

Cisco Catalyst 2360 Series Switch Q&A

Product Overview

Q. What are the notable differences between the Cisco Catalyst® 2360 Series switch and the Cisco Catalyst 2350 Series switch?

- A.** The Cisco Catalyst 2360 Series switch brings new capabilities, including:
- Four 10 Gigabit Ethernet Small Form-Factor Pluggable Plus (SFP+) uplinks
 - Dual field-replaceable power supplies
 - Field-replaceable dual-fan module with reversible airflow (front-to-back or back-to-front)
 - USB storage interface for file backup, distribution, and simplified operations
 - Mini-USB console port on the front of the switch for easy management access

Q. What are the Cisco Catalyst 2360 Series switch high-availability features?

- A.** The following features enhance high availability:
- Dual hot-swappable power supplies
 - Hot-swappable twin-fan module
 - Hot-swappable SFP+ and SFP transceiver modules

Q. Does the Cisco Catalyst 2360 Series switch require both power supplies to work?

- A.** No. The Cisco Catalyst 2360 Series switch will operate on one power supply. The second power supply provides power redundancy and continuous switch operation in the case of a single power supply failure.

Q. How do I know if I have a power supply failure?

- A.** When a power supply fails, the event will be logged in the syslog and the PWR1 or PWR2 LEDs will turn amber. Also, the status of the power supplies can be seen in the output of the **show environment all** Cisco IOS® Software command-line interface (CLI) command.

Q. Does the Cisco Catalyst 2360 Series switch require both fans in the fan module to work?

- A.** No. The Cisco Catalyst 2360 Series switch will have sufficient cooling if only one fan is operational. The second fan provides cooling redundancy and continued cooling if a single fan fails. However, if one fan fails, the failure will be logged in the syslog, and the FAN LED will turn amber.

Q. How do I know if a fan has failed?

- A.** When a fan fails, the event will be logged in the syslog, and the FAN LED will turn amber. Also, the status of the fans can be seen in the output of the **show environment all** Cisco IOS Software CLI command.

Q. Can I remotely determine the airflow direction in the Cisco Catalyst 2360 Series switch?

- A.** Yes. The airflow direction can be seen in the output of the **show environment all** Cisco IOS Software CLI command.

Q. Where can I find technical and product specifications and other information about the Cisco Catalyst 2360 Series switches?

- A.** For product literature, including data sheets and product specifications, visit <http://www.cisco.com/go/2360>.

Q. Does the Cisco Catalyst 2360 Series switch have redundant power supply (RPS) support?

A. No. The Cisco Catalyst 2360 Series switch has two hot-swappable power supplies that provide power redundancy.

Q. Do I need a software license for the Cisco Catalyst 2360 Series switches?

A. No. The Cisco Catalyst 2360 Series switch uses the Universal image, but no license is required. The feature is bound to the hardware model and cannot be changed.

Q. What feature set does the Cisco Catalyst 2360 Series switch use?

A. The Cisco Catalyst 2360 Series switch uses the LAN Lite feature set.

Q. Can a Cisco Catalyst 2360 Series switch LAN Lite switch be upgraded?

A. No. The feature set is bound to the hardware model.

Software Capabilities**Q. How do I get the cryptography features, and is there an additional charge for them?**

A. The Cisco Catalyst 2360 Series switch supports Cisco IOS Software images with cryptography features by default. These are the only images available. These images with cryptography features will be loaded during manufacturing. Images other than Cisco IOS Software Release 12.2(27)SBK9 will *not* be available for the Cisco Catalyst 2360 Series switches.

Q. Can I obtain Cisco IOS Software updates for the Cisco Catalyst 2360 Series switch at no additional cost?

A. Yes. Cisco offers ongoing Cisco IOS Software updates for certain fixed-configuration and stackable Cisco Catalyst switches at no additional cost. For the life of the product, updates within the Cisco IOS Software package purchased (for example, LAN Lite) will be made available.

Q. How do I get an update for the Cisco IOS Software for the Cisco Catalyst 2360 Series switch at no additional cost?

A. Visit <http://www.cisco.com>, click Downloads, and select Switch Software. Downloading software requires a Cisco.com username and password. If you do not have a Cisco.com username, you can obtain one by clicking Register at the top of any page on Cisco.com.

Network Management**Q. What network management applications support the Cisco Catalyst 2360 Series switch?**

A. The following Cisco® network management applications can be used to manage the Cisco Catalyst 2360 Series switch:

- CiscoWorks LAN Management Solution (LMS) bundle: More information about CiscoWorks LMS can be found on Cisco.com at <http://www.cisco.com/en/US/products/sw/cscowork/ps2425/index.html>.
- Cisco Network Assistant: The Cisco application for managing small networks can be downloaded from Cisco.com. More information about Cisco Network Assistant can be found on Cisco.com at <http://www.cisco.com/en/US/products/ps5931/index.html>.
- Cisco Device Manager: This HTML-based application is located on the switch.

Q. Can you describe how Cisco Network Assistant manages the Cisco Catalyst 2360 Series switches?

A. The Cisco Catalyst 2360 Series switch can be managed using Cisco Network Assistant software, which uses Cisco switch clustering technology. Cisco Network Assistant is a PC-based network management application optimized for LANs of small and medium-sized businesses (SMBs) with up to 250 users. Cisco Network Assistant offers centralized management of Cisco switches, routers, and wireless LAN (WLAN) access points. It supports a wide range of Cisco Catalyst intelligent Ethernet switches. Through a user-friendly GUI, users can

configure and manage a wide range of switch functions and start the device manager of Cisco routers and Cisco wireless access points.

Positioning

Q. Where do I use Cisco Catalyst 2360 Series switches?

- A.** The Cisco Catalyst 2360 Series switch is ideal for data centers that require a fast, highly available, low-latency, Layer 2 switch to aggregate a server rack. The switch can aggregate up to 48 10/100/1000-Gbps Ethernet ports and provides four 10 Gigabit Ethernet uplinks.

The Cisco Catalyst 2360 Series switch does not support important and common features found in campus wiring-closet Ethernet switches such as voice VLAN and Power over Ethernet (PoE). The Cisco Catalyst 2360 Series switch is positioned for the data center.

Warranty and Service

Q. What is the hardware warranty and return policy for the Cisco Catalyst 2360 Series switches?

- A.** The Cisco Catalyst 2360 Series switch comes with a 1-year limited warranty.

The following are special terms applicable to your hardware warranty. Your formal warranty statement, including the warranty applicable to Cisco software, appears in the Cisco information packet that accompanies your Cisco product.

- As long as the original customer owns the product, unless the product is no longer sold, in which case the warranty ends on the support end of life date.
- The replacement, repair or refund procedure for hardware is as follows: Cisco or its service center will use commercially reasonable efforts to ship a replacement part within 10 working days after receipt of the return materials authorization (RMA) request. Actual delivery times may vary depending on the customer's location.
- Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.
- To receive an RMA number, contact the party from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco sales and service representative.

For more information about warranty terms, visit <http://www.cisco.com/go/warranty>.

Q. Why should I purchase a technical service contract for these switches when they include a limited 1-year warranty?

- A.** Cisco service and support has received numerous industry recognitions and awards for excellence in technology service and support. Adding a Cisco Technical Services contract to warranty coverage provides access to the Cisco Technical Assistance Center (TAC). It also can give you a variety of hardware replacement options to meet critical business needs, as well as updates for licensed premium Cisco IOS Software and registered access to the extensive Cisco.com knowledge base and support tools.

- For information about Cisco Technical Services, visit <http://www.cisco.com/go/ts>.
- For information about the Cisco warranty, visit <http://www.cisco.com/go/warranty>.

Q. What types of services and support are available for the Cisco Catalyst 2360 Series switch?

- A.** A full complement of lifecycle services and support is available for the Cisco Catalyst 2360 Series switch. From implementation to operation and optimization, Cisco offers technical support service delivered either directly or through a Cisco partner.

Through a discovery process that begins with understanding your business objectives, we help you integrate the Cisco Catalyst switch into your architecture and incorporate network services onto it. Sharing knowledge and leading practices, we support your success every step of the way as you deploy, incorporate, manage, and scale new

technology. Choose from a flexible suite of support services designed to meet your business needs and help you maintain high-quality network performance while controlling operational costs. For more information, visit <http://www.cisco.com/go/services>.

Features

Q. What types of 10 Gigabit SFP+ modules are supported by the Cisco Catalyst 2360 Series switch?

A. Table 1 lists the supported SFP+ modules.

Table 1. Supported 10 Gigabit SFP+ Modules

SFP Transceiver	Description
SFP-10G-LR=	10GBASE-LR SFP+ module
SFP-10G-SR=	10GBASE-SR SFP+ module
SFP-10G-LRM=	10GBASE-LRM SFP+ module
SFP-H10GB-CU1M	10GBASE-CU SFP+ cable (1m)
SFP-H10GB-CU3M	10GBASE-CU SFP+ cable (3m)
SFP-H10GB-CU5M	10GBASE-CU SFP+ cable (5m)
SFP-H10GB-CU7M	10GBASE-CU SFP+ cable (7m)

Q. What types of SFP modules are supported by the Cisco Catalyst 2360 Series switch?

A. Table 2 lists the supported SFP modules.

Table 2. Supported SFP Modules

SFP Transceiver	Description
GLC-LH-SM=	Gigabit Ethernet SFP, line-card connector LX/LH transceiver
GLC-SX-MM=	Gigabit Ethernet SFP, line-card connector SX transceiver

Q. Does the 10 Gigabit uplink upgrade require a separate module?

A. No. The SFP+ and SFP slots are built in.

Q. Can the 10 Gigabit SFP+ slots on the Cisco Catalyst 2360 Series switch support Gigabit Ethernet SFP modules?

A. Yes. The Cisco Catalyst 2360 Series switch models that support 10 Gigabit SFP+ modules can also support SFP modules that operate at Gigabit Ethernet.

Q. Can the 10 Gigabit SFP+ slots on the Cisco Catalyst 2360 Series switch support 100-Mbps SFP modules?

A. No. The Cisco Catalyst 2360 Series switch that supports 10 Gigabit SFP+ modules cannot support SFP modules that operate at less than 1 Gbps.

Q. Can I reuse the 10 Gigabit X2 module from Cisco Catalyst 3750-E Series Switches in the Cisco Catalyst 2360 Series switch?

A. No. The Cisco Catalyst 2360 Series switch uses SFP+ transceiver modules only. The Cisco Catalyst 2360 Series switch also supports 1 Gigabit SFP transceiver modules.

Q. Does the Cisco Catalyst 2360 Series switch support field-replaceable power supplies?

A. Yes. Both power supplies are replaceable.

Q. Does the Cisco Catalyst 2360 Series switch support field-replaceable fans?

A. Yes. The fan module is hot-swappable.

Q. What is the airflow on the Cisco Catalyst 2360 Series switches?

A. Airflow is front to back, or back to front. The user can choose the direction of airflow by installing the hot-swappable Cisco Catalyst 2360 Series switch fan module and following airflow markings on the fan module and the switch box.

Q. How many fans does the Cisco Catalyst 2360 Series switch have?

A. The Cisco Catalyst 2360 Series switch has one hot-swappable fan module, which contains two fans. The fan module is installed in the center rear of the switch.

Q. What is the switch database management (SDM) template for Cisco Catalyst 2360 Series switch models?

A. There is a single default SDM template for the Cisco Catalyst 2360 Series switches. It cannot be modified.

Q. Does the Cisco Catalyst 2360 Series switch have an out-of-band (OOB) Ethernet management interface?

A. Yes. The OOB management interface is a 10/100-Gbps Ethernet port on the rear of the switch. The OOB port is referred to as Fa0 in the switch and is a Layer 3 interface. The Fa0 interface must have an IP address assigned for it to function.

Q. What is the difference between the Cisco Catalyst 2360 Series switches and the Cisco Catalyst 2350 Series switch?

A. The primary difference is that the Cisco Catalyst 2360 Series switch has a single application-specific integrated circuit (ASIC) architecture, and the Cisco Catalyst 2350 Series switch has multiple ASICs. Other differences include the following:

- The Cisco Catalyst 2360 Series switch uses much less power to operate (see the data sheet for power numbers).
- The Cisco Catalyst 2360 Series switch has four 10 Gigabit Ethernet uplinks.
- The Cisco Catalyst 2360 Series switch has two hot-swappable power supplies.
- The Cisco Catalyst 2360 Series switch has a hot-swappable twin-fan module that provides front-to-back or back-to-front airflow. The Cisco Catalyst 2350 Series switch has side-to-back airflow.
- The Cisco Catalyst 2360 Series switch has a mini-USB console and a USB-A port.

Q. What IP Version 6 (IPv6) features are available on the Cisco Catalyst 2360 Series switch?

A. The Cisco Catalyst 2360 Series switch supports the following IPv6 features:

- IPv6 host
- IPv6 Multicast Listener Discovery (MLD) v1 and v2 snooping

Q. Does the Cisco Catalyst 2360 Series switch support IPv6 hostname?

A. Yes.

Q. What multicast protocols does the Cisco Catalyst 2360 Series switch support?

A. All Cisco Catalyst 2360 Series switches running the LAN Lite software support the following multicast protocols (as of Cisco IOS Software Release 12.2(53)SE):

- Internet Group Management Protocol (IGMP) v1, v2, and v3 snooping
- IGMP v1 and v2 filtering
- IGMP snooping timer
- IGMP throttle
- IGMP querier
- Configurable IGMP leave timer

Q. How much power does the Cisco Catalyst 2360 Series switch consume?

A. The Cisco Catalyst 2360 Series switch can consume as little as 25W for the entire switch. See the data sheet for more information about power use for each switch model.

Q. What software images does the Cisco Catalyst 2360 Series switch support?

A. The Cisco Catalyst 2360 Series switch uses a Universal image. The tar file will be named c2360-universalk9-tar.122-53.SE The name may change over time as new Cisco IOS Software releases are made available.

Q. Do I have to install a license to use the Cisco Catalyst 2360 Series switch Universal image?

A. No. The Cisco Catalyst 2360 Series switch models use the Universal image. The license associated with the switch at manufacturing is the only license needed. The feature set is fixed during manufacturing.

Q. Does the Cisco Catalyst 2360 Series switch have any image in addition to the Cisco IOS Software Release 12.2(27)SBK9 image?

A. No. The only image is the Cisco IOS Software Release 12.2(27)SBK9 image. This image is loaded during manufacturing.

Q. Does the Cisco Catalyst 2360 Series switch support Cisco Generic Online Diagnostics (GOLD) for in-field hardware debugging?

A. Yes. The Cisco Catalyst 2360 Series switch supports the following Cisco GOLD tests:

- TestPortAsicStackPortLoopback
- TestPortAsicLoopback
- TestPortAsicCam
- TestPortAsicMem
- TestInlinePwrCtrlr

The following Cisco GOLD tests are not supported by the Cisco Catalyst 2360 Series switch:

- TestPortAsicRingLoopback
- TestMicRingLoopback

Q. Does the Cisco Catalyst 2360 Series switch support Cisco EnergyWise?

A. Yes.

Q. How much egress buffering is available on the Cisco Catalyst 2360 Series switch?

A. The Cisco Catalyst 2360 Series switch has 2 MB of egress buffering; 1 MB is reserved. The egress buffering amount includes all the Ethernet interfaces (except Fa0). The other 1 MB is in a common pool available for any interface to use when experiencing congestion.

The maximum egress buffer resources a single interface can consume is 360KB.



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