section describes any known problems, anomalies, or design points.

ARI and FCI Status Indicators

The ARI and FCI status indicator bits are not set for frames that include an RI field. Customers with applications that depend on A and C bits should contact their vendor for information on whether or not a patch/fix is available.

Symptoms of possible ARI/FCI problems are:

- End systems fail to connect when attached to the switch but succeed when connected to the same MAU.

- Excessive soft error reports.

The following is a list of drivers known to be affected by this problem. This list is provided for your information only and is not intended to be a complete list of affected drivers.

Driver Name	Product	Fixed Level
NETBEUI.OS2	OS/2 NetBIOS	5.00.0
DXMCOMOD.SYS	DOS LSP (and DXMC1MOD)	1.38p
DXMJ0MOD.SYS	DOS JetBEUI	1.38p

Driver Name	Product	Fixed Level
IFNDIS.SYS	TCP/IP v2.0 for OS/2	APAR pn77766
	TCP/IP v3.0 for Warp Connect	APAR ic11795
LANDD.OS2	OS/2	5.00.02
LANDD.NIF	OS/2	5.00.02
NET.EXE	DLS (DOS LAN Services)	

A package called TRDRVFIX.EXE includes ALL the updated IBM drivers. This package is available from the following sources:

- IBM PC. Co. BBS (919) 517-0001

- The web site is www.pcco.ibm.com

- Download the file from the Networking Environment Support Team (NEST) BBS at (919) 543-2307, for 28.8 (919) 543-5570.

For IBM technical support: 1-800-426-7299 Call path 4, 6, 3

Token Ring Adapter for the IBM 9221

The Token Ring adapter for the IBM 9221 (ES/9000) Processor will not open when directly attached to a Catalyst 2600 port. You must use a multistation access unit or a controlled access unit.

Full-Duplex

This release of the Catalyst 2600 software does not support the capability of configuring a port to be full-duplex (FDX) only. All ports support the option (as defined by the 802.5R IEEE committee) of FDX protocol with an automatic drop-back to half-duplex (HDX) support. If a directly attached station attempts to open in HDX mode, the Catalyst 2600 ports will allow this and make the connection in HDX mode.

Maximum Frame Length

The maximum frame length supported by the Catalyst 2600 is 4540 bytes (including the Frame Control [FC] and the Frame Check Sequence [FCS] characters). Be sure to configure all network software, interconnecting products, workstations, and user applications to send frames no larger than 4540 bytes.

- In cut-through mode, the Catalyst 2600 truncates frames larger than 4540 bytes and adds an abort sequence at the end. Typically, if frames larger than 4540 bytes are sent, a network manager will detect the abort sequences from the Catalyst 2600.

- In store-and-forward mode, switch ports will drop larger frames and generate a soft error on that port's LAN segment. The Catalyst 2600 provides statistics regarding frames that are too long.

Changes and Problems Fixed

This section provides information about changes made and problems fixed in each release of the Catalyst 2600. The most recent release is listed first.

Release 2.3.2, code level 2.3.2 (from Release 2.2.4, code level 2.24)

- The congestion handling has been changed to deal more efficiently with high levels of traffic to the processor. These changes will prevent box resets and other problems associated with congesting the processor.

- When a port was heavily loaded it could cause the spanning- tree BPDUs not be transmitted. This could result in unnecessary spanning-tree transitions on other switches which could cause resets and temporary loops. Changes have been to help guarantee that the spanning-tree BPDUs get transmitted even under heavy load.

- For a 2-Slot card, in the Port Config and Port Status menus, a blank screen was displayed when you selected **More**.

- The master address was displayed incorrectly.

- A situation that could cause constant Ring purges has been fixed.

- The long pause between the download of the last port and the start of the UART diagnostics has been shortened.

- When trying to send a ping from the IP Configuration panel, a memory failure could occur when pinging invalid IP addresses. This fix clears the table that stores the IP requests.

- SNMP would incorrectly report the Catalyst 2600 Model 216 as a IBM 8272 Model 108.

- Pinging from the IP Configuration panel could cause the console and the IP stack to hang. For this situation to arise you must have IP disabled, an IP address assigned to the domain, a Gateway address assigned and then issue a ping from the IP Configuration panel.

- The sysUpTime variable defined in RFC 1213, Management Information Base for Network Management of TCP/IP-based Internets: MIB-II, wrapped every four days. If the switch had been up for five days the sysUpTime variable would have reported an up time of one day.

- If spanning tree was active and a port reset for any reason the spanning tree information about that port was not correctly cleaned up. This could cause a loop when the port completes its reset.

- Switch-to-switch connections that were not fixed port configurations could come up at 4 Mbps instead of 16 Mbps.

- A condition that created a loop between two or more switches has been fixed. This loop would cause the switches to get congested and could cause them to reset. The connections between the switches either needed to be a token pipe or a full duplex link. A specifically routed multicast source routed frame that did not contain the LAN ID from the switch in its RIF was being transmitted between both switches continuously.

- A switch reset condition that was a result of very heavy traffic load with large frame sizes has been fixed. In a multiple switch environment this condition could have caused more than one switch to reset.

- A stack corruption problem has been fixed which could have caused out of memory conditions.

- On the Port Configuration panel, the switching mode has been changed to always report the configuration instead of the current port status.

Release 2.2.4, code level 2.24 (from Release 2.2.1, code level 2.21)

The following is a list of fixes in release 2.2.4 of the Catalyst 2600:

- The ARI/FCI Bit Option settings of 'Set non-routed only' and 'Never Set' could be reverted to a previous setting when the box was powered off.

- The SNMP Beacon Start Trap being sent did not match the trap specified in the MIB.

- A Token Probe defined on a spanning tree blocked port would cause the port to reset. During this port reset, a loop would be created for about one second. If the code level of the box was less than 2.23 this loop could have caused the box to reset due to congestion this loop caused.

- The sysName, sysContact, and sysLocation variables defined in RFC 1213, Management Information Base for Network Management of TCP/IP-based Internets: MIB-II, would be corrupted if changed to string longer than 15 characters.

- A port could hang and be disabled during insertion. The box would have to be powered off to enable the port.

- When spanning tree was active and a port that was part of a loop was added to the configuration either by resetting an existing port or adding a new connection a loop would be created for about one-half second. If the code level of the box was less than 2.23 this loop could have caused the box to reset due to congestion this loop caused.

- Telnet, Bootp, SNMP, TFTP, IP, and Spanning Tree BPDU traffic out of the switch could stop being transmitted under certain circumstances. This fix addresses a specific problem related to a hang condition caused by a certain size frame generated by the switch to a very busy port.

Release 2.2.1 code level 2.21 (from Release 2.1, code level 2.06)

The following is a list of fixes in release 2.2.1 of the Catalyst 2600:

- The files on the diskette are now prefixed with CIS. In previous releases, the files were prefixed with TRS. If you have a previous release (2.06), you must rename these files with a TRS prefix before loading them.

- When running ports in Adaptive Cut-Through Mode, it was possible for the port to stop transmitting or to reset. This transmission stop or port reset could cause dropped sessions.

- One port failing the hardware diagnostics could cause the remaining ports on the box to incorrectly fail diagnostics.

- Under high traffic conditions when both high and low priority token-ring frames are being sent it is possible for the switch to create an excessive number of Ring Purges. These Ring Purges would significantly impact the traffic on the failing port.

- A timing window existed that could cause the box or individual ports to reset.

- A broadcast storm could cause the box to reset.

- If a port was disabled due to a config loss condition, a reset of the box will now enable that port.

- There were certain situations in which the LAN ID would not be learned.

- IP connectivity to the switch was inconsistent. There were times that you could not ping the switch or use Telnet to access the configuration console.

- The MIB was improperly located and could not be viewed with a generic MIB browser. Due to these corrections, management of the Catalyst 2600 Release 2.2.1 requires an updated version of CiscoView. To obtain the new version:

Step 1   Using a Web browser, access http://www.cisco.com/kobayashi/Library_root.shtml (accessing this URL requires a valid CCO userid and password).

Step 2   Under Network Management, click on **CiscoView Upgrade Planner**

Step 3   Click on **CiscoView 3.1.1 Software Update Packages**

Step 4   Click on **Cat2600.cv311.P1-1.tar**

Step 5   Click on **Execute**

Step 6   Click on **Cat2600.readme**

Step 7   Click on **Execute**

The device package contains two versions of the enterprise MIBs for the Catalyst 2600 device:

- C2600_cisc.my -- This MIB file supports Catalyst 2600 release 2.0.6.

- C2600.my -- This MIB file supports Catalyst 2600 release 2.2.1.

If using a MIB browser tool, the user will see the MIB variables defined in each of the above (under different branches at the same time).