

CISCO CATALYST OPERATING SYSTEM SOFTWARE RELEASE 8.3

Cisco® Catalyst® Operating System (Catalyst OS) Software Release 8.3 for the Supervisor Engine Supports Cisco Catalyst 6500 Series Switch Supervisors

OVERVIEW

Cisco Systems® Catalyst OS provides several innovative features in the areas of high availability, operational manageability, security, and quality of service (QoS), allowing customers to deploy scalable, highly available, and secure networks from the access layer to the WAN edge. Cisco Catalyst OS, as a Layer 2 forwarding software, targets the wiring closets or access layer service deployments. With Cisco Catalyst OS and Cisco IOS® Software, the system in a hybrid mode is used for offering Layer 2 through 4 services suited for WAN edge, core, and distribution layer deployments. Cisco is committed to delivering feature enhancements in Cisco Catalyst OS, supporting Layer 2 through 7 services with existing and advanced supervisor engines and modules.

Cisco Catalyst OS Software Release 8.3 supports three generations of supervisor engines—Supervisor Engine 1A, Supervisor Engine 2, and the Cisco Catalyst 6500 Series Supervisor Engine 720.

Cisco Catalyst OS 8.3 supports all hardware and software supported in Release 8.2 and brings the following important benefits to the Cisco Catalyst 6500 Series:

- Cisco Catalyst OS 8.3 introduces support for policy feature card (PFC)3BXL. The PFC3BXL firmly positions the Cisco Catalyst 6500 Series with Cisco Catalyst OS 8.3 hybrid in the most demanding high-performance core network environments.
- Cisco Catalyst OS 8.3 enables support for the 48-port Small Form-Factor Pluggable (SFP)-based module (WS-X6748-SFP).
- Cisco Catalyst OS 8.3 brings the latest innovations in wiring closet security—“Cisco Catalyst Security Toolkit” consisting of Dynamic Host Configuration Protocol (DHCP) Snooping, Dynamic Address Resolution Protocol (ARP) Inspection, and IP Source Guard. Together, these innovations offer the highest level of security in the intelligent wiring closet.

- Cisco Catalyst OS 8.3 adds Secure Shell (SSH) Protocol v2 and significant identity-based network security enhancements—802.1x unidirectional controlled port, 802.1x one-to-many logical VLANs, 802.1x with access control list (ACL) assignment and 802.1x Domain Name System (DNS) resolution for RADIUS servers. Together with the security toolkit and SSHv2, these enhancements make the Cisco Catalyst 6500 Series with Cisco Catalyst OS 8.3 the leading platform for wiring closet security.
- Metro Ethernet deployments get an enhancement with the introduction of advanced features in Cisco Catalyst OS 8.3—mapping of inner .1p to outer .1p tags, limit MAC address learning, port security on trunk ports and Policy Based Forwarding (PBF) enhancements. With Catalyst OS 8.3, the Cisco Catalyst 6500 Series extends its leadership in Layer 2 Metro Ethernet deployments.
- Cisco Catalyst 6500 Series with Cisco Catalyst OS 8.3 continues delivery of high availability solutions with the introduction of Gateway Load-Balancing Protocol (GLBP) and Virtual Router Redundancy Protocol (VRRP) for standards-based and highly available switching deployments.
- Highly scalable multicast solutions with the introduction of Bidirectional Protocol Independent Multicast (PIM), the latest in a chain of innovations that has made the Cisco Catalyst 6500 Series the leading platform for IP Multicast. Also included in Cisco Catalyst OS 8.3 is Internet Group Management Protocol (IGMP) v3 with multicast multilayer switching, so that hardware forwarding entries now use IGMPv3 state for much enhanced constraining of Layer 3 flows.
- Full compliance with the 802.1s standard for Multiple Spanning Trees (MST) and MST on VLAN Trunking Protocol (VTP) v3.
- Most important, Cisco Catalyst OS 8.3 provides more compelling reasons for customers to continue migration from their Cisco Catalyst 5000 or Cisco Catalyst 5500 to Cisco Catalyst 6500 Series converged networks.

NEW HARDWARE SUPPORTED

Table 1 is a summary of *new* hardware module support in Cisco Catalyst OS 8.3 with various supervisor engine modules, exceeding the support in Cisco Catalyst 8.2. For more details, refer to the Cisco Catalyst OS Software release notes, available at the links in the “For More Information” section.

Table 1 New Hardware Support Matrix Summary

Hardware	Cisco Supervisor Engine 1A	Cisco Supervisor Engine 2	Cisco Supervisor Engine 720
Chassis	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2 plus Cisco Catalyst 6500E Series Chassis
PFC Cards	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2 plus: WS-F6K-PFC3BXL
Ethernet Switching Modules	Supports all existing Ethernet switching, including the latest: WS-X6748-SFP	Supports all existing Ethernet switching, including the latest: WS-X6748-SFP	Supports all existing Ethernet switching, including the latest: WS-X6748-SFP
Layers 4 Through 7 Service Modules	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2
Communications Media Modules	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2
IEEE Power Daughter Cards	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2	All supported as in Cisco Catalyst OS 8.2
Gigabit Interface Converter (GBIC)/SFP/XENPAK	Dense wavelength-division multiplexing-GBIC-xx.xx	Coarse wavelength-division multiplexing-SFP-xxx	GLC-T [EXPAND]

Note: Cisco Catalyst OS Software does not support distributed forwarding with Distributed Forwarding Card (DFC) and DFC3a.

NEW SOFTWARE FEATURES

Cisco Catalyst OS 8.3 supports all software features previously supported up to Release 8.2 on Cisco Catalyst 6500 Series. In addition, Release 8.3 adds the following software features:

Table 2 lists new software features supported in Cisco Catalyst OS 8.3. For more detailed information, refer to the Cisco Catalyst OS Software Release 8.3 release notes, available at the links in the “For More Information” section.

Table 2 Software Features of Cisco Catalyst OS Software Release 8.3

Software Feature	Description
SSHv2	Cisco Catalyst OS 8.3 introduces support for SSHv2, which strengthens security for remote logging into a Cisco Catalyst 6500 Series.
Cisco Catalyst Security Toolkit	Cisco Catalyst Security Toolkit consists of DHCP Snooping, Dynamic ARP Inspection, and IP Source Guard, bringing the highest level of security in the intelligent wiring closet.
Comprehensive 802.1x Enhancements	<ul style="list-style-type: none"> Enhanced RADIUS logging One to many logical VLANs Unidirectional Controlled Port—for “wake-up” LAN applications 802.1x and QoS 802.1x with ACL assignment 802.1x Authentication identification to port description User accounting for 802.1x based logins 802.1x and RADIUS DNS resolution
GLBP	<ul style="list-style-type: none"> Resiliency mechanism uses multiple gateways to forward traffic on behalf of downstream hosts Allows efficient bandwidth use allows more than one gateway to participate in forwarding packets
VRRP	<ul style="list-style-type: none"> RFC 2338 support in hybrid environment IP routing redundancy allows transparent failover at the first-hop IP router
Bidirectional PIM	Bidirectional PIM is an extension to the PIM suite of protocols that implements shared sparse trees with bidirectional data flow. In contrast to PIM-Sparse Mode, Bidirectional PIM avoids keeping source-specific state in a router and allows trees to scale to an arbitrary number of sources.
Metro Ethernet Enhancements	Mapping of inner .1p to outer .1p tags, limit MAC address learning, port security on trunk ports, and PBF enhancements.

SOFTWARE SUPPORT MATRIX

Tables 3 and 4 list the software support combinations for various supervisors in Cisco Catalyst OS Software and hybrid environments.

Table 3 Cisco Catalyst OS Software-Only Deployments

Image	Cisco Supervisor Engine 1A	Cisco Supervisor Engine 2	Cisco Supervisor Engine 720
Cisco Catalyst OS Software Release 8.3	X	X	X

Table 4 Hybrid Environment

Image	Cisco Supervisor Engine 1A	Cisco Supervisor Engine 2	Cisco Supervisor Engine 720
Cisco Catalyst OS Software Release 8.3	X	X	X
Cisco IOS Software Release 12.1(19)E	X	X	Not supported
Cisco IOS Software Release 12.2(14)SX2	Not supported	Not supported	X
Cisco IOS Software Release 12.2(17a)SX1	Not supported	Not supported	X

Table 5 lists the software versions and applicable ordering information for the Cisco Catalyst 6500 Series software.

Caution: Back up the switch configuration file *before* you upgrade or downgrade the switch software. When you downgrade switch software, you lose your configuration. Issue the `write network` command or the `copy config tftp` command to back up your configuration to a Trivial File Transfer Protocol server. Issue the `copy config flash` command to back up the configuration to a Flash memory device.

Note: The image names (image version suffix such as 8-3-1, 8-3-2, 8-3-3) will differ based on the latest available maintenance release for 8.3; the image names in this table reflect version 8.3(1) of release 8.3.

Table 5 Software Ordering Information

Product Number	Description	Image
SC6K-SUPK8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 1A Flash image, Cisco Catalyst OS Software Release 8.3	cat6000-supk8.8-3-1.bin
SC6K-SUPK8-8.3=	Spare	
SC6K-SUP2K8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 2 Flash image, Cisco Catalyst OS Software Release 8.3	cat6000-sup2k8.8-3-1.bin
SC6K-SUP2K8-8.3=	Spare	
SC6K-S7K8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 720 Flash image, Cisco Catalyst OS Software Release 8.3	cat6000-sup720k8.8-3-1.bin
SC6K-S7K8-8.3=	Spare	
SC6K-SCVK8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 2 Flash image with CiscoView, Cisco Catalyst OS Software Release 8.3	cat6000-supcvk8.8-3-1.bin
SC6K-SCVK8-8.3=	Spare	
SC6K-S2CVK8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 2 Flash image with CiscoView, Cisco Catalyst OS Software Release 8.3	cat6000-sup2cvk8.8-3-1.bin
SC6K-S2CVK8-8.3=	Spare	
SC6K-S7CVK8-8.3	Cisco Catalyst 6500 Series Supervisor Engine 720 Flash image with CiscoView, Cisco Catalyst OS Software Release 8.3	cat6000-sup720cvk8.8-3-1.bin
SC6K-S7CVK8-8.3=	Spare	
SC6K-SUPK9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 1A Flash image with SSH, Cisco Catalyst OS Software Release 8.3	cat6000-supk9.8-3-1.bin
SC6K-SUPK9-8.3=	Spare	
SC6K-SUP2K9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 2 Flash image with SSH, Cisco Catalyst OS Software Release 8.3	cat6000-sup2k9.8-3-1.bin
SC6K-SUP2K9-8.3=	Spare	
SC6K-S7K9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 720 Flash image with SSH, Cisco Catalyst OS 8.3	cat6000-sup720k9.8-3-1.bin
SC6K-S7K9-8.3=	Spare	
SC6K-SCVK9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 1A Flash image with CiscoView and SSH, Cisco Catalyst OS 8.3	cat6000-supcvk9.8-3-1.bin
SC6K-SCVK9-8.3=	Spare	
SC6K-S2CVK9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 2 Flash image with CiscoView and SSH, Cisco Catalyst OS 8.3	cat6000-sup2cvk9.8-3-1.bin

Table 5 Software Ordering Information (Continued)

Product Number	Description	Image
SC6K-S2CVK9-8.3=	Spare	
SC6K-S7CVK9-8.3	Cisco Catalyst 6500 Series Supervisor Engine 720 Flash image with CiscoView and SSH, Cisco Catalyst OS 8.3	cat6000-sup720cvk9.8-3-1.bin
SC6K-S7CVK9-8.3=	Spare	

FOR MORE INFORMATION

For more information, see the Cisco Catalyst 6500 Series release notes at:

<http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/relnotes/index.htm>

Cisco Catalyst 6500 Series documentation is available at:

<http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/index.htm>



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