

New Cisco IOS Software Release 12.2(44)SE for Cisco Catalyst 3750-E, 3750, 3560-E, 3560, 2960, and 2970 Series Switches and Cisco Catalyst Blade Switch 30xx Series

PB443962

Cisco® announces Cisco IOS® Software updates for Cisco Catalyst® 3750-E, 3750, 3560-E, 3560, 2960, and 2970 Series Switches and the Cisco Catalyst Blade Switch 30xx Series. This release furthers Cisco leadership by providing integrated services for IPv6, secure voice, multicast, and manageability for enterprise deployments.

This product bulletin contains content and delivery information for Cisco IOS Software Release 12.2(44)SE.

The following new features are available with Cisco IOS Software Release 12.2(44)SE for enterprise Ethernet switches:

- Enhanced Power Over Ethernet (PoE) for up to 20Watts: Powers Cisco® Aironet® 1250 Series Access Point which supports the IEEE 802.11n draft 2.0 standard
- Simple Network Management Protocol (SNMP), HTTP, and HTTPS for Internet Protocol Version 6 (IPv6): Enables switch management using SNMP(v2/v3), HTTP, and HTTPS over IPv6 transport. For IPv6 networks, this eliminates the need for dual IPv4 + IPv6 stack.
- Syslog for IPv6: Provides switch logging over IPv6 transport. For IPv6 networks, dual IPv4 + IPv6 stack is no longer needed.
- IPv6 stateless autoconfiguration: Simplifies management through automatic configuration of an IP address on a local segment, enabling communication with other nodes on the link.
- Auto Install for configuration and Image update: Simplify management of large number of switches, by automatically downloading specified configuration and image.
- Flow-based Switch Port Analyzer (SPAN): Enhances SPAN functionality to capture only traffic of interest on specified ports, optimizing network throughput. Allows users to define filters for traffic capture, including source and destination hosts, applications, and others. Both IP (v4 and v6) and non-IP traffic can be captured for analysis.
- 802.1x readiness check: Simplifies deployment by generating a report for end hosts capable of 802.1x. Readiness check can be initiated for all the ports (global) or specific ports to determine readiness of connected end hosts, before configuring 802.1x on the switch.
- Source-Specific Multicast (SSM) Mapping: The SSM capability is an efficient and optimized multicast protocol that is used for one-to-many multicast applications such as video. SSM mapping provides a mapping of source to group, which allows listeners to find/connect to multicast sources dynamically, reducing dependencies on the application.

- **Flexlink Multicast Fast Convergence:** Increases network availability by utilizing various techniques to initiate a fast convergence of the multicast stream during Flexlink failover.
- **Digital optical monitoring:** Monitors health of X2 modules, coarse wavelength-division multiplexing (CWDM), dense wavelength-division multiplexing (DWDM), and BX Small Form-Factor Pluggables (SFPs).
- **Cisco Catalyst Blade Switch 30xx Series (CBS 30xx) IP Base support:** Starting this release CBS 30xx blade switches will support IP Base feature packaging, similar to Cisco Catalyst 3560 Series Switches. However, IP Services and Advanced IP Services are not available on Cisco Catalyst Blade Switch 30xx Series switches.

Table 1 describes product support for new features of Cisco IOS Software Release 12.2(44)SE for enterprise switches, and Table 2 lists the supported switches.

Table 1. Cisco IOS Software Release 12.2(44)SE New Features for Enterprise Switches

Feature	3750-E-IPB	3750-E-IPS	3750-E-AIS	3560-E-IPB	3560-E-IPS	3560-E-AIS
Enhanced PoE for up to 20Watts	Yes	Yes	Yes	Yes	Yes	Yes
SNMP over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
HTTP, HTTPS over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
Syslog over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
IPv6 Stateless Autoconfiguration	Yes	Yes	Yes	Yes	Yes	Yes
Auto Install for configuration and Image update	Yes	Yes	Yes	Yes	Yes	Yes
Flow-Based SPAN	Yes	Yes	Yes	Yes	Yes	Yes
802.1x Readiness Check	Yes	Yes	Yes	Yes	Yes	Yes
Source-Specific Multicast Mapping	No	Yes	Yes	No	Yes	Yes
Multicast Fast Convergence with Flexlink Failover	No	Yes	Yes	No	Yes	Yes
IP Base Support for Blade Switch 30xx Series	E	E	E	E	E	E

Feature	3750-IPB	3750-IPS	3750-AIS	3560-IPB	3560-IPS	3560-AIS
Enhanced PoE for up to 20Watts	No	No	No	No	No	No
SNMP over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
HTTP, HTTPS over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
Syslog over IPv6	Yes	Yes	Yes	Yes	Yes	Yes
IPv6 Stateless Autoconfiguration	Yes	Yes	Yes	Yes	Yes	Yes
Auto Install for configuration and Image update	Yes	Yes	Yes	Yes	Yes	Yes
Flow-Based SPAN	No	No	No	No	No	No
802.1x Readiness Check	Yes	Yes	Yes	Yes	Yes	Yes
Source-Specific Multicast Mapping	No	Yes	Yes	No	Yes	Yes
Multicast Fast Convergence with Flexlink Failover	Yes	Yes	Yes	Yes	Yes	Yes
IP Base Support for Blade Switch 30xx Series	E	E	E	E	E	E

Feature	2960-LB	2960-Lan Lite	2970	CBS 30xx-IPB
Enhanced PoE for up to 20Watts	No	No	No	No
SNMP over IPv6	Yes	No	No	Yes
HTTP, HTTPS over IPv6	Yes	No	No	Yes
Syslog over IPv6	Yes	No	No	Yes
IPv6 Stateless Autoconfiguration	Yes	No	No	Yes
Auto Install for configuration and Image update	Yes	Yes	No	Yes
Flow-Based SPAN	No	No	No	No
802.1x Readiness Check	Yes	No	No	Yes
Source-Specific Multicast Mapping	No	No	No	No
Multicast Fast Convergence with Flexlink Failover	Yes	No	No	No
IP Base Support for Blade Switch 30xx Series	No	No	No	Yes

In Table 1, IPB = IP Base feature set; IPS = IP Services feature set; AIS = Advanced IP Services feature set; Yes = feature supported, No = feature not supported; E = existing support.

Table 2. Cisco Catalyst Switches Supported and Software Licenses for Cisco IOS Software Release 12.2(44)SE

Cisco Catalyst 3750-E and Catalyst 3560-E Series License Part Numbers	Cisco Catalyst 3750-E Series IP Services Part Numbers	Cisco Catalyst 3750-E Series IP Base Part Numbers	Cisco Catalyst 3560-E Series IP Services Part Numbers	Cisco Catalyst 3560-E Series IP Base Part Numbers
<ul style="list-style-type: none"> • 3750E-LIC= • 3750E-IPSLCB-QTY • 3750E48-IPSLCB-QTY • 3750E-AISK9LCSQTY • 3750E48-AISK9LCBQ • 3750E-AISK9LCBQTY • 3750E48-AISK9LCSQ • 3560E-LIC= • 3560E-IPSLCB-QTY • 3560E-AISK9LCSQTY • 3560E-AISK9LCBQT • 3560E12D-SLB-QTY • 3560E12D-AK9LB-QTY • 3560E12D-AK9LS-QTY 	<ul style="list-style-type: none"> • 3750E-24TD-E • 3750E-24PD-E • 3750E-48TD-E • 3750E-48PD-E • 3750E-48PD-EF 	<ul style="list-style-type: none"> • 3750E-24TD-S • 3750E-24PD-S • 3750E-48TD-S • 3750E-48PD-S • 3750E-48PD-SF 	<ul style="list-style-type: none"> • 3560E-24TD-E • 3750E-24PD-E • 3560E-48TD-E • 3560E-48PD-E • 3560E-48PD-EF • 3560E-12D-E • 3560E-12SD-E 	<ul style="list-style-type: none"> • 3560E-24TD-S • 3750E-24PD-S • 3560E-48TD-S • 3560E-48PD-S • 3560E-48PD-SF • 3560E-12D-S • 3560E-12SD-S

Cisco Catalyst 3750 and Catalyst 3560 Series License CD Part Numbers	Cisco Catalyst 3750 Series IP Services Part Numbers	Cisco Catalyst 3750 Series IP Base Part Numbers	Cisco Catalyst 3560 Series IP Services Part Numbers	Cisco Catalyst 3560 Series IP Base Part Numbers
<ul style="list-style-type: none"> • CD-3750-EMI= • CD-3750G-EMI= • CD-3750G-48EMI= • 3750-AISK9-LIC-B • 3750-AISK9-LIC-S • 3750G-AISK9-LIC-B • 3750G-AISK9-LIC-S • 3750G48-AISK9LIC-B • 3750G48-AISK9LIC-S • CD-3560-EMI= • CD-3560G-EMI= • 3560-AISK9-LIC-B • 3560-AISK9-LIC-S • 3560G-AISK9-LIC-B • 3560G-AISK9-LIC-S • S3560G-AISK9-LIC-B • 3560G-AISK9-LIC-S 	<ul style="list-style-type: none"> • 3750-48TS-E • 3750-24TS-E • 3750G-24T-E • 3750G-48TS-E • 3750G-24TS-E • 3750G-12S-E • 3750G-16TD-E • 3750-48PS-E • 3750-24PS-E • 3750G-24TS-1U-E • 3750G-24PS-E • 3750G-48PS-E 	<ul style="list-style-type: none"> • 3750-48TS-S • 3750-24TS-S • 3750G-24T-S • 3750-24FS-S • 3750G-48TS-S • 3750G-24TS-S • 3750G-12S-S • 3750G-16TD-S • 3750-48PS-S • 3750-24PS-S • 3750G-24TS-1U-S • 3750G-24PS-S • 3750G-48PS-S • 3750G-24WS-S50 • 3750G-24WS-S25 	<ul style="list-style-type: none"> • 3560-24TS-E • 3560-48TS-E • 3560-48PS-E • 3560-24PS-E • 3560G-48PS-E • 3560G-24PS-E • 3560G-48TS-E • 3560G-24TS-E 	<ul style="list-style-type: none"> • 3560-24TS-S • 3560-48TS-S • 3560-48PS-S • 3560-24PS-S • 3560G-48PS-S • 3560G-24PS-S • 3560G-48TS-S • 3560G-24TS-S • 3560-8PC-S

Cisco Catalyst 2960 Series Part Numbers	Cisco EtherSwitch Service Modules for Cisco 2600, 2800, 3700, and 3800 Series Routers Part Numbers	Cisco Catalyst 2970 Series Part Numbers
<ul style="list-style-type: none"> • 2960-8TC-L • 2960G-8TC-L • 2960-24TC-L • 2960-24TT-L • 2960-48TC-L • 2960-48TT-L • 2960G-24TC-L • 2960G-48TC-L 	<ul style="list-style-type: none"> • NME-16ES-1G • NME-16ES-1G-P • NME-X-23ES-1G • NME-X-23ES-1G-P • NME-XD-24ES-1S-P • NME-XD-48ES-2S-P 	<ul style="list-style-type: none"> • 2970G-24T-E • 2970G-24TS-E

Additional Resources

Software Download

Software is available for download from the following links:

- 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>

You must purchase the EMI/IP Services or Advanced IP Services software upgrade kit when upgrading a switch from SMI/IP Base to EMI/IP Services or Advanced IP Services software. Downloads of SMI/IP Base, EMI/IP Services, and Advanced IP Services files are monitored for adherence to this requirement. Cisco Catalyst 3750-E and 3560-E support the new Cisco IOS Software licensing infrastructure, which authorizes and enables the usage of the three existing Cisco IOS Software feature sets. A special file contained in the switch's flash memory, called a license file, is examined by Cisco IOS Software when the switch is powered on. Based on the license's type, Cisco IOS Software enables the appropriate Cisco IOS Software feature set.

Because of export restrictions on strong cryptography software, a separate image is required for the cryptographic features (SSH, 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 URLs:

- Cisco Catalyst 3750-E Series Switches: <http://www.cisco.com/go/3750-E>
- Cisco Catalyst 3750 Series Switches: <http://www.cisco.com/go/catalyst3750>
- Cisco Catalyst 3560-E Series Switches: <http://www.cisco.com/go/3560-E>
- Cisco Catalyst 3560 Series Switches: <http://www.cisco.com/go/catalyst3560>
- Cisco Catalyst 2960 Series Switches: <http://www.cisco.com/go/catalyst2960>
- Cisco Catalyst 3550 Series Switches: <http://www.cisco.com/go/catalyst3550>
- Cisco Catalyst 2970 Series Switches: <http://www.cisco.com/go/catalyst2970>
- Cisco Catalyst 3750, 3560, 2960, and 2970 Series release notes:
 - <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat3750/index.htm>
 - <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat3560/index.htm>
 - <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat2970/index.htm>
 - <http://www.cisco.com/univercd/cc/td/doc/product/lan/cat2960/index.htm>
- Cisco EtherSwitch[®] Service Modules for Cisco 2600 Series Multiservice Platforms, Cisco 2800 and 3800 Series Integrated Services Routers, and Cisco 3700 Series Multiservice Access Routers:
http://www.cisco.com/en/US/products/ps5854/products_data_sheet0900aecd8028d15f.html
- Cisco Catalyst Blade Switches: <http://www.cisco.com/en/US/products/ps6748/index.html>

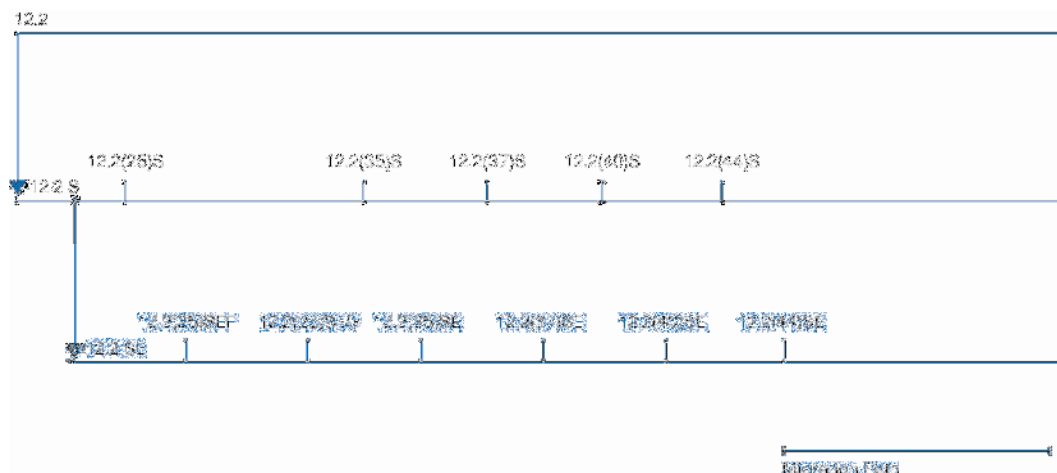
Support

Cisco IOS Software Release 12.2(44)SE follows the standard Cisco support policy indicated at: 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(44)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



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0711R)