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Catalyst 5000 Series Release Notes for Software Release 2.1(4)

These release notes describe the features, caveats, and modifications for the Catalyst 5000 Series supervisor engine module software release 2.1(4).

Caution Read the *Catalyst 5000 Series Release Notes for Software Release 2.1* before reading this document (these release notes are an addendum to and not a replacement for the *Catalyst 5000 Series Release Notes for Software Release 2.1* publication, part number 78-2896-02).

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*

These documents are available in printed form and in electronic form on a CD-ROM called Cisco Connection Documentation, Enterprise Series, which ships with your chassis. The CD is updated and shipped monthly, so it might be more up to date than printed documentation. To order your additional copies of 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.

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Usage Guidelines and Restrictions

This section describes miscellaneous considerations regarding the Catalyst 5000 Series switch configuration:

- If a Catalyst 5000 contains 2.1 Software Memory Upgrade Kit SIMMs and is running a software release prior to 2.1 (such as release 1.5), the command **show version** displays only 4 MB of memory. You must install software release 2.1 or above to allow the command **show version** to recognize 2.1 Software Memory Upgrade Kit SIMMs and display the total memory as 8 MB.
- If you upgrade to Catalyst 5000 Series software release 2.1(2) or above from release 1.5 or below, the default VTP mode is set to **transparent**. In **transparent** mode, new VLANs are not automatically advertised in the management domain. To allow a VLAN to be advertised, set the VTP mode to **server** before creating new VLANs.
- If you are upgrading from Catalyst 5000 Series software release 1.5 or below, your allowed VLAN configuration for each trunk remains the same after the upgrade. Therefore, if you create VLANs outside the allowed VLAN range, those VLANs become active but are not automatically added to the trunk. For example, if you create VLAN 12 when VLANs 1 through 10 are configured as allowed on the trunk, VLAN 12 becomes active but is not added to the trunk.
- The VLAN range is 1 to 1005. The number of VLANs that can be configured at one time in Catalyst 5000 software release 2.1(4) is 256.
- If a module fails to come online, try resetting it. However, if the module fails to come online multiple times, replace it.

Differences Between Software Releases 2.1(3) and 2.1(4)

This section describes the software release 2.1(3) caveats that were resolved in Catalyst 5000 supervisor engine module software release 2.1(4). If you are running Catalyst 5000 series software release 2.1(3) with a 10/100 Mbps Fast Ethernet Switching module configured to **auto**, negotiated to 100 Mbps, and connected to another 10/100 Mbps Fast Ethernet Switching module or other 100 Mbps interface, the 10/100 Mbps Fast Ethernet Switching module may collect a Receive Frame Count lower than the actual number of received frames. There is a very slight possibility of packet loss through the 10/100 Mbps Fast Ethernet Switching module ports. This problem is fixed in Catalyst 5000 series Software release 2.1(4). (CSCdi69368)

Differences Between Software Releases 2.1(2) and 2.1(3)

This section describes the software release 2.1 and 2.1(2) caveats that were resolved in Catalyst 5000 supervisor engine module software release 2.1(3).

- The Catalyst 5000 may report alignment errors on the receiving side of supervisor MII ports that are configured as trunks. In software release 2.1(3), this problem has been corrected. (CSCdi54628)
- When an LEC on an ATM module continuously goes up and down, a memory leak may occur that can cause the Catalyst 5000 to run out of memory buffers and stop responding to **ping**, **telnet**, or SNMP requests. This problem is fixed in software release 2.1(3). (CSCdi61865)
- Under certain conditions the session command to a ATM card becomes inoperable. In software release 2.1(3), this problem has been corrected. (CSCdi62970)
- If you configure MII ports for trunking when MII transceivers are present, under heavy traffic conditions the trunking status of the ports may toggle between trunking and nontrunking. This problem is fixed in software release 2.1(3). (CSCdi64353)

- FDDI modules may not come online after you upgrade to FDDI software release 2.1(2). If this error occurs, to bring the FDDI module online reset the FDDI module using the **reset *mod_num*** command. This problem is fixed in software release 2.1(3). (CSCdi64572)
- The Catalyst 5000 will first attempt to auto-negotiate port speed, even if the speed of a 10/100 Mbps Fast Ethernet Switching module port is set to 10 Mbps or 100 Mbps. This may prevent a link from being made to some end stations. This problem is fixed in software release 2.1(3). (CSCdi65030)
- Using the fiber supervisor under extremely heavy traffic conditions, the system may experience a switching bus timeout and subsequently crash. In software release 2.1(3), this problem has been corrected. (CSCdi65055)
- If a FDDI module is present in a Catalyst 5000 chassis and all the ports of two adjacent modules are configured to be in a VLAN other than 1, some modules in the chassis may not come online after a switch powerup. In software release 2.1(3), this problem has been corrected. (CSCdi65472)
- If you use the command **set span** to dynamically change the source port of a SPAN configuration from one port to another, the Catalyst 5000 still "spans" the traffic from the previous source port. This problem is fixed in software release 2.1(3). (CSCdi65620)

Differences Between Software Releases 2.1 and 2.1(2)

This section describes the software release 2.1 caveats that were resolved in Catalyst 5000 supervisor engine module software release 2.1(2).

- When you are enabling or disabling FDDI ports on an FDDI module, be sure to use the **set port enable** and **set port disable** commands for both ports 1 and 2; port A (port 1) and port B (port 2) on the FDDI module are treated as two different ports. (CSCdi57956)
- A Catalyst 5000 might timeout if several SNMP applications are running concurrently. Limit the number of SNMP applications to one at a time. Alternatively, increase the timeout value for manager applications. In software release 2.1(2), this has been corrected. (CSCdi58669)
- When you are viewing the **etherStats** for an Ethernet port, using an RMON application such as TrafficDirector, the Catalyst 5000 reports oversize frames even though oversize packets have not been received on the port. Ignore messages of this type and continue normal operation. This problem is fixed in software release 2.1(2). (CSCdi59442)

Caveats in Software Release 2.1(3)

This section describes possible, unexpected behavior and other miscellaneous caveats for the Catalyst 5000 supervisor engine module software release 2.1(3). The caveats listed here describe only serious problems.

- Under certain conditions, a Catalyst 5000 10 Mbps Ethernet module port may stop learning MAC addresses even though the command **show mac** indicates the port is still receiving frames. To correct this problem, disable the port using the command **set port disable *mod_num/port_num*** and reenable the port using the command **set port enable *mod_num/port_num***. (CSCdi60452)
- When there are continuous spanning tree topology changes under heavy traffic conditions, a Catalyst 5000 may remain accessible through **ping** and **telnet** but stop responding to SNMP requests. The catalyst needs to be reset to correct this problem. (CSCdi64759)
- Occasionally some LECs that are configured on an ATM module may not come up after you reset a Catalyst 5000 Series switch. To recover from this problem, reconfigure the LECs that failed to come up on the ATM module. (CSCdi65004)

- Bidirectional file transfers between workstations occur more slowly using a Group Switching Ethernet module than using a Catalyst 5000 Series Ethernet (10BaseT 24 port) module. Performance can be improved by adjusting the TCP timeout values on the work stations. (CSCdi65606)
- If a Catalyst 5000 has a permanent multicast entry in its CAM table, some modules may not come online when the switch is powered up. To recover from this problem, remove and reinsert the modules that fail to come online. (CSCdi66772)
- If the supervisor engine module receives a continuous stream of IP broadcasts, supervisor module spanning tree operation may be affected. (CSCdi66330)

Caveats in Software Release 2.1(2)

This section describes possible, unexpected behavior and other miscellaneous caveats for the Catalyst 5000 supervisor engine module software release 2.1(2). The caveats listed here describe only serious problems.

- Currently, the **show mac** command displays the InDiscard counter value as zero, instead of the actual counter value for Ethernet ports. (The InDiscard counter tracks the number of frames that the Catalyst 5000 Series switch discards because it was destined for the local segment.) (CSCdi39812)
- The LrnDiscard counter (displayed using the **show mac** command) indicates the number of times a CAM entry was replaced with a newly learned address when the CAM table is full. In supervisor engine module software releases 1.3 and 1.4, the counter value is not maintained for each port; instead, the value is maintained for the entire switch. (CSCdi39883)
- Serial download is supported for downloading Flash code to the supervisor engine module, but not to the switching modules. (CSCdi41103)
- Although the **show spantree** command displays the fast-start feature as enabled on a trunk port, the spanning-tree portfast mode has no effect on trunk ports, such as ISL, ATM, or FDDI. Do not use the **set portfast** command on a trunk port. In addition, designating a port as a trunk port ignores the portfast feature for the port. When you hot-swap an FDDI or ATM module, use the **set portfast disable** command to disable the fast-start feature for any ports that are using it. (CSCdi55205)
- Use the **reset** command at the boot prompt to load the Flash image. Do not use the command **execflash** to load the Flash image from the Boot PROM. (CSCdi57385)
- Sometimes the command **show module** indicates that the status LED of an Ethernet module is green even if some module ports fail the PMD loopback test during powerup. The status LED of an Ethernet module is orange or red only when all of the module ports fail the PMD loopback test. Use the **show test** command to view PMD loopback test results for a module. To correct this error, reset the module using the **reset *mod_num*** command; if the failure persists, replace the module. (CSCdi57908)
- If you attempt to enter an incorrect FLASH image for the supervisor engine module, the error message might not be immediately obvious. For example, if you accidentally tried to download ATM software to the supervisor engine module, the following message would appear:

```
Console> (enable) download 199.133.219.189 atm_21.cbi
Download image atm_21.cbi from 199.133.219.189 to Module 1 FLASH (y/n) [n]? y
-
Finished network download.  (1950240 bytes)
ERROR: ocs hdr: csum=0x41e4ecb7 ocsp->csum=0x4c

Download failed
```

(CSCdi58607)

- If the MAC address of a module has not been correctly configured, the module will fail to come online. The following output is displayed if this type of error occurs:

```
Catalyst 5000 Power Up Diagnostics

Init NVRAM Log
LED Test
ROM CHKSUM
DUAL PORT RAM r/w
RAM r/w
RAM address test
Byte/Word Enable test
EARL test
EARL test Done

BOOTROM Version 1.5, Dated Mar  8 1996 16:24:38
BOOT date: 07/30/96 BOOT time: 17:44:58
SIMM RAM address test
SIMM Ram r/w 55aa
SIMM Ram r/w aa55
Uncompressing image.  This will take a minute...
Module 1 SPROM has invalid MAC address...module will remain offline

Minor hardware problem in Module # 1

Cisco Systems Console

Enter password:
c5-qa-5>
Mon Jul 30 1996, 17:46:07  Module 1 is online.
Syndiags failed on Module Number 4
c5-qa-5>
Mon Jul 30 1996, 17:46:18  Module 4 failed to come online.
Syndiags failed on Module Number 3
c5-qa-5>
Mon Jul 30 1996, 17:46:30  Module 3 failed to come online.
:wq
```

(CSCdi59106)

- If a Catalyst 5000 is configured as a nonroot bridge with multiple blocked spanning tree instances on trunk ports, SNMP speed performance may be impaired. To recover from this problem, adjust the spanning tree parameters to reduce the number of blocked spanning tree instances on trunk ports. (CSCdi65020)
- An ATM module running Catalyst 5000 Series ATM software release 1.1 fails to come online on a Catalyst 5000 running Catalyst 5000 Series supervisor engine software releases 2.1 or 2.1(2). To recover from this error, reset the ATM module using the command **reset *mod_num***. It is recommended that you install the ATM software release 2.2.
- When you disable a trunk on a fast Ethernet port using the command **set trunk *mod_num/port_num* off**, wait for a confirmation statement from the Catalyst 5000 before reenabling the trunk. This prevents the trunk from going into an undesired state. If this error occurs, use the **set port** command to disable and then reenable the port.
- You cannot disable an ATM module using the **set module disable** command. However, you can disable other module types.

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This document is to be used in conjunction with the *Catalyst 5000 Series Installation Guide* and *Catalyst 5000 Series Configuration and Command Reference* publication.