



Cisco Catalyst 9000 Switching Platform

Overview

Q What are Cisco Catalyst 9000 switches?

A The Cisco® Catalyst® 9000 family of switches are the next generation of enterprise-class switches built for security, Internet of Things (IoT), mobility, and multicloud. These switches form the foundational building block for Cisco Software-Defined Access (SD-Access), the company's lead enterprise architecture. Cisco Catalyst 9000 switches are based on x86 CPU and the latest Cisco Unified Access™ Data Plane (UADP) ASIC, which support full programmability and serviceability as well as convergence between wired and wireless over a single platform. The switches provide superior high availability and unmatched security features for the next-generation enterprise network designs. Wired and wireless security and application visibility are natively built into the switches.

Cisco Catalyst 9000 access switches are Wi-Fi-6 (802.11ax) ready providing dense mGiG 1/2.5/5/10G copper connectivity with 25/40/100G fiber aggregation to enable connectivity for high speed wireless end points at scale and also supports full IEEE 802.3at Power over Ethernet Plus (PoE+), and Cisco Universal Power over Ethernet (Cisco UPOE®+ and UPOE). These switches enhance productivity by enabling applications such as IP telephony, wireless, IoT, and video for a true borderless network experience.

These switches also provide segmentation options with new, innovative Cisco Locator/ID Separation Protocol (LISP) – and Virtual Extensible LAN (VXLAN)–based segmentation called campus fabric and Multiprotocol Label Switching (MPLS)–based segmentation. They also support all the foundational high-availability capabilities such as patching, Graceful Insertion and Removal (GIR), Non-Stop Forwarding/Stateful Switchover (NSF/SSO), redundant platinum-rated power supplies, and fans. Additionally, all Cisco Catalyst 9000 switches:

- Deliver IoT convergence with industry-leading scale and capabilities such as service discovery and “Thing” classification
- Are based on the latest UADP Application-Specific Integrated Circuit (ASIC) technology with programmable pipeline and tables that help ensure platform longevity
- Run a modern operating system, open Cisco IOS® XE Software, that supports model-driven programmability, streaming telemetry, and patching
- Use X86-based multicore CPUs and local Solid-State Disk (SSD) storage for third-party container-based application hosting
- Provide unprecedented application visibility and control with Network-Based Application Recognition (NBAR) Version2

Q What are Cisco Catalyst 9200 Series Switches?

A Cisco Catalyst 9200 Series of enterprise-class access switches extend the power of intent-based networking and Catalyst 9000 hardware and software innovation to a broader set of deployments. Compared to the scale and feature richness the of Catalyst 9300 Series switches, Catalyst 9200 Series switches focus on offering right-sized switching for simple branch deployments. With its family pedigree, Catalyst 9200 Series offers simplicity without compromise – it is secure, always on and provides a new level of IT simplicity. These switches also support full IEEE 802.3at PoE+, fixed (C9200L models) and modular (C9200 models) uplink options with field-replaceable network modules, redundant fans, and power supplies and a variety of uplink modules.

Q What are Cisco Catalyst 9300 Series Switches?

A Cisco Catalyst 9300 Series switches are the next generation of enterprise-class stackable access-layer switches that are part of Cisco Catalyst 9000 switching family. These switches support larger up to 1Tbps stacking, table scale, application hosting with Docker containers, Cisco Umbrella cloud security, full PoE+, Cisco UPOE+ and UPOE fixed and modular uplink options and field-replaceable network modules, redundant fans, and power supplies. In addition, Cisco Catalyst 9300 Series models support a variety of fixed (C9300L models) and modular uplink (C9300 and C9300X models) options for both copper and up to 4x 100G fiber uplink support as well as dense multi-rate 25G/10G/1G and 1G fiber connectivity for FTTX and higher bandwidth access, aggregation and core.

Q What are Cisco Catalyst 9400 Series Switches?

A Cisco Catalyst 9400 Series Switches are the next generation of enterprise-class modular access and aggregation switches that are part of the Cisco Catalyst 9000 family. These switches provide unparalleled investment protection with a centralized switching architecture that is capable of supporting up to 9 Tbps system bandwidth and unmatched perpetual PoE power delivery up to 90W (IEEE 802.1bt Type 1-4). The family of switches delivers state-of-the-art high availability with capabilities such as NSF/SSO, In-Service Software Upgrade (ISSU), uplink resiliency, and N+1/N+N redundancy with modular power supplies.

A single system can scale up to 384 ports with PoE+, Cisco UPOE, Cisco UPOE+ (Up to 260 concurrent 90W ports) and data options as well as 4 slot, 7 slot and 10 slot chassis sizes. In addition to 1G, 2.5G, 5G and 10G multigigabit copper, the series supports 1 Gbps Small Form-Factor Pluggable (SFP), 10 Gbps (SFP+) and 25 Gbps (SFP28) and 40 Gbps (QSFP+) uplink options for aggregation deployments.

With several unique innovations such as modular power supply, dual serviceable fan tray, Cisco Catalyst 9400 Series switches sets a new bar for enterprise modular access network deployments.

Q What are Cisco Catalyst 9500 Series Switches?

A Cisco Catalyst 9500 Series switches are the next generation of enterprise-class fixed-core and aggregation layer switches that are part of the Cisco Catalyst 9000 family. These switches come with 4-core 2.4-GHz CPU, 16-GB DDR4 memory, and up to 120 GB of USB 3.0 or 960 GB of SATA SSD storage for container-based application hosting.

Cisco Catalyst 9500 Series switches are the industry's first 100, 40 and 25 Gigabit Ethernet feature-rich switches targeted for the enterprise campus, delivering unmatched table scales (MAC, route, and Access Control List [ACL]) and buffering for enterprise applications. The platform offers nonblocking 100 Gbps Quad Small Form-Factor Pluggable (QSFP28), 40 Gbps (QSFP), 25 Gbps (SFP28) and 10 Gbps (SFP+) switches with granular port densities that fit diverse campus needs. The Cisco Catalyst 9500 Series supports advanced routing and infrastructure services (MPLS Layer 2 and 3 VPNs, IP Multicast VPN [MVPN], and Network Address Translation [NAT]), SD-Access border capabilities (host tracking database, cross-domain connectivity, and Virtual Route Forwarding [VRF]-aware LISP), and network system virtualization with Cisco StackWise® Virtual technology (select models) that are critical for placement in the campus core.

Q What are Cisco Catalyst 9600 Series Switches?

A Cisco Catalyst 9600 Series switches are purpose-built for resiliency at scale with the industry’s most comprehensive security and allows your business to grow at lowest total operational cost. Built upon the foundation of Catalyst 9000, the Catalyst 9600 Series offers scale and security when always on is a must.

The Cisco Catalyst 9600 Series is the industry’s first purpose-built 100 Gigabit Ethernet line of modular switches targeted for the enterprise campus. These switches deliver best in class table scale (MAC/route/ACL) and buffering for enterprise applications. The Cisco Catalyst 9600 Series includes nonblocking 40 and 100 Gigabit Ethernet Quad Small Form-Factor Pluggable (QSFP+, QSFP28) and 1, 10 and 25 Gigabit Ethernet Small Form-Factor Pluggable Plus (SFP/SFP+/SFP28) and multigigabit technology copper interfaces to offer granular port densities that fit diverse campus needs. The switches support advanced routing and infrastructure services (such as Multiprotocol Label Switching [MPLS] Layer 2 and Layer 3 VPNs, Multicast VPN [MVPN], and Network Address Translation [NAT]); Cisco Software-Defined Access capabilities (such as a host tracking database, cross-domain connectivity, and VPN Routing and Forwarding [VRF]-aware Locator/ID Separation Protocol [LISP]); and network system virtualization with Cisco StackWise® virtual technology that are critical for their placement in the campus core. The Cisco Catalyst 9600 Series also supports foundational high-availability capabilities such as patching, Graceful Insertion and Removal (GIR), Cisco Nonstop Forwarding with Stateful Switchover (NSF/SSO), redundant platinum-rated power supplies, and fans.

Q Will StackWise Virtual be supported on all ports on the Cisco Catalyst 9400, 9500 and 9600 Series?

A StackWise Virtual is supported on all the front panel ports and uplink ports. Please refer to the Cisco IOS XE Release Notes for more information.

Product portfolio and positioning

Q What is the relative positioning among Cisco Catalyst 9200, 9300, 9400, 9500 and 9600 Series switches?

A Refer to Table 1.

Table 1. Platform positioning

Platform	Positioning
Cisco Catalyst 9200 Series	Simple branch fixed access series with 10G and 1G
Cisco Catalyst 9300 Series	Lead fixed access series with 10G (mGig), 5G, 2.5G, and 1G copper and 25G/10G, 1G SFP, IEEE 802.3bt Type 4 UPOE+ (90W) and 100G uplink options
Cisco Catalyst 9400 Series	Lead modular access series with dense 5G and 10G (mGig) copper, IEEE 802.3bt Type 4 UPOE+ (90W) and optimized 10G (SFP+) aggregation
Cisco Catalyst 9500 Series	Lead fixed core and aggregation series with 100G, 40G, 25G and 10G
Cisco Catalyst 9600 Series	Lead modular core and aggregation series with 100G, 40G, 25G, 10 and 1G fiber and 10G (mGig) copper

Q What is the portfolio transition from the Cisco Catalyst 3000 and 4000 Series to the Cisco Catalyst 9000 platform?

A Refer to Table 2.

Table 2. Cisco Catalyst platform transitions

	Current platform	Transition to Cisco Catalyst 9000 platform
Access switching	Cisco Catalyst 2960-X/XR	Cisco Catalyst 9200 Series (C9200L/C9200 models)
	Cisco Catalyst 3650/3850 copper	Cisco Catalyst 9300 Series (C9300L/C9300 models)

	Current platform	Transition to Cisco Catalyst 9000 platform
Access switching	Cisco Catalyst 3850 fiber	Cisco Catalyst 9300 Series
	Cisco Catalyst 4500E Series	Cisco Catalyst 9400 Series
Core switching	Cisco Catalyst 4500-X Series	Cisco Catalyst 9500 Series
	Cisco Catalyst 6500 Series	Cisco Catalyst 9600 Series
	Cisco Catalyst 6800 Series	

Cisco Catalyst 9000 network features and services

(common to all Cisco Catalyst 9000 family switches)

Q What feature sets does Cisco Catalyst 9000 switches support?

A Cisco Catalyst 9000 switches support the packaging of features into Cisco DNA Premier, Advantage and Essentials software subscription options. The details of the features in each software subscription are listed in the data sheets. See the links provided in the Pricing and Ordering section. Catalyst 9600 Series switches only support Cisco DNA Premier and Advantage licenses.

Q What programmability capabilities are available on the Catalyst 9000 switches?

A Cisco Catalyst 9000 switches opens a completely new paradigm in network configuration, operation, and monitoring through network automation. The Cisco automation solution is open, standardsbased, and extensible across the entire network lifecycle of a network device.

- Device provisioning: Through Plug-and-Play (PnP), Zero-Touch Provisioning (ZTP), and Preboot Execution (PXE)
- Configuration: Model-driven operation through open Application Programming Interfaces (APIs) over NETCONF/RESTconf, Python Scripting
- Customization and monitoring: Streaming telemetry
- Upgrade and manageability: In-Service Software Upgrade (ISSU), patchability, and config/replace
- Docker and third party application hosting

Q What management capabilities are available for the Cisco Catalyst 9000 switches?

A You can manage these switches using the Cisco IOS XE software Command-Line Interface (CLI), using Cisco Prime® Infrastructure 3.1.7 DP13, Cisco DNA Center, onboard Cisco IOS XE Software Web User Interface (WebUI), Simple Network Management Protocol (SNMP), or NETCONF/RESTconf/YANG. Catalyst 9000 switches have been designed to work with Cisco DNA Center and SD-Access, using the Cisco DNA Center Appliance or Cisco DNA Center Cloud.

Q Is there an onboard web GUI on Cisco Catalyst 9000 family switches?

A Yes. An onboard web GUI - WebUI - is available.

Q What is the purpose of the blue beacon LED on Cisco Catalyst 9000 switches?

A The blue beacon LED is common across the Cisco Catalyst 9000 switching portfolio to simplify the operations. It makes chassis identification easier when several such switches are mounted on racks. A remote administrator can enable the LED to blink to help the local operator quickly locate the chassis. The local operator presses the mode button to acknowledge.

Q What is the maximum number of VRF instances that I can configure on the Cisco Catalyst 9000 platform?

A The maximum number of VRFs that you can configure on the Cisco Catalyst 9300, 9400, 9500 and 9600 Series switches is 256. For Catalyst 9200 Series switches the maximum is 4 VRFs on the modular models and 1 VRF on fixed models. For Cisco Catalyst 9600 Series switches the maximum is 1K VRF's at FCS.

Q What is Cisco's direction for wireless?

A Cisco believes that the best solution for a wired or wireless network is achieved when integrated into SD-Access, Cisco's lead architecture for the next-generation enterprise network. This solution delivers consistency with wired infrastructure around policy, segmentation, orchestration and automation, and assurance. This architecture delivers the best experience for mobility, guest, IoT, multicast services, and overall network performance with its distributed data plane and centralized control-plane architecture.

Q What wireless support is provided with Cisco Catalyst 9000 switches?

A The Cisco Catalyst 9000 family of switches is instrumental in supporting the following wireless capabilities in the SD-Access architecture:

- Connect access points and integrate them into the SD-Access fabric. The switch integrates with the fabric control plane (LISP), thereby providing reachability for the access points and clients in the fabric.
- Deliver macro (VRF) and micro (Security Group Tag (SGT) [SGT] group-based) segmentation to the access points to deliver end-to-end policies.
- Can terminate guest VXLAN traffic, so there is no need for a dedicated guest anchor controller.

The support for wireless capability uses the Cisco Catalyst 9800 Wireless Controllers for cloud-based or appliance based control. You can also use the AireOS 8.5 Controller running on an Cisco 8540 Wireless Controller, Cisco 5520 Wireless Controller, or Cisco 3504 Wireless Controller appliance with the Cisco Catalyst platforms functioning as Fabric Edge and Fabric Border nodes.

Q What are the SD-Access wireless capabilities?

A Cisco Catalyst 9000 switches provides a complete solution for the campus with Cisco AireOS controllers Wi-Fi 6 and Wave 2 access points.

Q What are the advantages of integrating wireless in the SD-Access fabric architecture?

- A
- Highest performance and scale: Distributed data-plane forwarding in hardware distributed in the network paired with the large control-plane scale offered by the dedicated controller appliances.
 - Best guest: You don't need a dedicated guest anchor controller in the Demilitarized Zone (DMZ): Traffic is sent directly to the fabric border to exit the fabric. Also, there is no sub-optimal traffic forwarding such as from an access point to a foreign controller and on to a guest anchor controller.
 - Best mobility: IP addressing is simpler; there is one subnet for the entire wireless SSID across the network, and no hairpin of traffic when roams occur.

- Simple operation: Operation is simple because wired and wireless are treated the same and operated together; they have common policies and controller-based automation.
- Wired innovations applied to wireless: First-hop security innovations available for wired can also be applied to wireless; for example, Dynamic ARP Inspection (DAI), IP Source Guard (IPSG), and DHCP Snooping.
- Segmentation across wired and wireless:
 - The virtual network now passes all the way to wired as well as wireless devices.
 - This segmentation is important for separation of certain devices from others, such as IoT and building automation devices connected over wireless.
 - It is also important for security reasons to reduce attack the surface; if someone gets into a segment, the person can move only within that segment.
 - Because segmentation is handled by the fabric, the number of SSIDs can be limited.
- Best multicast:
 - The solution offers the best performance of distributed replication in hardware across the network.

These switches truly deliver the best of wired and wireless together.

Q What is the rationale for future downlink speeds converging on 5 to 10 Gbps?

- A** The maximum speed supported in the most widely deployed cabling, Cat5e, goes up to 5 Gbps with NBASE-T technology. Additionally, the next-generation wireless standard, Wi-Fi 6 (802.11ax) will require 5 Gbps links to the Ethernet network from the access points. Compute, storage, and high-performance endpoints will support 5 Gbps with next-generation NICs. 2.5 Gbps is seen as a transitional technology.

Q What are Cisco's solutions for 5 Gbps connections to endpoints?

- A** Cisco offers stackable Cisco Catalyst 9300 Series switch models, that supports 10G, 5G, 2.5G, 1G, and 100M interfaces and modular Cisco Catalyst 9400 and 9600 Series switch line cards.

Q How will uplink speeds evolve beyond 10G in the campus?

- A** With downlink speeds increasing, uplink speeds will evolve beyond today's most common speeds of 10G. There is a new speed required in the campus that 1) uses the same common duplex fiber in the cable plant, 2) is able to support the 300- to 350-meter distances common in the campus, and 3) uses optics that are consistent with SFP+ for easy migration. As a result of these requirements, 25G Ethernet is bound to emerge as the preferred uplink speed in the campus for links from the access layer to the aggregation layer. Also, links from the core layer to the aggregation/distribution layer of the network will evolve from 10G and 40G to 100G.

Q What are Cisco's solutions for the uplinks and core?

- A** Cisco provides the industry's first full campus solution, from the access layer to the network core. Cisco Catalyst 9200 Series stackable switches support fixed and modular uplinks. The C9200L models support 4x 1G, 4x 10G and 2x 25G fixed uplinks, while the C9200 models 4x1 and 4x 10G modular uplink options. Cisco Catalyst 9300 Series stackable switches support fixed and modular uplinks. The C9300L models support 4x 1G and 4x 10G fixed uplinks. The C9300 models support 1G, 10G, 25G, 40G or mGig modular uplink options. Cisco Catalyst 9400 Series modular switches support 10G, 25G and 40G uplink ports in the supervisor engines today. Cisco Catalyst 9500 Series and 9600 Series switches support dense multi-rate 1G/10G/25G and dual rate 40G/100G uplinks in the core.

Cisco Catalyst 9200 Series switches

Q What are the key SKUs in the Cisco Catalyst 9200 Series?

A

The Cisco Catalyst 9200 Series has eight primary 8 fixed and 4 modular platform SKUs as well as a number of license, power and network module options:

- 24 and 48 ports 1G with modular uplinks
C9200-24T: 24 ports data, modular uplinks
C9200-24P-4G: 24 ports PoE+, modular uplinks
C9200-48T: 48 ports data, modular uplinks
C9200-48P: 48 ports PoE+, modular uplinks
- 24 and 48 ports 1G with 10G fixed uplinks
C9200L-24T-4X: 24 ports data, 4x 10G uplinks
C9200L-24P-4X: 24 ports PoE+, 4x 10G uplinks
C9200L-48T-4X: 48 ports data, 4x 10G uplinks
C9200L-48P-4X: 48 ports PoE+, 4x 10G uplinks
- 24 and 48 ports 1G with 1G fixed uplinks
C9200L-24T-4G: 24 ports data, 4x 1G uplinks
C9200L-24P-4G: 24 ports PoE+, 4x 1G uplinks
C9200L-48T-4G: 48 ports data, 4x 1G uplinks
C9200L-48P-4G: 48 ports PoE+, 4x 1G uplinks
- 24 and 48 port mGig/1G with fixed 10G uplinks
C9200L-24PXG-4X: 24 ports PoE+, 8x mGig, 16x 1G, 4x 10G uplinks
C9200L-48PXG-4X: 48 ports PoE+, 12x mGig, 36x 1G, 4x 10G uplinks
- 24 and 48 port mGig/1G with fixed 25G uplinks
C9200L-24PXG-2Y: 24 ports PoE+, 8x mGig, 16x 1G, 2x25G uplinks
C9200L-48PXG-2Y: 48 ports PoE+, 8x mGig, 40x 1G, 2x25G uplinks

License options:

- C9200-DNA-P-24-3, -5, -7:
C9200 24 port Cisco DNA Premier; 3, 5 and 7 year term
- C9200-DNA-A-24-3, -5, -7:
C9200 24 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9200-DNA-E-24-3, -5, -7:
C9200 24 port Cisco DNA Essentials; 3, 5 and 7 year term

- C9200-DNA-P-48-3, -5, -7:
C9200 48 port Cisco DNA Premier; 3, 5 and 7 year term
- C9200-DNA-A-48-3, -5, -7:
C9200 48 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9200-DNA-E-48-3, -5, -7:
C9200 48 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9200L-DNA-P-24-3, -5, -7:
C9200L 24 port Cisco DNA Premier; 3, 5 and 7 year term
- C9200L-DNA-A-24-3, -5, -7:
C9200L 24 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9200L-DNA-E-24-3, -5, -7:
C9200L 24 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9200L-DNA-P-48-3, -5, -7:
C9200L 48 port Cisco DNA Premier; 3, 5 and 7 year term
- C9200L-DNA-A-48-3, -5, -7:
C9200L 48 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9200L-DNA-E-48-3, -5, -7:
C9200L 48 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9200-DNA-E-A-3, -5, -7:
C9200 Cisco DNA Essentials to Advantage upgrade; 3, 5 and 7 year term

Network module options:

- C9200-NM-4G: 4x 1G network module
- C9200-NM-4X: 4x 1G/10G network module

Power options:

- PWR-C6-600WAC
- PWR-C6-1KWAC
- PWR-C5-600WAC
- PWR-C5-1KWAC

Fan Module (C9200 SKUs only):

- C9200-FAN=

Q Can I stack Cisco Catalyst 9200 Series Switches with the Cisco Catalyst 2960-X/XR Series Switches?

A These switches do not stack together. Features are packaged differently between these platforms, they use different CPU architectures, and the platforms do not have the same scaling, making stacking with them impossible.

Q Are the network modules shared between the Cisco Catalyst 9200 and 9300 Series switches?

A Cisco Catalyst 9300 Series switch network modules cannot be used on Cisco Catalyst 9200 Series switches.

Q Can Cisco Catalyst 9200 Series switches act as a wired switch?

A Cisco Catalyst 9200 Series switches provide connectivity for wired endpoints and wireless endpoints by connecting wireless access points. With the SD-Access architecture, the wired and wireless endpoints gets the same experience. The Cisco Catalyst 9200 Series also offers Cisco multigigabit technology (mGig) supporting up to 10G for next generation Wi-Fi 6 access points, like the Catalyst 9100 Series APs.

Q What are the supported uplinks for Cisco Catalyst 9200 Series switches?

A Catalyst 9200 Series switches support the following fixed and modular uplink options:

- 4x 1G SFP fixed uplinks
- 4x 10G SFP+ fixed uplinks
- 2x 25G SFP28 fixed uplinks
- 4x 1 SFP modular uplinks
- 4x 1/10 SFP+ modular uplinks

Q What management ports are available on the Cisco Catalyst 9200 Series switches?

A Catalyst 9200 Series switches come with a 10/100/1000 Ethernet dedicated management port on the backside of the switch right above the console port. This port is in a separate VRF instance called “Mgmt-vrf” in order to segment the management traffic from the global routing table of the switch.

Q Can I use both console ports on Cisco Catalyst 9200 Series switches simultaneously?

A No. When you use the USB console, the RJ-45 console receives the output of the USB console as well. This design allows the administrator to see when the USB console port is in use. This capability is useful for remote administrators.

Q Do Cisco Catalyst 9200 Series switches support auto-baud on the console port?

A No.

Q What type of airflow do Cisco Catalyst 9200 Series switches support?

A The airflow on Cisco Catalyst 9200 Series switches is “front and sides” to back airflow.

Q What pluggable transceiver modules do Cisco Catalyst 9200 Series switches support?

A Refer to the Cisco Transceiver Module Compatibility Matrixes for a complete list: <https://www.cisco.com/c/en/us/support/interfaces-modules/transceiver-modules/products-device-support-tables-list.html>.

Q Does the Cisco Catalyst 9200 Series support the Cisco DNA Center Cloud option?

A Yes.

Q What is the power consumption for Cisco Catalyst 9200 Series switches?

A Power consumption by SKU is listed on the data sheet and can be seen in Table 3.

Table 3. Cisco Catalyst 9200 Series power consumption by SKU

Model	Total 10/100/1000 copper ports	Default AC power supply	Available PoE power	Default AC power supply	Fans
Fixed SKUs (C9200L)					
C9200L-24T-4G/4X	24	125W AC	-	Yes	Fixed redundant
C9200L-48T-4G/4X	48	125W AC	-	Yes	Dual Fixed
C9200L-24P-4G/4X	4 PoE+	600W AC	370W	Yes	Dual Fixed
C9200L-48P-4G/4X	48 PoE+	600W AC	740W	Yes	Dual Fixed
Modular SKUs (C9200)					
C9200-24T	24	125W AC	-	Yes	Dual FRU
C9200-48T	48	125W AC	-	Yes	Dual FRU
C9200-24P	24 PoE+	600W AC	370W	Yes	Dual FRU
C9200-48P	48 PoE+	600W AC	740W	Yes	Dual FRU

Cisco Catalyst 9300 Series switches

Q What are the key SKUs in the Cisco Catalyst 9300 Series?

A The Cisco Catalyst 9300 Series has 8 primary platform SKUs and a number of license, power, network and SSD storage module options:

- **C9300X-24Y:** 24 ports multi-rate 25G/10G/1G SFP28/+
- **C9300X-12Y:** 12 ports multi-rate 25G/10G/1G SFP28/+
- **C9300-48UN:** 48 ports 5G UPOE
- **C9300-48UXM:** 36 ports 1G/2.5G with 12 ports full mGig
- **C9300-24UX:** 24 ports mGig UPOE
- **C9300-48U:** 48 ports 1G UPOE
- **C9300-24U:** 24 ports 1G UPOE
- **C9300-24UB:** 24 ports 1G UPOE high density
- **C9300-48UB:** 48 ports 1G UPOE high density
- **C9300-24UXB:** 24 ports mGig UPOE high density
- **C9300-24H:** 24 ports 1G UPOE+ 90W
- **C9300-48H:** 48 ports 1G UPOE+ 90W
- **C9300-48P:** 48 ports POE+
- **C9300-24P:** 24 ports POE+
- **C9300-48T:** 48 ports data
- **C9300-24T:** 24 ports data
- **C9300-24S:** 24 ports 1G SFP
- **C9300-48S:** 48 ports 1G SFP
- **C9300L-24T-4G:** 24 1G data ports with 4x 1G uplink
- **C9300L-24P-4G:** 24 1G PoE+ ports with 4x 1G uplink
- **C9300L-48T-4G:** 48 1G data ports with 4x 1G uplink
- **C9300L-48P-4G:** 48 1G PoE+ ports with 4x 1G uplink
- **C9300L-24T-4X:** 24 1G data ports with 4x 10G uplink
- **C9300L-24P-4X:** 24 1G PoE+ ports with 4x 10G uplink
- **C9300L-48T-4X:** 48 1G data ports with 4x 10G uplink
- **C9300L-48P-4X:** 48 1G PoE+ ports with 4x 10G uplink

License options:

- C9300X-DNA-P-24-3, -5, -7: C9300X 24 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300X-DNA-A-24-3, -5, -7: C9300X 24 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9300X-DNA-E-24-3, -5, -7: C9300X 24 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300X-DNA-P-12-3, -5, -7: C9300X 12 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300X-DNA-A-12-3, -5, -7: C9300X 12 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9300X-DNA-E-12-3, -5, -7: C9300X 12 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300-DNA-P-24-3, -5, -7: C9300 24 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300-DNA-A-24-3, -5, -7: C9300 24 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9300-DNA-E-24-3, -5, -7: C9300 24 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300-DNA-P-48-3, -5, -7: C9300 48 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300-DNA-A-48-3, -5, -7: C9300 48 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9300-DNA-E-48-3, -5, -7: C9300 48 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300-DNA-E-A-3, -5, -7: C9300 Cisco DNA Essentials to Advantage upgrade; 3, 5 and 7 year term
- C9300L-DNA-P-24-3, -5, -7: C9300 24 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300L-DNA-A-24-3, -5, -7: C9300 24 port Cisco DNA Advantage; 3, 5 and 7 year term

- C9300L-DNA-E-24-3, -5, -7: C9300 24 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300L-DNA-P-48-3, -5, -7: C9300 48 port Cisco DNA Premier; 3, 5 and 7 year term
- C9300L-DNA-A-48-3, -5, -7: C9300 48 port Cisco DNA Advantage; 3, 5 and 7 year term
- C9300L-DNA-E-48-3, -5, -7: C9300 48 port Cisco DNA Essentials; 3, 5 and 7 year term
- C9300L-DNA-E-A-3, -5, -7: C9300 Cisco DNA Essentials to Advantage upgrade; 3, 5 and 7 year term

Network module options:

- C9300X-NM-4C: 4x dual-rate 100G/40G network module
- C9300X-NM-2C: 2x dual-rate 100G/40G network module
- C9300X-NM-8Y: 8x multi-rate 25G/10G/1G network module
- C9300X-NM-8M: 8x 10G mGig network module
- C9300-NM-2Q: 2x 40G network module
- C9300-NM-2Y: 2x 25G network module
- C9300-NM-8X: 8x 10G network module
- C9300-NM-4M: 4x 10G mGig network module
- C9300-NM-4G: 4x 1G network module

Power options:

- PWR-C1-350WAC
- PWR-C1-715WAC
- PWR-C1-1100WAC
- PWR-C1-1100WAC-P (UPOE)
- PWR-C1300WAC-P (UPOE+)
- PWR-C1-1900WAC-P (UPOE+)

Fan Module:

- C9300-FAN=

Storage modules:

- SSD-120G: Cisco pluggable USB3.0 SSD storage

Q How many Cisco Catalyst 9300 Series switches can be stacked?

A You can stack up to 8 switches using Cisco Stackwise-480.

Q Can I stack Cisco Catalyst 9300 Series Switches with the Cisco Catalyst 3850 Series Switches?

A These switches do not stack together. Features are packaged differently between these platforms, they use different CPU architectures, and the platforms do not have the same scaling, making stacking with them impossible.

Q Can I stack the Cisco Catalyst 9300 Series fixed and modular uplink models together?

A No, the fixed uplink (C9300L) switches support StackWise-320 whereas the modular uplink (C9300) models support StackWise-480.

Q Are the network modules shared between the Cisco Catalyst 9300 and 3850 Series switches?

A Cisco Catalyst 3850 Series switch network modules may be used on Cisco Catalyst 9300 Series modular uplink models. However, the Cisco Catalyst 9300 Series switch network modules are not usable on the Cisco Catalyst 3850 Series switches. The Cisco Catalyst 9300 Series fixed uplink models uses fixed network modules only.

Q Can Cisco Catalyst 9300 Series switches act as a wired switch?

A The Cisco Catalyst 9300 Series also offers Cisco multigigabit technology (mGig) supporting up to 10G for next generation Wi-Fi 6 access points, like the Catalyst 9100 Series APs. Additionally, the Cisco Catalyst 9300 Series offers Cisco UPOE+ 90W expanding the number of IoT devices that can be powered over Ethernet.

Q What are the supported uplink modules for Cisco Catalyst 9300 Series switches?

A Cisco Catalyst 9300 Series switches support the following uplink fixed and modular uplink options.

- 4x 1 Gigabit Ethernet network – fixed and modular
- 4x Multigigabit (1, 2.5, 5, or 10 Gigabit Ethernet) network – fixed and modular
- 8x 10 Gigabit Ethernet network modular
- 2x 25 Gigabit Ethernet network modular
- 2x 40 Gigabit Ethernet network modular

Q Are the uplinks between the Cisco Catalyst 9300 and 3850 Series switches interchangeable?

A All existing Cisco Catalyst 3850 Series switch uplink modules may be used in Cisco Catalyst 9300 Series switches. However, the Catalyst 9300 Series switch uplinks modules are not supported on the Catalyst 3850 Series switches.

Q What about service modules for the Cisco Catalyst 9300 Series switches?

A There are no service modules for Cisco Catalyst 9300 Series switches. All functions are embedded into the platform.

Q Where can I purchase an SSD module for the Cisco Catalyst 9300 Series switches?

A SSD modules approved by Cisco are available (SSD-120G=).

Q What management ports are available on the Cisco Catalyst 9300 Series switches?

A Catalyst 9300 Series switches come with a 10/100/1000 Ethernet dedicated management port on the backside of the switch right above the console port. This port is in a separate VRF instance called “Mgmt-vrf” in order to segment the management traffic from the global routing table of the switch.

Q Can I use both console ports on Cisco Catalyst 9300 Series switches simultaneously?

A No. When you use the USB console, the RJ-45 console receives the output of the USB console as well. This design allows the administrator to see when the USB console port is in use. This capability is useful for remote administrators.

Q Do Cisco Catalyst 9300 Series switches support auto-baud on the console port?

A No.

Q What type of airflow do Cisco Catalyst 9300 Series switches support?

A The airflow on Cisco Catalyst 9300 Series switches is “front and sides” to back airflow.

Q What pluggable transceiver modules do Cisco Catalyst 9300 Series switches support?

A Refer to the Cisco Transceiver Module Compatibility Matrixes for a complete list: <https://www.cisco.com/c/en/us/support/interfaces-modules/transceiver-modules/products-device-support-tableslist.html>.

Q What fiber solutions are available on the Cisco Catalyst 9300 Series switches?

A The Cisco Catalyst 9300 Series includes 12-port, 24-port and 48-port SKUs with multi-rate 25G/10G/1G and 1G SFP downlink options. These seamlessly integrate with the Catalyst 9300 copper devices, using the same optics, uplink modules, power supplies, fans and cables, and can be stacked together with other Catalyst 9300 switches that also run Stackwise-480 (C9300 and C9300X SKUs).

Q Does the Cisco Catalyst 9300 Series support application hosting?

A Yes, Cisco Catalyst 9300 Series switches support native docker application hosting capabilities reserving dedicated memory and CPU resources for application hosting. This provides a separate execution space for user applications without compromising the integrity and performance of the switch. Applications, including Docker containers, reside in the external Solid State Drive (SSD) storage and have no access to the internal device flash storage, which is reserved for Cisco IOS XE to protect its integrity. Catalyst 9300X models support enhanced app hosting with additional CPU, memory and local storage capabilities.

Q Does the Cisco Catalyst 9300 Series support Cisco DNA Spaces IoT Gateway?

A Yes, Cisco Catalyst 9300 Series switches support hosting Cisco DNA Spaces natively on the CPU complex. DNA Spaces IoT Services on both Catalyst 9000 switches and access points bridges wired and wireless smart building technology using the power of data to help speed return to a trusted workplace and the inevitable return-to-office.

Q Does the Cisco Catalyst 9300 Series support ThousandEyes Enterprise Agent?

A Yes, Cisco Catalyst 9300 Series switches support hosting ThousandEyes Enterprise Agent natively on the flash of the switch starting from IOS XE 17.3.3 release. Cisco signed ThousandEyes Enterprise Agent app is required to run natively on the flash of the switch.

Q What is the power consumption for Cisco Catalyst 9300 Series modular uplink models?

A Power consumption by SKU is listed on the data sheet and can be seen in Table 4.

Table 4. Cisco Catalyst 9300 Series power consumption by SKU

Model	Total 10/100/1000 or Multigigabit copper ports	Default AC power supply	Available PoE power	Cisco StackWise-480	Cisco StackPower®
C9300-24T	24	350W AC	-	Yes	Yes
C9300-48T	48	350W AC	-	Yes	Yes
C9300-24P	24 PoE+	715W AC	445W	Yes	Yes
C9300-48P	48 PoE+	715W AC	437W	Yes	Yes
C9300-24U	24 Cisco UPOE	1100W AC	830W	Yes	Yes
C9300-48U	48 Cisco UPOE	1100W AC	822W	Yes	Yes
C9300-24UB	24 Cisco UPOE high density	1100W AC	830W	Yes	Yes
C9300-48UB	48 Cisco UPOE high density	1100W AC	822W	Yes	Yes
C9300-24UXB	24 Multigigabit Cisco UPOE high density (100 Mbps or 1, 2.5, 5, or 10 Gbps)	1100W AC	560W	Yes	Yes
C9300-24H	24 Cisco UPOE+	1300W AC	1000W	Yes	Yes

Model	Total 10/100/1000 or Multigigabit copper ports	Default AC power supply	Available PoE power	Cisco StackWise-480	Cisco StackPower®
C9300-48H	24 Cisco UPOE+	1300W AC	560W	Yes	Yes
C9300-24UX	24 Multigigabit Cisco UPOE (100 Mbps or 1, 2.5, 5, or 10 Gbps)	1100W AC	560W	Yes	Yes
C9300-48UXM	48x 2.5 Gbps ports (12 Multigigabit - 1, 2.5, 5, or 10 Gbps)	1100W AC	490W	Yes	Yes

Q What is the power consumption for Cisco Catalyst 9300 Series fixed uplink switches?

A Power consumption by SKU is listed on the data sheet and can be seen in Table 5.

Table 5. Cisco Catalyst 9300 Series power consumption by SKU

Model	Total 10/100/1000 or Multigigabit copper ports	Total uplink fiber ports	Default AC power supply	Cisco StackWise-320	Available PoE power
C9300L-48P-4X	48 PoE+	4x SFP+ (10G)	1100W	Yes	890W
C9300L-48P-4G	48 PoE+	4x SFP (1G)	1100W	Yes	890W
C9300L-24P-4X	24 PoE+	4x SFP+ (10G)	715W	Yes	505W
C9300L-24P-4G	24 PoE+	4x SFP (1G)	715W	Yes	505W
C9300L-48T-4X	48	4x SFP+ (10G)	350W	Yes	N/A
C9300L-48T-4G	48	4x SFP (1G)	350W	Yes	N/A
C9300L-24T-4X	24	4x SFP+ (10G)	350W	Yes	N/A
C9300L-24T-4G	24	4x SFP (1G)	350W	Yes	N/A

Q How do I position the Cisco Catalyst 9300 Series models verses the Catalyst 9200 Series models?

A The scale and performance of the Cisco Catalyst 9300 Series fixed uplink (C9300L SKUs) and modular uplink (C9300 SKUs) switches are higher than that of the Cisco Catalyst 9200 Series, making them more suited to larger networks. Also, the Catalyst 9200 switches support only limited SD-Access functionality, while the Catalyst 9300 Series models can serve as complete fabric-in-a-box deployments, Audio Visual Bridging (AVB), Docker container and application hosting. Finally, the security features are more advanced with the Catalyst 9300 Series models, such as Encrypted Traffic Analytics (ETA), MACsec-256 link encryption, so these switches are more appropriate in a business-critical branch network, while the Catalyst 9200 Series switches are more appropriate for simple branch networks.

Cisco Catalyst 9400 Series switches

Q What are the key SKUs in the Cisco Catalyst 9400 Series?

A The Cisco Catalyst 9400 Series has 12 primary hardware SKUs with a number of license, power and SSD storage module options:

- **C9410R:** 10 slot Catalyst 9400 Chassis
- **C9407R:** 7 slot Catalyst 9400 Chassis
- **C9404R:** 4 slot Catalyst 9400 Chassis
- **C9400-SUP-1XL-Y:** up to 240G per slot supervisor, with 25G
- **C9400-SUP-1XL:** up to 240G per slot supervisor
- **C9400-SUP-1:** 80G per slot supervisor
- **C9400-LC-48UX:** 48 ports UPOE with 24 ports 100M/1G/2.5G/5G/10G mGig (RJ45) line card
- **C9400-LC-48HN:** 48 ports UPOE+ 100M/1G/2.5G/5G mGig (RJ45) line card
- **C9400-LC-48H:** 48 ports UPOE+ 10/100/1000 (RJ45) line card
- **C9400-LC-48U:** 48 ports UPOE 10/100/1000 (RJ45) line card
- **C9400-LC-48P:** 48 ports PoE+ 10/100/1000 (RJ45) line card
- **C9400-LC-48T:** 48 ports 10/100/1000 (RJ45) line card
- **C9400-LC-24XS:** 24 ports 10G (SFP+) line card
- **C9400-LC-48S:** 48 ports 1G (SFP) line card
- **C9400-LC-24S:** 24 ports 1G (SFP) line card

License options:

- C9400-DNA-P-3, -5, -7:
C9400 Cisco DNA Premier (100 ISE Base and Plus, and Stealthwatch endpoints); 3, 5 and 7 year term
- C9400-DNA-P-AA-3, -5, -7:
C9400 Cisco DNA Premier Add-on (+50 ISE Base and Plus, and Stealthwatch endpoints); 3, 5 and 7 year term
- C9400-DNA-A-3, -5, -7:
C9400 Cisco DNA Advantage; 3, 5 and 7 year term
- C9400-DNA-E-3, -5, -7:
C9400 Cisco DNA Essentials; 3, 5 and 7 year term

- C9400-DNA-E-A-3, -5, -7:
C9400 Cisco DNA Essentials to Advantage upgrade; 3, 5 and 7 year term

Power options:

- C9400-PWR-2100WAC
- C9400-PWR-3200AC
- C9400-PWR-3200DC

Fan Module:

- C9410-FAN=
- C9407-FAN=
- C9404-FAN=

Storage modules:

- C9400-SSD-240G: Cisco pluggable 240GB M2 SATA memory
- C9400-SSD-480G: Cisco pluggable 480GB M2 SATA memory
- C9400-SSD-960G: Cisco pluggable 960GB M2 SATA memory

Q What is the system architecture on Cisco Catalyst 9400 Series switches?

A Catalyst 9400 Series switches are based on centralized architecture using the Cisco UADP ASIC 2.0 running open Cisco IOS XE software. This architecture has several key benefits, including simplicity of upgrades, investment protection, and superior high availability.

Q What are the different chassis models available on Cisco Catalyst 9400 Series switches?

A Cisco Catalyst 9400 Series switches offer three chassis types: 4 slot, 7 slot and 10 slot, each with redundant supervisor slots. The 4 slot chassis has 2 line cards slots that can serve up to 96 ports with 240 G per slot. The 7 slot chassis has 5 line card slots that can serve up to 240 line card ports with 160 G per slot. The 10 slot chassis has 8 line-card slots that can serve up to 384 line card ports with 80 G per slot.

Q What are the different data sheets and SKUs on Cisco Catalyst 9400 Series switches?

A Refer to the Cisco Catalyst 9400 Series switch data sheets that provide the technical and product details of the series:

- [Cisco Catalyst 9400 Series Line Cards Data Sheet](#)
- [Cisco Catalyst 9400 Series Switch Chassis Data Sheet](#)
- [Cisco Catalyst 9400 Supervisor Engine Data Sheet](#)

Q What uplink combination is available on Cisco Catalyst 9400 Series supervisors?

A Cisco Catalyst 9400 Series switches offers a flexible uplink architecture for 10, 25 and 40 Gigabit Ethernet deployments, helping ensure that your investment is protected for the future.

Cisco Catalyst 9400 Supervisor Engine-1, 1XL and 1XL-Y support one of the following combinations of uplink ports in a standalone configuration:

- Native 40 Gigabit Ethernet uplinks: 2x QSFP
- Native 25 Gigabit Ethernet uplinks: 2x SFP28 (1XL-Y)
- Native 10 Gigabit Ethernet uplinks: 8x SFP+
- Mixed uplink deployment: 1x QSFP+ and 4x SFP+

Q What uplink combinations are available with Catalyst 9400 Series switch redundant supervisors?

A In redundant supervisor configuration, one of the following combination of uplinks ports is supported:

- 1x QSFP on each supervisor
- 1x SFP28 on each supervisor (1XL-Y)
- 4x SFP+ on each supervisor

Q What are the SSD onboard storage options on Cisco Catalyst 9400 Series switches?

A On the supervisor module, you can order an optional SSD for onboard storage. The supervisor module supports 240, 480, or 960 GB configurations. It is recommended to configure this module on both supervisors (active and redundant) at the time of order. For dual-supervisor configuration, it is recommended that you order the same size of SSD module on both supervisors.

Q What line cards are available on Cisco Catalyst 9400 Series switches?

A Cisco Catalyst 9400 Series switches support the following line card modules to serve the diverse needs of modular campus deployments:

- C9400-LC-48HN: 48 ports UPOE+ 100M/1G/2.5G/5G mGig (RJ45)
- C9400-LC-48UX: 48 ports UPOE with 24 ports 100M/1G/2.5G/5G/10G mGig (RJ45)
- C9400-LC-24UX: 24 ports mGig UPOE 10/100/1000 (RJ45)
- C9400-LC-48H: 48 ports UPOE+ 10/100/1000 (RJ45)
- C9400-LC-48U: 48 ports UPOE 10/100/1000 (RJ45)
- C9400-LC-48P: 48 ports PoE+ 10/100/1000 (RJ45)
- C9400-LC-48T: 48 ports 10/100/1000 (RJ45)
- C9400-LC-24XS: 24 ports 10G (SFP+)
- C9400-LC-48S: 48 ports 1G (SFP)
- C9400-LC-24S: 24 ports 1G (SFP)

Q Can a Catalyst 9400 Series switch spare supervisor be used in any slot?

A Yes, standby SUP will assume the license level of Active SUP regardless which slot its inserted in.

Q Does SSO work with an Cisco DNA Essentials License and spare SUP in a Catalyst 9400 Series switch?

A SSO functionality is supported in with Cisco DNA Essentials license, however for NSF and ISSU capabilities, a Network Advantage license is needed on both Supervisors.

Q If I buy a Catalyst 9400 Series switch with the Cisco DNA Essentials license and a spare supervisor (ships with Network Advantage only), does it effectively upgrade the switch to Cisco DNA Advantage?

A If the Cisco DNA Advantage feature set is required, the chassis must be upgraded to Cisco DNA Advantage license: C9400-DNA-E-A.

Following table summarizes a few scenarios.

Table 6. Catalyst 9400 Supervisor License Operation

Deployment Scenario	Operation	Result
Use spare SUP as secondary SUP	Config of primary SUP gets copied and used for secondary SUP	After reboot, system operates with 1x DNA-E and 2x NW-E
Use spare SUP as primary SUP (Dual SUP mode)	Reboot is mandatory	Upon SL validation, system operates with 1xDNA-E and 2x NW-E

Q What is the airflow design on Cisco Catalyst 9400 Series switches?

A Cisco Catalyst 9400 Series switches utilize a side-to-side airflow design that is most common in campus modular access deployments.

Q What is unique about Cisco Catalyst 9400 Series switch fan-tray design?

A Cisco Catalyst 9400 Series switches have an innovative fan-tray design that allows you to service the fan tray from the front or the back using the same fan tray. In certain rack deployments, this design allows you to retain your cable connectivity to the modules while servicing the fan tray from the rear.

Q What is unique about the Cisco Catalyst 9400 Series switch power design?

A The Cisco Catalyst 9400 Series switch power-design architecture is unique and superior in many ways. The novel design supports:

- Modular power supply
- Superior high-availability capabilities to support N + 1 or N + N modes of operation
- Combined mode of operation
- Ability to mix-and-match inputs from 110V and 220V sources
- Platinum rated efficient power supplies
- Power shared across data, PoE and system components

Q How many power supplies can the 4, 7 and 10 slot chassis hold?

A The 4 slot chassis option supports up to 4 modular power supplies. The 7 and 10 slot chassis options support up to 8 modular power supplies.

Q How do I decide the number of power supplies I need on a Cisco Catalyst 9400 Series switch?

A Use the Cisco Power Calculator to estimate the power requirements on Cisco Catalyst 9400 Series switches. This tool allows you to configure current and future power needs based on the devices, line cards, and access endpoints and recommends the number of power supplies you need for your deployment:
<https://www.cisco.com/c/en/us/support/web/tools-catalog.html>.

Q Do the power supplies separate the power into data and inline (PoE) categories?

A No. The power from the power supplies is shared between data, PoE and other system components.

- Q** **What redundant mode does Cisco Catalyst 9400 Series switches support?**
- A** Cisco Catalyst 9400 Series switches support N+N redundant mode and N+1 redundant mode. The platforms allow changing of the power supply modes with a simple CLI. For N+N mode, N power supplies are active and N are in standby. For N+1 mode, N power supplies are active and 1 is in standby.
- Q** **On Cisco Catalyst 9400 Series switches, what is the default power supply mode?**
- A** The default mode is a combined mode; User can change the mode of operation either N+N or N+1 mode.
- Q** **Do Cisco Catalyst 9400 Series switches come with built-in RFID?**
- A** Yes, Cisco Catalyst 9400 Series switches come with built-in passive RFID tags on all the components so that you have an inventory of the different components, including separated RFID tags for the supervisor, all line-card modules, the power supplies, the fan tray, and the chassis.
- Q** **What management ports are available on Cisco Catalyst 9400 Series switches?**
- A** Cisco Catalyst 9400 Series switches come with a mini-B type USB console port and a 10/100/1000 Ethernet (RJ-45) dedicated management port on the front panel of the switch. The Ethernet port is in a separate VRF instance called “Mgmt-vrf”. This setup segments the management traffic from the global routing table of the switch.
- Q** **Can I use both console ports simultaneously on a Cisco Catalyst 9400 Series switch?**
- A** No. The RJ-45 port is the default and console switches to USB when the USB cable is connected.
- Q** **Are there any recommended cable specifications for 90W UPOE+ applications?**
- A** Recommended cable specifications are documented in the Catalyst 9400 hardware installation guide: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst9400/hardware/install/b_c9400_hig/b_c9400_hig_appendix_01011.html.

- Q** **Do Cisco Catalyst 9400 Series switches support Online Insertion and Removal (OIR)?**
- A** Yes, OIR is supported on all the modules and power supplies.
- Q** **What pluggable transceiver modules do Cisco Catalyst 9400 Series switches support?**
- A** Refer to the Cisco Transceiver Module Compatibility Matrices for the supported list <https://www.cisco.com/c/en/us/products/interfaces-modules/transceiver-modules/index.html>.
- Q** **Does the Cisco Catalyst 9400 Series support application hosting?**
- A** Yes, Cisco Catalyst 9400 Series switches support application hosting capabilities reserving dedicated memory and CPU resources for application hosting. This provides a separate execution space for user applications without compromising the integrity and performance of the switch. Applications, including Docker containers, reside in the external Solid State Drive (SSD) storage and have no access to the internal device flash storage, which is reserved for Cisco IOS XE to protect its integrity.
- Q** **Does the Cisco Catalyst 9400 Series support Cisco DNA Spaces IoT Gateway?**
- A** Yes, Cisco Catalyst 9300 Series switches support hosting Cisco DNA Spaces natively on the CPU complex. DNA Spaces IoT Services on both Catalyst 9000 switches and access points bridges wired and wireless smart building technology using the power of data to help speed return to a trusted workplace and the inevitable return-to-office.
- Q** **Does the Cisco Catalyst 9400 Series support ThousandEyes Enterprise Agent?**
- A** Yes, Cisco Catalyst 9400 Series switches support hosting ThousandEyes Enterprise Agent natively on the flash of the switch starting from IOS XE 17.5.1 release. Cisco signed ThousandEyes Enterprise Agent app is required to run natively on the flash of the switch.

Cisco Catalyst 9500 Series switches

Q What are the key SKUs in the Cisco Catalyst 9500 Series?

- A Cisco Catalyst 9500 Series has eight primary switch SKUs:
- **C9500-32C:** 32 ports 100G QSFP28
 - **C9500-32QC:** 24 ports 40G QSFP with 4 ports 100G QSFP28 uplinks **OR** 32 ports 40G QSFP **OR** 16 ports 100G QSFP28
 - **C9500-24Q:** 24 ports 40G QSFP
 - **C9500-12Q:** 12 ports 40G QSFP
 - **C9500-48Y4C:** 48 ports 25G/10G SFP28 option with 4 ports 100G/40G QSFP28 uplinks
 - **C9500-24Y4C:** 24 ports 25G/10G SFP28 option with 4 ports 100G/40G QSFP28 uplinks
 - **C9500-40X:** 40 ports 10G SFP+ option with 8 ports 10G SFP+ and 2 ports 40G QSFP uplinks
 - **C9500-16X:** 16 ports 10G SFP+ option with 8 ports 10G SFP+ and 2 ports 40G QSFP uplinks

Q Are the uplink modules of Cisco Catalyst 9500 Series switches the same as those for the Cisco Catalyst 3850 Series uplink modules?

- A **License options:**
- C9500-DNA-P-3, -5, -7:
C9500 24 port Cisco DNA Premier (25 ISE Base and Plus, and Stealthwatch endpoints); 3, 5 and 7 year term
 - C9500-DNA-L-P-3, -5, -7:
C9500 24 port Cisco DNA Premier (25 ISE Base and Plus, and Stealthwatch endpoints), low density; 3, 5 and 7 year term
 - C9500-DNA-P-AA-3, -5, -7:
C9500 Cisco DNA Premier Add-on (+25 ISE Base and Plus, and Stealthwatch endpoints); 3, 5 and 7 year term

- C9500-DNA-A-3, -5, -7:
C9500 Cisco DNA Advantage; 3, 5 and 7 year term
- C9500-DNA-L-A-3, -5, -7:
C9500 Cisco DNA Advantage, low density; 3, 5 and 7 year term
- C9500-DNA-E-3, -5, -7:
C9500 Cisco DNA Essentials; 3, 5 and 7 year term
- C9500-DNA-L-E-3, -5, -7:
C9500 Cisco DNA Essentials, low density; 3, 5 and 7 year term

Network module options: (for C9500-16X and C9500-40X)

- C9500-NM-8X: 8x 10G network module
- C9500-NM-2Q: 2x 40G network module

Power options:

- PWR-C4-9500WAC-R
- PWR-C4-9500WDC-R
- C9K-PWR-650WAC-R
- C9K-PWR-930WDC-R
- C9K-PWR-1600WAC-R
- C9K-PWR-1600WDC-R

Fan Module:

- FAN-T4-R=
- C9K-T1-FANTRAY

Storage modules:

- SSD-120G: Cisco pluggable USB3.0 SSD storage
- C9K-F1-SSD-240G: Cisco pluggable 240GB M2 SATA memory
- C9K-F1-SSD-480G: Cisco pluggable 480GB M2 SATA memory
- C9K-F1-SSD-960G: Cisco pluggable 960GB M2 SATA memory

No, uplink modules of the Cisco Catalyst 9500 Series switches have different SKUs from those of the 3850 Series.

Q How many Rack Units (RUs) do Cisco Catalyst 9500 Series Switches have?

A Cisco Catalyst 9500 Series Switches are 1RU switches.

Q Do Cisco Catalyst 9500 Series switches come with built-in RFID?

A Yes, they come with a built-in passive RFID tag.

Q What management ports are available on Cisco Catalyst 9500 Series switches?

A Cisco Catalyst 9500 Series switches come with a mini-B type USB console port and a 10, 100, or 1000 Ethernet (RJ-45) dedicated management port on the front panel of the switch. The Ethernet port is in a separate VRF instance called “Mgmt-vrf” in order to segment the management traffic from the global routing table of the switch.

Q Can I use both console ports simultaneously on a Cisco Catalyst 9500 Series switch?

A No. The RJ-45 port is default and the console switches to USB when USB cable is connected.

Q Do Cisco Catalyst 9500 Series switches support Trivial File Transport Protocol (TFTP) to boot the software image?

A Yes, you can use TFTP to boot the application image over the network with the following parameters set up:

- MAC_ADDR: The switch default MAC address
- IP_ADDR: The IP address or netmask of the switch
- DEFAULT_ROUTER: The IP address of the default router in the local network

Example:

- Switch: set DEFAULT_ROUTER 10.4.2.1
- Switch: set IP_ADDR 10.4.2.140/255.255.255.0
- Switch: boot tftp://<tftp server ip addr>/<filename>

Q Do Cisco Catalyst 9500 Series switches support OIR?

A Yes, the 5 fans and the 2 power supply units support OIR. Also, uplink modules on the 10 and 25 Gigabit Ethernet SKU support OIR.

Q How many fans can fail on a Cisco Catalyst 9500 Series Switch without interrupting the system?

A One. Cisco Catalyst 9500 Series switches are designed to support a single fan failure. We recommended that you replace fans as soon as possible when they fail.

Q Do Cisco Catalyst 9500 Series switches support 802.1ae?

A Cisco Catalyst 9500 Series switches are hardware-capable for 802.1ae on all ports on the switch.

Q What type of airflow do Cisco Catalyst 9500 Series switches support?

A The airflow on Cisco Catalyst 9500 Series switches is “front-to-back” airflow.

Q What pluggable transceiver modules do Cisco Catalyst 9500 Series switches support?

A Refer to the Cisco Transceiver Module Compatibility Matrixes for a complete list: <https://www.cisco.com/c/en/us/products/interfaces-modules/transceiver-modules/index.html>.

Q Can Cisco Catalyst 9500 Series switches support redundant power supplies?

A Yes, Cisco Catalyst 9500 Series switches come with two AC power supplies. For further details on power supplies, please refer to Cisco Catalyst 9500 Series switch data sheet: Latest data sheet version.

Cisco Catalyst 9600 Series switches

Q What are the key SKUs in the Cisco Catalyst 9600 Series?

A The Cisco Catalyst 9600 Series has 4 primary hardware SKUs with a number of license, power and SSD storage module options:

- **C9606R:** 6 slot Catalyst 9600 Chassis, up to 25.6 Tbps capacity
- **C9600-SUP-1:** up to 1.6 T per slot supervisor
- **C9600-LC-48X:** 48 ports mGig line card 100/1000 Mbps 2.5/5 Gbps 10GBASE-T
- **C9600-LC-24C:** 24 ports 40G/12 ports 100G line card
- **C9600-LC-48YL:** 48 ports 25G/10G/1G line card

License options:

- C9600-DNA-P-3, -5, -7:
C9600 Cisco DNA Premier (100 ISE Base and Plus, and Stealthwatch endpoints); 3, 5 and 7 year term
- CAT-DNA-P-ADD:
Cisco DNA Premier Catalyst Add-on of 50 ISE Base, ISE Plus, and Stealthwatch additional endpoints
- C9600-DNA-A-3, -5, -7:
C9600 Cisco DNA Advantage; 3, 5 and 7 year term

Power options:

- C9600-PWR-2KWAC
- C9600-PWR-2KWDC

Fan Module:

- C9606-FAN=

Storage modules:

- SSD-120G: Cisco pluggable USB3.0 SSD storage
- C9K-F2-SSD-240GB: Cisco pluggable 240GB M2 SATA memory
- C9K-F2-SSD-480GB: Cisco pluggable 480GB M2 SATA memory
- C9K-F2-SSD-960GB: Cisco pluggable 960GB M2 SATA memory

Q What is the system architecture on Cisco Catalyst 9600 Series switches?

A Catalyst 9600 Series switches are based on centralized architecture using the Cisco UADP ASIC 3.0 running open Cisco IOS XE software. This architecture has several key benefits, including simplicity of upgrades, investment protection, and superior high availability.

Q Are there different chassis models available on Cisco Catalyst 9600 Series switches?

A Cisco Catalyst 9600 Series switches currently offers one chassis types: 6 slot with redundant supervisor slots. The 6 slot chassis has 4 line cards slots that can serve up to 192 ports of 25G/10G/1G, 96 ports of 40G and 48 ports of 100G with Supervisor-1. The 6 slot chassis also include 4 power bays and a “9-fan” fan tray.

Q What line cards are available on Cisco Catalyst 9600 Series switches?

A Cisco Catalyst 9600 Series switches support the following line card modules to serve the diverse needs of modular campus core and aggregation deployments:

- C9400-LC-24C: 24 ports 40G or 12 ports non-blocking 100G
- C9400-LC-48YL: 48 ports non-blocking 25G/10G/1G

Q What are the different data sheets and SKUs on Cisco Catalyst 9600 Series switches?

A Refer to the Cisco Catalyst 9600 Series switch data sheets that provide the technical and product details of the series:

- [Cisco Catalyst 9600 Series Switch Chassis Data Sheet](#)
- [Cisco Catalyst 9600 Supervisor Engine Modules Data Sheet](#)
- [Cisco Catalyst 9600 Series Switch Line Cards Data Sheet](#)

Q What are the SSD onboard storage options on Cisco Catalyst 9600 Series switches?

A On the supervisor module, you can order an optional SSD for onboard storage. The supervisor module supports 240, 480 or up to 960 GB configurations. It is recommended to configure this module on both supervisors (active and redundant) at the time of order. For dual-supervisor configuration, it is recommended that you order the same size of SSD module on both supervisors.

Q Can a Catalyst 9600 Series switch line cards be used in any slot?

A No. Slots 1, 2 and 5, 6 are reserved for line cards. Slots 3 and 4 on the Catalyst 9600 have been reserved for Supervisors.

Q Can a Catalyst 9600 Series switch spare supervisor be used in any slot?

A No. Slots 3 and 4 on the Catalyst 9600 have been reserved for Supervisors.

Q Can any port act as uplink or core port?

A Yes, any of the front panel data ports can be used for uplinks or core from 1/10G, 25G, 40G and 100G.

Q Does SSO work with a Catalyst 9600 Series switch?

A SSO functionality is supported in with Cisco DNA Advantage license, including NSF and ISSU capabilities.

Q What is the airflow design on Cisco Catalyst 9600 Series switches?

A Cisco Catalyst 9600 Series switches utilize a side-to-side airflow design that is most common in campus modular core deployments. A NEBS (C9606-FB-23-KIT=) compliant kit will be available at FCS for airflow alteration.

Q What is unique about Cisco Catalyst 9600 Series switch fan-tray design?

A Cisco Catalyst 9600 Series switches have an innovative fan-tray design that allows you to service the fan tray from the front or the back using the same fan tray. In certain rack deployments, this design allows you to retain your cable connectivity to the modules while servicing the fan tray from the rear.

Q What is unique about the Cisco Catalyst 9600 Series switch power design?

A The Cisco Catalyst 9600 Series switch power-design architecture is unique and superior in many ways. The novel design supports:

- Platinum rated (>90% efficiency) efficient power supplies
- Modular power supply
- Superior high-availability capabilities to support N+1 redundancy
- Combined mode of operation
- Ability to mix 220VAC and DC inputs
- AC and DC power options

Q How many power supplies can the 6 slot chassis hold?

A The 6 slot chassis option supports up to 4 modular power supplies. A minimum of two power supplies are needed to power a fully loaded chassis.

Q How do I decide the number of power supplies I need on a Cisco Catalyst 9600 Series switch?

A Use the Cisco Power Calculator to estimate the power requirements on Cisco Catalyst 9600 Series switches. This tool allows you to configure current and future power needs based on the devices, line cards, and recommends the number of power supplies you will need for your deployment <https://www.cisco.com/c/en/us/support/web/tools-catalog.html>.

- Q On Cisco Catalyst 9600 Series switches, what is the default power supply mode?**
- A The default mode is a combined mode; User can change the mode of operation to N+1 mode.
- Q What power redundancy modes does Cisco Catalyst 9600 Series switches support?**
- A Cisco Catalyst 9600 Series switches support N+1 or combined redundant mode. The platforms allow changing of the power supply modes with a simple CLI. For N+1 mode, N power supplies are active and 1 is in standby.
- Q Do Cisco Catalyst 9600 Series switches come with built-in RFID?**
- A Yes, Cisco Catalyst 9600 Series switches come with built-in passive RFID tags on all the components so that you have an inventory of the different components, including separated RFID tags for the supervisor, all line-card modules, the power supplies, the fan tray, and the chassis.
- Q What management ports are available on Cisco Catalyst 9600 Series switches?**
- A Cisco Catalyst 9600 Series switches come with a mini-B type USB and an RJ-45 console port, with a dedicated 10/100/1000 Ethernet (RJ-45) and 10G SPF+ management port on the front panel of the switch. The Ethernet port is in a separate VRF instance called “Mgmt-vrf”. This setup segments the management traffic from the global routing table of the switch.
- Q What are the high availability features of Catalyst 9600 series?**
- A Catalyst 9600 Series switches have been designed for high availability and non-stop operations and maintenance. The hardware supports high availability with redundant supervisors, N+1 power supply redundancy and hot swappable of all components. The Cisco

IOS XE operating system enables “In Service Software Upgrades” (ISSU) ensuring continuous operations; hot patching providing the ability to update the OS without requiring a reload of the system; Graceful Insertion and Removal (GIR) enabling removal and insertion of switch in the network for maintenance minimizing downtime.

- Q Can I use both console ports simultaneously on a Cisco Catalyst 9600 Series switch?**
- A Cisco Catalysts 9600 Series provides two options to connect to the console, an RJ45 port and a USB port. Only one can be used at any time to connect with RJ-45 port as the default Console switches to USB when the USB cable is connected.
- Q Do Cisco Catalyst 9600 Series switches support Online Insertion and Removal (OIR)?**
- A Yes, OIR is supported on all the modules and power supplies.
- Q What pluggable transceiver modules do Cisco Catalyst 9600 Series switches support?**
- A Refer to the Cisco Transceiver Module Compatibility Matrixes for the supported list <https://www.cisco.com/c/en/us/products/interfaces-modules/transceiver-modules/index.html>.
- Q Is StackWise Virtual be supported on Cisco Catalyst 9600 Series switches?**
- A StackWise Virtual is supported on the Cisco Catalyst 9600 Series and allows for dual supervisors in each chassis.
- Q Is StackWise Virtual be supported on all ports Cisco Catalyst 9600 Series switches?**
- A StackWise Virtual supports all available ports.

Q What is the maximum VRF instances Cisco Catalyst 9600 Series switches?

A Catalyst 9600 Series switches will support 1K VRF's at FCS.

Q How much power does Cisco Catalyst 9600 Series switches use?

A Components in Catalyst 9600 Series switches use the following power:

Table 7. Catalyst 9600 Power Specification

PID	PID Type	Max Power (w)	Typical Power (w)
C9606-FAN	Fan Tray	475	308
C9606-SUP-1	Supervisor	775	191 (active/standby)
C9600-LC-48U	mGig (1G, 2.5G, 5G 10G) LC	230	182
C9600-LC-24C	100G/40G LC	200	159
C9600-LC-48YL	25G/10G/1G LC	230	182

Q What uplink combinations are available on Cisco Catalyst 9600 Series Supervisors?

A Catalyst 9600 Series Sup1 Supervisors will not have any dedicated uplinks ports. Any line card front panel ports can be leveraged for uplink connectivity.

Q Is there an onboard web UI on Cisco Catalyst 9600 Series switches?

A All Catalyst 9000 switches, including the Catalyst 9600 Series, support on-board webUI to simplify device management.

Q What is the minimum version of Cisco DNA Center is required to support 9600?

A Please refer to the [Software defined access hardware and software compatibility matrix](#) provides for minimum release required for supporting the Catalyst 9600 Series.

Q How can I use Cisco Catalyst 9600 Series switches in a SD-Access?

A Catalyst 9600 Series switches extend support for SD-Access as both a border node or a control node.

Q When do I position Cisco Catalyst 9600 versus Cisco Catalyst 9500 series?

A The Cisco Catalyst 9600 Series is a 6-slot modular switching system that is capable of supporting 4 line card slots and 2 supervisors. Catalyst 9600 Series switches should be positioned when there is a need for a scalable platform with additional resiliency features such as SSO with redundant supervisors and power.

Typically, Catalyst 9600 Series switches should be positioned when customer is planning to migrate from modular Catalyst 6800/6500 series. Catalyst 9500 Series switches are a fixed core platform that have been designed for customers migrating from fixed Catalyst 6800 and Catalyst 3850 10G fiber models.

Q Would I be able to use Cisco Catalyst 9400 Series line cards on Cisco Catalyst 9600 Series switches?

A No, you cannot use Catalyst 9400 Series line cards in a Catalyst 9600 Series switch as the line cards are based on different architectures.

Benefits of upgrading

Q Where can I find comparisons between Cisco Catalyst 9000 switches and other Cisco Catalyst switches?

A Below are a list of documents that highlight the key differences of Catalyst 9200 Series, 9300 Series, 9400 Series, 9500 Series and 9600 Series switches with other comparable Catalyst switching platforms.

- [Benefits of upgrading to Cisco Catalyst 9200 Series switches](#)
- [Benefits of upgrading to Cisco Catalyst 9300 Series switches](#)
- [Benefits of upgrading to Cisco Catalyst 9400 Series switches](#)
- [Benefits of upgrading to Cisco Catalyst 9500 Series switches](#)
- [Benefits of upgrading to Cisco Catalyst 9600 Series switches](#)

Pricing and ordering

Q Where can I find the complete SKU list or data sheets for the Cisco Catalyst 9000 switches?

A A complete list of PIDs is available in the platform-specific data sheets:

- Cisco Catalyst 9200 Series: [Latest data sheet version](#)
- Cisco Catalyst 9300 Series: [Latest data sheet version](#)
- Cisco Catalyst 9400: Chassis: [Latest Datasheet Version for Chassis](#)
- Supervisor: [Latest Datasheet Version for Supervisor](#)
- Line cards: [Latest Datasheet Version for Line cards](#)
- Cisco Catalyst 9500: [Latest Datasheet Version](#)
- Cisco Catalyst 9600: Chassis: [Latest Datasheet Version for Chassis](#)
- Supervisor: [Latest Datasheet Version for Supervisor](#)
- Cisco Catalyst 9600 Line cards: [Latest Datasheet Version for Line cards](#)

Q What is the SKU mapping between the Cisco Catalyst 2960-X/XR and 9200 Series switches?

A Refer to Table 8.

Table 8. Mapping between Cisco Catalyst 3850 and 9300 Series

Catalyst 2960-X/ XR Series switch PIDs	Catalyst 9300 Series switch PIDs	Short description
WS-C2960X-24 -TD-L -TS-L, TS-LL	C9200L-24T -4X -4G	Cisco Catalyst 9200 24 port data only switch
WS-C2960X-24P - PD-L -PS-L, PSQ-LL	C9200L-24P -4X -4G	Cisco Catalyst 9200 24 port PoE+ switch
WS-C2960X-48 -TD-L -TS-L, TS-LL	C9200L-48T -4X -4G	Cisco Catalyst 9200 48 port data only switch
WS-C2960X-48 -FPD-L, LPD-L -FPS-L, LPS-L	C9200L-48P -4X -4G	Cisco Catalyst 9200 48 port PoE+ switch
WS-C2960XR-24 -TD-I, -TS-I	C9200-24T	Cisco Catalyst 9200 24 port data only switch
WS-C2960XR-24P - PD-I, -PS-I	C9200-24P	Cisco Catalyst 9200 24 port PoE+ switch
WS-C2960XR-48 -TD-I, -TS-I	C9200L-48T	Cisco Catalyst 9200 48 port data only switch
WS-C2960XR-48 -FPD-I, LPD-I -FPS-I, LPS-I	C9200L-48P	Cisco Catalyst 9200 48 port PoE+ switch

Q What is the SKU mapping between the Cisco Catalyst 3850 and 9300 Series switches?

A Refer to Table 9.

Table 9. Mapping between Cisco Catalyst 3850 and 9300 Series

Catalyst 3850 Series switch PIDs	Catalyst 9300 Series switch PIDs	Short description
WS-C3850-24T	C9300-24T	Cisco Catalyst 9300 24-port data only switch
WS-C3850-24P	C9300-24P	Cisco Catalyst 9300 24-port PoE+ switch
WS-C3850-24U	C9300-24U	Cisco Catalyst 9300 24-port UPOE switch
WS-C3850-24XU	C9300-24UX	Cisco Catalyst 9300 24-port Multigigabit and UPOE switch
WS-C3850-48T	C9300-48T	Cisco Catalyst 9300 48-port data only switch
WS-C3850-48P	C9300-48P	Cisco Catalyst 9300 48-port PoE+ switch
WS-C3850-48U	C9300-48U	Cisco Catalyst 9300 48-port UPOE switch
WS-C3850-12X48U no comparable SKU	C9300-48UXM	Cisco Catalyst 9300 48-port 2.5G (12 Multigigabit) switch
	C9300-48UN	Cisco Catalyst 9300 48-port 5G switch
	C9300-24UB	Cisco Catalyst 9300 24 port high density UPOE switch
	C9300-48UB	Cisco Catalyst 9300 48 port high density UPOE switch
	C9300-24UXB	Cisco Catalyst 9300 24 port high density mGig UPOE switch
	C9300-24H	Cisco Catalyst 9300 24 port UPOE+ switch
	C9300-48H	Cisco Catalyst 9300 48 port UPOE+ switch
WS-C3850-12S	C9300-24S	Cisco Catalyst 9300 24-port 1G SFP
WS-C3850-24S	C9300-48S	Cisco Catalyst 9300 48-port 1G SFP

Q What is the SKU mapping between the Cisco Catalyst 3650 and 9300L Series switches?

A Refer to Table 10.

Table 10. Mapping between Cisco Catalyst 3650 and 9300L Series

Catalyst 3650 Series switch PIDs	Catalyst 9300L Series switch PIDs	Short description
WS-C3650-24TS	C9300L-24T-4G	24 1G data ports with 4x 1G uplink
WS-C3650-24PS	C9300L-24P-4G	24 1G PoE+ ports with 4x 1G uplink
WS-C3650-48TS	C9300L-48T-4G	48 1G data ports with 4x 1G uplink
WS-C3650-48PS	C9300L-48P-4G	48 1G PoE+ ports with 4x 1G uplink
WS-C3650-24TD	C9300L-24T-4X	24 1G data ports with 4x 10G uplink
WS-C3650-24PD	C9300L-24P-4X	24 1G PoE+ ports with 4x 10G uplink
WS-C3650-48TQ	C9300L-48T-4X	48 1G data ports with 4x 10G uplink
WS-C3650-48PQ	C9300L-48P-4X	48 1G PoE+ ports with 4x 10G uplink
WS-C3650-8X24UQ	C9300L-24UXG-4X	8 Mgid ports, 16 UPoE ports with 4x 10G uplink
WS-C3650-12X48UQ	C9300L-24UXG-2Q	8 Mgid ports, 16 UPoE ports with 2x 40G uplink
WS-C3650-12X48UR	C9300L-48UXG-4X	12 Mgid ports, 36 UPoE ports with 4x 10G uplink
WS-C3650-12X48UZ	C9300L-48UXG-2Q	12 Mgid ports, 36 UPoE ports with 2x 40G uplink

Q What is the SKU mapping between the Cisco Catalyst 4500E and 9400 Series switches?

A Refer to Table 11.

Table 11. Mapping between Cisco Catalyst 4500E and 9400 Series

Catalyst 4500E Series switch PIDs	Catalyst 9400 Series switch PIDs	Short description
WS-C4503-E	C9404R	Cisco Catalyst 9400 Series 4 slot chassis
WS-C4506-E	C9407R	Cisco Catalyst 9400 Series 7 slot chassis
WS-C4507R+E	C9407R	Cisco Catalyst 9400 Series 7 slot chassis
WS-C4510R+E	C9410R	Cisco Catalyst 9400 Series 10 slot chassis
WS-X45-SUP6-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X45-SUP6L-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X45-SUP7-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X45-SUP7L-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X45-SUP8-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X45-SUP8L-E	C9400-SUP-1	Cisco Catalyst 9400 Series Supervisor 1
WS-X4748- RJ45V+E	C9400-LC-48U	Cisco Catalyst 9400 Series 48-Port UPOE 10/100/1000 (RJ-45)
	C9400-LC-48H	Cisco Catalyst 9400 Series 48-Port UPOE+ 10/100/1000 (RJ-45)
	9400-LC-48HN	Cisco Catalyst 9400 Series 48-Port UPOE+ 5G (RJ-45)
WS-X4648- RJ45V+E	C9400-LC-48U	Cisco Catalyst 9400 Series 24-Port UPOE
	C9400-LC-48H	Cisco Catalyst 9400 Series 48-Port UPOE+and UPOE 10/100/1000 (RJ-45)
WS-X4748- UPOE+E	C9400-LC-48U	Cisco Catalyst 9400 Series 48-Port UPOE 10/100/1000 (RJ-45)
	C9400-LC-48H	Cisco Catalyst 9400 Series 48-Port UPOE+ 10/100/1000 (RJ-45)
	C9400-LC-48HN	Cisco Catalyst 9400 Series 48-Port UPOE+ 5G (RJ-45)

Catalyst 4500E Series switch PIDs	Catalyst 9400 Series switch PIDs	Short description
no comparable SKU	C9400-48U	Cisco Catalyst 9400 Series 48-Port UPOE+
WS-X4748-RJ45+E	C9400-LC-48T	Cisco Catalyst 9400 Series 48-Port 10/100/1000 (RJ-45)
WS-X4648-RJ45+E	C9400-LC-48T	Cisco Catalyst 9400 Series 48-Port 10/100/1000 (RJ-45)
PWR-C45- 1300ACV	C9400-PWR- 3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply
PWR-C45- 2800ACV	C9400-PWR- 3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply
PWR-C45- 4200ACV	C9400-PWR- 3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply
PWR-C45- 6000ACV	C9400-PWR- 3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply
PWR-C45- 9000ACV	C9400-PWR- 3200AC	Cisco Catalyst 9400 Series 3200W AC Power Supply

Q What is the SKU mapping between the Cisco Catalyst 4500X and 9500 Series switches?

A Refer to Table 12.

Table 12. Mapping between Cisco Catalyst 4500X and 9500 Series

4500X PIDs	9500 PID	Short description
WS-C4500X- 16SFP+	C9500-12Q	Cisco Catalyst 9500 12-port 40GE QSFP switch
	C9500-16X	Cisco Catalyst 9500 16-port 10GE SFP+ Switch
WS-C4500X-24X-ES	C9500-24Y4C	Cisco Catalyst 9500 24-port 25GE SFP28 with 4-port 100GE QSFP28 switch
	C9500-24X	Cisco Catalyst 9500 16-port 10GE SFP+with 8-port 10GE SFP+Switch
	C9500-24Q	Cisco Catalyst 9500 24-port 40GE QSFP switch
WS-C4500X-32SFP+	C9500-24Q	Cisco Catalyst 9500 24-port 40GE QSFP switch
	C9500-32QC	Cisco Catalyst 9500 32-port 40GE QSFP or 16-port 100GE QSFP28 switch
	C9500-32C	Cisco Catalyst 9500 32-port 100GE QSFP28 switch
WS-C4500X- 40X-ES	C9500-40X	Cisco Catalyst 9500 40+ port 10GE SFP+ Switch
	C9500-48X	Cisco Catalyst 9500 convenience bundle - 40P x 10G + 8P x 10G
	C9500-40X-2Q	Cisco Catalyst 9500 convenience bundle - 40P x 10G + 2P x 40G
	C9500-48Y4C	Cisco Catalyst 9500 48-port 25GE SFP28 with 4-port 100GE QSFP28 switch

Q What is the SKU mapping between the Cisco Catalyst 6800 and 9500 Series switches?

A Refer to Table 13.

Table 13. Mapping between Cisco Catalyst 6840 Series and 9500 Series

6840X PIDs	9500 PID	Short description
C6816-X-LE	C9500-16X	Cisco Catalyst 9500 16-ports 10G SFP+switch
	C9500-24Y4C	Cisco Catalyst 9300 24-port Multigigabit and UPOE switch
C6832-X-LE	C9500-40X	Cisco Catalyst 9500 40-ports 10G SFP+ switch
	C9500-48Y4C	Cisco Catalyst 9500 48-ports 25G/10G SFP28 switch
C6824-X-LE-40G	C9500-24Y4C	Cisco Catalyst 9500 24-ports 25G/10G SFP28 switch
C6840-X-LE-40G	C9500-40X	Cisco Catalyst 9500 40+port 10GE SFP+ Switch
	C9500-48X	Cisco Catalyst 9500convenience bundle - 40P x 10G + 8P x 10G
	C9500-40X-2Q	Cisco Catalyst 9500 convenience bundle - 40P x 10G + 2P x 40G
	C9500-48Y4C	Cisco Catalyst 9500 48- port 25GE SFP28 with 4-port 100GE QSFP28 switch

Q What is the SKU mapping between the Cisco Catalyst 6500/6800 and Cisco Catalysts 9600 switches?

A Refer to Table 14.

Table 14. Mapping between Cisco Catalyst 6500/6800 Series and 9600 Series

Catalyst 6500/ 6800 series PIDs	Catalyst 9600 Series Switch PIDs	Short description
C6800-16P10G	C9600-LC-48YL	48 port 10GE/25GE line card
C6800-32P10G	C9600-LC-48YL	48 port 10GE/25GE line card
C6800-8P40G	C9600-LC-24C	24 port 40GE/12 port 100GE line card
no comparable SKU	C9600-LC-48X	48 port mGig line card
C6807-XL	C9606R	6 slot Cisco Catalyst 9600 Chassis
VS-S2T-10G	C9606-SUP-1	Catalyst 9600 series Supervisor 1
C6800-SUP6T	C9606-SUP-1	Catalyst 9600 series Supervisor

Q What is the SKU mapping between the Cisco Catalyst 6800ia and 9300 Series?

A Refer to Table 15.

Table 15. Mapping between Cisco Catalyst 6800ia and 9300 Series

6800IA PIDs	9500 PID	Short description
C6800IA-48FPD	C9600-LC-48YL	Cisco Catalyst 9300 48-port data only switch
C6800IA-48TD	C9600-LC-48YL	Cisco Catalyst 9300 48-port PoE+ switch
C6800IA-48FPDR	C9600-LC-24C	Cisco Catalyst 9300 48-port PoE+ switch

Warranty and support

Q How does Cisco Smart Net Total Care® Service pricing compare between the Cisco Catalyst 9000 family and Cisco Catalyst 3850, 4500, and 4500X Series?

A Smart Net Total Care® pricing for the Cisco Catalyst 9000 family is at parity with the existing Cisco Catalyst 3850, 4500, and 4500X Series.

Q Does Smart Net Total Care support include support for all the different licenses?

A Smart Net Total Care supports hardware and network essentials and network advantage perpetual licenses. All term-based subscription licenses, such as Cisco DNA Essentials and Cisco DNA Advantage, are covered by SWSS, which is included by default in the price of the license.

Q Do Cisco Catalyst 9000 family switches support the Enhanced Limited Lifetime Warranty (E-LLW)?

A Yes, all Cisco Catalyst 9000 family switches support E-LLW. E-LLW provides 90-day 8x5 Cisco Technical Assistance Center (TAC) hardware support, next-business-day hardware replacement, and guest access to the knowledge base. The business unit software policy provides free software updates for Cisco IOS XE software in the network stack.

Q What is the software support model with E-LLW on the Cisco Catalyst 9000 family?

A The Enhanced Limited Lifetime hardware Warranty is limited to hardware support. For the Cisco Catalyst 9000 family, Cisco DNA Software term-based subscription license-related issues are covered by SWSS, which is included as part of the Cisco DNA subscription license. Also, for the first 90 days, you are entitled to configuration help for Cisco IOS XE software-related questions. Software updates to the Cisco IOS XE software will be supported by the business unit software policy.

Services

Q Are there any services available to support the Cisco Catalyst 9000 family of switches?

A Yes. With Cisco Services, you can achieve infrastructure excellence faster with less risk. Our services for Cisco Catalyst 9000 switches provide expert guidance to help you successfully plan, deploy, manage and support your new switches. With unmatched networking expertise, best practices and innovative tools, Cisco Services can help you reduce overall upgrade, refresh, and migration costs as you introduce new hardware, software and protocols into the network. With a comprehensive lifecycle of services, Cisco experts will help you minimize disruption and improve operational efficiency to extract maximum value from your Cisco DNA-ready infrastructure.