



Introduction

Cisco Catalyst 9500 Series Switches and Cisco Catalyst 9500 Series Switches - High Performance are Cisco's lead, fixed core and aggregation enterprise switching platforms. They have been purpose-built to address emerging trends of Security, IoT, Mobility, and Cloud.

They deliver complete convergence in terms of ASIC architecture with Unified Access Data Plane (UADP) 2.0 on Cisco Catalyst 9500 Series Switches and UADP 3.0 on Cisco Catalyst 9500 Series Switches - High Performance. The platform runs an Open Cisco IOS XE that supports model driven programmability. This series forms the foundational building block for SD-Access, which is Cisco's lead enterprise architecture.



Note With the introduction of the High Performance models in the series, there may be differences in the supported and unsupported features, limitations, and caveats that apply to the Cisco Catalyst 9500 Series Switches and Cisco Catalyst 9500 Series Switches - High Performance models. Throughout this release note document, any such differences are expressly called out. If they are not, the information applies to all models in the series.

- [Supported Hardware, on page 1](#)

Supported Hardware

Cisco Catalyst 9500 Series Switches—Model Numbers

The following table lists the supported hardware models and the default license levels they are delivered with. For more information about the available license levels, see section *License Levels*.

Base PIDs are the model numbers of the switch.

Bundled PIDs indicate the orderable part numbers for base PIDs that are bundled with a particular network module. Entering the **show version**, **show module**, or **show inventory** commands on such a switch (bundled PID), displays its base PID.

Table 1: Cisco Catalyst 9500 Series Switches

| Switch Model | Default License Level ¹ | Description |
|--------------|------------------------------------|-------------|
| Base PIDs | | |

| Switch Model | Default License Level ¹ | Description |
|---------------------|------------------------------------|--|
| C9500-12Q-E | Network Essentials | 12 40-Gigabit Ethernet QSFP+ ports and two power supply slots |
| C9500-12Q-A | Network Advantage | |
| C9500-16X-E | Network Essentials | 16 1/10-Gigabit Ethernet SFP/SFP+ ports and two power supply slots |
| C9500-16X-A | Network Advantage | |
| C9500-24Q-E | Network Essentials | 24-Port 40-Gigabit Ethernet QSFP+ ports and two power supply slots |
| C9500-24Q-A | Network Advantage | |
| C9500-40X-E | Network Essentials | 40 1/10-Gigabit Ethernet SFP/SFP+ ports and two power supply slots |
| C9500-40X-A | Network Advantage | |
| Bundled PIDs | | |
| C9500-16X-2Q-E | Network Essentials | 16 10-Gigabit Ethernet SFP+ port switch and a 2-Port 40-Gigabit Ethernet (QSFP) network module on uplink ports |
| C9500-16X-2Q-A | Network Advantage | |
| C9500-24X-E | Network Essentials | 16 10-Gigabit Ethernet SFP+ port switch and an 8-Port 10-Gigabit Ethernet (SFP) network module on uplink ports |
| C9500-24X-A | Network Advantage | |
| C9500-40X-2Q-E | Network Essentials | 40 10-Gigabit Ethernet SFP+ port switch and a 2-Port 40-Gigabit Ethernet (QSFP) network module on uplink ports |
| C9500-40X-2Q-A | Network Advantage | |
| C9500-48X-E | Network Essentials | 40 10-Gigabit Ethernet SFP+ port switch and an 8-Port 10-Gigabit Ethernet (SFP) network module on uplink ports |
| C9500-48X-A | Network Advantage | |

¹ See section *Licensing* → *Table: Permitted Combinations*, in this document for information about the add-on licenses that you can order.

Table 2: Cisco Catalyst 9500 Series Switches-High Performance

| Switch Model | Default License Level ² | Description |
|---------------|------------------------------------|--|
| C9500-24Y4C-E | Network Essentials | 24 SFP28 ports that support 1/10/25-GigabitEthernet connectivity, four QSFP uplink ports that support 100/40-GigabitEthernet connectivity; two power supply slots. |
| C9500-24Y4C-A | Network Advantage | |
| C9500-32C-E | Network Essentials | 32 QSFP28 ports that support 40/100 GigabitEthernet connectivity; two power supply slots. |
| C9500-32C-A | Network Advantage | |

| Switch Model | Default License Level ² | Description |
|---------------|------------------------------------|---|
| C9500-32QC-E | Network Essentials | 32 QSFP28 ports, where you can have 24 ports that support 40-GigabitEthernet connectivity and 4 ports that support 100-GigabitEthernet connectivity, OR 32 ports that support 40-GigabitEthernet connectivity, OR 16 ports that support 100-GigabitEthernet connectivity; two power supply slots. |
| C9500-32QC-A | Network Advantage | |
| C9500-48Y4C-E | Network Essentials | 48 SFP28 ports that support 1/10/25-GigabitEthernet connectivity; four QSFP uplink ports that supports up to 100/40-GigabitEthernet connectivity; two power supply slots. |
| C9500-48Y4C-A | Network Advantage | |

² See section *Licensing* → *Table: Permitted Combinations*, in this document for information about the add-on licenses that you can order.

Table 3: Cisco Catalyst 9500X Series Switches

| Switch Model | Default License Level ³ | Description |
|----------------|------------------------------------|---|
| C9500X-28C8D-E | Network Essentials | 28x100G QSFP28 and 8x400G QSFP-DD ports; two power supply slots |
| C9500X-28C8D-A | Network Advantage | |
| C9500X-60L4D-A | Network Advantage | 60x50G SFP56 and 4x400G QSFP-DD ports; two power supply slots |

³ See section *Licensing* → *Table: Permitted Combinations*, in this document for information about the add-on licenses that you can order.

Network Modules

The following table lists optional network modules for uplink ports available with some configurations .

| Network Module | Description |
|----------------|---|
| C9500-NM-8X | <p>Cisco Catalyst 9500 Series Network Module 8-port 1/10 Gigabit Ethernet with SFP/SFP+</p> <p>Note the supported switch models (Base PIDs):</p> <ul style="list-style-type: none"> • C9500-40X • C9500-16X |
| C9500-NM-2Q | <p>Cisco Catalyst 9500 Series Network Module 2-port 40 Gigabit Ethernet with QSFP+</p> <p>Note the supported switch models (Base PIDs):</p> <ul style="list-style-type: none"> • C9500-40X • C9500-16X |

Optics Modules

Cisco Catalyst Series Switches support a wide range of optics and the list of supported optics is updated on a regular basis. Use the [Transceiver Module Group \(TMG\) Compatibility Matrix](#) tool, or consult the tables at this URL for the latest transceiver module compatibility information: https://www.cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html