



# Release Notes for the Cisco ME 3400E and ME 3400 Ethernet Access Switches, Cisco IOS Release 12.2(58)EX

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Cisco IOS Release 12.2(58)EX runs on the Cisco ME 3400E and ME 3400 Series Ethernet Access switches.

These release notes include important information about Cisco IOS Release 12.2(58)EX and any limitations, restrictions, and caveats that apply to the release. Verify that these release notes are correct for your switch:

- If you are installing a new switch, see the Cisco IOS release label on the rear panel of your switch.
- If your switch is on, use the **show version** privileged EXEC command. See the “[Finding the Software Version and Feature Set](#)” section on page 4.
- If you are upgrading to a new release or different image, see the software upgrade filename for the software version. See the “[Deciding Which Files to Use](#)” section on page 4.

For the complete list of Cisco ME 3400E and ME 3400 switch documentation, see the “[Related Documentation](#)” section on page 24.

You can download the switch software from this site (registered Cisco.com users with a login password):

<http://www.cisco.com/cisco/software/navigator.html?a=a&i=rpm>



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## Hardware Supported

**Table 1 Supported Hardware**

Device	Description	Supported by Minimum Cisco IOS Release
ME 3400E-24TS-M	24 10/100 ports and 2 dual-purpose ports; supports removable AC- and DC-power supplies.	Cisco IOS Release 12.2(44)EY
ME 3400EG-12CS-M	12 dual-purpose ports and 4 SFP module slots; supports removable AC- and DC-power supplies.	Cisco IOS Release 12.2(44)EY
ME 3400EG-2CS-A	2 dual-purpose ports and 2 SFP module slots, AC-power input.	Cisco IOS Release 12.2(44)EY
ME 3400-24FS-A	24 100BASE-FX SFP module ports and 2 Gigabit Ethernet SFP module ports, AC power	Cisco IOS Release 12.2(40)SE
ME 3400G-2CS	2 dual-purpose ports and 2 SFP-only module ports, AC power	Cisco IOS Release 12.2(35)SE1
ME-3400G-12CS-A	12 dual-purpose ports and 4 SFP-only module ports	Cisco IOS Release 12.2(25)SEG1
ME-3400G-12CS-D	12 dual-purpose ports and 4 SFP-only module ports	Cisco IOS Release 12.2(25)SEG1
ME-3400-24TS-A	24 10/100 ports and 2 SFP module slots, AC power	Cisco IOS Release 12.2(25)EX
ME-3400-24TS-D	24 10/100 ports and 2 SFP module slots, DC power	Cisco IOS Release 12.2(25)EX

**Table 1 Supported Hardware (continued)**

Device	Description	Supported by Minimum Cisco IOS Release
SFP modules ME 3400	1000BASE-T, -BX, -SX, -LX/LH, -ZX 100BASE-BX, FX, -LX Coarse wavelength-division multiplexing (CWDM)	Cisco IOS Release 12.2(25)EX
	Digital optical monitoring (DOM) support for GLC-BX, CWDM and DWDM SFPs	Cisco IOS Release 12.2(44)SE
	100BASE-EX, 100BASE-ZX 1000BASE-LX/LH MMF and SMF 1000BASE-SX MMF DOM support for GLC-ZX-SM SFP, 1000BASE-LX/LH, and 1000BASE-SX	Cisco IOS Release 12.2(46)SE
	DOM support for 1000BASE-BX Additional DWDM SFPs qualification	Cisco IOS Release 12.2(50)SE
For a complete list of ME 3400 supported SFPs and part numbers, see the ME 3400 data sheet at: <a href="http://www.cisco.com/en/US/prod/collateral/switches/ps6568/ps6580/product_data_sheet0900aecd8034fef3.html">http://www.cisco.com/en/US/prod/collateral/switches/ps6568/ps6580/product_data_sheet0900aecd8034fef3.html</a>		
SFP modules ME 3400E	1000BASE-BX10, -SX, -LX/LH, -ZX 100BASE -BX10, -EX, -FX (GLC-FE-100FX only), -LX10, -ZX 1000BASE-T and 10/100/100BASE-T—Category 5,6 (SFP-only ports; not supported on dual-purpose ports) Coarse wavelength-division multiplexing (CWDM) Dense wavelength-division multiplexing (DWDM) Digital optical monitoring (DOM) support for SFP-GE-S, SFP-GE-L, 1000BASE-BX10, 1000BASE-ZX, CWDM and DWDM SFPs <b>Note</b> See the hardware installation guide for SFP model numbers.	Cisco IOS Release 12.2(44)EY
	Additional DWDM SFPs qualification	Cisco IOS Release 12.2(50)SE
For a complete list of ME 3400E supported SFPs and part numbers, see the ME 3400E data sheet at: <a href="http://www.cisco.com/en/US/prod/collateral/switches/ps6568/ps9637/data_sheet_c78-495220.html">http://www.cisco.com/en/US/prod/collateral/switches/ps6568/ps9637/data_sheet_c78-495220.html</a>		
Cable	Catalyst 3560 SFP interconnect cable	Cisco IOS Release 12.2(25)EX

# Upgrading the Switch Software

- [Finding the Software Version and Feature Set, page 4](#)
- [Deciding Which Files to Use, page 4](#)
- [Archiving Software Images, page 4](#)
- [Upgrading a Switch, page 5](#)
- [Recovering from a Software Failure, page 6](#)

## Finding the Software Version and Feature Set

The Cisco IOS image is stored as a bin file in a directory that is named with the Cisco IOS release. The image is stored on the system board flash device (flash:).

You can use the **show version** privileged EXEC command to see the software version that is running on your switch. The second line of the display shows the version.

You can also use the **dir filesystem:** privileged EXEC command to see the directory names of other software images that you might have stored in flash memory.

## Deciding Which Files to Use

The upgrade procedures in these release notes describe how to perform the upgrade by using a combined tar file. This file contains the Cisco IOS image file. To upgrade the switch through the command-line interface (CLI), use the tar file and the **archive download-sw** privileged EXEC command.

[Table 2](#) lists the filenames for this software release.



**Note**

The ME 3400 metro base image is not supported on the Cisco ME 3400E switch.

**Table 2** Cisco IOS Software Image Files

Filename	Description
me340x-metrobasek9-tar.122-58.EX.tar	Cisco ME 3400 metro base cryptographic image with Kerberos, Secure Shell (SSH), and basic Metro Ethernet features.
me340x-metroaccessk9-tar.122-58.EX.tar	Cisco ME 3400E and ME 3400 metro access cryptographic image with Kerberos, SSH, and Layer 2 + Metro Ethernet features.
me340x-metroipaccess9-tar.122-58.EX.tar	Cisco ME 3400E and ME 3400 metro IP access cryptographic image with Kerberos, SSH, Layer 2+, and full Layer 3 routing Metro Ethernet features.

## Archiving Software Images

Before upgrading your switch software, make sure that you have archived copies of the current Cisco IOS release and the Cisco IOS release to which you are upgrading. You should keep these archived images until you have upgraded all devices in the network to the new Cisco IOS image and until you have verified that the new Cisco IOS image works properly in your network.

Cisco routinely removes old Cisco IOS versions from Cisco.com. See *Product Bulletin 2863* for more information:

[http://www.cisco.com/en/US/prod/collateral/iosswrel/ps8802/ps6969/ps1835/prod\\_bulletin0900aec80281c0e.html](http://www.cisco.com/en/US/prod/collateral/iosswrel/ps8802/ps6969/ps1835/prod_bulletin0900aec80281c0e.html)

You can copy the bin software image file on the flash memory to the appropriate TFTP directory on a host by using the **copy flash: tftp:** privileged EXEC command.

You can also configure the switch as a TFTP server to copy files from one switch to another without using an external TFTP server by using the **tftp-server** global configuration command. For more information about the **tftp-server** command, see the “Basic File Transfer Services Commands” section of the *Cisco IOS Configuration Fundamentals Command Reference, Release 12.2* at this URL:

[http://www.cisco.com/en/US/docs/ios/fundamentals/command/reference/cf\\_t1.html](http://www.cisco.com/en/US/docs/ios/fundamentals/command/reference/cf_t1.html)

## Upgrading a Switch

This procedure is for copying the combined tar file to the switch. You copy the file to the switch from a TFTP server and extract the files. You can download an image file and replace or keep the current image.



### Note

For downloading software, we recommend that you connect to the TFTP server through a network node interface (NNI). If you want to connect to the server through a user network interface (UNI), see the “Troubleshooting” chapter of the software configuration guide for methods for enabling ping capability on UNIs.

To download software, follow these steps:

- 
- Step 1** Use [Table 2 on page 4](#) to identify the file that you want to download.
- Step 2** Download the software image file:
- If you are a registered customer, go to this URL and log in.  
<http://www.cisco.com/cisco/software/navigator.html?a=a&i=rpm>
  - Navigate to **Switches > Service Provider Switches - Ethernet Access**.
  - Navigate to your switch model.
  - Click **IOS Software**, then select the latest IOS release.
- Download the image you identified in Step 1.
- Step 3** Copy the image to the appropriate TFTP directory on the workstation, and make sure that the TFTP server is properly configured.
- For more information, refer to Appendix B in the software configuration guide for this release.
- Step 4** Log into the switch through the console port or a Telnet session.
- Step 5** (Optional) Ensure that you have IP connectivity to the TFTP server by entering this privileged EXEC command:
- ```
Switch# ping tftp-server-address
```



**Note** By default, ping is supported on network node interfaces (NNIs), but you cannot ping from a user network interface (UNI) because the control-plane security feature drops ICMP response packets received on UNIs. See the “Troubleshooting” chapter of the software configuration guide for methods for pinging from the switch to a host connected to a UNI.

For more information about assigning an IP address and default gateway to the switch, refer to the software configuration guide for this release.

**Step 6** Download the image file from the TFTP server to the switch. If you are installing the same version of software that is currently on the switch, overwrite the current image by entering this privileged EXEC command:

```
Switch# archive download-sw /overwrite /reload
tftp: [[/location]/directory]/image-name.tar
```

The **/overwrite** option overwrites the software image in flash memory with the downloaded one.

The **/reload** option reloads the system after downloading the image unless the configuration has been changed and not saved.

For */location*, specify the IP address of the TFTP server.

For */directory/image-name.tar*, specify the directory (optional) and the image to download. Directory and image names are case sensitive.

This example shows how to download an image from a TFTP server at 198.30.20.19 and to overwrite the image on the switch:

```
Switch# archive download-sw /overwrite
tftp://198.30.20.19/image-name.tar
```

You can also download the image file from the TFTP server to the switch and keep the current image by using the **/leave-old-sw** option instead of the **/overwrite** option.

## Recovering from a Software Failure

For recovery procedures, see the “Troubleshooting” chapter in the software configuration guide for this release.

## Installation Notes

You can assign IP information to your switch by these methods:

- Using the CLI-based setup program, as described in the switch hardware installation guide.
- Using the DHCP-based autoconfiguration, as described in the switch software configuration guide.
- Manually assigning an IP address, as described in the switch software configuration guide.

# New Software Features

- Option to configure the queue size threshold in percentage terms. You can now specify different queue sizes in absolute (number of packets) or percentage terms for different classes of traffic in the same queue. The upper limit of the number of packets you can specify when configuring a queue limit is increased from 544 to 4272.

For more information about how to configure the queue size in percentage terms, see the following links:

- Section *Congestion Avoidance and Queuing* in the software configuration guide:  
[http://www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2\\_58\\_ex/configuration/guide/swqos.html#wp1497063](http://www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2_58_ex/configuration/guide/swqos.html#wp1497063)
- The **queue-limit** policy-map class configuration command in the command reference guide:  
[http://www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2\\_58\\_ex/command/reference/cli1.html#wp5095786](http://www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2_58_ex/command/reference/cli1.html#wp5095786).
- Support for the layer 2 Ethernet operation: Metro-Ethernet 3.0 (ITU-T Y.1731).

We support the following:

- Duel-ended delay and jitter operations.
- The switch-port based model.
- Performance monitoring and the IP SLA CLI for service-provider VLANs (S-VLANs).
- Delay measurement message (DMM) frame interval of one second (default). Other frame intervals (10 ms, 20 ms, 25 ms, 50 ms, and 100 ms) are not supported.
- The continuous mode for customer services, where DMM packets are sent on a continuous basis and aggregated periodically.

We do not support the following:

- Ethernet Virtual Connection (EVC) xconnect and bridge domain models.
- Performance monitoring for customer VLANs (C-VLANs).
- One-way delay measurement.
- Ethernet frame loss ratio measurement and synthetic frame loss measurement.
- Throughput testing.
- Performance monitoring for Virtual Private LAN Services (VPLS).
- Performance monitoring for Port Maintenance End Point (MEPs).
- Double tagging in a QinQ configuration scenario.
- Burst mode.
- VACL Logging to generate syslog messages for ACL denied IP packets
- Call Home to provide e-mail-based and web-based notification of critical system events. Users with a service contract directly with Cisco Systems can register Call Home devices for the Cisco Smart Call Home service that generates automatic service requests with the Cisco TAC.
- IETF IP-MIB and IP-FORWARD-MIB(RFC4292 and RFC4293) updates to support the IP version 6 (IPv6)-only and the IPv6 part of the protocol-version independent (PVI) objects and tables.
- Network Time Protocol version 4 (NTPv4) to support both IPv4 and IPv6 and compatibility with NTPv3.
- DHCPv6 bulk-lease query to support new bulk lease query type (as defined in RFC5460).

- The DHCPv6 relay source configuration feature to configure a source address for DHCPv6 relay agent.
- Enhancements to RADIUS, TACACS+, and SSH to function over IPv6.
- Support for the Virtual Router Redundancy Protocol (VRRP) for IPv4, which dynamically assigns responsibility for one or more virtual routers to the VRRP routers on a LAN, allowing multiple routers on a multiaccess link to utilize the same virtual IP address.
- Support for IPv4 and IPv6 Gateway Load Balancing Protocol (GLBP) for automatic router backup for IP hosts configured with a single default gateway on a LAN.
- Support for IPv6 DHCP server, client and relay in a virtual routing and forwarding (VRF) environment with limited VRF flexibility.
- Support for IPv6 Multi-Protocol VRF-CE (also referred to as VRF-Lite).
- Support for Layer 2 protocol tunneling for Link Layer Discovery Protocol (LLDP) traffic.

## Minimum Cisco IOS Release for Major Features

Table 3 lists the minimum software release (after the first release) required to support the features of the Cisco ME 3400E and ME 3400 switch. Features not listed are supported in all releases.



**Note**

The first release for the Cisco ME3400E switch was 12.2(44)EY and it included all ME 3400 features through release 12.2(44)SE.

**Table 3** Features Introduced After the First Release and the Minimum Cisco IOS Release Required

| Feature                                                                    | Minimum Cisco IOS Release Required |
|----------------------------------------------------------------------------|------------------------------------|
| VACL logging                                                               | 12.2(58)SE1                        |
| Call Home support                                                          | 12.2(58)SE1                        |
| IP/IF MIBs for IPv6                                                        | 12.2(58)SE1                        |
| NTPv4 over IPv6                                                            | 12.2(58)SE1                        |
| DHCPv6 bulk lease query and DHCPv6 relay source configuration              | 12.2(58)SE1                        |
| RADIUS, TACACS+, and SSH/SCP over IPv6                                     | 12.2(58)SE1                        |
| VRRP version 4 support                                                     | 12.2(58)SE1                        |
| GLBP for IPv4 and IPv6 with VRF-Lite                                       | 12.2(58)SE1                        |
| IPv6 unicast routing in VRF-Lite                                           | 12.2(58)SE1                        |
| VRF-aware IPv6 DHCP server and client support                              | 12.2(58)SE1                        |
| 802.1Q LLDP tunneling                                                      | 12.2(58)SE1                        |
| Configuration of an alternate MTU value for specific interfaces            | 12.2(55)SE                         |
| BFD Protocol on SVIs                                                       | 12.2(55)SE                         |
| Support for 802.1ad split horizon (ME 3400E).                              | 12.2(55)SE                         |
| QoS classification and marking DEI bit in an IEEE 802.1ad frame (ME 3400E) | 12.2(55)SE                         |
| Support for the IEEE 802.1ad standard (ME 3400E).                          | 12.2(54)SE                         |

**Table 3** *Features Introduced After the First Release and the Minimum Cisco IOS Release Required (continued)*

| <b>Feature</b>                                                                                                                                               | <b>Minimum Cisco IOS Release Required</b>     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| CFM support on customer VLANs (C-VLANs).                                                                                                                     | 12.2(54)SE                                    |
| IEEE CFM MIB support.                                                                                                                                        | 12.2(54)SE                                    |
| Ingress QoS classification enhancements                                                                                                                      | 12.2(53)SE                                    |
| Support for ingress QoS classification on QinQ-based ports (ME 3400E).                                                                                       | 12.2(53)SE                                    |
| Support for EEM 3.2                                                                                                                                          | 12.2(52)SE                                    |
| Support for IP source guard on static hosts.                                                                                                                 | 12.2(52)SE                                    |
| IEEE 802.1x user distribution for deployments with multiple VLANs.                                                                                           | 12.2(52)SE                                    |
| Support for Network Edge Access Topology (NEAT) for changing the port host mode and applying a standard port configuration to the authenticator switch port. | 12.2(52)SE                                    |
| Support for 3DES and AES with version 3 of the Simple Network Management Protocol (SNMPv3).                                                                  | 12.2(52)SE                                    |
| Support for including a hostname in the option 12 field of DHCPDISCOVER packets.                                                                             | 12.2(52)SE                                    |
| DHCP snooping circuit-id sub-option of the Option 82 DHCP field.                                                                                             | 12.2(52)SE                                    |
| Connectivity fault management (CFM) Draft 8.1 compliance.                                                                                                    | 12.2(52)SE                                    |
| Support for the TWAMP standard for measuring round-trip network performance between two devices.                                                             | 12.2(52)SE                                    |
| Additional IPv6 support to include IPv6 eBGP, IPv6 SNMP, Syslog, HTTP, and IPv6 MLD snooping.                                                                | 12.2(52)SE                                    |
| Support for QoS marking of CPU-generated traffic and queue CPU-generated traffic on the egress network ports.                                                | 12.2(52)SE                                    |
| Multicast VLAN registration (MVR) enhancements.                                                                                                              | 12.2(52)SE                                    |
| Resilient Ethernet Protocol (REP) hello link status layer (LSL) age timer configurable from 120 to 10000 ms in 40-ms intervals.                              | 12.2(52)SE                                    |
| Support for the LLPD-MED MIB and the CISCO-ADMISSION-POLICY-MIB.                                                                                             | 12.2(52)SE                                    |
| IPv6 routing support (metro IP access image only)                                                                                                            | 12.2(50)SE                                    |
| IPv6 ACLs (metro IP access image only)                                                                                                                       | 12.2(50)SE                                    |
| BFD (metro IP access image only)                                                                                                                             | 12.2(50)SE                                    |
| REP support on ports connected to nonREP ports                                                                                                               | 12.2(50)SE                                    |
| NEAT with 802.1X switch supplicant, host authorization with CISP, and auto enablement                                                                        | 12.2(50)SE                                    |
| CPU utilization threshold trap                                                                                                                               | 12.2(50)SE                                    |
| EEM 2.4 (metro access image only on ME 3400)                                                                                                                 | 12.2(50)SE                                    |
| RADIUS server load balancing                                                                                                                                 | 12.2(50)SE                                    |
| IP source guard in metro base image (ME 3400)                                                                                                                | 12.2(50)SE                                    |
| Dynamic ARP inspection in metro base image (ME 3400)                                                                                                         | 12.2(50)SE                                    |
| EOT and IP SLAs EOT static route support                                                                                                                     | 12.2(46)SE (ME 3400)<br>12.2(50)SE (ME 3400E) |
| REP counter and timer enhancements                                                                                                                           | 12.2(46)SE (ME 3400)<br>12.2(50)SE (ME 3400E) |

**Table 3** Features Introduced After the First Release and the Minimum Cisco IOS Release Required (continued)

| Feature                                                                                                                                                | Minimum Cisco IOS Release Required            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| HSRPv2 (metro IP access image only)                                                                                                                    | 12.2(46)SE (ME 3400)<br>12.2(50)SE (ME 3400E) |
| DHCP server port-based address allocation                                                                                                              | 12.2(46)SE (ME 3400)<br>12.2(50)SE (ME 3400E) |
| DHCP-based autoconfiguration and image update                                                                                                          | 12.2(44)SE                                    |
| Configurable small-frame arrival threshold                                                                                                             | 12.2(44)SE                                    |
| Source Specific Multicast (SSM) mapping for multicast applications                                                                                     | 12.2(44)SE                                    |
| Support for the *, <i>ip-address</i> , <b>interface interface-id</b> , and <b>vlan vlan-id</b> keywords with the <b>clear ip dhcp snooping</b> command | 12.2(44)SE                                    |
| Flex Link Multicast Fast Convergence                                                                                                                   | 12.2(44)SE                                    |
| IEEE 802.1x readiness check                                                                                                                            | 12.2(44)SE                                    |
| Configurable control-plane queue assignment                                                                                                            | 12.2(44)SE                                    |
| Configurable control plane security (support for ENIs)                                                                                                 | 12.2(44)SE                                    |
| /31 bit mask support for multicast traffic                                                                                                             | 12.2(44)SE                                    |
| Configuration rollback and replacement                                                                                                                 | 12.2(40)SE                                    |
| EEM (metro IP access image only)                                                                                                                       | 12.2(40)SE                                    |
| <b>Note</b> EEM support was added to the metro access image in 12.2(44)SE                                                                              |                                               |
| IGMP Helper (metro IP access image only)                                                                                                               | 12.2(40)SE                                    |
| IP SLAs support (metro IP access and metro access images only)                                                                                         | 12.2(40)SE                                    |
| IP SLAs enhanced object tracking (metro IP access and metro access images only)                                                                        | 12.2(40)SE                                    |
| IP SLAs for Ethernet OAM (metro IP access image only)                                                                                                  | 12.2(40)SE                                    |
| Multicast VRF Lite (metro IP access image only)                                                                                                        | 12.2(40)SE                                    |
| SSM PIM (metro IP access image only)                                                                                                                   | 12.2(40)SE                                    |
| REP (metro IP access and metro access images only)                                                                                                     | 12.2(40)SE                                    |
| LLDP-MED location TLV (metro IP access and metro access images only)                                                                                   | 12.2(40)SE                                    |
| ELMI-CE                                                                                                                                                | 12.2(37)SE                                    |
| LLDP and LLDP-MED                                                                                                                                      | 12.2(37)SE                                    |
| Port security on a PVLAN host                                                                                                                          | 12.2(37)SE                                    |
| VLAN Flex Links load balancing                                                                                                                         | 12.2(37)SE                                    |
| Support for Multicast VLAN Registration (MVR) over trunk ports                                                                                         | 12.2(35)SE1                                   |
| Enhanced object tracking for HSRP (metro IP access image only)                                                                                         | 12.2(35)SE1                                   |
| Ethernet OAM IEEE 802.3ah protocol (metro IP access and metro access images only)                                                                      | 12.2(35)SE1                                   |
| Ethernet OAM CFM (IEEE 802.1ag) and E-LMI (metro IP access and metro access images only)                                                               | 12.2(25)SEG                                   |
| Per port per VLAN QoS (metro IP access and metro access images only)                                                                                   | 12.2(25)SEG                                   |
| Support for all OSPF network types (metro IP access only)                                                                                              | 12.2(25)SEG                                   |

**Table 3** *Features Introduced After the First Release and the Minimum Cisco IOS Release Required (continued)*

| <b>Feature</b>                                                                                     | <b>Minimum Cisco IOS Release Required</b> |
|----------------------------------------------------------------------------------------------------|-------------------------------------------|
| Layer 2 protocol tunneling on trunks (metro IP access and metro access images only)                | 12.2(25)SEG                               |
| IS-IS protocol (metro IP access only)                                                              | 12.2(25)SEG                               |
| NNIs on all ports (metro IP access image only)                                                     | 12.2(25)SEG                               |
| DHCP server                                                                                        | 12.2(25)SEG                               |
| DHCP Option-82 configurable remote ID and circuit ID                                               | 12.2(25)SEG                               |
| Multiple spanning-tree (MST) based on the IEEE 802.1s standard                                     | 12.2(25)SEG                               |
| Nonstop forwarding (NSF) awareness (metro IP access image only)                                    | 12.2(25)SEG                               |
| Secure Copy Protocol                                                                               | 12.2(25)SEG                               |
| Flex Links sub-100-ms convergence; preemptive changeover (metro IP access and metro access images) | 12.2(25)SEG                               |
| Link-state tracking (trunk failover) (metro IP access and metro access images only)                | 12.2(25)SEG                               |

## Limitations and Restrictions

You should review this section before you begin working with the switch. These are known limitations that will not be fixed, and there is not always a workaround. Some features might not work as documented, and some features could be affected by recent changes to the switch hardware or software.

- [Bidirectional Forwarding Detection, page 12](#)
- [Connectivity Fault Management \(CFM\), page 12](#)
- [Configuration, page 12](#)
- [EtherChannel, page 14](#)
- [IP, page 14](#)
- [IP Service Level Agreements \(SLAs\), page 14](#)
- [MAC Addressing, page 14](#)
- [Multicasting, page 14](#)
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- [QoS, page 16](#)
- [SPAN and RSPAN, page 17](#)
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- [VLAN, page 18](#)

## Bidirectional Forwarding Detection

- The BFD session with the neighbor flaps when there is close to 100 percent bidirectional line- rate traffic sent through the physical links connecting the neighbors. This happens only on the sessions with Layer 3 BFD neighboring switches connected through a Layer 2 intermediate switch.

The workaround is to make sure that there is no 100 percent bidirectional unknown traffic flowing through the intermediate Layer 2 switch in the same links that connect Layer 3 switches. An alternate workaround is to always directly the Layer 3 switches when BFD is running. (CSCsu94835)

- If you create a BFD session between two switches and then create an ACL that includes the **permit ip any any log-input** access-list configuration command, when you attach the ACL to one of the connecting interfaces, the BFD session goes down. If you remove the ACL from the interface, BFD comes back up.

The workaround is to not use the **permit** ACL entry with the log option on interfaces participating in BFD. (CSCtf31731)

## Connectivity Fault Management (CFM)

- On a switch running CFM, continuity check messages (CCMs) received on a MEP port that are a lower level than the configured MEP level should be discarded and an error message generated, regardless of whether or not the CCM has a valid CFM multicast destination address. On the ME 3400 switch, CFM C-VLAN CCMs with non-CFM multicast addresses are forwarded without CFM processing and no error messages are sent.

There is no workaround. (CSCte39713)

- When the CFM start delay timer is configured to a small value, the *Crosscheck-Up* field in the output of the **show ethernet cfm domain** privileged EXEC command and the *Mep-Up* field in the output of the **show ethernet cfm maintenance-points remote crosscheck** privileged EXEC command might appear as *No* even if the CCM is learned in the remote database.

This is expected behavior. The workaround is to use the **ethernet cfm mep crosscheck start-delay** command to set the delay-start timer value larger than the continuity-check interval. (CSCtf30542)

## Configuration

- The far-end fault optional facility is not supported on the GLC-GE-100FX SFP module. The workaround is to configure aggressive UDLD. (CSCsh70244).
- A static IP address might be removed when the previously acquired DHCP IP address lease expires.

This problem occurs under these conditions:

- When the switch is booted without a configuration (no config.text file in flash memory).
- When the switch is connected to a DHCP server that is configured to give an address to it (the dynamic IP address is assigned to VLAN 1).
- When an IP address is configured on VLAN 1 before the dynamic address lease assigned to VLAN 1 expires.

The workaround is to reconfigure the static IP address. (CSCea71176 and CSCdz11708)

- The DHCP snooping binding database is not written to flash memory or a remote file in any of these situations:
  - When the Network Time Protocol (NTP) is configured, but the NTP clock is not synchronized. You can check the clock status by entering the **show NTP status** privileged EXEC command and verifying that the network connection to the NTP server and the peer work correctly.
  - The DHCP snooping database file is manually removed from the file system. After enabling the DHCP snooping database by configuring a database URL, a database file is created. If the file is manually removed from the file system, the DHCP snooping database does not create another database file. You need to disable the DHCP snooping database and enable it again to create the database file.
  - The URL for the configured DHCP snooping database was replaced because the original URL was not accessible. The new URL might not take effect after the timeout of the old URL.

No workaround is necessary; these are the designed behaviors. (CSCed50819)

- When dynamic ARP inspection is enabled on a switch, ARP and RARP packets greater than 2016 bytes are dropped by the switch or switch stack. This is a hardware limitation.

However, when dynamic ARP inspection is not enabled and a jumbo MTU is configured, ARP and RARP packets are correctly bridged in hardware. (CSCed79734)

- Dynamic ARP inspection log entries might be lost after a switch failure. Any log entries that are still in the log buffer (have not been output as a system message) on a switch that fails are lost.

When you enter the **show ip arp inspection log** privileged EXEC command, the log entries from all switches in the stack are moved to the switch on which you entered the command.

There is no workaround. (CSCed95822)

- When port security is enabled on an interface in restricted mode and the **switchport block unicast interface** command has been entered on that interface, MAC addresses are incorrectly forwarded when they should be blocked

The workaround is to enter the **no switchport block unicast** interface configuration command on that specific interface. (CSCee93822)

- A traceback error occurs if a crypto key is generated after an SSL client session.

There is no workaround. This is a cosmetic error and does not affect the functionality of the switch. (CSCef59331)

- When you enter the **boot host retry timeout** global configuration command to specify the amount of time that the client should keep trying to download the configuration and you do not enter a timeout value, the default value is zero, which should mean that the client keeps trying indefinitely. However, the client does not keep trying to download the configuration.

The workaround is to always enter a non zero value for the timeout value when you enter the **boot host retry timeout timeout-value** command. (CSCsk65142)

- When an ME 3400 port is connected to an ME 3400E port, if one port is configured to 10 Mb/s and the other port is configured to 100 Mb/s (either full or half duplex), the 10 Mb/s port state appears as up/up and the 100 Mb/s port appears as down/down. This connection is a misconfiguration because the speed and duplex do not match.

The workaround is to correct the misconfiguration. (CSCtg53462)

## EtherChannel

- The switch might display tracebacks similar to this example when an EtherChannel interface port-channel type changes from Layer 2 to Layer 3 or the reverse:

```
15:50:11: %COMMON_FIB-4-FIBNULLHWIDB: Missing hwidb for fibhwidb Port-channel1
(ifindex 1632) -Traceback= A585C B881B8 B891CC 2F4F70 5550E8 564EAC 851338 84AF0C
4CEB50 859DF4 A7BF28 A98260 882658 879A58
```

There is no workaround. (CSCsh12472)

- When an EtherChannel is configured for 802.1ad and a channel member that is up is removed from the EtherChannel, the 802.1ad configuration is removed. However, if the port channel is shut down and then removed from the EtherChannel, the 802.1ad configuration is not removed.

The workaround is to enter the **no shutdown** interface configuration command on the port channel before removing it from the EtherChannel. CSCtf77937 (Cisco ME 3400E only)

## IP

- The switch does not create an adjacent table entry when the ARP timeout value is 15 seconds and the ARP request times out.

The workaround is to not set an ARP timeout value lower than 120 seconds. (CSCea21674)

## IP Service Level Agreements (SLAs)

- When the IP SLAs configured reaction type (configured by entering the **ip sla reaction-configuration** global configuration command) is round-trip time (RTT), an RTT event causes duplicate SNMP traps.

There is no workaround.

## MAC Addressing

- When a MAC address is configured for filtering on the internal VLAN of a routed port, incoming packets from the MAC address to the routed port are not dropped. (CSCeb67937)

## Multicasting

- The switch does not support tunnel interfaces, including DVMRP and PIM tunneling.
- Nonreverse-path forwarded (RPF) IP multicast traffic to a group that is bridged in a VLAN is leaked onto a trunk port in the VLAN even if the port is not a member of the group in the VLAN, but it is a member of the group in another VLAN. Because unnecessary traffic is sent on the trunk port, it reduces the bandwidth of the port.

There is no workaround for this problem because non-RPF traffic is continuous in certain topologies. As long as the trunk port is a member of the group in at least one VLAN, this problem occurs for the non-RPF traffic. (CSCdu25219)

- If the number of multicast routes and Internet Group Management Protocol (IGMP) groups are more than the maximum number specified by the **show sdm prefer** global configuration command, the traffic received on unknown groups is flooded in the received VLAN even though the **show ip igmp snooping multicast-table** privileged EXEC command output shows otherwise.

The workaround is to reduce the number of multicast routes and IGMP snooping groups to less than the maximum supported value. (CSCdy09008)

- IGMP filtering is applied to packets that are forwarded through hardware. It is not applied to packets that are forwarded through software. Hence, with multicast routing enabled, the first few packets are sent from a port even when IGMP filtering is set to deny those groups on that port.

There is no workaround. (CSCdy82818)

- When you use the **ip access-group** interface configuration command with a router access control list (ACL) to deny access to a group in a VLAN, multicast data to the group that is received in the VLAN is always flooded in the VLAN, regardless of IGMP group membership in the VLAN. This provides reachability to directly connected clients, if any, in the VLAN.

The workaround is to not apply a router ACL set to deny access to a VLAN interface. Apply the security through other means; for example, apply VLAN maps to the VLAN instead of using a router ACL for the group. (CSCdz86110)

- If an IGMP report packet has two multicast group records, the switch removes or adds interfaces depending on the order of the records in the packet:
  - If the **ALLOW\_NEW\_SOURCE** record is before the **BLOCK\_OLD\_SOURCE** record, the switch removes the port from the group.
  - If the **BLOCK\_OLD\_SOURCE** record is before the **ALLOW\_NEW\_SOURCE** record, the switch adds the port to the group.

There is no workaround. (CSCec20128)

- When IGMP snooping is disabled and you enter the **switchport block multicast** interface configuration command, IP multicast traffic is not blocked.

The **switchport block multicast** interface configuration command is only applicable to non-IP multicast traffic.

There is no workaround. (CSCee16865)

- Incomplete multicast traffic can be seen under either of these conditions:
  - You disable IP multicast routing or re-enable it globally on an interface.
  - A switch mroute table temporarily runs out of resources and recovers later.

The workaround is to enter the **clear ip mroute** privileged EXEC command on the interface. (CSCef42436)

## REP

- Although you can configure a REP segment without configuring REP edge ports, we recommend that you configure REP edge ports whenever possible because edge ports enable these functions:
  - selecting the preferred alternate port
  - configuring VLAN load balancing
  - configuring topology change notifications (TCNs) toward STP, other REP segments, or an interface

- initiating the topology collection process
- preemption mechanisms

You cannot enable these functions on REP segments without edge ports.

- On a switch running both Resilient Ethernet Protocol (REP) and Bidirectional Forwarding Detection (BFD), when the REP link status layer (LSL) age-out value is less than 1000 milliseconds (1 second), the REP link flaps if the BFD interface is shut down and then brought back up.

The workaround is to use the **rep lsl-age-out timer** interface configuration command to configure the REP LSL age timer for more than 1 second. (CSCsz40613)

- If you configure two or more connected REP segments to send segment topology change notices (STCNs) by entering the **rep stcn segment *segment-id*** interface configuration command on REP interfaces, when segments inject messages simultaneously, an STCN loop occurs, and CPU usage can increase to 99 percent for 1 to 2 minutes before recovering.

The workaround is to avoid configuring multiple STCNs in connected segments. This is a misconfiguration. (CSCth18662)

## Routing

- The switch does not support tunnel interfaces for routed traffic.
- A route map that has an ACL with a Differentiated Services Code Point (DSCP) clause cannot be applied to a Layer 3 interface. The switch rejects this configuration and displays a message that the route map is unsupported.

There is no workaround. (CSCea52915)

- A spanning-tree loop might occur if all of these conditions are true:
  - Port security is enabled with the violation mode set to protected.
  - The maximum number of secure addresses is less than the number of switches connected to the port.
  - There is a physical loop in the network through a switch whose MAC address has not been secured, and its BPDUs cause a secure violation.

The workaround is to change any one of the listed conditions. (CSCed53633)

## QoS

- When you use the **bandwidth** policy-map class command to configure more than one class in a policy map for Class-based Weighted Fair Queuing (CBWFQ), and the committed information rate (CIR) bandwidth for any of the classes is less than 2 percent of the interface rate, the CBWFQ classes in the policy may not receive the configured CIR bandwidths.

There is no workaround, but it is unlikely that a CBWFQ class would be configured with such a low CIR bandwidth. (CSCsb98219)

- When several per-port, per-VLAN parent policies are attached to the input of one or more interfaces and a child policy of these parent policies is modified, the parent policies are detached from the interfaces and reattached during the process. Because the modified policy is large, the TCAM entries are being used up, and the attached policies should be removed. However, some of the parent

policies are not removed from the interface, and the TCAM entries are cleared. If you save the configuration and reload the switch, the policies are detached, but the TCAM is full, and you cannot attach other policies.

This error message appears:

```
QOSMGR-4-QOS_TCAM_RESOURCE_EXCEED_MAX: Exceeded a maximum of QoS TCAM resources
```

The workaround is to manually detach the policy maps from all the interfaces by entering the **no service-policy input *policy-map-name*** interface configuration command on each interface. (CSCsk58435)

- When CPU protection is disabled, you can configure 64 policers per port on most switches. However, on Cisco ME 3400EG-12CS and Cisco ME 3400G-12CS switches, due to hardware limitations, you can attach 64 per-port, per-VLAN policers to a maximum of 6 ports. If you attempt to attach more than 6 per-port, per-VLAN 64-policer policy maps, the attachment fails.

There is no workaround. (CSCsv21416)

## SPAN and RSPAN

- The egress SPAN data rate might degrade when multicast routing is enabled. The amount of degradation depends on the processor loading. Typically, the switch can egress SPAN at up to 40,000 packets per second (64-byte packets). As long as the total traffic being monitored is below this limit, there is no degradation. However, if the traffic being monitored exceeds the limit, only a portion of the source stream is spanned. When this occurs, the following console message appears: *Decreased egress SPAN rate*. In all cases, normal traffic is not affected; the degradation limits only how much of the original source stream can be egress spanned. If multicast routing is disabled, egress SPAN is not degraded.

There is no workaround. If possible, disable multicast routing. If possible, use ingress SPAN to observe the same traffic. (CSCeb01216)

- Some IGMP report and query packets with IP options might not be ingress-spanned. Packets that are susceptible to this problem are IGMP packets containing 4 bytes of IP options (IP header length of 24). An example of such packets would be IGMP reports and queries having the router alert IP option. Ingress-spanning of such packets is not accurate and can vary with the traffic rate. Typically, very few or none of these packets are spanned.

There is no workaround. (CSCeb23352)

- When system jumbo MTU size is configured on a switch and the egress ports can support jumbo frames, the egress SPAN jumbo frames are not forwarded to the SPAN destination ports.

There is no workaround. (CSCsj21718)

- Cisco Discovery Protocol (CDP) and Port Aggregation Protocol (PAgP) packets received by network node interfaces (NNIs) from a SPAN source are not sent to the destination interfaces of a local SPAN session.

The workaround is to use the **monitor session *session\_number* destination {interface *interface-id* encapsulation replicate}** global configuration command for local SPAN. (CSCed24036)

## Trunking

- IP traffic with IP options set is sometimes leaked on a trunk port. For example, a trunk port is a member of an IP multicast group in VLAN X but is not a member in VLAN Y. If VLAN Y is the output interface for the multicast route entry assigned to the multicast group and an interface in

VLAN Y belongs to the same multicast group, the IP-option traffic received on an input VLAN interface other than one in VLAN Y is sent on the trunk port in VLAN Y because the trunk port is forwarding in VLAN Y, even though the port has no group membership in VLAN Y.

There is no workaround. (CSCdz42909).

- For trunk ports or access ports configured with IEEE 802.1Q tagging, inconsistent statistics might appear in the **show interfaces counters** privileged EXEC command output. Valid IEEE 802.1Q frames of 64 to 66 bytes are correctly forwarded even though the port LED blinks amber, and the frames are not counted on the interface statistics.

There is no workaround. (CSCec35100).

## VLAN

- If the number of VLANs times the number of trunk ports exceeds 13,000, the switch can stop. The workaround is to not configure more than the recommended number of VLANs and trunks. (CSCeb31087)

- A CPUHOG message sometimes appears when you configure a private VLAN. Enable port security on one or more of the ports affected by the private VLAN configuration.

There is no workaround. (CSCed71422)

- When many VLANs are configured on the switch, high CPU utilization occurs when many links are flapping at the same time.

The workaround is to remove unnecessary VLANs to reduce CPU utilization when many links are flapping. (CSCtl04815)

## Important Notes

- When you upgrade the switch software to Cisco IOS release 12.2(50)SE or higher and autonegotiation is enabled on a Gigabit SFP fiber switch port (the default), but disabled on the link partner port, the switch port interface can show a state of down/down while the link partner shows up/up. This is expected behavior.

The workaround is to either enable autonegotiation on the link partner port or enter the **speed nonegotiate** interface command on the SFP port.

## Open Caveats

- CSCsb44421

Two streams with equivalent traffic profiles mapped to the same egress TX queue on a port experience different drop probabilities. Often, there is a 2:1 or 3:1 preference for one stream.

Use the **show mls qos interface statistics** command to show the uneven drop distribution.

There is no workaround.

- CSCtg98453

When you make port security changes on an interface, such as configuring aging time, violations, or aging type, error messages and tracebacks might appear.

There is no workaround.

- CSCth33165 (Catalyst switch ME-3400E only)
  - If you change the 802.1ad port type on an EtherChannel interface from s-uni isolate to c-uni (isolate or nonisolate), VLAN translation and EtherChannel incompatibility messages appear on the console. These messages do not appear for other port-type modifications.
 

There is no functionality impact. The messages appear because of timing-related issues when an 802.1ad port type is changed from s-uni isolate to c-uni (isolate or nonisolate). To avoid these messages, remove the s-uni isolate configuration by entering the **no ethernet dot1ad uni s-port isolate** command on the EtherChannel interface before entering the **ethernet dot1ad uni c-port [isolate]** command.
  - When a new member port is dynamically added to an EtherChannel that is configured as an 802.1ad c-uni port (isolated or nonisolated) with VLAN mapping applied, no channel incompatibility message is seen, and the port is bundled into the EtherChannel. VLAN mapping is not applied to the new member port. If a new member port without the same VLAN mapping configuration is added to the channel interface, a VLAN mapping mismatch between the new port and the first active member of the port should be detected and an incompatibility error message should appear. Since VLAN mapping configuration is explicitly done by the user on an 802.1ad c-uni channel interface, the new port should not get bundled and should go into a suspended state.

The workaround is that before adding a port to an 802.1ad c-uni channel interface, you should explicitly configure the port with the same VLAN mapping as the EtherChannel to maintain configuration consistency.

- CSCth77918 (Catalyst switch ME-3400E only)
 

When the EtherChannel group mode is **on** and you configure 802.1ad split horizon on the EtherChannel interface by entering the **ethernet dot1ad uni s-port isolate** interface configuration command, after a switch reload, a PAgP flap error occurs, and the EtherChannel goes down. The problem is not seen with other 802.1ad port types or other EtherChannel modes (PAgP mode **desirable** or LACP mode **active** or **passive**).

The workaround is to enter the **shutdown** interface configuration command followed by the **no shutdown** interface configuration command on the error-disabled member ports of the EtherChannel. This removes the problem, and the Etherchannel comes up properly.
- CSCtj83964
 

On a switch running Protocol-Independent Multicast (PIM) and Source Specific Multicast (SSM), multicast traffic might not be sent to the correct port after the switch reloads.

The workaround is to enter the **clear ip route** privileged EXEC command or reconfigure PIM and SSM after a reload.
- CSCtl32991
 

Unicast EIGRP packets destined for the switch are sent to the host queue instead of to the higher priority routing protocol queue.




---

**Note** This does not occur when packets are routed through the switch to another destination.

---

There is no workaround.

- CSCtl60247
 

When a switch running Multiple Spanning Tree (MST) is connected to a switch running Rapid Spanning Tree Protocol (RSTP), the MST switch acts as the root bridge and runs per-VLAN spanning tree (PVST) simulation mode on boundary ports connected to the RST switch. If the allowed VLAN on all trunk ports connecting these switches is changed to a VLAN other than VLAN

1 and the root port of the RSTP switch is shut down and then enabled, the boundary ports connected to the root port move immediately to the forward state without going through the PVST+ slow transition.

There is no workaround.

- CSCt151859

Neighbor discovery fails for IPv6 hosts connected to the switch when the IPv6 MLD snooping feature is enabled globally on the switch.

The workaround is to disable IPv6 MLD snooping on the switch.

- CSCtx11845 (Catalyst switch ME-3400E only)

When you shape ports to less than 400 Mbps and use packets that are larger than 8000 bytes, the output rates are higher than expected and do not comply with the minimum bandwidth guarantee (CIR).

The workaround is to use packets smaller than 8000 bytes or to use a class shaper instead of a port shaper.

- CSCtx27280 (Catalyst switches ME-3400E and ME-3400G only)

For switches that are connected by fiber-optic interfaces, when you configure the **speed nonnegotiate** interface configuration command on one side of the link and the **speed autonegotiate** interface configuration command on the other side of the link, the link state does not appear correctly. (The side where **speed autonegotiate** is configured should appear down.)

There is no workaround.

- CSCtx96383 (Catalyst switch ME-3400E only)

When you try to start a switch that is running Cisco IOS Release 12.2(58)SE2, the following error message might appear:

```
%HARDWARE-3-MCU_I2C_READ_ERROR output on ME-3400E with 12.2(58)SE2
```

There is no workaround.

- CSCty37647

If you configure a dual-ended delay measurement message (DMM) session with an aggregate interval of 900 seconds or more and a default frame interval of one second, not all operations are initiated and completed.

There is no workaround.

- CSCty56739 (Catalyst switch ME-3400E only)

When you define an external alarm and enable traps as shown in the following example, the switch does not generate external alarm traps:

```
-----
alarm-contact 1 description door-open
alarm-contact 1 severity major
alarm-contact 2 description IP8800-DC-down
alarm-contact 2 severity major
alarm-contact 4 description test

snmp-server enable traps syslog
snmp-server enable traps alarms informational
-----
```

There is no workaround.

## Resolved Caveats

- [Caveats Resolved in Cisco IOS Release 12.2\(58\)EX, page 21](#)
- [Caveats Resolved in Cisco IOS Release 12.2\(58\)SE2, page 21](#)

### Caveats Resolved in Cisco IOS Release 12.2(58)EX

- CSCty93572  
Configuring IPv4 virtual routing and forwarding (VRF) on the switch causes IPv6 traffic to be switched through the CPU and results in high CPU usage.  
The workaround is to use the Cisco IOS Release 12.2(55)SE software image.
- CSCtx75614  
When configuring the scheduling parameters for a delay measurement message (DMM) probe operation, if the time period you set for the **life** keyword is lesser than the **aggregate interval** for the probe, the DMM probe runs indefinitely.  
The workaround is to use the **no ip sla schedule** global configuration command to stop the DMM probe and schedule a life that is greater than the aggregate interval for that probe.

### Caveats Resolved in Cisco IOS Release 12.2(58)SE2

- CSCta39338  
When you globally enable UDLD by entering the **udld {aggressive | enable | message time message-timer-interval}** global configuration command, UDLD is now enabled only on fiber optic ports and on dual-purpose ports operating as fiber optic interfaces. It is not enabled on copper ports or dual-purpose ports operating as copper interfaces. For the **udld** global configuration command to enable UDLD on dual-purpose ports that have a small form-factor pluggable (SFP) module connected, you must explicitly configure the interface media type as SFP by entering the **media-type sfp** interface configuration command.
- CSCtl81217  
When a switch is using a DHCP server to assign IP addresses and an interface on the switch has RIP enabled, if the switch reloads, the interface loses some RIP configuration (specifically RIP authentication mode and RIP authentication key-chain). This does not happen when the IP address is statically configured on the interface. The problem occurs only when you configure RIP before an IP address is assigned by the DHCP server.  
There is no workaround, but you can use an embedded event manager (EEM) script to add the interface configuration commands on the interface:  

```
ip rip authentication mode
ip rip key-chain
```
- CSCtn91366 (Catalyst switch ME-3400E only)  
When the tunnel interface is configured with an ingress policy, the SP-VLAN and CE-VLAN tags are marked with CoS values on the egress SPAN packets. The SP-VLAN tag shows the correct CoS value that is marked, but the CE-VLAN shows the incorrect CoS value. Typically, the CE-VLAN must not be marked with a CoS value. This problem occurs when Selective QinQ is configured on the switch with the input policy set to re-mark CoS.

There is no workaround.

- CSCto07919

Cisco IOS Software is affected by two vulnerabilities that cause a Cisco IOS device to reload when processing IP version 6 (IPv6) packets over a Multiprotocol Label Switching (MPLS) domain. These vulnerabilities are:

- Crafted IPv6 Packet May Cause MPLS-Configured Device to Reload
- ICMPv6 Packet May Cause MPLS-Configured Device to Reload

Cisco has released free software updates that address these vulnerabilities.

Workarounds that mitigate these vulnerabilities are available.

This advisory is posted at

<http://www.cisco.com/warp/public/707/cisco-sa-20110928-ipv6mpls.shtml>.

- CSCtq01926

When you configure a port to be in a dynamic VLAN by entering the **switchport access vlan dynamic** interface configuration command on it, the switch might reload when it processes ARP requests on the port.

The workaround is to configure static VLANs for these ports.

- CSCtq48441

The **ip sla** global configuration command does not function in the command line interface.

There is no workaround.

- CSCtr53304 (Catalyst switch ME-3400E only)

When sending data with large packet sizes, bandwidth is not allocated properly. Sometimes, certain classes of service are not allocated any bandwidth regardless of being adequately provisioned by the **bandwidth** global configuration command. This limitation occurs at the application-specific integrated circuit (ASIC) level.

The workaround is to configure classes in a descending order of bandwidth. (For example, configure a class with a bandwidth value of 30000 before configuring a class with a bandwidth value of 25000.) This workaround applies when only one working policy map is configured in the switch or when the working policy map is configured before other policy maps. For other cases, there is no workaround.

## Documentation Updates



### Note

The “Supported MIBs” appendix is no longer in the software configuration guide. To locate and download MIBs for a specific Cisco product and release, use the Cisco MIB Locator: <http://cisco.com/public/sw-center/netmgmt/cmkt/mibs.shtml>.

- [Update to the ME 3400 Hardware Installation Guide, page 23](#)
- [Updates to the ME 3400E Regulatory Compliance and Safety Information Guide and the Getting Started Guide, page 23](#)

**Note**

For information about ME 3400 support for ingress QoS classification on QinQ-based ports, see the *Configuring ME 3400E QoS Classification for QinQ-Based Service, Release 12.2(53)SE* document under the ME 3400E Configuration Guides link.

## Update to the ME 3400 Hardware Installation Guide

Cisco Ethernet Switches are equipped with cooling mechanisms, such as fans and blowers. However, these fans and blowers can draw dust and other particles, causing contaminant buildup inside the chassis, which can result in a system malfunction.

You must install this equipment in an environment as free as possible from dust and foreign conductive material (such as metal flakes from construction activities).

Follow these standard for guidelines for acceptable working environments and acceptable levels of suspended particulate matter:

- Network Equipment Building Systems (NEBS) GR-63-CORE
- National Electrical Manufacturers Association (NEMA) Type 1
- International Electrotechnical Commission (IEC) IP-20

## Updates to the ME 3400E Regulatory Compliance and Safety Information Guide and the Getting Started Guide

These warnings were incorrectly documented in the guides. These are the correct warnings:

### All Switches

**Warning**

**This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than:  
10 A Statement 1005**

### Cisco ME 3400EG-2CS-A

**Warning**

**To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of:  
140°F (60°C) Statement 1047**

### Cisco ME 3400E-24TS-M and Cisco ME 3400EG-12CS-M

**Warning**

**To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of:  
149°F (65°C) Statement 1047**

## Related Documentation

User documentation in HTML format includes the latest documentation updates and might be more current than the complete book PDF available on Cisco.com.

These documents provide complete information about the switch and are available from this Cisco.com site:

- Cisco ME 3400E switch:  
[http://www.cisco.com/en/US/products/ps9637/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps9637/tsd_products_support_series_home.html)
- Cisco ME 3400 switch:  
[http://www.cisco.com/en/US/products/ps6580/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps6580/tsd_products_support_series_home.html)

These are combined documents for the switches:

- *Cisco ME 3400E, ME 3400, and ME 2400 Ethernet Access Switches System Message Guide*

These documents are available for the Cisco ME 3400E switch:

- *Release Notes for the Cisco ME 3400E Ethernet Access Switch*
- *Cisco ME 3400E Ethernet Access Switch Software Configuration Guide*
- *Cisco ME 3400E Ethernet Access Switch Command Reference*
- *Cisco ME 3400E Ethernet Access Switch Hardware Installation Guide*
- *Cisco ME 3400E Ethernet Access Switch Getting Started Guide*
- *Regulatory Compliance and Safety Information for the Cisco ME 3400E Ethernet Access Switch*

These documents are available for the Cisco ME 3400 switch:

- *Cisco ME 3400 Ethernet Access Switch Software Configuration Guide*
- *Cisco ME 3400 Ethernet Access Switch Command Reference*
- *Cisco ME 3400 and ME 2400 Ethernet Access Switch System Message Guide*
- *Cisco ME 3400 Ethernet Access Switch Hardware Installation Guide*
- *Cisco ME 3400 and ME 2400 Ethernet Access Switches Getting Started Guide*
- *Regulatory Compliance and Safety Information for the Cisco ME 3400 and ME 2400 Ethernet Access Switches*
- *Configuration Notes for the Cisco ME 3400G-12CS Ethernet Access Switch*

Information about Cisco SFP, SFP+, and GBIC modules is available from this Cisco.com site:

[http://www.cisco.com/en/US/products/hw/modules/ps5455/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/hw/modules/ps5455/prod_installation_guides_list.html)

SFP compatibility matrix documents are available from this Cisco.com site:

[http://www.cisco.com/en/US/products/hw/modules/ps5455/products\\_device\\_support\\_tables\\_list.html](http://www.cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html)

# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

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