

## Cisco IOS Software Release 12.2(50)SE for Cisco Catalyst 3750 Metro, Cisco ME 2400, ME 3400, and ME 3400E Series Ethernet Access Switches

PB523915

Cisco announces Cisco® IOS® Software updates for Cisco Catalyst® 3750 Metro, ME 3400, ME 3400E, and ME 2400 Series Switches. This release furthers Cisco's leadership by providing enhanced routing, resiliency, security and manageability features for Metro Ethernet deployments.

This product bulletin contains content and delivery information for Cisco IOS Software Release 12.2(50)SE.

### New Features

The following new features are available with Cisco IOS Software Release 12.2(50)SE for Metro Ethernet switches:

- Bidirectional Forwarding Detection (BFD): Allows rapid detection of path and system failures by using a fast hello mechanism. BFD can provide failure detection on any kind of path between systems, including direct physical links, virtual circuits, multi-hop routed paths, and unidirectional links. Routing protocols supported include Open Shortest Path First (OSPF) Protocol, Integrated Intermediate System to Intermediate System (IS-IS), Border Gateway Protocol (BGP), Hot Standby Router Protocol (HSRP), and Enhanced Interior Gateway Routing Protocol (EIGRP).
- IPv6: Improves the scalability of IP networks by supporting the growing number of users, applications and services. The functionalities supported include:
  - Access control lists (ACLs)
  - Dynamic Host Configuration Protocol (DHCP)
  - Neighbor Discover (RFC2461)
  - Routing (Unicast routing, Routing Information Protocol [RIP], OSPFv3, static routes)
  - IPv6 – Host functions
  - IPv6 – Stateless autoconfig
  - IPv6 – Default router preferenceIPv6 is supported on the Cisco ME 3400 and ME 3400E Series Switches.
- Resilient Ethernet Protocol (REP) interoperability (REP edge no neighbor): Makes it possible to achieve fast convergence of Carrier Ethernet networks even when the REP ring is terminated into a non REP-capable switch.
- REP performance improvements: Optimizes the convergence time of multicast traffic over REP access networks, thus improving overall service availability.

- IEEE 802.1x supplicant: Helps mitigate security threats in the Carrier Ethernet access network by having the switch (with a supplicant) securely authenticate itself with an upstream switch.
- Entity Sensor MIB for Digital Optical Monitoring (DOM) Small Form-Factor Pluggables (SFPs): Allows the monitoring of optical parameters on DOM SFPs.
- Link Layer Discovery Protocol (LLDP) MIB: Provides manageability for LLDP including local and remote MIBs
- CISCO-PORT-QOS-MIB enhancement: Improves the manageability aspects of the switch by monitoring additional quality-of-service (QoS) statistics. This MIB is supported only on the ME 3400 and ME 3400E Series Switches.
- 64 policers per port: Enhances service scalability by increasing the number of per port policers to 64. This enhancement applies only to the ME 3400 and ME 3400E Series Switches.
- Per port per VLAN loopback: Increases the service availability and manageability of Carrier Ethernet applications by helping service providers activate and troubleshoot new and existing services on a per VLAN basis, without impacting other services on the same port and avoiding expensive truck rolls. This feature is available on the ME 3400E Series only
- Additional dense wavelength-division multiplexing (DWDM) SFPs qualification: The following wavelengths are added to the 32 DWDM SFPs currently supported:
  - 1533.46 (DWDM-SFP-3346=)
  - 1537.39 (DWDM-SFP-3739=)
  - 1541.34 (DWDM-SFP-4134=)
  - 1545.32 (DWDM-SFP-4532=)
  - 1549.31 (DWDM-SFP-4931=)
  - 1553.32 (DWDM-SFP-5332=)
  - 1557.36 (DWDM-SFP-5736=)
  - 1561.41 (DWDM-SFP-6141=)
- Embedded Event Manager (EEM) 2.4: Adds EEM 2.4 support.

Table 1 describes product support for new features of Cisco IOS Software Release 12.2(50)SE for Metro Ethernet switches.

**Table 1.** New Features in Cisco IOS Software Release 12.2(50)SE for Cisco Catalyst Metro Ethernet Switches

Feature	3750 Metro: Advanced IP	3750 Metro: IP Services	3750 Metro: IP Base	ME 3400E: Metro IP Access	ME 3400E: Metro Access	ME 3400: Metro IP Access	ME 3400: Metro Access	ME 3400: Metro Base	ME 2400
<b>BFD</b>	Yes	Yes	No	Yes	No	Yes	No	No	No
<b>IPv6</b>	No	No	No	Yes	No	Yes	No	No	No
<b>REP interoperability</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>REP multicast improvements</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>IEEE802.1x supplicant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Entity Sensor MIB</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

<b>LLDP MIB</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>CISCO-PORT-QOS-MIB enhancement</b>	No	No	No	Yes	Yes	Yes	Yes	Yes	No
<b>64 policers per port</b>	No	No	No	Yes	Yes	/=Yes	Yes	Yes	No
<b>Per port per VLAN loopback</b>	No	No	No	Yes	Yes	No	No	No	No
<b>Additional DWDM SFPs support</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>EEM 2.4</b>	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No

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(50)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	Cisco ME 2400 Series Switches
<ul style="list-style-type: none"> <li>ME-C3750-24TE-M</li> <li>ME3750-IPSVC-LIC</li> <li>ME3750-IPSVC-LIC=</li> <li>ME3750-ADVIP-LIC</li> <li>ME3750-ADVIP-LIC=</li> <li>ME3750-UPGRD-LIC=</li> </ul>	<ul style="list-style-type: none"> <li>ME-3400E-24TS-M</li> <li>ME-3400EG-12CS-M</li> <li>ME-3400EG-2CS-A</li> <li>S340XA-12250SE</li> <li>S340XI-12250SE</li> <li>CD-ME3400-A2I=</li> </ul>	<ul style="list-style-type: none"> <li>ME-3400-24TS-A</li> <li>ME-3400-24TS-D</li> <li>ME-3400-24FS-A</li> <li>ME-3400G-12CS-A</li> <li>ME-3400G-12CS-D</li> <li>ME-3400G-2CS-A</li> <li>CD-ME3400-B2A=</li> <li>CD-ME3400-B2I=</li> <li>CD-ME3400-A2I=</li> <li>S340XB-12250SE</li> <li>S340XA-12250SE</li> <li>S340XI-12250SE</li> </ul>	<ul style="list-style-type: none"> <li>ME-2400-24TS-A</li> <li>ME-2400-24TS-D</li> </ul>

## Additional Resources

### Software Download

Software is available for download from the following sites:

- Cisco IOS Software upgrade planner: [www.cisco.com/cgi-bin/Software/iosplanner/Planner-tool/iosplanner.cgi?majorRel=](http://www.cisco.com/cgi-bin/Software/iosplanner/Planner-tool/iosplanner.cgi?majorRel=).
- Guest-level access planner: [www.cisco.com/kobayashi/sw-center/index.shtml](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 [SNMP] v3, 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: [www.cisco.com/go/catalyst3750metro](http://www.cisco.com/go/catalyst3750metro)
- Cisco ME 3400 Series Switches: [www.cisco.com/en/US/products/ps6580/index.html](http://www.cisco.com/en/US/products/ps6580/index.html)
- Cisco ME 3400E Series Switches: [www.cisco.com/en/US/products/ps9637/index.html](http://www.cisco.com/en/US/products/ps9637/index.html)
- Cisco ME 2400 Series Switches: [www.cisco.com/en/US/products/ps6581/index.html](http://www.cisco.com/en/US/products/ps6581/index.html)

- Cisco Catalyst 3750 Metro and ME 3400E/3400/2400 Series release notes:
  - [www.cisco.com/univercd/cc/td/doc/product/lan/cat3750m/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/lan/cat3750m/index.htm)
  - [www.cisco.com/univercd/cc/td/doc/product/metro/me3400/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/metro/me3400/index.htm)
  - [www.cisco.com/univercd/cc/td/doc/product/metro/me2400/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/metro/me2400/index.htm)
  - [www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2\\_44\\_ey/release/notes/OL18902.html](http://www.cisco.com/en/US/docs/switches/metro/me3400e/software/release/12.2_44_ey/release/notes/OL18902.html)

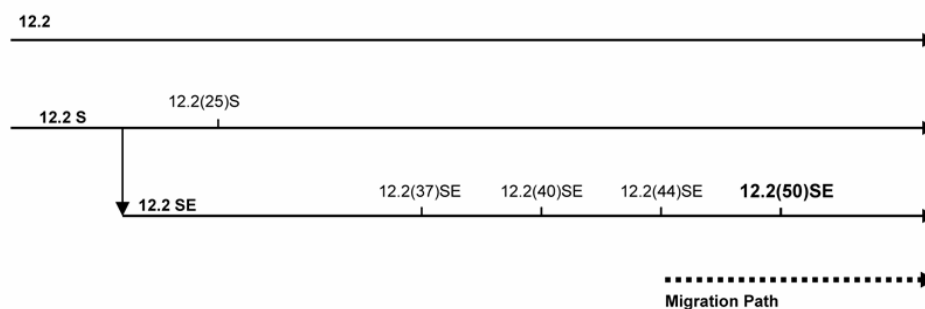
## Support

Cisco IOS Software Release 12.2(50)SE follows the standard Cisco support policy. For more information, visit: [www.cisco.com/en/US/products/products\\_end-of-life\\_policy.html](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(50)SE functions relative to the 12.2S and 12.2SE releases and identifies the recommended migration path.

**Figure 1.** Cisco IOS Software Release 12.2 Release Train



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