

New Cisco IOS Software Release 12.1(19)EA1 for Cisco Catalyst 3750, Catalyst 3550, Catalyst 2970, Catalyst 2955, Catalyst 2950, Catalyst 2950-LRE, and Catalyst 2940 Series Switches

Overview

Cisco Systems® is pleased to announce Cisco IOS® Software updates for the Cisco® Catalyst® 3750, Catalyst 3550, Catalyst 2970, Catalyst 2955, Catalyst 2950, Catalyst 2950-LRE, and Catalyst 2940 series intelligent Ethernet switches. This new release furthers Cisco's leadership in providing secure, reliable, and easily managed LAN switching solutions.

This product bulletin describes the content and delivery information about Cisco IOS Software Release 12.1(19)EA1. For more information about the Cisco IOS Software release process, see Product Bulletin No. 537.

Cisco continues its commitment to provide the highest degree of security available with the support of *Secure Shell Protocol Version 2 (SSHv2)*. SSHv2 provides the most reliable and secure communication for administrators to use when configuring and monitoring Cisco Catalyst switches.

Unicast MAC Filtering can be used to deny any type of packet with a matching MAC address from being switched. This allows even non-IP packets to be filtered and controlled.

Unknown Unicast/Multicast Port Blocking can be used to drop packets that the switch does not already know how to forward. Already supported on the Cisco Catalyst 3750 and Catalyst 3550, this feature is now available on the Cisco Catalyst 2950G Series.

As customers transition to Gigabit Ethernet powered networks, the Time Domain Reflectometer (TDR) feature provides diagnostic capabilities to ensure existing network cabling is sound and meets the requirements of these new, high-speed networks.

The Auto-MDIX (media dependent interface crossover) feature is now available on the Cisco Catalyst 2940. This feature simplifies the knowledge required to cable devices together by allowing straight and crossover cables to be used interchangeably.

The Cisco Catalyst 2950-LRE now supports *Express Setup* to provide the simple and convenient initial setup process available on other Cisco Catalyst Series switches.

A *Dynamic Host Configuration Protocol (DHCP) server* is now available in Cisco IOS Software. It provides a convenient deployment option for networks that do not have a dedicated DHCP server. A DHCP server provides an IP address to hosts, such as personal computers, that request them.



For customers who require fine-grained control over IP address assignment of the DHCP server, *DHCP Snooping Option 82* provides additional information from a Cisco Catalyst switch to a DHCP server. The switch augments host requests with additional information (such as the host switch port) to allow the DHCP server to make more sophisticated address assignments. An application of this feature can be to ensure any device that gets plugged into a particular switch port gets the same IP address.

Strict Priority Queuing (Expedite) is now available on the Cisco Catalyst 3750. This feature now enables more consistent deployment of quality of service (QoS) across the Cisco Catalyst Series of intelligent Ethernet switches.

Support for the latest version of Internet Group Management Protocol Version 3 (IGMPv3) is added with *IGMPv3 Snooping*. IGMP Snooping ensures efficient distribution of multicast traffic to only the endpoints that need to receive it.

PAgP/LACP/UDLD (Point Aggregation Protocol/Link Aggregation Control Protocol/Unidirectional Link Detection) Layer 2 Tunneling allows Cisco EtherChannel[®] technology and other select Layer 2 protocols to be transparently tunneled in a point-to-point connection over a network between two edge switches. As an example, this feature can be used to extend these protocols between two switches over an Internet service provider's (ISP's) network.

IGMP Throttling enhancements are available in this release to provide full backward compatibility of this feature with the Cisco Catalyst 3500XL.

Coarse wavelength-division multiplexing (CWDM) Small Form Factor Pluggable (SFP) slots are now supported on Cisco Catalyst 3750 and Catalyst 2970 switches with SFP slots. This allows these switches to support CWDM in deployments such as point-to-point campus extensions and metropolitan (metro) access service ring topologies.

Client Side Install is a new feature in the Cisco Cluster Management Suite (CMS) that lets users install the Cisco CMS Software files found on the switch to a personal computer. The benefit of this is an improved launch time for Cisco CMS, particularly when the switch is located across a slow-speed network connection.

The *Cisco CMS Plug-In* is a simple installation program that configures the management station with the correct run-time software to support Cisco CMS. This removes the burden of having to manually find the correct version of the run-time software for a particular version of Cisco CMS.

New Features in Cisco IOS Release 12.1(19)EA1

Table 1 lists the features that will be delivered in the initial release of Cisco IOS Software Release 12.1(19)EA1, and Table 2 lists those that will be delivered in Cisco CMS Software. Table 3 gives the products supported with this release.



Table 1 Cisco IOS Software Release 12.1(19)EA1 New Features

Cisco IOS Software Release 12.1(19)EA1 Feature	Cisco Catalyst 3750-EMI	Cisco Catalyst 3750-SMI	Cisco Catalyst 2970-E	Cisco Catalyst 3550-EMI	Cisco Catalyst 3550-SMI	Cisco Catalyst 2950-EI, Catalyst 2950-LRE, and Catalyst 2955	Cisco Catalyst 2950-SI	Cisco Catalyst 2940
SSHv2	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Unicast MAC Filtering	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Unknown Unicast/Multicast Blocking	Yes	Yes	Yes	Yes	Yes	Cisco Catalyst 2950G, Catalyst 2955, and Catalyst 2950-LRE series	No	No
Auto-MDIX	Yes	Yes	Yes	No	No	No	No	Yes
TDR	Yes	Yes	Yes	No	No	No	No	No
Express Setup	Yes	Yes	Yes	Yes	Yes	Yes, except the Cisco Catalyst 2955	Yes	Yes
DHCP Server	Yes	Yes	Yes	Yes	Yes	Cisco Catalyst 2955 only	No	No
DHCP Snooping Option 82	Yes	Yes	Yes	Yes	Yes	Yes	No	No
IGMPv3 Snooping	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strict Priority Queue (Expedite)	Yes	Yes	Yes	Yes	Yes	Yes	No	No
PAgP/LACP/UDLD Layer 2 Tunneling	No	No	No	Yes	Yes	No	No	No
IGMP Throttling Enhancements	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CWDM SFP	Yes	Yes	Yes	–	–	No	–	No



Table 2 New Features in Cisco CMS Software

Feature	Description
Client Side Install	Improves the launch time of Cisco CMS by installing Cisco CMS Software files on the management station
Cisco CMS Plug-In	A simple installer program that configures the management station with the correct run-time software

Table 3 Products This Release Supports

Cisco Catalyst 3750 Enhanced Multilayer Image Models	Cisco Catalyst 3750 Standard Multilayer Image Models	Cisco Catalyst 3550 Enhanced Multilayer Image Models	Cisco Catalyst 3550 Standard Multilayer Image Models
3750-48TS-E	3750-48TS-S	3550-12G	3550-24-SMI
3750-24TS-E	3750-24TS-S	3550-12T	3550-24PWR-SMI
3750G-24TE	3750G-24TS	3550-24-EMI	3550-48-SMI
3750G-24TS-E	3750G-24TS-S	3550-24PWR-EMI	3550-24-FX-SMI
3750G-12S-E	3750G-12S-S	3550-48-EMI	3550-24-DC-SMI
		3550-24-FX-SMI w/EMI upgrade	
		3550-24-DC-SMI w/EMI upgrade	

Cisco Catalyst 2970 Models	Cisco Catalyst 2955 Enhanced Image Models	Cisco Catalyst 2950 Enhanced Image Models	Cisco Catalyst 2950 Standard Image Models	Cisco Catalyst 2950-LRE Models	Cisco Catalyst 2940 Models
2970G-24TE	2955C-12	2950T-24	2950-12	2950LRE-24-997	2940-8TF
2970G-24TS-E	2955S-12	2950C-24	2950-24	2950ST-24-LRE	2940-8TT
	2955T-12	2950G-12-EI	2950SX-24	2950ST-8-LRE	
		2950G-24-EI	2950SX-48		
		2950G-48-EI	2950T-48		
		2950G-24-EI-DC			

Additional Resources

Software download—Software available October 2003:

Cisco Catalyst 3750 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat3750>

Cisco Catalyst 3550 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat3550>

Cisco Catalyst 2970 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2970>

Cisco Catalyst 2955 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2955>

Cisco Catalyst 2950 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2950>



Cisco Catalyst 2950-LRE Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2950LRE>

Cisco Catalyst 2940 Series—<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2940>

Because of export restrictions on strong cryptography software, a separate image is required for the cryptographic features (SSH, Simple Network Management Protocol Version 3 [SNMPv3], and Kerberos). These software images can be downloaded from the same location given previously.

Cisco Catalyst 3750 Series product information:

<http://www.cisco.com/go/catalyst3750>

Cisco Catalyst 3550 Series product information:

<http://www.cisco.com/go/catalyst3550>

Cisco Catalyst 2970 Series product information:

<http://www.cisco.com/go/catalyst2970>

Cisco Catalyst 2955 Series product information:

<http://www.cisco.com/go/catalyst2955>

Cisco Catalyst 2950 Series product information:

<http://www.cisco.com/go/catalyst2950>

Cisco Catalyst 2950-LRE Series product information:

<http://www.cisco.com/go/lre>

Cisco Catalyst 2940 Series product information:

<http://www.cisco.com/go/catalyst2940>

Cisco Catalyst 3750, Catalyst 3550, Catalyst 2970, Catalyst 2955-LRE, Catalyst 2950-LRE, Catalyst 2950-LRE, and Catalyst 2940 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/c3550/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/cat2950/index.htm>

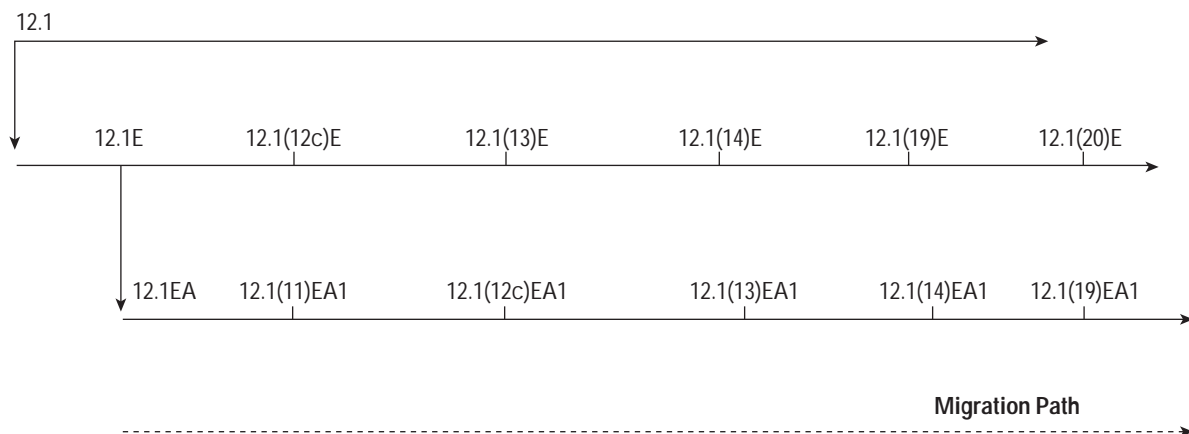
Support

Cisco IOS Software Release 12.1(19)EA1 follows the standard Cisco support policy as indicated at the following link: http://www.cisco.com/en/US/products/products_end-of-life_policy.html.

Software Image Migration Guide

Figure 1 displays Cisco IOS Software Release 12.1(19)EA1 release capability relative to the 12.1 and 12.1E releases. This diagram identifies the recommended migration path. For more information about the Cisco IOS Software release process, see Product Bulletin No. 537.

Figure 1
Cisco IOS Release 12.1EA Release Train



Corporate 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: 408 526-4100

European Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

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