

New Cisco IOS Software Release 12.2(40)EX1 Supporting the Catalyst Blade Switches 3130 and 3032 for Dell and 3120 for HP

PB447597

Cisco® announces Cisco IOS® software release supporting Catalyst Blade Switch 3130 and 3032 for Dell Servers and the Catalyst Blade Switch 3120 for Hewlett Packard (HP) Servers. This release furthers Cisco leadership by providing integrated services for layer 2 and layer 3 networks, quality of service, integrated security, and manageability for enterprise deployments.

The following is an overview of features available with Cisco IOS software:

- The blade switch is capable of layer 3 unicast and multicast forwarding including IPv4 routing with EIGRP, OSPF, BGP and RIP for IPv4 and IPv6. Multicast protocols include Protocol Independent Multicast (PIM) Sparse Mode, Dense Mode and Source Specific Multicast (SSM) support. Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) snooping is also available for host connectivity to the multicast network. Virtualization of the network is provided with VPN routing/forwarding (VRF)-Lite.
- Intelligent Quality of Service (QOS) will keep everything flowing smoothly. Industry-leading mechanisms for marking, classification, and scheduling deliver superior performance for data, voice, and video traffic, all at wire speed.
- Comprehensive layer 2 local area network (LAN) features including 802.1d Spanning Tree Protocol, IEEE 802.1s Multiple Spanning Tree (MSTP), IEEE 802.1w Rapid Spanning Tree (RSTP) and Rapid per VLAN Spanning Tree (PVST+). High availability and connectivity with EtherChannel, FlexLinks, Hot Standby Router Protocol (HSRP), VLAN Trunk Protocol (VTPv2), UniDirectional Link Detection (UDLD), and more.
- A set of management and control features are available including: Cisco IOS Software CLI, Generic On-Line Diagnostic (GOLD), On-board failure logging (OBFL), Switch Port Analyzer (SPAN) to remotely monitor ports, enhanced traffic management monitoring, and analysis, using the embedded remote Monitoring (RMON), Simple Network Management Protocol (SNMP) and SYSLOG protocols. Network management tools such as Cisco Works LMS and Cisco Network Assistant Software, PC-based tools for quick configuration based on preset templates are available. Another ease of use feature is Cisco Smart Port macros to generate and reduce time to setup and administer IOS configurations.
- The Catalyst Blade Switch supports a complete set of security features for connectivity and access control, including ACLs, authentication, port-level security, and identity based network services with 802.1x and extensions. Key features include DHCP snooping, Dynamic ARP Inspection, IP source guard, Private VLANs. IEEE 802.1x and other authentication methods such as Web Authentication and MAC Auth Bypass (MAB) are included.

This product bulletin contains content and delivery information for Cisco IOS Software Release 12.2(40)EX1.

The following *new* features are available with Cisco IOS software release 12.2(40)EX1 for enterprise blade switches:

- **Configuration Replace:** The configuration replacement and configuration rollback feature provides the capability to replace the current running configuration with any saved Cisco IOS configuration file. This functionality can be used to revert to a previous configuration state, effectively rolling back any configuration changes that were made since that configuration file was saved. This feature simplifies and reduces operational overhead.
- **Multicast Virtual Routing and Forwarding (VRF) Lite:** VRF Lite allows the customer to configure multiple private routing domains for network virtualization and virtual private networks. Multicast support has now been added to VRF Lite allowing multicast traffic per VRF.
- **Source-Specific Multicast (SSM):** The SSM capability is an efficient and optimized multicast protocol that is used for one-to-many multicast applications such as video. The protocol is easier to deploy than traditional multicast protocols and utilizes Internet Group Management Protocol version 3 (IGMPv3).
- **IP Service-Level Agreements (IP SLAs) Support:** Cisco IOS IP SLAs help enable customers to assure new business-critical IP applications, as well as IP services that utilize data, voice, and video. With Cisco IOS IP SLAs, users can verify service guarantees, increase network reliability by validating network performance, proactively identify network issues, and increase return on investment (ROI) by easing the deployment of new IP services. Cisco IOS IP SLAs use active monitoring to generate traffic in a continuous, reliable, and predictable manner, thus facilitating the measurement of network performance and health.
- **IP SLAs Enhanced Object Tracking:** IP SLAs Enhanced Object Tracking support will allow switches utilizing HSRP to track IP SLA measurements and trigger hot standby failover based upon jitter, packet loss, or latency.
- **VRF-Aware IP Services:** Various IP Services can now obtain information per VRF and are now VRF aware. The following services are now VRF aware: Address Resolution Protocol (ARP), ping, traceroute, Simple Network Management Protocol (SNMP), syslog, HSRP, IP SLAs, TFTP, FTP, and Unicast Reverse Path Forwarding (uRPF).
- **Link Layer Discovery Protocol Media Extensions (LLDP-MED) Location Support:** LLDP support has been extended to include client location information using the LLDP Media Extensions. The device location information can be used by inventory management for emergency response services, such as Enhanced 911 (E911).
- **Enhanced Interior Gateway Routing Protocol (EIGRP) for Internet Protocol Version 6 (IPv6):** The ability to route IPv6 prefixes is now available using EIGRP. EIGRP IPv6 utilizes IPv6 transport and communicates with IPv6 peers and advertises IPv6 routes.
- **Cisco Media Access Control (MAC) Notification MIB:** The MAC Notification MIB enables the switch to track MAC addresses that are learned or removed. Histories of the MAC addresses that are learned and deleted from the switch are tracked, and notifications can be generated based on threshold limits.

Table 1 and 3 describes product support for new features of Cisco IOS Software Release 12.2(40)EX1 for enterprise blade switches and Table 2 and 4 lists the supported switches and software.

Table 1. Cisco IOS Software Release 12.2(40)EX1 New Features for Dell Blade Switches

| Feature | WS-CBS3130G-S | WS-CBS3130X-S | WS-CBS3032-DEL | 3130-IPS-LIC | 3130-AISK9-LIC |
|-----------------------------------|---------------|---------------|----------------|--------------|----------------|
| IP SLAs Support | No | No | No | Yes | Yes |
| IP SLAs Responder | Yes | Yes | Yes | Yes | Yes |
| IP SLAs EOT | No | No | No | Yes | Yes |
| Multicast VRF Lite | No | No | No | Yes | Yes |
| Source-Specific Multicast | No | No | No | Yes | Yes |
| VRF-Aware IP Services | No | No | No | Yes | Yes |
| Configuration Replace | Yes | Yes | Yes | Yes | Yes |
| LLDP-MED Location Support | Yes | Yes | Yes | Yes | Yes |
| EIGRP for IPv6 | No | No | No | No | Yes |
| Cisco MAC Notification MIB | Yes | Yes | Yes | Yes | Yes |

In Table 1, -S = IP Base feature set; CBS3032 = LAN Base feature set; IPS = IP Services feature set; AIS = Advanced IP Services feature set; Yes = Feature supported, No = Feature not supported.

Table 2. Cisco Catalyst Switches Supported and Software Licenses for Cisco IOS Software Release 12.2(40)EX1 for Dell Blade Switches

| Catalyst CBS3130 Series License Part Numbers | Catalyst CBS3032 Series License Part Numbers |
|--|--|
| <ul style="list-style-type: none"> • WS-CBS3130X-S • WS-CBS3130X-S-F • WS-CBS3130G-S • WS-CBS3130G-S-F • 3130-IPS-LIC • 3130-AISK9-LIC • 3130-IPS-DEL • 3130-AISK9-DEL | <ul style="list-style-type: none"> • WS-CBS3032-DEL • WS-CBS3032-DEL-F |

Table 3. Cisco IOS Software Release 12.2(40)EX1 New Features for HP Blade Switches

| Feature | WS-CBS3120G-S | WS-CBS3120X-S | 3120-IPS-LIC | 3120-AISK9-LIC |
|----------------------------|---------------|---------------|--------------|----------------|
| IP SLAs Support | No | No | Yes | Yes |
| IP SLAs Responder | Yes | Yes | Yes | Yes |
| IP SLAs EOT | No | No | Yes | Yes |
| Multicast VRF Lite | No | No | Yes | Yes |
| Source-Specific Multicast | No | No | Yes | Yes |
| VRF-Aware IP Services | No | No | Yes | Yes |
| Configuration Replace | Yes | Yes | Yes | Yes |
| LLDP-MED Location Support | Yes | Yes | Yes | Yes |
| EIGRP for IPv6 | No | No | No | Yes |
| Cisco MAC Notification MIB | Yes | Yes | Yes | Yes |

In Table 1, -S = IP Base feature set; IPS = IP Services feature set; AIS = Advanced IP Services feature set; Yes = Feature supported, No = Feature not supported.

Table 4. Cisco Catalyst Switches Supported and Software Licenses for Cisco IOS Software Release 12.2(40)EX1 for HP Blade Switches

| Catalyst CBS3120 Series License Part Numbers |
|--|
| <ul style="list-style-type: none"> • WS-CBS3120G-S • WS-CBS3120X-S • 3120-IPS-LIC • 3120-AISK9-LIC |

Additional Resources

Software Download

Software is available for download from the following links:

Cisco IOS 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. Catalyst blade switch 3130 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 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 Blade 3130, 3032 and 3120 Series switches:
<http://www.cisco.com/en/US/products/hw/switches/index.html>.

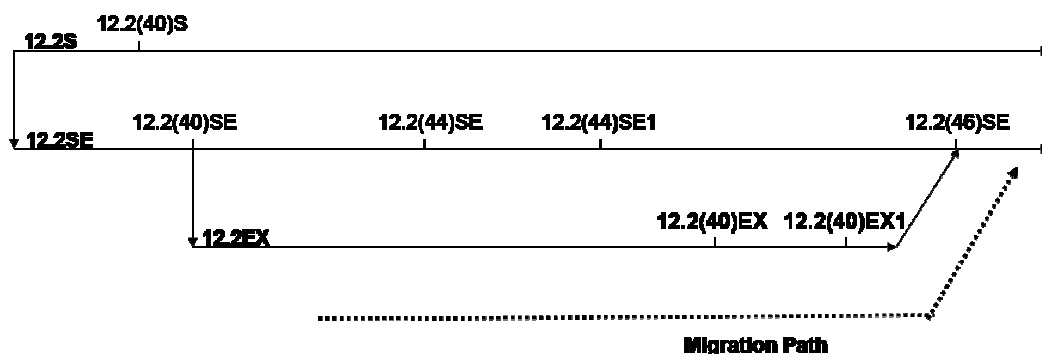
Support

Cisco IOS Software Release 12.2(40)EX1 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(40)EX1 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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