

Cisco IOS Software Release 12.2(52)SE for Cisco Catalyst 3750 Metro Series Switches and Cisco ME 3400 and ME 3400E Series Ethernet Access Switches

Cisco announces Cisco IOS® Software updates for Cisco Catalyst® 3750 Metro Series Switches and Cisco® ME 3400 and ME 3400E Series Ethernet Access Switches. This release advances Cisco's leadership role by providing enhanced resiliency, manageability, routing, usability, and scalability features for Metro Ethernet deployments.

This product bulletin contains content and delivery information for Cisco IOS Software Release 12.2(52)SE.

New Features

The following new features are available with Cisco IOS Software Release 12.2(52)SE for Metro Ethernet switches:

- IEEE 802.1ag Connectivity Fault Management Version 8.1 (CFMv8.1): Provides standards-compliant implementation of the CFM protocol; functions supported include:
 - CFM outward-facing maintenance endpoints (MEPs) on switch port
 - CFM over untagged and QinQ frames
 - CFM MIB (CFM statistics collection and MIB views of maintenance domain management)
 - Backward compatibility with CFMv1.0
- ITU-T Y.1731: Provides support for the ITU-T recommendation for fault management and offers an extension to the IEEE 802.1ag function; the following capabilities are supported:
 - Alarm indication signal (AIS)
 - Remote defect indication (RDI)
 - Ethernet lock signal (LCK)
- Two-Way Active Measurement Protocol (TWAMP) responder: Provides the industry-standard implementation of the IP service-level agreement (SLA)
- IP Version 6 (IPv6): Improves the scalability of IP networks by supporting the growing number of users, applications, and services; functions supported include:
 - Access control lists (ACLs)
 - Dynamic Host Configuration Protocol (DHCP)
 - Neighbor discovery (RFC2461)
 - Routing (unicast routing, Routing Information Protocol [RIP], Enhanced Interior Gateway Routing Protocol [EIGRP], External Border Gateway Protocol [eBGP], Open Shortest Path First Version 3 [OSPFv3], and static routes) in the global table
 - IPv6 HTTP and HTTPS
 - IPv6 host functions
 - IPv6 stateless autoconfiguration
 - IPv6 default router preference
 - IPv6 DHCP relay (global table)

- IPv6 DHCP server (global table)
- IPv6 QoS trust capability

IPv6 is a new feature for the Cisco Catalyst 3750 Metro Series. The Cisco ME 3400 and ME 3400E Series switches already support IPv6, introduced in Cisco IOS Software Release 12.2(50)SE.

- IPv6 multicast: Provides support for functions including:
 - Multicast Listener Discovery Version 1 (MLDv1) v1 snooping
 - MLDv2 snooping

IPv6 multicast on the Cisco Catalyst 3750 Metro Series is supported on the global routing table only and is not virtual route forwarding (VRF) aware.

- Resilient Ethernet Protocol (REP) link status layer (SLS) age-out timer improvement: Allows fast convergence of carrier Ethernet networks when the Layer 2 link failure is reported with a delay in the network
- Digital optical monitoring (DOM) threshold: Monitors real-time optical parameters on DOM Small Form-Factor Pluggables (SFPs) and compares them to factory-reset values to generate alarm and warning thresholds
- Capability to add up to 2000 multicast VLAN registration (MVR) groups in the configuration file
- 1000EX SFP support GLC-EX-SMD
- Cisco IOS Embedded Event Manager (EEM) 3.2: Adds Cisco IOS EEM 3.2 support
- Service diagnostics: Improves the management and operation of the network by implementing common diagnostics scenarios through event-based embedded network management

Table 1 describes product support for new features of Cisco IOS Software Release 12.2(52)SE for the Metro Ethernet switches.

Table 1. New Features in Cisco IOS Software Release 12.2(52)SE for Cisco Metro Ethernet Switches

Feature	Cisco Catalyst 3750 Metro Series: Advanced IP	Cisco Catalyst 3750 Metro Series: IP Services	Cisco Catalyst 3750 Metro Series: IP Base	Cisco ME 3400E Series: Metro IP Access	Cisco ME 3400E Series: Metro Access	Cisco ME 3400 Series: Metro IP Access	Cisco ME 3400 Series: Metro Access	Cisco ME 3400 Series: Metro Base	Cisco ME 2400 Series
CFMv8.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Y.1731 (AIS, LCK, and LBM)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
TWAMP responder	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IPv6 unicast	Yes	Yes	No	Yes	No	Yes	No	No	No
IPv6 multicast	Yes	Yes	No	Yes	No	Yes	No	No	No
IPv6 QoS trust capability	Yes	Yes	No	No	No	No	No	No	No
REP LSL age-out timer improvement	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
DOM threshold	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
2000 MVR group in configuration file	No	No	No	Yes	Yes	Yes	Yes	Yes	No
GLC-EX-SMD SFP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Cisco EEM 3.2	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
Service diagnostics	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No

Part Numbers for Supported Products

Table 2 lists the part numbers for the Metro Ethernet switches supported in this release.

Table 2. Part Numbers for Cisco Catalyst Metro Ethernet Switches Supported with Cisco IOS Software Release 12.2(52)SE

Cisco Catalyst 3750 Metro Series Switches and Software Licenses	Cisco ME 3400E Series Switches and Software Images	Cisco ME 3400 Series Switches and Software Images
<ul style="list-style-type: none"> • ME-C3750-24TE-M • ME3750-IPSV-LIC • ME3750-IPSV-LIC= • ME3750-ADVIP-LIC • ME3750-ADVIP-LIC= • ME3750-UPGRD-LIC= 	<ul style="list-style-type: none"> • ME-3400E-24TS-M • ME-3400EG-12CS-M • ME-3400EG-2CS-A • S340XA-12252SE • S340XI-12252SE • CD-ME3400-A2I= 	<ul style="list-style-type: none"> • ME-3400-24TS-A • ME-3400-24TS-D • ME-3400-24FS-A • ME-3400G-12CS-A • ME-3400G-12CS-D • ME-3400G-2CS-A • CD-ME3400-B2A= • CD-ME3400-B2I= • CD-ME3400-A2I= • S340XB-12252SE • S340XA-12252SE • S340XI-12252SE

Additional Resources

Software Downloads

Software is available for download from the following sites:

- Cisco IOS Software upgrade planner: <http://www.cisco.com/cgi-bin/Software/iosplanner/Planner-tool/iosplanner.cgi?majorRel=>
- Guest-level access planner: <http://www.cisco.com/kobayashi/sw-center/index.shtml>

Because of export restrictions on strong cryptography software, a separate image is required for the cryptographic features (Secure Shell [SSH] Protocol, Simple Network Management Protocol Version 3 [SNMPv3], and Kerberos Protocol). These software images can be downloaded from the corresponding Triple Data Encryption Standard (3DES) area of the links provided in this section. Note that the Cisco Advanced IP Services license is available only in cryptographic format.

Product Information

Additional product information is available at the following sites:

- Cisco Catalyst 3750 Metro Series Switches: <http://www.cisco.com/go/catalyst3750metro>
- Cisco ME 3400 Series Switches: <http://www.cisco.com/en/US/products/ps6580/index.html>
- Cisco ME 3400E Series Switches: <http://www.cisco.com/en/US/products/ps9637/index.html>
- Cisco Catalyst 3750 Metro Series and Cisco ME 3400E and 3400 Series release notes:
 - <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat3750m/index.htm>
 - <http://www.cisco.com/univercd/cc/td/doc/product/metro/me3400/index.htm>
 - http://www.cisco.com/en/US/products/ps9637/tsd_products_support_series_home.html

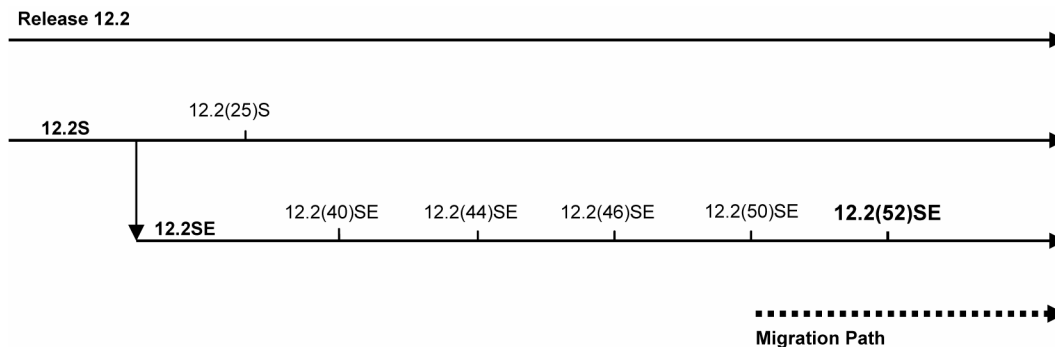
Support

Cisco IOS Software Release 12.2(52)SE follows the standard Cisco support policy. For more information, visit http://www.cisco.com/en/US/products/products_end-of-life_policy.html.

Software Image Migration Guide

Figure 1 displays Cisco IOS Software Release 12.2(52)SE functions for Releases 12.2S and 12.2SE and identifies the recommended migration path.

Figure 1. Cisco IOS Software 12.2 Release Train



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