CISCO

# Cisco Catalyst 9400 Series Switch 

Built for Security, IoT, Mobility and Cloud

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Advanced persistent security threats, exponential growth of Internet of Things (IoT) devices, mobility everywhere and cloud adoption require a network fabric that integrates advanced hardware and software innovations to automate, secure, and simplify customer networks. The goal of this network fabric is to enable customer revenue growth by accelerating business service rollout.

The Cisco ${ }^{\oplus}$ Digital Network Architecture (DNA) with Software Defined Access (SD-Access) is the network fabric that powers business. Cisco DNA is an open and extensible, software-driven architecture that accelerates and simplifies your enterprise network operations. The programmable architecture frees your IT staff from time consuming, repetitive network configuration tasks so they can focus instead on innovation that positively transforms your business. SD-Access enables policy-based automation from edge to cloud with foundational capabilities. These include:

- Simplified device deployment
- Unified management of wired and wireless networks
- Network virtualization and segmentation
- Group-based policies
- Context-based analytics

The Cisco Catalyst 9400 Series switches are Cisco's leading modular enterprise switching access platform built for security, IoT and cloud. These switches form the foundational building block for SD-Access - Cisco's lead enterprise architecture. The platform provides unparalleled investment protection with a chassis architecture that is capable of supporting up to 9Tbps of system bandwidth and unmatched power delivery for high density IEEE 802.3BT (60W PoE). Redundancy is now table stakes across the portfolio. The Catalyst 9400 delivers state-of-the-art High Availability (HA) with capabilities like SSO/NSF, uplink resiliency, $\mathrm{N}+1 / \mathrm{N}+\mathrm{N}$ redundancy for power supplies. The platform is enterprise optimized with an innovative dual-serviceable fan tray design, side to side airflow and is closet-friendly with $\sim 16^{\prime \prime}$ depth. A single system can scale up to 384 access ports with your choice of 1 G copper, UPoE, PoE+, 1 G Fiber options. The platform also supports advanced routing and infrastructure services, SD-Access capabilities and network system virtualization. These features enable optional placement of the platform in the core and aggregation layers of small to medium-sized campus environments.

## Cisco ONE Software

Cisco ONE ${ }^{\text {TM }}$ Software offers a valuable and flexible way to buy software for the access, WAN, and data center domains. At each stage in the product lifecycle, Cisco ONE Software helps make buying, managing, and upgrading your network and infrastructure software easier. Cisco ONE Software provides:

- Flexible licensing models to smoothly distribute customers' software spending over time
- Investment protection for software purchases through software services-enabled license portability
- Access to updates, upgrades, and new technology from Cisco through Cisco ${ }^{\ominus}$ Software Support Services (SWSS)
- Lower cost of entry with the new Cisco ONE Subscription for Switching model

Cisco ONE for Access lets you manage your entire switching structure as a single, converged component. With one management system and one policy for wired and wireless networks, it offers an efficient way to provide more secure access.


Figure 1.
Cisco Catalyst 9400 Series

## Cisco Catalyst 9400 Series chassis

The Cisco Catalyst 9400 Series offers two chassis options and a wide range of line card options (Table 1). It provides a common architecture that can scale up to 392 ports.

The Catalyst 9400 Series chassis is enterprise optimized with efficient side-to-side airflow and full front accessibility for all removable components, including supervisors, line cards, power supplies and fan tray. The chassis also supports optional rear accessibility for fan trays to enable efficient cable management. Catalyst 9400 Series chassis, supervisor, line cards, powersupply and fan trays have embedded RFID tags which facilitate easy asset and inventory management using commercial RFID readers.

Table 1. Cisco Catalyst 9400 Series chassis features

| Feature | Cisco Catalyst C9407R Chassis | Cisco Catalyst C9410R Chassis |
| :---: | :---: | :---: |
| Total number of slots | 7 | 10 |
| Line-card slots | 5 | 8 |
| Supervisor engine slots | $2^{1}$ | $2^{2}$ |
| Dedicated supervisor engine slot numbers | 3 and $4^{3}$ | 5 and $6^{3}$ |
| Supervisor engine redundancy | Yes | Yes |
| Supervisor engines supported | C9400-SUP-1, C9400-SUP-1XL | C9400-SUP-1, C9400-SUP-1XL |
| Maximum PoE per slot | $2880 W^{4}$ | $2880 W^{4}$ |
| Maximum Bandwidth scalability per line-card slot | Up to 480 Gbps on all slots ${ }^{5}$ | Up to 480 Gbps on all slots ${ }^{6}$ |
| Number of power supply bays | 8 | 8 |
| AC input power | Yes | Yes |


| Feature | Cisco Catalyst C9407R Chassis | Cisco Catalyst C9410R Chassis |
| :--- | :--- | :--- |
| Integrated PoE | Yes | Yes |
| Power supplies supported | 3200 W AC, 2100W AC | 3200 W AC, 2100W AC |
| Number of fan-tray bays | 1 | 1 |
| Location of 19 -inch rack-mount | Front | Front |

${ }^{1}$ Slots 3 and 4 are reserved for supervisor engines only in Cisco Catalyst C9407R; slots 1-2 and 5-7 are reserved for line cards.
${ }^{2}$ Slots 5 and 6 are reserved for supervisor engines only in Cisco Catalyst C9410R; slots 1-4 and 7-10 are reserved for line cards.
${ }^{3}$ Linecards are not supported in the Supervisor slots.
${ }^{4}$ Max PoE mentioned is as per the current shipping linecard, however chassis is capable $\sim 4800 \mathrm{~W}$ PoE per slot.
${ }^{5}$ 80Gbps per line-card slot when used with C9400-SUP-1 and 120Gbps per line-card slot when used with C9400-SUP-1XL
${ }^{6}$ 80Gbps per line-card slot when used with C9400-SUP-1 and 80Gbps per line-card slot when used with C9400-SUP-1XL

## Supervisor configuration

The Catalyst 9400 Series offers an industry-leading supervisor engine built for secure networks, IoT applications, next generation mobility and cloud adoption. Supervisor Engine-1 is built with the latest Unified Access Dataplane 2.0 (UADP2.0) ASIC future-proofed for next generation technologies with its programmable pipeline, microengine capabilities and template-based configurable allocation of Layer 2, Layer 3, forwarding, Access Control Lists (ACLs) and OoS entries.

Table 2. Cisco Catalyst 9400 Series supervisor engine maximum bandwidth per slot

| Feature | Cisco Catalyst 9400 Series Supervisor Engine <br> C9400-SUP-1 | Cisco Catalyst 9400 Series Supervisor Engine <br> C9400-SUP-1 XL |
| :--- | :--- | :--- |
| Cisco Catalyst C9407R chassis | $80 \mathrm{Gbps} / \mathrm{slot}$ | $120 \mathrm{Gbps} / \mathrm{slot}$ |
| Cisco Catalyst C9410R chassis | $80 \mathrm{Gbps} / \mathrm{slot}$ | $80 \mathrm{Gbps} / \mathrm{slot}$ |

Table 3 lists the minimum software requirements for the Cisco Catalyst 9400 supervisor engine.
Table 3. Cisco catalyst supervisor engine software minimum requirements

| Chassis | Supervisor Engine | Minimum Software Requirement |
| :--- | :--- | :--- |
| Cisco C9407R | Supervisor Engine C9400-SUP-1 | Cisco Open IOS-XE Software Release 16.6.1 |
| Cisco C9410R | Supervisor Engine C9400-SUP-1 | Cisco Open IOS-XE Software Release 16.6.1 |
| Cisco C9407R | Supervisor Engine C9400-SUP-1XL | Cisco Open IOS-XE Software Release 16.6.2 |
| Cisco C9410R | Supervisor Engine C9400-SUP-1XL | Cisco Open IOS-XE Software Release 16.6.2 |

## Line card configuration options

The Catalyst 9400 offers the ability to mix and match a range of line cards to support numerous LAN access, server connectivity, Small and Medium-sized Business (SMB) or branch-office deployments. The Cisco Catalyst 9400 Series supports the line cards listed in Table 4 by part number.

Table 4. Cisco Catalyst 9400 Series line cards

| Product Number | Description | Minimum Software Requirement |
| :--- | :--- | :--- |
| Cisco Catalyst 9400 Series Line Cards |  |  |
| C9400-LC-48U | Cisco Catalyst 9400 Series 48-Port UPOE 10/100/1000 (RJ-45) | Cisco Open IOS-XE Software Release 16.6.1 |
| C9400-LC-48T | Cisco Catalyst 9400 Series 48-Port 10/100/1000 <br> (RJ-45) | Cisco Open IOS-XE Software Release 16.6.1 |
| C9400-LC-48UX | Cisco Catalyst 9400 Series 48Port UPOE w/ 24 p mGig 24p RJ-45 | Cisco Open IOS-XE Software Release 16.6.2 |
| C9400-LC-24XS | Cisco Catalyst 9400 Series 24-Port 10 Gigabit Ethernet (SFP+) | Cisco Open IOS-XE Software Release 16.6.2 |
| C9400-LC-48P | Cisco Catalyst 9400 Series 48-Port POE+ 10/100/1000 (RJ-45) | Cisco Open IOS-XE Software Release 16.8.1 |
| C9400-LC-24S | Cisco Catalyst 9400 Series 24-Port Gigabit Ethernet(SFP) | Cisco Open IOS-XE Software Release 16.8.1 |
| C9400-LC-48S | Cisco Catalyst 9400 Series 48-Port Gigabit Ethernet(SFP) | Cisco Open IOS-XE Software Release 16.8.1 |

The Cisco Catalyst 9400 Series has flexible interface types and port densities that allow you to mix and match network configurations to meet the specific needs of campus networks (Table 5).

Table 5. Cisco Catalyst 9400 Series maximum port densities

| Cisco Catalyst 9400 Series Switching Modules | Cisco Catalyst C9407R | Cisco Catalyst C9410R |
| :--- | :--- | :--- |
| $10 / 100 / 1000$ BASE-T Gigabit (RJ-45) ports | 240 | 384 |
| $10 / 100 / 1000 B A S E-T$ Gigabit Ethernet with POE+ ports | 240 | 384 |
| Switched 10/100/1000BASE-T Gigabit Ethernet with UPOE ports | 240 | 384 |
| Switched 10 Gigabit Ethernet ports | 120 | 192 |
| MultiGigabit Ethernet ports (with UPOE) | 240 | 382 |
| Switched 1 Gigabit Ethernet ports |  | 384 |

## Specifications

Table 6 lists physical specifications of the Cisco Catalyst 9400 Series chassis.

Table 6. Physical specifications of Cisco Catalyst 9400 Series chassis

| Specification | C9407R | C94.10R |
| :--- | :--- | :--- |
| Dimensions <br> $(H \times W \times D)$ | $17.41 \times 17.30 \times 16.30 \mathrm{in}$. <br> $(44.22 \times 43.94 \times 41.40 \mathrm{~cm})$ | $22.61 \times 17.30 \times 16.30 \mathrm{in}$. <br> $(57.43 \times 43.94 \times 41.40 \mathrm{~cm})$ |
| Rack Units (RU) | 10 RU | 13 RU |
| Chassis weight <br> (with fan tray) | $63.0 \mathrm{lb}(28.58 \mathrm{~kg})$ | $65.0 \mathrm{lb}(29.48 \mathrm{~kg})$ |
| Mounting | 19 -in rack compatible |  |
| $(19-\mathrm{in}$. rack and cable guide hardware included) $)$ | $19-\mathrm{in}$. rack compatible <br> $(19-\mathrm{in}$. rack and cable guide hardware included) |  |

## Power Supply

There are three modes of operation supported by Cisco Catalyst 9400 power supplies. In all the modes the power supplies can be of different wattage and type whether AC or DC.

## Redundant N + N Mode

The Cisco Catalyst 9400 Chassis also supports $\mathrm{N}+\mathrm{N}$ redundancy with N independent input circuits and safeguards against failure of $\mathrm{N}(+\mathrm{N})$ of the circuits as opposed to power supply unit failure.

Redundant N+1 Mode
The Cisco Catalyst 9400 Chassis also supports $N+1$ redundancy with $N$ independent input circuits and safeguards against failure of one (+1) of the circuits as opposed to power supply unit failure.

## Combined Mode

In this mode the power available for the entire chassis is equal to the sum of the output power of both of the power supplies multiplied by the share ratio.
$P=$ Power output of one power-supply unit
Total combined mode power $=\mathrm{P}+(\mathrm{N}-1)^{*} \mathrm{P}$ * (share ratio)
Tables 7 describe power supply specification for the Catalyst 9400 Series.

Table 7. Cisco Catalyst 9400 Series power supply specifications

| Power Supply | 3200 W AC | 2100W AC |
| :---: | :---: | :---: |
| Integrated PoE | Yes | Yes |
| Input current (rated) | - 16 A at 100 VAC <br> - 16 A at 200 VAC | - 10.4 A at 100 VAC <br> - 10.4 A at 200 VAC |
| Input voltage | 100 to 240 VAC ( $\pm 10 \%$ for full range) | 100 to 240 VAC ( $\pm 10 \%$ for full range) |
| Output current (data) | - 55 V at $58.0 \mathrm{~A} / 28.36 \mathrm{~A}$ (230/115 VAC ranges) | - 55 V at 38.21/17.09A (230/115 VAC ranges) |


| Power Supply | $3200 W$ AC | 2100W AC |
| :---: | :---: | :---: |
|  | -3.3V at 3.0A | -3.3V at 3.0A |
| Output power ( $\mathrm{N}+\mathrm{N}$ ) redundant mode (PoE + data) | $(3190 \mathrm{~W} \times \mathrm{N}) / 2+10 \mathrm{~W}(3.3 \mathrm{~V}$ standby) for 230 VAC range $(1560 \mathrm{~W} \times \mathrm{N}) / 2+10 \mathrm{~W}$ (3.3V standby) for 115 VAC range $\mathrm{N}=$ number of power supplies ( $\mathrm{N}>1$ ) | $\begin{aligned} & (2102 \mathrm{~W} \times \mathrm{N}) / 2+10 \mathrm{~W}(3.3 \mathrm{~V} \text { standby) for } 230 \mathrm{VAC} \text { range } \\ & (940 \mathrm{~W} \times \mathrm{N}) / 2+10 \mathrm{~W}(3.3 \mathrm{~V} \text { standby) for } 115 \mathrm{VAC} \text { range } \\ & \mathrm{N}=\text { number of power supplies }(\mathrm{N}>1) \end{aligned}$ |
| Output power ( $\mathrm{N}+1$ ) redundant mode (PoE + data) | (3190W $\times(\mathrm{N}-1))+10 \mathrm{~W}(3.3 \mathrm{~V}$ standby) for 230 VAC range <br> ( $1560 \mathrm{~W} \times(\mathrm{N}-1))+10 \mathrm{~W}(3.3 \mathrm{~V}$ standby) for 115 VAC range <br> $N=$ number of power supplies $(N>1)$ | $(2102 \mathrm{~W} \times(\mathrm{N}-1))+10 \mathrm{~W}$ (3.3V standby) for 230 VAC range <br> ( $940 \mathrm{~W} \times(\mathrm{N}-1))+10 \mathrm{~W}(3.3 \mathrm{~V}$ standby) for 115 VAC range <br> $\mathrm{N}=$ number of power supplies ( $\mathrm{N}>1$ ) |
| Output Power Combined mode (PoE + data) | ( $3190 \mathrm{~W} \times \mathrm{N}$ ) $+10 \mathrm{~W}(3.3 \mathrm{~V}$ standby) for 230 VAC range ( $1560 \mathrm{~W} \times \mathrm{N}$ ) +10 W (3.3V standby) for 115 VAC range $\mathrm{N}=$ number of power supplies ( $\mathrm{N}>1$ ) | $\begin{aligned} & (2102 \mathrm{~W} \times \mathrm{N})+10 \mathrm{~W}(3.3 \mathrm{~V} \text { standby) for } 230 \mathrm{VAC} \text { range } \\ & (940 \mathrm{~W} \times \mathrm{N})+10 \mathrm{~W}(3.3 \mathrm{~V} \text { standby) for } 115 \mathrm{VAC} \text { range } \\ & \mathrm{N}=\text { number of power supplies }(\mathrm{N}>1) \end{aligned}$ |
| Heat dissipation | 950 BTU/hr x N <br> $\mathrm{N}=$ number of power supplies | 460 BTU/hr x N <br> $\mathrm{N}=$ number of power supplies |
| Holdup time | 20 ms | 20 ms |
| Hot swappable | Yes | Yes |
| MTBF | 300,000 hours | 300,000 hours |
| Minimum Software Requirement | Cisco Open IOS-XE Software Release 16.6.1 | Cisco Open IOS-XE Software Release 16.8.1 |

## Note:

- Output power is per power supply unless otherwise stated.
- Heat-dissipation numbers represent the power conversion losses of the power supply in operation.
- The number of power devices supported depends upon the customer configuration.


## Power Supply Indicators

- Output Fail LED (per unit): RED
- Input Okay LED (per input): Green
- ID LED (per unit): Blue

Table 8. Cisco Catalyst 9400 Series Power-cord options

| Power Supply | $3200 W$ AC | $2100 W$ AC |
| :--- | :--- | :--- |
| Europe | CAB-CEE77-C19-EU |  |
|  | CAB-I309-C19-INTL | CAB-CEE77-C19-EU |
| International | CAB-I309-C19-INTL | CAB-I309-C19-INTL |

## Fan trays

Each Cisco Catalyst 9400 Series uses dual serviceable fan trays for cooling. Cisco Catalyst 9400 can optionally be accessed from the rear for flexible cable management. The chassis is enterprise closet-optimized with side-to-side airflow. All fan trays are composed of multiple independently controlled fans with $\mathrm{N}+1$ redundancy. If any single fan fails, the system will continue to operate without a degradation in cooling. Speeds of fans change dynamically to compensate for fan failure. Catalyst 9400 Series fans have a barometric sensor, which allows slower fan speed curves at lower altitudes. Catalyst 9400 Series fans also have individual fan Pulse-Wide Modulation (PWM) fine-tuning to reduce variability in fan Revolutions Per Minute (RPM) under throttled conditions. This allows for optimal acoustic performance at 6odB when the system is operating at $50 \%$ load.


Figure 2.
Dual serviceable fan tray

## Environmental conditions

The Cisco Catalyst 9400 Series require the following conditions:

- Operating temperature
- Normal operating ${ }^{*}$ temperature and altitudes:
- $27^{\circ}$ to $109^{\circ} \mathrm{F}\left(-5\right.$ to $\left.+45^{\circ} \mathrm{C}\right)$, up to 6,000 feet ( 1800 m )
- $27^{\circ}$ to $104^{\circ} \mathrm{F}\left(-5\right.$ to $\left.+40^{\circ} \mathrm{C}\right)$, up to 10,000 feet ( 3000 m )
- *Minimum ambient temperature for cold startup is $0^{\circ} \mathrm{C}$
- Short-term ${ }^{* *}$ exceptional conditions:
- $27^{\circ}$ to $119^{\circ} \mathrm{F}\left(-5\right.$ to $\left.+55^{\circ} \mathrm{C}\right)$, up to 6,000 feet ( 1800 m )
- $27^{\circ}$ to $114^{\circ} \mathrm{F}\left(-5\right.$ to $\left.+50^{\circ} \mathrm{C}\right)$, up to 10,000 feet ( 3000 m )
- ** Not more than following in one-year period: 96 consecutive hours, or 360 hours total, or 15 occurrences
- Storage temperature: $-40^{\circ}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$
- Relative humidity: 10 to 95 percent, noncondensing
- Operating altitude: -60 to 3000 m


## Regulatory standards compliance

Table 9 lists the regulatory standards compliance supported by the Cisco Catalyst 9400 Series.
Table 9. Regulatory standards compliance

| Specification | Standard |
| :---: | :---: |
| Regulatory compliance | CE Marking |
| Safety | - UL 60950-1 <br> - CAN/CSA-C222.2 No. 60950-1 <br> - EN 60950-1 <br> - IEC 60950-1 <br> - AS/NZS 60950.1 <br> - IEEE 802.3 |
| EMC | - 47 CFR Part 15 <br> - CISPR22 Class A <br> - KN 32 Class A <br> - EN 300386 V1.6.1 <br> - EN 55022 Class A <br> - EN 55032 Class A <br> - CISPR 32 Class A <br> - EN61000-3-2 <br> - EN61000-3-3 <br> - ICES-003 Class A <br> - TCVN 7189 Class A <br> - V-3 Class A <br> - CNS13438 Class A <br> - CISPR24 <br> - EN 300386 <br> - EN55024 <br> - TCVN 7317 <br> - KN35 |
| Industry EMC, safety, and environmental standards | - NEBS: Operating temperature: -5 to 55 C <br> - Relative Humidity: 10-93\% <br> - Operating Altitude: up to $1829 \mathrm{~m}(6000 \mathrm{ft})$ at 55 C <br> - ETSI 300-019 Requirements are covered under GR-63-CORE with some deviations. <br> - SR-3580 NEBS level 3 (GR-63-CORE, to current issue, GR-1089-CORE, to current issue) <br> - ETS 300 019-2-1, Class 1.2 Storage <br> - ETS 300 019-2-2, Class 2.3 Transportation <br> - ETS 300 019-2-3, Class 3.2 Stationary <br> - EN50121-4 <br> - EN 300386 |
| ROHS compliance | ROHS5 |

## MTBF information

Table 10 gives Mean-Time-Between-Failures (MTBF) information for different chassis.
Table 10. MTBF information

| Part Number | Rated MTBF (Hours) |
| :--- | :--- |
| C9407R | $1,630,000$ |
| C9410R | $1,462,760$ |

## Ordering Information

Table 11 lists the ordering information for chassis, power supplies, supervisor engines and memory that are commonly used with the Cisco Catalyst 9400 Series.

Table 11. Ordering information

| Product Number | Description |
| :---: | :---: |
| C9407R (=) | Cisco Catalyst 9400 Series 7 slot chassis |
| C9410R (=) | Cisco Catalyst 9400 Series 10 slot chassis |
| C9400-SUP-1 (=) | Cisco Catalyst 9400 Series Supervisor 1 Module |
| C9400-SUP-1/2 | Cisco Catalyst 9400 Series Redundant Supervisor 1 Module |
| C9400-SUP-1XL (=) | Cisco Catalyst 9400 Series Supervisor 1XL Module |
| C9400-SUP-1XL/2 | Cisco Catalyst 9400 Series Redundant Supervisor 1XL Module |
| C9400-LC-48U (=) | Cisco Catalyst 9400 Series 48-Port UPOE 10/100/1000 (RJ-45) |
| C9400-LC-48P (=) | Cisco Catalyst 9400 Series 48-Port POE + 10/100/1000 (RJ-45) |
| C9400-LC-48T (=) | Cisco Catalyst 9400 Series 48-Port 10/100/1000 (RJ-45) |
| C9400-LC-48UX (=) | Cisco Catalyst 9400 Series 48Port UPOE w/ 24 p mGig 24 p RJ-45 |
| C9400-LC-24XS (=) | Cisco Catalyst 9400 Series 24-Port 10 Gigabit Ethernet (SFP+) |
| C9400-LC-24S (=) | Cisco Catalyst 9400 Series 24-Port 1 Gigabit Ethernet (SFP) |
| C9400-LC-48S (=) | Cisco Catalyst 9400 Series 48-Port 1 Gigabit Ethernet (SFP) |
| C9400-PWR-3200AC (=) | Cisco Catalyst 9400 Series 3200W AC Power Supply |
| C9400-PWR-2100AC ( $=$ ) | Cisco Catalyst 9400 Series 2100W AC Power Supply |
| C9400-S-BLANK (=) | Cisco Catalyst 9400 Series Slot Blank Cover |
| C9400-PWR-BLANK (=) | Cisco Catalyst 9400 Series Power Supply Blank Cover |


| Product Number | Description |
| :---: | :---: |
| C9410-FAN= | Cisco Catalyst 9400 Series 10 slot chassis Fan Tray |
| C9407-FAN= | Cisco Catalyst 9400 Series 7 slot chassis Fan Tray |
| C9410-ACC-KIT= | Cisco Catalyst 9400 Series 10 slot chassis Accessory Kit |
| C9407-ACC-KIT= | Cisco Catalyst 9400 Series 7 slot chassis Accessory Kit |
| C9407-RACK-19-KIT= | Cisco Catalyst 9400 Series 7 slot chassis Rack Mount |
| C9410-RACK-19-KIT= | Cisco Catalyst 9400 Series 10 slot chassis Rack Mount |
| C1A1TCAT94001* | C9400 C1 Advantage Term: Includes Term Licenses for DNA Advantage, 100 ISE Base \& 100 ISE Plus Endpoints, 100 Stealthwatch Flows (including Virtual Flow Collector \& Management Console). Requires separate purchase of ISE appliance/ISE VM and DNA Center appliance. |
| C1A1TCAT94001-3Y | C9400 C1 Advantage 3 Y Term - DNA, 100 ISE PLS and ISE BASE, 100 SWATCH |
| C1A1TCAT94001-5 ${ }^{\text {Y }}$ | C9400 C1 Advantage ${ }_{5}$ Y Term - DNA, 100 ISE PLS and ISE BASE, 100 SWATCH |
| C1A1TCAT94001-7Y | C9400 C1 Advantage 7 Y Term - DNA, 100 ISE PLS and ISE BASE, 100 SWATCH |
| C1AA1TCAT94001* | C9400 C1 Advantage Add-On Term: Includes Term Licenses for 50 ISE Base \& 50 ISE Plus Endpoints, 50 Stealthwatch Flows (including Virtual Flow Collector \& Management Console). Requires separate purchase of ISE appliance/ISE VM and DNA Center appliance. |
| C1AA1TCAT94001-3Y | C9400 C1 Advantage Add-On 3 Y Term - 50 ISE PLS, 50 SWATCH |
| C1AA1TCAT94001-5Y | C9400 C1 Advantage Add-On 5 Y Term - 50 ISE PLS, 50 SWATCH |
| C1AA1TCAT94001-7Y | C9400 C1 Advantage Add-On 7 Y Term - 50 ISE PLS, 50 SWATCH |
| C9400-DNA-E | Cisco Catalyst 9400 DNA Essential Term License |
| C9400-DNA-E-3Y | Cisco Catalyst 9400 DNA Essential 3 Year License |
| C9400-DNA-E-5Y | Cisco Catalyst 9400 DNA Essential 5 Year License |
| C9400-DNA-E-7Y | Cisco Catalyst 9400 DNA Essential 7 Year License |
| C9400-DNA-A | Cisco Catalyst 9400 DNA Advantage Term License |
| C9400-DNA-A-3Y | Cisco Catalyst 9400 DNA Advantage 3 Year License |
| C9400-DNA-A-5Y | Cisco Catalyst 9400 DNA Advantage 5 Year License |
| C9400-DNA-A-7Y | Cisco Catalyst 9400 DNA Advantage 7 Year License |
| C9410-SHELF-KIT= | Cisco Catalyst 9400 Series 10 slot chassis Shelf Install Kit |
| C9407-SHELF-KIT= | Cisco Catalyst 9400 Series 7 slot chassis Shelf Install Kit |
| C9400-LIC= | Electronic SW License for C9400 Switches |
| C9400-DNA-E-A | C9400 NW \& DNA Essentials to NW \& DNA Advantage Upgrade |


| Product Number | Description |
| :--- | :--- |
| C9400-DNA-E-A-3 | C9400 NW \& DNA Ess to NW \& DNA Adv Upgrade License (3Y) |
| C9400-DNA-E-A-5 | C9400 NW \& DNA Ess to NW \& DNA Adv Upgrade License (5Y) |
| C9400-DNA-E-A-7 | C9400 NW \& DNA Ess to NW \& DNA Adv Upgrade License (7Y) |

## Warranty

The Cisco Catalyst 9400 Series Switches come with a Cisco Enhanced Limited Lifetime Warranty (E-LLW) that includes Next-Business-Day (NBD) delivery of replacement hardware where available and go days of $8 \times 5$ Cisco Technical Assistance Center (TAC) support.

Your formal warranty statement, including the warranty applicable to Cisco software, appears in the information packet that accompanies your Cisco product. We encourage you to review the warranty statement shipped with your specific product carefully before use.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.
For further information about warranty terms, visit https://www.cisco.com/go/warranty. Table 12 provides information about the E-LLW.

Table 12. E-LLW details

|  | Cisco E-LLW |
| :---: | :---: |
| Devices covered | Applies to Cisco Catalyst 9400 Series Switches. |
| Warranty duration | As long as the original customer owns the product. |
| End-of-life policy | In the event of discontinuance of product manufacture, Cisco warranty support is limited to 5 years from the announcement of discontinuance. |
| Hardware replacement | Cisco or its service center will use commercially reasonable efforts to ship a replacement for NBD delivery, where available. Otherwise, a replacement will be shipped within 10 working days after receipt of the Return Materials Authorization (RMA) request. Actual delivery times might vary depending on customer location. |
| Effective date | Hardware warranty commences from the date of shipment to customer (and in case of resale by a Cisco reseller, not more than go days after original shipment by Cisco). |
| TAC support | Cisco will provide during business hours, 8 hours per day, 5 days per week, basic configuration, diagnosis, and troubleshooting of device-level problems for up to a go-day period from the date of shipment of the originally purchased Cisco Catalyst 9400 Series product. This support does not include solution or networklevel support beyond the specific device under consideration. |
| Cisco.com access | Warranty allows guest access only to Cisco.com. |

## Cisco Services

Achieve infrastructure excellence faster and with less risk. Cisco Catalyst gK Services provide expert guidance to help you successfully deploy, manage and support the new Catalyst 9K Series Switches. With unmatched networking expertise, best practices and innovative tools, we can help you reduce overall upgrade, refresh, and migration costs as you introduce new hardware, software and protocols into the network. Offering a comprehensive lifecycle of services - from implementation, optimization, technical and managed services - Cisco experts help you minimize disruption and achieve operational excellence to extract maximum value from your DNA-ready infrastructure. Learn more about Cisco Services for Enterprise Networks.

## Software policy for Cisco Catalyst 9400 Series Switches

## Cisco ONE Software for Access Switching is available for the Cisco Catalyst 9400.

Cisco ONE Software for Access Switching offers comprehensive solutions for the enterprise campus and branch offices. Cisco ONE for Access Switching introduces a simpler and more economical way to deploy access, aggregation, and core switches across enterprise campus and branch locations.

The Cisco ONE Subscription for Switching offer delivers an unbound network on an open and extensible architecture to help you navigate the digital journey. This subscription offer simplifies the buying process and includes lower initiation costs and flexible terms. It includes: Cisco ONE Advantage with full Cisco Digital Network Architecture (DNA) capabilities and Cisco Software-Defined Access (SD-Access).

For ordering information for Cisco ONE Software for the Cisco Catalyst 9400, go to https://www.cisco.com/c/en/us/products/software/one-access/switching-part-numbers.html.

Software policy for network stack components
Customers with Network Essential Stack and Network Advantage Stack software feature sets are provided with maintenance 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.

## Cisco Embedded Support for DNA term components

Cisco Embedded Support delivers the right support for Cisco software products and suites. It will keep your business applications performing as expected and protects your investment. Cisco Embedded Support for DNA Essentials and DNA Advantage term components is included as part of the switch value. Cisco Embedded Support provides access to TAC support, major software updates, maintenance and minor software releases, and to the Cisco Embedded Support site for increased productivity with anytime access.

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## Document History

| New or Revised Topic | Described In | Date |
| :--- | :--- | :--- |
| Added new linecards: a. Access- 48 port PoE+. B. Core - $24 / 48$ port 1G SFP. Added new <br> power supply options - 2100W AC, 3200W DC. Added RESTCONF support. | Ordering Information |  |$\quad$ Mar 31, 2018

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