

Cisco Catalyst 3560-CX and 2960-CX Series Switches

General

- Q.** What are Cisco® Catalyst® 3560-CX and 2960-CX Series compact switches?
- A.** The Catalyst 3560-CX and 2960-CX switches are fan-less, small form-factor, Gigabit Ethernet (GE) switches. Because these switches are quiet, attractive and provide mounting flexibility, they allow for innovative new deployments outside the wiring closet.
- Q.** How can I use the compact switches?
- A.** The compact switches are ideal for building next-generation workspaces and extending wireless LAN networks, as well as for deployments where space is at a premium and multiple cable runs could be difficult or costly. These switches address unique requirements in the education, retail, hospitality, health care, and manufacturing sectors. Typical deployment scenarios include classrooms, conference rooms, retail branch locations, and places that need secure end-to-end connectivity.
- Q.** What's new on the 3560-CX and 2960-CX compact switches?
- A.** The new compact switches support 10 Gigabit Ethernet connectivity over SFP+ uplinks, Power over Ethernet (PoE)/PoE+ scale with up to 240W of PoE+, Network Plug and Play (PNP) for easy configuration, an option to run in [Instant Access mode](#), NetFlow Lite, Perpetual PoE, Switch Hibernation Mode, and an option to upgrade to the advanced Layer 3 IP Services feature set.
- Q.** What models are available?
- A.** Table 1 shows the different models available. All switch models are shipped from the factory with the proper feature set license installed. All switch models support copper as well as SFP Fiber uplinks.

Table 1. Available 3560-CX and 2960-CX Series Models

Category	Port Density (Downlink)	PoE	Access Ports	Uplink Ports	Model
3560-CX (IP Base/IP Services)	8	Non PoE	8 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C3560CX-8TC-S
		PoE+ (240W)	8 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C3560CX-8PC-S
	12	Non PoE	12 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C3560CX-12TC-S
		PoE+ (240W)	12 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C3560CX-12PC-S
			12 x 1G	2 x 10 G SFP+ 2 x 1 G Cu	WS-C3560CX-12PD-S
2960-CX (LAN Base)	8	Non PoE	8 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C2960CX-8TC-L
		PoE+ (124W)	8 x 1G	2 x 1 G SFP 2 x 1 G Cu	WS-C2960CX-8PC-L

Switch Comparisons

Q. Specifically, how do the new compact Catalyst switches compare to other Cisco Catalyst compact switches?

A. The switches' key **new** technical capabilities include:

- 10 Gigabit uplinks for high-bandwidth applications and business growth
- Standalone mode, complemented by [Cisco Catalyst Instant Access mode](#) for management simplicity. [See Instant Access FAQ here](#)
- Support for Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM) for software-defined networking (SDN) and programmability
- Integration with Cisco TrustSec® for identity, segmentation, and security
- Up to 240W of available power for PoE+ per switch - twice the available power of previous generation switches - for supporting more PoE devices
- Switch Hibernation Mode and Energy Efficient Ethernet (EEE) for lower energy costs
- NetFlow Lite for end to end visibility to the flows in the network

Q. How do you differentiate between the 3560-CX and the 2960-CX switch families?

A. Table 2 compares the Cisco Catalyst 3560-CX and 2960-CX Series switches.

Table 2. Switch Comparison

Parameter	2960-CX	3560-CX
10G SFP+ Uplinks	No	Yes (SKU Option)
Downlinks	8 (max)	12 (max)
MACsec (802.1ae) on downlink ports	Not supported	Hardware Capable
PoE+ on downlinks	124W	240W
Instant Access	No	Yes (10G SKUs)
Layer 3 Routing	No	Yes
Software feature license	LAN Base	IP Base/IP Services

Q. How do the new compact switches compare to the existing 3560-C and 2960-C Gigabit Ethernet Series compact switches?

A. Tables 3 and Table 4 show the differences between Catalyst CX and C Series switches.

Table 3. Comparison of 3560-CG and 3560-CX Compact Switches

Parameter	Feature	3560-CG	3560-CX
Ports	Uplinks	2 x 1 G Copper or 2 x 1 G SFP	2 x 1 G Copper and 2 x 10 G SFP+ (SKU Option)
	Downlinks	8 x 1 G Copper	12 x 1 G Copper
PoE	PoE	124W PoE+	240W PoE+
	Perpetual PoE	NO	YES**
Ease of Management	Instant Access	NO	YES (10 G SKUs)
Software	Cisco IOS® Software	IP Base Only	IP Base, IP Services (upgradable)
Hardware	DRAM, Flash	128 MB, 64 MB	512 MB, 128 MB

Parameter	Feature	3560-CG	3560-CX
Other	Security	802.1x, MACsec	802.1x, MACsec, SGT, SGACL**
	AVC	NO	NetFlow Lite
	IPv6	Basic	Enhanced

* Uplinks are all active at the same time.
 ** On Roadmap

Table 4. Comparison of 2960-CG and 2960-CX Compact Switches

Parameter	Feature	2960-CG	2960-CX
Ports	Uplinks	2 x 1 G Copper or 2 x 1 G SFP	2 x 1 G Copper and 2 x 1 G SFP+*
	Downlinks	8 x 1 G Copper	8 x 1 G Copper
PoE	PoE	NO	124W PoE+
	Perpetual PoE	NO	YES**
Hardware	DRAM, Flash	128 MB, 64 MB	512 MB, 128 MB

* Uplinks are all active at the same time.
 ** On roadmap

Switch Mounting

Q. What are the mounting options available with the compact switches?

A. The compact switches are designed for easy and flexible mounting outside the wiring closet. They can be mounted vertically or horizontally, using one of the following options:

- Magnet Mount (on a desk, wall, or shelf)
- DIN Rail Mount
- Rack mount (with rack mount kit)

See the Catalyst 3560-CX and 2960-CX Switch Hardware Installation Guide for more information about switch mounting options.

Q. What are the recommended switch orientations?

A. Following are the recommended switch orientation options:

- Upright (on a table)
- Inverted (under a desk)
- Vertical (on wall, ports facing down or sides)

Q. What are best practices for mounting the fan-less switches in closets, under tables, or in other closed environments?

A. Switches are rated to 113° F/45° C (WS-C3560CX-12PD-S is rated to 104° F/40° C), so temperature around the unit must not exceed that maximum limit. Best practices allow for at least 3 inches (7.6 cm) of clearance on all sides and ventilation openings, and at least 1.75 inches (4 cm) of clearance above each switch if placed in a rack. Access to ports should be sufficient for unrestricted cabling. The rear-panel power connector should be within reach of an AC power receptacle. When wall-mounting the switch, have the switch align with ports facing left, right, or down. See the Catalyst 3560-CX and 2960-CX Switch Hardware Installation Guide for more information about best installation practices.

Hardware

- Q.** Do 3560-CX and 2960-CX Series switches support stacking?
- A.** No.
- Q.** Do the switches run at line rate?
- A.** Yes, all switches are non-blocking line-rate switches.
- Q.** What is the function of the mode button on the front panel of the switch?
- A.** The mode button is used for resetting the switch, entering express setup mode, selecting or changing an LED mode, and manually waking up the switch from hibernation mode.
- Q.** What can I do with the USB Type A port located in the front of the Cisco Catalyst 3560-CX and 2960-CX Series?
- A.** As additional storage, the USB Type A port can be used to perform software upgrades, store configurations, and write memory core dumps for troubleshooting purposes. The switch supports Cisco 64 MB, 256 MB, 512 MB, 1 GB, 4 GB, and 8 GB flash drives.
- Q.** Can a third-party USB flash drive be used with the Cisco Catalyst 3560-CX and 2960-CX Series?
- A.** Yes, third-party USB flash drives will work, but they aren't officially supported.

Management

- Q.** What network management applications support the new CX switches?
- A.** The following Cisco network management applications can be used: Cisco Prime Infrastructure and Cisco Network Assistant.
- Q.** Are the new switches part of Cisco Unified Access?
- A.** Yes, and as such, they are fully integrated with Cisco Identity Services Engine (ISE) for One Policy and Cisco Prime for One Management and can be used to simplify bring-your-own- device (BYOD) deployments.
- Q.** What management ports are available?
- A.** The Cisco Catalyst 3560-CX and 2960-CX Series provide two console ports:
- USB Type B console port
 - Standard RJ-45 console port
- Q.** Do the switches have a front panel out-of-band (OOB) Ethernet management interface?
- A.** No, the switches do not support the OOB Ethernet management interface.
- Q.** Can both console ports be used simultaneously?
- A.** No. The RJ-45 console port is the default management port, but when the USB console is used, the RJ-45 console receives the output of the USB console as well. This capability allows remote administrators to monitor or log output that shows what is happening at the switch location and then send it to a storage device.

Peripherals and Pluggables

Q. Do Cisco Catalyst 3560-CX and 2960-CX Series switches support field-replaceable power supplies?

A. No. Power supplies on all the models are built in to the switch.

Q. What types of small form-factor pluggable (SFP) and SFP+ modules are supported?

A. For supported SFP modules, see [Cisco Gigabit Ethernet Transceiver Modules Compatibility Matrix](#).

For supported SFP+ modules, see [Cisco 10-Gigabit Ethernet Transceiver Modules Compatibility Matrix](#).

Q. Do the Cisco Catalyst 3560-CX and 2960-CX Series downlinks have SFP support?

A. No. All 3560-CX and 2960-CX Series switches only support fixed copper interfaces on downlinks.

Q. Can all four uplinks be used simultaneously?

A. Yes. Simultaneous usage will provide up to 22 Gbps of uplink bandwidth on the WS-C3560CX-12PD-S and 4 Gbps on the rest of the switch models.

Q. Can the 10 Gigabit SFP+ slots on the Cisco Catalyst 3560-CX model support 1 Gigabit SFP modules?

A. Yes. The Cisco Catalyst 3560-CX models that support 10G SFP+ modules can also support 1G SFP modules on the uplinks.

Q. Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support 100-Mbps SFP modules on the uplink ports?

A. Yes, the switches support one type of 100-Mbps SFP module on the uplink ports: GLC-GE-100FX

Software: Licensing and Versions

Q. What are the various software license levels for the Cisco Catalyst 3560-CX and 2960-CX Series?

A. 3560-CX Series switches come with an IP Base feature set by default and can be upgraded to IP Services using Right-to-Use (RTU) licensing commands. 2960-CX Series switches come with a LAN Base feature set and cannot be upgraded to another license level. Table 5 shows supported license levels for each compact switch platform.

Table 5. Compact Switch License Levels

Platform	Default License	Upgrade/Downgrade Option
WS-C2960CX-8TC-L	LAN Base	No
WS-C2960CX-8PC-L	LAN Base	No
WS-C3560CX-8TC-S	IP Base	Upgradable to IP Services
WS-C3560CX-8PC-S	IP Base	Upgradable to IP Services
WS-C3560CX-12PD-S	IP Base	Upgradable to IP Services
WS-C3560CX-12TC-S	IP Base	Upgradable to IP Services
WS-C3560CX-12PC-S	IP Base	Upgradable to IP Services

Q. What are Right-to-Use (RTU) licenses?

A. RTU licenses allow you to order and activate a specific license type and level, and then to manage license usage on your switch. RTU commands are only available for the Cisco Catalyst 3560-CX Series. There is also an option of enabling an evaluation RTU license that allows you to evaluate the feature set for 90 days at no cost. If you do not purchase a permanent license within 90 days, the evaluation license will no longer be valid due to the End User License Agreement (EULA). For more information about RTU licenses, see [Configuring Right-to-Use Licensing](#).

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- Q.** How is an RTU license migrated in case of a Cisco Catalyst 3560-CX Series hardware swap/return materials authorization (RMA)?
- A.** RTU licenses can be deactivated from the old/swapped-out hardware and activated on the new switch. Deactivate using the license right-to-use deactivate EXEC command; activate using the license right-to-use activate EXEC command.
- Q.** How do I enable RTU licensing?
- A.** Enable RTU licenses by executing the following EXEC command-line interface (CLI), which activates the license level and also accepts the EULA.
- CLI for permanent license:
`license right-to-use activate ipservices acceptEULA`
 - CLI for evaluation license:
`license right-to-use activate ipservices evaluation`
- Q.** How do I monitor license usage?
- A.** License usage information is maintained from the initial boot across reboots, including the status of EULA, in-use condition, and license type. The usage information is updated daily and can be displayed with the “`show license right-to-use`” EXEC command.
- Q.** What is the minimum software version required for the Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** The minimum Cisco IOS Software version required is 15.2(3)E.
- Q.** How do I update the Cisco IOS Software for the Cisco Catalyst 3560-CX and 2960-CX Series switches 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.

Software: Feature Support

- Q.** Do the Cisco Catalyst 3560-CX Series switches support the IP services feature set?
- A.** Yes. Cisco Catalyst 3560-CX Series switches can be upgraded to the IP Services feature set using the RTU licensing CLI. The IP Services license enables advanced Layer 3 features, including BGP, PIM, VRF, OSPF, HSRP, IPSLA, etc. Cisco Catalyst 3560-X Series switches and Cisco Catalyst 3560-CX Series switches have a comparable IP Services feature set.
- Q.** Is IPv6 supported on the Catalyst 3560-CX and 2960-CX Series switches?
- A.** Yes. For more details, please see the Cisco Catalyst 3560-CX and 2960-CX Series release notes.
- Q.** Are cryptographic features available on the Catalyst 3560-CX and 2960-CX Series switches?
- A.** Yes, both switches support the cryptographic features by default.
- Q.** What is the difference between the Cisco IOS Software feature sets on Catalyst 3560-CX and 2960-CX Series switches?
- A.** Table 6 shows the difference in Cisco IOS Software feature sets for each series.

Table 6. Cisco IOS Software Feature Set Differences

Functions	LAN Base	IP Base	IP Services
	2960-CX	3560-CX	
Layer 2 (L2)+	Enterprise Access L2 Wide range of L2 access features for enterprise deployments	Complete Access L2 Supports all Cisco Catalyst 2000 and Cisco Catalyst 3000 L2 features	
Layer 3 (L3)	Static IP routing support Support for SVI	Enterprise Access L3 RIP, PIM stub, IPv4 EIGRP stub, OSPF for Routed Access, PBR, IPv4 Static Routing	Complete Access L3 OSPF, EIGRP, BGP, IS-IS VRF-lite, WCCP
Manageability	Basic Manageability Support for a wide range of MIBs, IPSLA Responder, and RSPAN	Enterprise Access Manageability EEM, Gold-Lite and Smart Install Director, PnP Agent, Instant Access Client	
Security	Enterprise Access Security DHCP Snooping, IPSG, DAI, PACLs, Cisco Identity 4.0, NAC and 802.1x features	Complete Access Security Router and VLAN ACLs, Private VLANs, Complete Identity & Security, Cisco TrustSec Secure Group Tagging (SGT) and Secure Group Access Control lists (SGACL) [*] , IEEE 802.1AE capable in hardware, Threat Defense	
QoS	Enterprise Access QoS Ingress policing, Trust Boundary, AutoQoS and DSCP mapping	Complete Access QoS Support for all Cisco Catalyst 2000 and Cisco Catalyst 3000 QoS features, including per-VLAN policies	

^{*} Hardware capable

- Q.** Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support Cisco Energy Management Suite (formerly Cisco EnergyWise[®])?
- A.** Yes.
- Q.** Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support Smart Install?
- A.** Yes. The switches support Smart Install client functionality.
- Q.** Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support Auto SmartPorts?
- A.** Yes.
- Q.** Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support Interface Templates?
- A.** Yes. Interface templates provide a mechanism to configure multiple commands at the same time and associate them with a target such as an interface. An interface template is a container of configurations or policies that can be applied to specific ports.
- Q.** Is static IP routing supported in the LAN Base feature set on Cisco Catalyst 2960-CX Series switches?
- A.** Yes.
- Q.** Do the Cisco Catalyst 3560-CX and 2960-CX Series switches support Network Plug and Play (PNP) agent?
- A.** Yes. PNP technology automates the installation and configuration of Cisco IOS Software using an embedded PNP agent on Catalyst switches. It requires a preconfigured network PNP Server that manages sites, site devices, and their images, configurations, files, and licenses for deployment.
- Q.** What is the Switch Database Management (SDM) template for Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** Cisco Catalyst 3560-CX and 2960-CX Series switches support unique default templates that cannot be modified.

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- Q.** What is NetFlow Lite?
- A.** Supported in the Catalyst 3560-CX and 2960-CX compact switches, it's a Cisco IOS Software feature that uses sampled flows to provide statistics for network traffic accounting, network monitoring, and network planning. A flow is created using a flow record, which defines the unique keys of the flow. NetFlow Lite provides valuable information about network users and applications, peak usage times, and traffic routing. For more details on NetFlow, please visit [Introduction to Cisco IOS NetFlow-A Technical Overview](#).
- Q.** What is the minimum license level needed to enable NetFlow Lite functionality?
- A.** LAN Base.
- Q.** Is NetFlow Lite supported on all ports of the Cisco Catalyst 3560-CX and 2960-CX Series?
- A.** NetFlow Lite is natively supported on all downlink and uplink ports.
- Q.** Which version of NetFlow exporters is supported?
- A.** NetFlow Version 9 is supported for NetFlow exporter using the export-protocol command option.
- Q.** How many NetFlow Lite flows are supported?
- A.** 16K NetFlow Lite flows are supported.
- Q.** Is egress flow monitor supported?
- A.** No, only ingress flow monitors are supported.
- Q.** Can the flow monitors be attached to logical interfaces on the Cisco Catalyst 3560-CX and 2960-CX Series?
- A.** The flow monitors can be attached to physical interfaces and VLAN interfaces. The flow monitor can not be attached to logical interfaces such as EtherChannel or Layer 2 VLANs.
- Q.** If flow monitors are attached on both the physical port and VLAN interface, which one will take precedence?
- A.** The interface VLAN monitor will overwrite the port monitor for the traffic coming on the port.
- Q.** What sampling modes are supported?
- A.** Two sampling modes are supported on the Cisco Catalyst 3560-CX and 2960-CX Series:
- Deterministic sampler is dedicated to single attachment. It always makes sure the correct number of flows is sampled on the attached port. Every attachment with the same deterministic sampler uses one free sampler available in the hardware.
 - Random sampler is shared among all the attached interfaces. Only the first attachment uses a new sampler; subsequent attachments of the same sampler on different interfaces share the same hardware sampler.
- Q.** How many different NetFlow Lite samplers are supported by the hardware in the Cisco Catalyst 3560-CX and 2960-CX Series?
- A.** The Cisco Catalyst 3560-CX and 2960-CX Series support four NetFlow Lite samplers in the hardware.
- Q.** Can we have deterministic sampler attached on more than four interfaces?
- A.** No. Each deterministic sampler attachment uses up one free hardware sampler; a deterministic sampler can not be attached to more than four interfaces. We recommend using the random sampler if the flow needs to be monitored on more than four ports.

Security

- Q.** How do Catalyst compact switches help keep unauthorized users from accessing the network?
- A.** Cisco Catalyst compact switches provide superior Layer 2 threat defense capabilities for mitigating man-in-the-middle attacks (such as MAC, IP, and ARP spoofing). [Cisco TrustSec](#) helps secure the network, data, and resources with policy-based access control, identity and role-aware networking, pervasive integrity, and confidentiality. In addition, these switches also support advanced security features, including Private VLAN Edge, Multidomain Authentication, Port-Based ACLs, TACACS+, and RADIUS authentication.
- Q.** What is TrustSec security?
- A.** [TrustSec](#) is a network segmentation technology that works from the endpoint to the data center.
- Q.** What Cisco Cyber Threat Defense security features do the Cisco Catalyst 2560-CX and 2960-CX Series switches support?
- A.** The compact switches support threat defense features such as Port Security, DHCP Snooping, Dynamic ARP Inspection, and IP Source Guard.
- Q.** How can I protect administration passwords and traffic going to the switch during configuration or troubleshooting?
- A.** To protect administration traffic during the configuration or troubleshooting of a switch, the best approach is to encrypt the data using both Secure Shell Protocol (SSH) and Simple Network Management Protocol (SNMP) v3.
- Q.** Is MACsec supported?
- A.** Cisco Catalyst 3560-CX Series switches are hardware-capable of MACsec (IEEE 802.1ae).

Power

- Q.** What is the input voltage range for the AC-powered compact switches?
- A.** The input voltage range on the AC-powered switches is 100V-240V.
- Q.** What input receptacle is used on the AC-powered compact switch?
- A.** IEC C14 is the standard input receptacle on the AC-powered compact switches.
- Q.** How many fans do the Cisco Catalyst 3560-CX and 2960-CX Series switches have?
- A.** None. The Cisco Catalyst 3560-CX and 2960-CX switches are fan-less.
- Q.** How does cooling work in the Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** Because the 3560-CX and 2960-CX Series switches do not have any fans, they are cooled by convection.
- Q.** What is the noise level on the Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** The switches are silent and produce ambient noise levels.
- Q.** Can the switches be powered using RPS/XPS?
- A.** No.
- Q.** Is the compact switch surface hot to the touch when it is operational?
- A.** The compact switch is warm when operational but not hot. Hence it is safe to touch the switch.
- Q.** Do the compact switches support power injectors to power the switch?
- A.** Yes. The compact switches support any IEEE-compliant PoE or PoE+ power injector.

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- Q.** Can the Cisco Catalyst 3560-CX and 2960-CX Series switches provide Power over Ethernet (PoE)+ on the downlinks?
- A.** All Cisco Catalyst 3560-CX and 2960-CX Series switches are capable of providing PoE+ on the downlink ports except 3560CX-8TC-S, 3560CX-12TC-S, and 2960CX-8TC-L, which are data only (non-PoE) switches.
- Q.** How are the Cisco Catalyst 3560-CX and 2960-CX Series switches powered?
- A.** All Cisco Catalyst 3560-CX and 2960-CX Series switches are powered using the built-in AC power supply.
- Q.** How much PoE budget do the Cisco Catalyst 3560-CX and 2960-CX Series PoE-capable switches provide?
- A.** The Cisco Catalyst 3560-CX Series provides 240W of PoE+. The Cisco Catalyst 2960-CX Series PoE-capable switches provide 124W of PoE+. This is used to power other devices such as access points, LED lights, IP cameras, etc.
- Q.** Are the Cisco Catalyst 3560-CX and 2960-CX Series switches Full-PoE, providing 30W of PoE on each downlink port?
- A.** The 8-port PoE model of Cisco Catalyst 3560-CX Series switches is Full-PoE, capable of providing up to 30W on all 8 ports.

Energy Efficiency

- Q.** What are the energy-efficiency features on the Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** The switches introduce new innovative energy-saving modes:
- The Switch Hibernation Mode puts the switch to sleep when the switch is not in use. This feature enables the switch to save up to 80 percent of power during non-business hours.
 - Energy Efficient Ethernet (EEE) enables dynamic power savings on all switch ports.
 - Cisco Energy Management Suite (formerly Cisco EnergyWise) puts IP endpoints in Energy Saver mode, saving 60 percent or more power with non-active IP devices.
- Q.** Are Cisco Catalyst 3560-CX and 2960-CX Series switches usable while in Switch Hibernation Mode?
- A.** No. All hardware components on the data path are switched off during Switch Hibernation Mode.
- Q.** How do I get the Cisco Catalyst 3560-CX and 2960-CX Series out of Switch Hibernation Mode?
- A.** There are two wake-up triggers to use to awake switches from hibernation mode:
- Wake from Switch Hibernation Mode on scheduled real-time clock alarm/trigger
 - Wake from Switch Hibernation Mode using mode button trigger
- Q.** Can Cisco Catalyst 3560-CX and 2960-CX Series switches be scheduled to Switch Hibernation Mode using the Cisco Energy Management (formerly Cisco EnergyWise) management tool?
- A.** Yes, the switches can be put into Switch Hibernation Mode using a Cisco Energy Management tool like any other IP device.
- Q.** Is it possible to awaken a switch in hibernation mode before the scheduled wake-up time?
- A.** Yes, the mode button trigger will bring the switch out of hibernation mode.
- Q.** How long does it take for Cisco Catalyst 3560-CX and 2960-CX Series switches to be operational when they awake from Switch Hibernation Mode?
- A.** The time is similar to a switch booting from reload.

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- Q.** Is Energy-Efficient Ethernet (EEE) 802.3az supported by Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** Yes, both series support EEE on all downlink links. EEE is disabled by default on all downlink ports. If needed, EEE can be enabled on specific interfaces of the switch.
- Q.** How is power saved with EEE?
- A.** Switch downlink ports switch to low-power idle (LPI) mode during gaps in the data stream, saving power.
- Q.** Do both sides of the Ethernet interface have to support EEE for it to work?
- A.** Yes. Both endpoints of the Ethernet link must support EEE to get the power-saving advantages.

Instant Access

- Q.** What is Cisco Instant Access?
- A.** Cisco Catalyst Instant Access is a solution that allows customers to dramatically simplify campus network operations through a single point of operation and management for campus access and backbone. Multiple access switches connect to the Catalyst 6500 or 6800 switches and the entire configuration works as a single extended switch with a single management domain. In this mode the switches inherit all the features of the Catalyst 6500 or 6800.
- Q.** Which models of the 3560-CX and 2960-CX Series Switches can work as Instant Access clients?
- A.** The Catalyst 3560-CX switches with 10G uplinks; specifically WS-C3560CX-12PD-S, supports Cisco Catalyst Instant Access and can work both in Standalone and Instant Access Client mode.
- Q.** How is a standalone 3560-CX converted to Instant Access mode?
- A.** The switch is converted from Standalone mode to Instant Access mode using command “fex-mode enable” on switch’s CLI. The switch reboots in the process.
- Q.** How is 3560-CX in Instant Access client mode converted back to standalone mode?
- A.** The conversion happens using command “reload fex <fex-id> standalone” on the Instant Access parent. This causes the 3560-CX switch to reload.
- Q.** Where can more details on Instant Access technology be found?
- A.** For more details, visit: http://www.cisco.com/en/US/prod/collateral/switches/ps10902/ps715/ps13198/qa_c67-728684_ns1240_Networking_Solutions_Q_and_A.html.

Warranty

- Q.** What are the hardware warranty and return policy on the Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** Cisco Catalyst 3560-CX and 2960-CX Series switches come with an enhanced limited lifetime warranty (E-LLW). The E-LLW provides the same terms as Cisco's standard limited lifetime warranty with the addition of next business day delivery of replacement hardware, where available, and 90 days of 8X5 Cisco Technical Assistance Center (TAC) support. Your formal warranty statement, including the warranty applicable to Cisco software, appears in the Cisco information packet that accompanies your Cisco product. See [Product Warranties](#) for further information about quality and reliability backed by Cisco.
- Q.** What is the software update policy for Cisco Catalyst 3560-CX and 2960-CX Series switches?
- A.** Customers with Cisco Catalyst LAN Base and IP Base software feature sets will be provided with updates and bug fixes designed to maintain the compliance of the software with published specifications, release notes, and industry standards compliance as long as the original end user continues to own or use the product or up to one year from the end-of-sale date for this product, whichever occurs earlier. For details on the software update policy for Cisco Catalyst products, please read about our [terms for updating software](#).



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