HPE Aruba Networking 5420 Switch Series

Installation and Getting Started Guide

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Chapter 1
About This Document

This document is intended for network administrators and support personnel.

The switch prompts used in this document are examples and might not match your particular switch or environment.
The switch and accessory drawings in this document are for illustration only, and may not match your particular switch and accessory products.

Applicable Products

Model	Description
S0U53A	HPE Aruba Networking CX 5420 1600W AC Power Supply
S0U54A	HPE Aruba Networking CX 5420 6-slot Fan Tray
S0U55A	HPE Aruba Networking CX 5420 Management Module
S0U56A	HPE Aruba Networking CX 5420 6-slot 2-post Rack Kit
S0U57A	HPE Aruba Networking CX 5420 6-slot Accessory Kit
S0U58A	HPE Aruba Networking CX 5420 TAA Management Module
S0U59A	HPE Aruba Networking CX 5420 6-slot Switch
S0U60A	HPE Aruba Networking CX 5420 6-slot Chassis
S0U61A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Module
S0U62A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE Module
S0U63A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM Module
S0U64A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G Module
S0U65A	HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE Module
S0U66A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module
S0U67A	HPE Aruba Networking CX 5420 24p SFP 1G Module
S0U68A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM Module
S0U69A	HPE Aruba Networking CX 5420 6-slot TAA Switch

Model	Description
S0U70A	HPE Aruba Networking CX 5420 6-slot TAA Chassis
S0U71A	HPE Aruba Networking CX 5420 24p 10M/100M/1G TAA Module
S0U72A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE TAA Module
S0U73A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM TAA Module
S0U74A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA Module
S0U75A	HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA Module
S0U76A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE TAA Module
S0U77A	HPE Aruba Networking CX 5420 24p SFP 1G TAA Module
S0U78A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM TAA Module
S1T82A	HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit

Latest Version Available Online

Updates to this document can occur after initial publication. For the latest versions of product documentation, see the links provided in the Websites chapter of this document or visit the HPE Networking Support Portal at https://networkingsupport.hpe.com/home.

Related Publications

Aruba Documentation
5420 Start Here Guide
AC Modular Power Supplies
DC Modular Power Supplies
AOS-CX software manuals
AOS-CX Power Over Ethernet (PoE/PoE+) Planning and Implementation Guide
AOS-Switch and AOS-CX Transceiver Guide
AOS-CX Fundamentals Guide

Mist Documentation
Mist Switch Quick Start Guide
Mist Wired Assurance Configuration Guide

Mist Documentation

Mist Product Updates

All Mist Documentation

Chapter 2
Installation Precautions and Guidelines

Install any uninstalled components **after** mounting the switch.

Figure 1 *HPE Aruba Networking 5420 switch weight warning*

- To reduce the risk of personal injury or damage to equipment: ,
  - Heed all warnings and cautions throughout the installation instructions.
  - If you plan to re-ship the switch in its original packaging, remove any transceivers installed in line modules before preparing the switch for shipment. See also Shipping a Rack-Mounted HPE Aruba Networking CX 5420 Switch Chassis.
  - Observe local occupational health and safety requirements and guidelines for manual material handling.
  - The switch may weigh up to a maximum of 26 kg (58 lb). While a mechanical lift is not required, it is strongly advised that a two-person manual lifting procedure be employed to mitigate the risk of personal injury.
- Mount devices installed in a rack or cabinet as low as possible. Install the heaviest devices at the bottom and progressively lighter devices above.
- To prevent the rack or cabinet from becoming unstable and/or falling over, ensure that it is adequately secured.
- Ensure that the rack or cabinet unit in which you plan to mount the 5420 switch is rated to support the full equipment load you plan to install in the unit.
- Before you power up the switch, ground it reliably. See Grounding the Chassis.
- Install a blank slot cover on any empty management module, line module, power supply slot opening in the chassis. This ensures the flow of cooling air through the chassis. It also helps to contain radio frequency emissions that may interfere with the operation of other devices.

- When replacing (hot-swapping) fan tray, complete the process within three minutes. Exceeding the 3-minute limit will cause the switch to shut down. For more information on fan trays, see Installing a Fan Tray in an Empty Fan Tray Slot.
- To avoid electrical and mechanical hazards, never allow any part of your body, jewelry, tool, or other foreign object to enter any module or power supply slot.
- The switch may use more than one power supply cable. To fully power down the switch, you must disconnect all power supply cables from the switch. cables from the switch. Always turn OFF the AC power from the AC outlet / source before unplugging the AC cables from the power supply or the AC outlet / source.

- Protect the switch and its components from damage caused by ESD (Electrostatic discharge):
  - See the ESD information under Preventing Electrostatic Discharge Damage.
  - Always wear an ESD wriststrap when handling the switch or its components. Ensure the strap is reliably grounded when installing or removing switch components.
  - Hold management modules and line modules by their edges. Do not touch any electronic components or printed circuitry.
  - Store uninstalled modules in antistatic bags.
- Do not ship the HPE Aruba Networking CX 5420 Series switch mounted in a rack without first checking for rack requirements and restrictions. Otherwise, damage to the switch or components may occur. Damage resulting from using unsupported methods or equipment to ship a rack-mounted chassis may void the switch warranty. For more information, see Shipping a Rack-Mounted HPE Aruba Networking 5420 Switch Chassis
- Ensure the source circuits for your switch are properly grounded. Connect the switch to the power sources by using the power cords supplied with the switch or power supply units.

- Only HPE Aruba Networking approved power cords may be used with HPE Aruba Networking devices. See the power cord documentation provided in the latest version of the *HPE Aruba Networking CX 5420 Switch Series Installation and Getting Started Guide*. Lost or damaged power cords must be replaced only with HPE Aruba Networking approved power cords.
- Always use a fresh AC power cord to connect the power supplies to the AC source. The AC power cords are provided and shipped with the product for use with it.
- If your installation requires different power cords than the ones supplied with the switch or power supplies, be sure that the cords are adequately sized for the current requirements. In addition, be sure to use power cords displaying the mark of the safety agency that defines the regulations for power cords in your country/region. The mark is your assurance that the power cord can be used safely with the switch and power supply. For more on power cords, see Power Cords, Power Inlet Accessories, and Power Supplies.
- When installing the switch, select AC outlets near the switch for easy access in case the switch must be powered off.
- Do not install the switch in an environment where the operating ambient temperature exceeds its specification. (For environmental specifications, see Specifications).

- Ensure that the switch does not overload the power circuits, wiring, and over-current protection. To determine the possibility of overloading the supply circuits, add the ampere ratings of all devices installed on the same circuit as the 5420 Series switch. Then compare the total with the rating limit for the circuit. The maximum ampere ratings are printed on the devices near their AC power connectors.
- Ensure that airflow through the chassis is not restricted. Maintain a front and rear clearance of at least 30 cm (11.8 inches) and a side clearance of at least 7.6 cm (3 inches) to facilitate airflow. The airflow direction is front-and-side-to-rear. Fully perforated rack doors are acceptable within the 30 cm (11.8 inches) spacing.
- Install a blank slot cover on any empty management module, line module, power supply slot opening in the chassis. This ensures the flow of cooling air through the chassis. It also helps to contain radio frequency emissions that may interfere with the operation of other devices.
- Before powering up the switch ensure that the following steps are followed:
  - Ensure that the AC outlet/power source is OFF.
  - Connect the AC power cord to the power supply.
  - Make sure the AC connector on the cord is firmly seated and mated with the AC inlet on the power supply.
  - Now connect the AC plug of the power cord to the AC outlet / source.
  - Turn On the power from the AC outlet / source.

- If a power supply must be removed, and then reinstalled, wait at least 5 seconds before reinstallation. Otherwise, damage to the switch or its components may occur. The power supply needs this time to dissipate any retained power.
- For proper cooling, the switch requires the fan tray to be installed. For more information on fan trays, see Fan Trays.
- For rack-free mounting requirements and warnings, see Mounting the Switch.
- Protect the equipment from AC power fluctuations and temporary interruptions with a regulating facility Uninterruptible Power Supply (UPS) device. This device protects the hardware from damage caused by power surges and voltage spikes, which keeps the switch in operation during a power failure.
- Always turn OFF the AC power from the AC outlet / source before removing the power cord from the power supply.
- Always turn ON the AC power AFTER connecting the AC power cord connector to the AC inlet on the power supply.

For easy installation and maintenance, make sure the rack has enough space to accommodate the switch and normal switch maintenance, such as installing or removing management modules, line modules, and fan trays. For dimensions, see Product Weight and Dimensions.

Chapter 3
Site Preparation

Safety Recommendations

To avoid possible bodily injury and equipment damage, carefully read the following publications before installing your HPE Aruba Networking CX 5420 Switch:

- *Safety, Compliance, and Warranty Information* (shipped with the switch)
- *START HERE: Installation, Safety, and Regulatory Information for the HPE Aruba Networking CX 5420 Switches and Accessories*
- All safety recommendations in this chapter.
- The chapter titled Installation Precautions and Guidelines.

The recommendations in the listed publications do not cover every possible hazardous condition.

Electricity Safety

- Clear the work area of possible electricity hazards, such as ungrounded power extension cables, missing safety grounds, and wet surfaces or wet floors.
- Locate the emergency power-off switch in the room before installation so you can quickly shut power off if an electrical accident occurs.
- Remove all external cables, including power cords, before moving the chassis.
- Do not work alone when the switch has power.

Handling Safety

Do not use the handle of a fan tray or a power supply unit, module locking or extraction levers, or the chassis air vents to lift or move the switch. Any attempt to move the switch with these parts may cause equipment damage and bodily injury.

When you move the switch, follow these guidelines:

- Remove all power supplies, line and management modules, fan trays, and all external cables, including the power cords, before moving the chassis.
- Use a minimum of two people to manually move a fully populated chassis. To determine chassis weight,

see HPE Aruba Networking CX 5420 product weights.

- Lift and lower the chassis slowly. Never move it suddenly.

For information and recommended practices for moving the chassis, see Unpacking, lifting, and moving the chassis.

Preventing Electrostatic Discharge Damage

Be aware of the precautions you must follow when setting up the switch or handling components. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the switch or component.

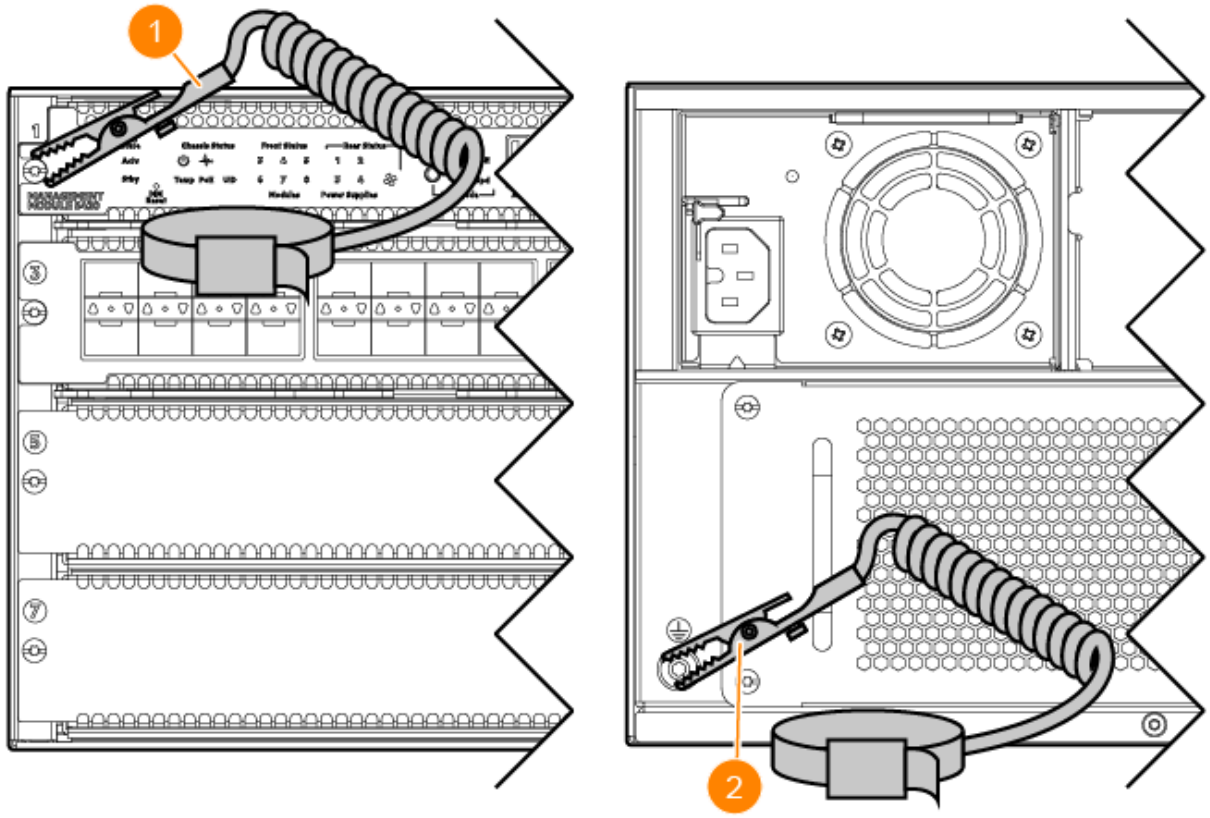
To prevent electrostatic damage:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always use a properly grounded ESD wrist strap when touching static-sensitive components or assemblies.

Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use heel straps, toe straps, or boot straps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.
- Use an ESD wrist strap connected to an ESD connection point on the switch (see the following image). Wrist straps are flexible straps with a minimum of 1 megohm ±10 percent resistance. To provide proper

ground, wear the strap snug against the skin.



1	ESD wrist strap connection on the captive screw on front of chassis
2	ESD wrist strap connection on the grounding lug on rear of chassis

If you do not have any of the suggested equipment for proper grounding, have an HPE Aruba Networking authorized reseller install the part.

For more information on static electricity or assistance with product installation, contact an HPE Aruba Networking authorized reseller.

Laser Safety

Do not stare into any fiber port or view directly with non-attenuating optical instruments when the switch has power. The laser light emitted from the fiber port may injure your eyes.

The HPE Aruba Networking 5420 switches are Class 1 laser products.

Examining the Installation Site

The switch must be used indoors. To help ensure correct operation and a long service life for your switch, the installation site must meet the requirements in this section.

Temperature

If condensation appears on the chassis when you move it to a high-temperature environment, dry the chassis before powering it on to avoid short circuits.

To ensure correct switch operation, make sure the room temperature meets the following requirements.

Above 1524m (5000ft), reduce maximum operating temperature by 1°C (1.8°F) per 305m (1000ft) altitude gain.

Table 1: Temperature requirements

Temperature	Range
Operating temperature	0°C to 45°C (32°F to 113°F)
Storage temperature	–40°C to +70°C (–40°F to +158°F)

Humidity

Maintain the humidity in your equipment room in the acceptable range, as described below.

- Lasting high relative humidity can cause poor insulation, electricity leakage, mechanical property change of materials, and metal corrosion.
- Lasting low relative humidity can cause ESD and circuit failure.

Table 2: Humidity requirements

Humidity	Range
Operating humidity	5% to 95% at 45°C (104°F), noncondensing
Storage humidity	5% to 95% at 65°C (149°F), noncondensing

Cleanliness

Dust buildup on the chassis might result in electrostatic adsorption, which causes poor contact of metal components and contact points. In the worst case, electrostatic adsorption can cause communication failure.

Table 3: Dust Concentration Limit in the Equipment Room

Substance	Concentration Limit (particles/m3)
Dust particles	≤ 3 x 104 (No visible dust on desk in three days)

Dust particle diameter ≥ 5 μm

The equipment room must also meet limits on salts, acids, and sulfides to eliminate corrosiond premature aging of components, as shown below.

Table 4: Harmful Gas Limits in The Equipment Room

Gas	Max. (mg/m3)
SO_2	0.2
H_2S	0.006
NH_3	0.05
Cl2	0.01

EMI

All electromagnetic interference (EMI) sources, from outside or inside of the switch and application system, adversely affect the switch in the following ways:

- A conduction pattern of capacitance coupling.
- Inductance coupling.
- Electromagnetic wave radiation.
- Common impedance (including the grounding system) coupling.

To prevent EMI, use the following guidelines:

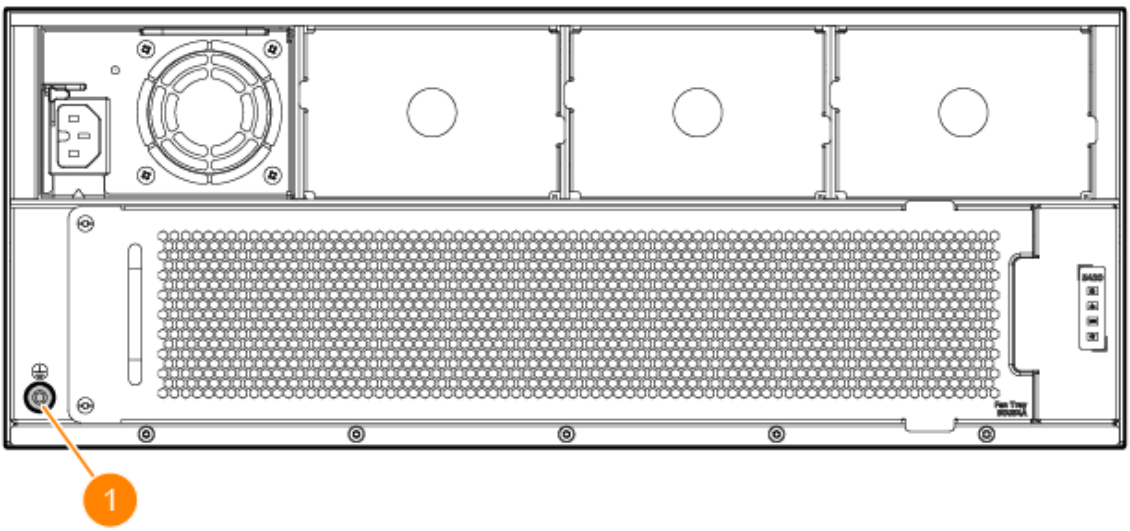
- If AC power is used, use a single-phase three-wire power receptacle with protection earth (PE) to filter interference from the power grid.
- Keep the switch far away from radio transmitting stations, radar stations, and high-frequency devices.
- Use electromagnetic shielding (for example, shielded interface cables) when necessary.
- To prevent signal ports from getting damaged by overvoltage or overcurrent caused by lightning strikes, route interface cables indoors only.

Grounding

CAUTION

Reliably ground the switch to protect it from hazards such as lightning shocks, interferences, and ESD discharges. The switch is grounded through the safety wire in the power cords. HPE Aruba Networking recommends an independent grounding connection for the chassis if there is any doubt about the reliability of the grounding through the power mains. The grounding lug is located on the rear of the switch, at the bottom edge. This figure shows the grounding lug on the HPE Aruba Networking 5420 switch.

Figure 2 *Grounding lug on the HPE Aruba Networking 5420 Switch*



1	Rear Chassis Grounding lug

Make sure the resistance between the chassis and the ground is less than 1 ohm.

Power

Perform the following tasks to meet the power requirements:

1. Calculate the system power consumption. The system power consumption varies by module type and density. (See System power consumption.)
2. Identify the number of power supplies. Include sufficient power to meet power consumption and sufficient redundancy to ensure system uptime in the event of a PSU failure.
3. Verify that the power system at the installation site meets the requirements of the power supplies, including the input method and rated input voltage. (For power supply unit (PSU) information, see System power consumption.)

Cooling

Plan the installation site for adequate ventilation:

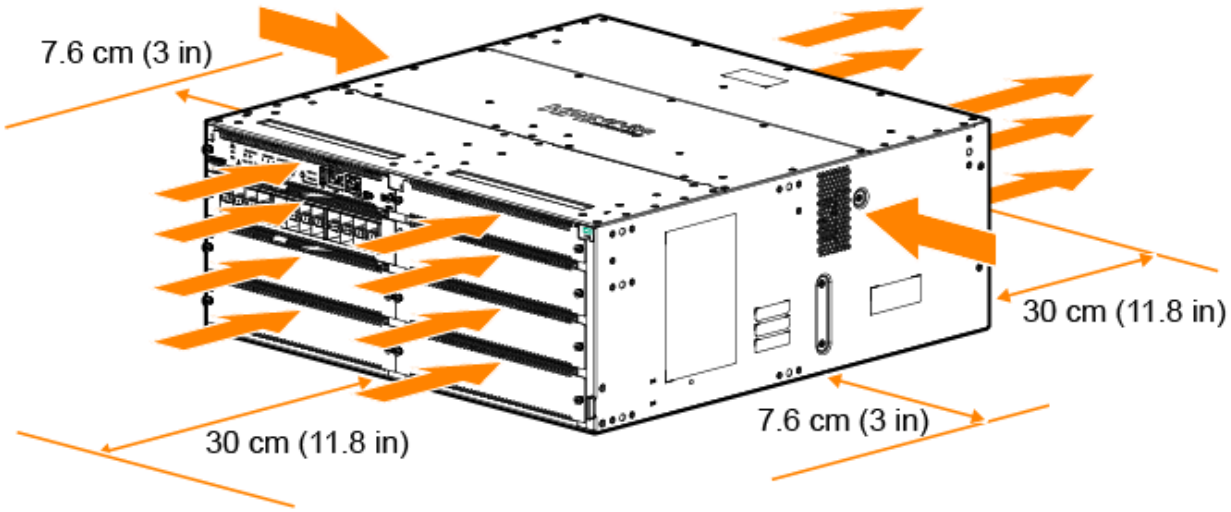
- Maintain a front and rear clearance of at least 30 cm (11.8 inches) and a side clearance of at least 7.6 cm (3 inches) to ensure proper airflow.
- The airflow direction is front-and-side-to-rear. Fully perforated rack doors are acceptable within the 30 cm (11.8 inches) spacing.

NOTE

Air flow into and out of the switch is indicated by the arrows in the image below.

- Ensure that the rack for the switch is well ventilated, with minimal airflow obstruction at the front and rear.
- The installation site HVAC system must be capable of removing all heat generated by the switch.
- Verify that the airflow design of the chassis is compatible with the airflow design of the installation site.

Figure 3 *HPE Aruba Networking 5420 Switch Cooling Air Flow*



Product Weight Support

Make sure the floor can support the total weight of the rack, chassis, modules, power supplies, and all other components and devices. Take into consideration system expansions (for example, adding more modules and switches) when you plan the loading capacities.

For component weights, see HPE Aruba Networking 5420 product weights.

Recommended Screwdrivers for Switch Installation

Recommended screwdrivers for switch installation

- Torx T10
  - Securing management modules to the chassis
  - Securing line modules to the chassis
  - Securing fan trays to the chassis

- Torx T20
  - Securing rack brackets to the chassis
- Torx T25
  - Securing the cable manager to the rack
  - Securing 4-column rack kit to the rack
  - Securing ground lug to the chassis
- Phillips #3
  - Securing 2-column rack kit to rack
  - Securing the cable manager in a two-post rack installation

Shipping a Rack-Mounted HPE Aruba Networking CX 5420 Switch Chassis

HPE Aruba Networking supports shipping of rack-mounted HPE Aruba Networking CX 54200 switches where the rack or cabinet is:

- A Hewlett Packard Enterprise four-post rack product compatible with the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit
- Certified for integrated shipping.
- Mounted to a shock pallet.
- Mounted with the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit, including the shipping support hardware.

For information on HPE Aruba Networking rack products, visit https://www.hpe.com/us/en/product-catalog/servers/server-racks.hits-12.html.

HPE Aruba Networking does not support shipping rack-mounted HPE Aruba Networking CX 5420 switches in:

- Two-post racks
- Racks not certified for integrated shipping
- Racks not mounted on a shock pallet
- Racks not offered by Hewlett Packard Enterprise
- Hewlett Packard Standard Series racks

Shipping an HPE Aruba Networking 5420 switch chassis in a two-post rack is not supported and may result in damage to the switch or components. The HPE Aruba Networking warranty does not apply to products damaged or rendered defective as a result of using non-supported shipping methods.

1. Install slot covers over any empty management module, line module, PSU slots.
2. Securely mount the switch in a compatible four-post rack or cabinet. Use the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit as described in this guide under Mounting the Chassis in a

Rack. Include secure installation of the following shipping support hardware packed in the rack rail kit:

- Front (2-post) rack mounting brackets (shipped with the switch),
- Rear adapter plates and rack brackets.

For detailed mounting information, see Mounting the Switch.

If you plan to re-ship the switch in its original packaging, remove any transceivers installed in line modules before preparing the switch for shipment.

Chapter 4

Introducing the HPE Aruba Networking 5420 Switch Series

The HPE Aruba Networking 5420 Switch Series is a modern, flexible and intelligent family of high availability modular switches ideal for use from access to core and into the data center.

A powerful distributed architecture supports scalable, non-blocking performance to future-proof your network for tomorrow's unpredictable demands. Versatile 6 slot chassis support speeds of up to 80GbE per slot, high-power PoE, multi-gigabit Ethernet, and redundant management, power and fans for a highly available network.

A cloud-centric design with a fully programmable OS delivers automation and simplicity, including easy-to-use configuration tools for error-free installs. Built-in monitoring and analytics across the network provide operators with immediate troubleshooting and problem resolution insights.

Key features

- Half-width modules: allow growth when needed and support for port diversity 1G/SR2.5/SR5/SR10/SFP/SFP+(LRM)/SFP28 in a condensed 4RU chassis with redundant MM and PSU. All ports support MACsec.
- High performance, high-speed network
- Multi chassis link aggregation group (LAG) for high availability
- Always-on PoE: enable APs, healthcare devices, sensors, and IoT devices to keep power during upgrades. Class-8 POE and new PSU support for up to 96 ports @60W.
- Extended-Edge VTEP: static VXLAN support for EE VTEP persona. Enable flexible L2 Fabric design with scale and consistent architecture with support of Group-Based-Policy and role-to-role security enforcement.
- VSX with Live Upgrade: dual control & data planes for improved performance and live upgrades in modular access and aggregation
- Dynamic Segmentation: Secure, unified access policy with micro-segmentation across wired & wireless for users and IoT

Switch configurations

The HPE Aruba Networking 5420 switch models are each available for order as a base bundle with an option to add management modules, line modules, and power supply units (PSUs). The following table lists the options, switches, and chassis for this product line. For further information, contact your HPE Aruba Networking authorized sales representative and see the latest release notes for minimum software version necessary for each component.

Model	Description
S0U53A	HPE Aruba Networking CX 5420 1600W AC Power Supply

Model	Description
S0U54A	HPE Aruba Networking CX 5420 6-slot Fan Tray
S0U55A	HPE Aruba Networking CX 5420 Management Module
S0U56A	HPE Aruba Networking CX 5420 6-slot 2-post Rack Kit
S0U57A	HPE Aruba Networking CX 5420 6-slot Accessory Kit
S0U58A	HPE Aruba Networking CX 5420 TAA Management Module
S0U59A	HPE Aruba Networking CX 5420 6-slot TAA Switch
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S0U66A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module
S0U67A	HPE Aruba Networking CX 5420 24p SFP 1G Module
S0U68A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM Module
S0U69A	HPE Aruba Networking CX 5420 6-slot TAA Switch
S0U70A	HPE Aruba Networking CX 5420 6-slot TAA Chassis
S0U71A	HPE Aruba Networking CX 5420 24p 10M/100M/1G TAA Module
S0U72A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE TAA Module
S0U73A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM TAA Module
S0U74A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA Module
S0U75A	HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA Module
S0U76A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE TAA Module
S0U77A	HPE Aruba Networking CX 5420 24p SFP 1G TAA Module
S0U78A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM TAA Module
S1T82A	HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit

To order optional accessories or replacement parts, contact your HPE Aruba Networking authorized sales representative.

Included Parts

The switch is shipped with the following components:

For **S0U59A** and **S0U69A**:

- 4U Rack Mounting Kit (5066-3042)
- 3U Cable Manager (5066-5605)
- ESD Wrist Strap (5400-1986)

For **S0U57A**:

- 3U Cable Manager Kit (5066-5605)
- ESD Wrist Strap (5400-1986)
- Half-width Line Card blank (2 qty) (5300-2298)
- Half-width Management Module blank (5300-2299)

For **S0U56A** :

- 4U Rack Mounting Kit (5066-3042)

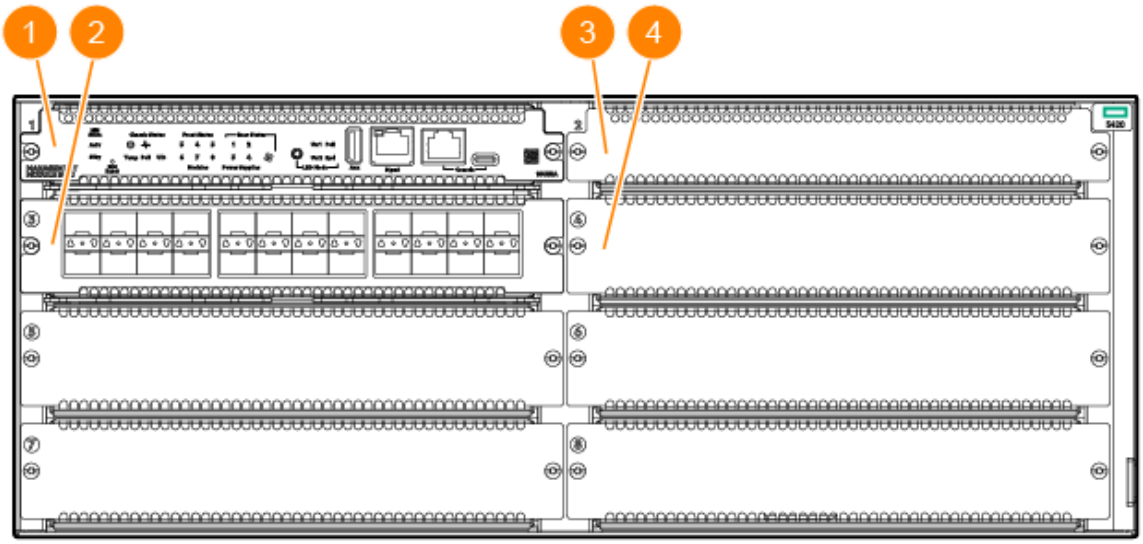
Front of the Switch

The front of the switch consists of:

- Two management module slots
- Six line module slots for the HPE Aruba Networking 5420 chassis

The following figure indicates the location of the slots and modules on the switch.

Figure 4 *HPE Aruba Networking 5420: front of the switch*

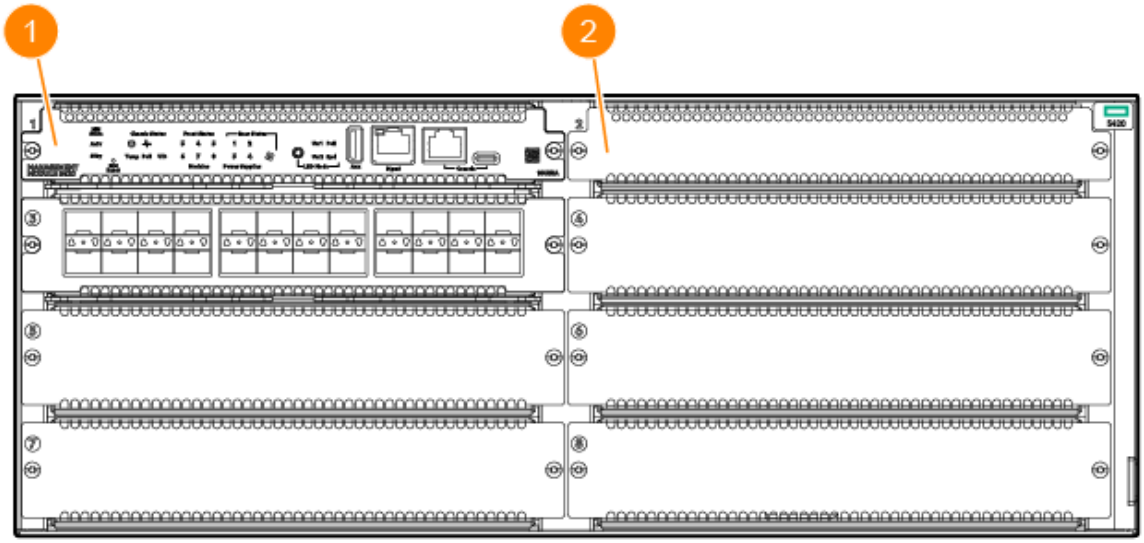


1	A management module installed in a management slot
2	A single line module slot with line module installed
3	An empty management module slot with a slot cover in place
4	An empty line module slot with a slot cover in place

Management Module Slots

The HPE Aruba Networking 5420 switches have two management module (MM) slots. Management modules support control plane activities and in-memory running of the Time Series Database.

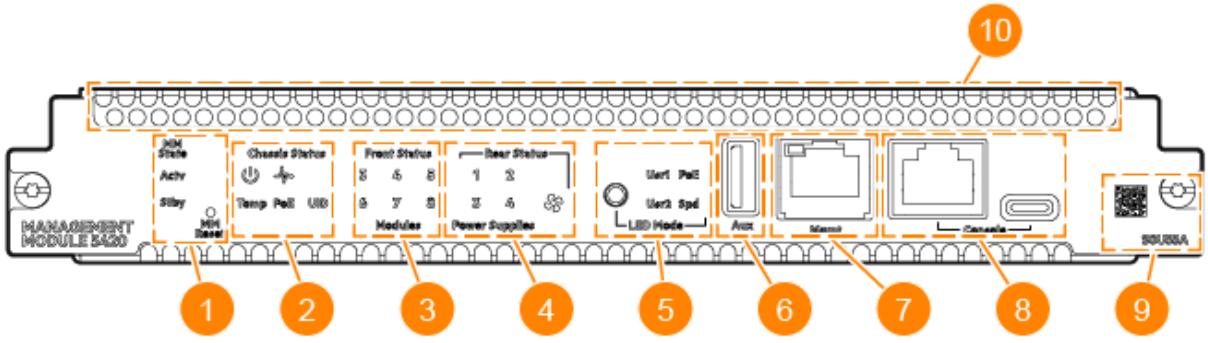
Figure 5 *Management module slots with management modules installed*



1	HPE Aruba CX 5420 Management Module installed in slot 1
2	HPE Aruba CX 5420 slot cover installed in slot 2

When two management modules are installed, one operates in active mode and the other operates in standby mode. The active slot is determined by election. Installing two management modules provides control plane high availability.

Figure 6 *Management module features*



1	MM Active/Standby state LEDs & Reset button	**Actv**: Indicates the status of the management module after booting. If the MM is the active MM, then the LED glows steady green. Reset button resets the system. **Stby**: Indicates the status of the management module after booting. If the MM is the standby MM, then the LED glows steady green. **Reset Button**: A recessed button that is used to reboot the selected management module.
2	Chassis level LEDs	When the system is receiving power, glows steady green. Indicates status of the switch. LED glows steady green when switch is ready after booting from the Network Operating System (NOS). **PoE**: Indicates the overall status of Power-over-Ethernet in the system. Off = disabled or not currently delivering power. On Green = Normal operation. Slow Flash Orange = PoE fault condition; use Module status LEDs and PoE LED Mode to isolate the failure down to line card and port level. **UID**: Visual beacon to assist in quickly locating the unit. Off = not activated. On Blue or Slow Flashing Blue = activated as system location aid. **TEMP**: Indicates the status of the chassis temperature. If the temperature is at or below the specified rating, then the LED glows steady green
3	Line module status LEDs	Indicates if a line module is installed in a line module slot. If a line module is successfully installed in a given slot, then the numbered LED for that slot glows steady green.
4	PSU and Fan status LEDs	**PSU**: Indicates if a power supply is installed in the slot. If an active power supply is installed and operating properly, then the LEDs glow steady green. **Fan tray**: Indicate if the fan tray is installed in the slot. If a fan tray is installed and operating properly in the slot, then the LED glows steady green.
5	Port-level LED Mode control	On the Active MM, Indicates which non-default mode of the LEDs is selected when On Green. ■ Usr1 LED: mode turns off most non-fault LED indications. ■ Usr2 LED: Reserved ■ PoE: uses the port LEDs to show additional PoE status. ■ Spd LED: uses the port LEDs to show whether a linked port is at max speed (On Green) or not (Blinking Green).

6	Auxiliary port	Without a USB device installed, the auxiliary port LED is off after power-on and self-test. With a USB device installed, this LED displays the following after power-on and self-test: ■ Steady green: USB installed, initialized, and mounted, but no data transfer. ■ Flicker green: Data transfer in progress
7	Mgmt port (OOBM Port) with Activity/Link LED	Without an active network connection, this LED is off after power-on and self-test completes. With an active network connection, this LED operates as follows: ■ Half-bright green: Port enabled and receiving Link indication from connected device. ■ Flickering half-bright to full-bright green: Varying port activity level. ■ Steady green: Port at high utilization.
8	Serial console port	USB-C and RJ-45
9	SKU number QR code	Identifies the encoding the model number of the module
10	Switch serial label pull tab	Country of Origin, P/N, S/N, MAC address

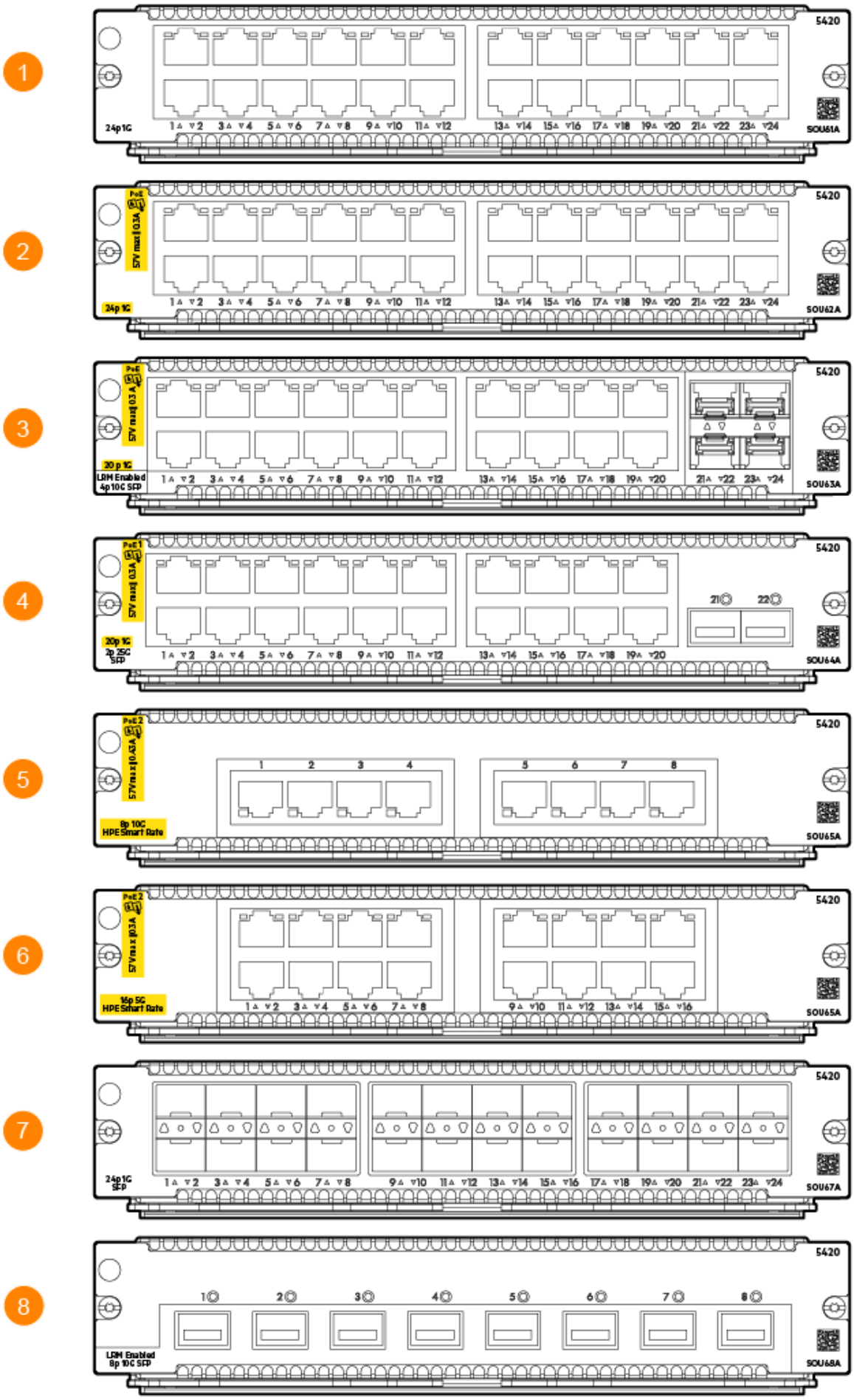
Management module specifications

The key specifications of the management modules are:

- CPU: AMD Ryzen Quad Core V1500B x86 processor @ 2.2GHz
- 32GB eMMC flash memory
- DRAM: 1xSODIMM module with 16GB of DDR4 memory with ECC protection
- Ports and reset buttons:
  - Out of band management port (OOBM): 10M/100M/1GbT with no EEE and no MACsec support
  - USB-A port: Used for USB mass storage and Bluetooth adapter (seprarately orderable, SKU# S1H23A). Supports up to 500 mA and up to USB 2.0 speed.
  - Console ports (Only one console port is active at a time for user inputs):
    - RS232 console port with RJ45 form factor
    - USB-C console port

Line Modules, Slots, and LEDs

Figure 7 *Line modules*


1
2
3
4
5
6
7
8
5420
24p1G
SOU61A
PoE
57V max@ 0.3A
24p 1G
SOU62A
20 p 1G
LRM Enabled
4p10G SFP
SOU63A
20p 1G
2p 25G
SFP
SOU64A
8p 10G
HPE Smart Rate
SOU65A
16p 5G
HPE Smart Rate
SOU65A
24p1G
SFP
SOU67A
LRM Enabled
8p 10G SFP
SOU68A

1	**S0U61A** HPE Aruba Networking CX 5420 24p 10M/100M/1G Module
2	**S0U62A** HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE Module
3	**S0U63A** HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM Module
4	**S0U64A** HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G Module
5	**S0U65A** HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE Module
6	**S0U66A** HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module
7	**S0U67A** HPE Aruba Networking CX 5420 24p SFP 1G Module
8	**S0U68A** HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM Module

Line Module Slots

The HPE Aruba Networking 5420 switch has six line module (LM) slots. The LM slots are numbered 3 through 8.

Table 5: Line module specifications - 25GbE through 5GbE

Part#	Maximum Band-width	25 GbE	10 GbE	5 GbE
S0U61A (24p 10M/100M/1G)	24 Gb/s	No	No	No
S0U62A (24p 10M/100M/1G Class4 PoE)	24 Gb/s	No	No	No
S0U63A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G)	60 Gb/s	No	SFP+: 10GbE accessories	No
S0U64A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G)	70 Gb/s	SFP28: 25GbE accessories	SFP28: 10GbE accessories	RJ-45: 5GBASE-T
S0U65A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE)	80 Gb/s	No	No	RJ-45: 5GBASE-T
S0U66A (16p Smart Rate 1G/2.5G/5G Class6 PoE)	80 Gb/s	No	RJ-45: 10GBASE-T	SFP+: No SFP56: No
S0U67A (24p SFP 1G)	24 Gb/s	No	No	SFP28: No
S0U68A (8p SFP+ 1G/10G LRM)	80 Gb/s	No	SFP+: 10GbE accessories	No

Part#	Maximum Band-width	25 GbE	10 GbE	5 GbE
S0U71A (24p 10M/100M/1G TAA)	24 Gb/s	No	No	No
S0U72A (24p 10M/100M/1G Class4 PoE TAA)	24 Gb/s	No	No	No
S0U73A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G TAA)	60 Gb/s	No	SFP+: 10GbE accessories	No
S0U74A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA)	70 Gb/s	SFP28: 25GbE accessories	SFP28: 10GbE accessories	No
S0U75A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA)	80 Gb/s	No	No	RJ-45: 5GBASE-T
S0U76A (16p Smart Rate 1G/2.5G/5G Class6 PoE TAA)	80 Gb/s	No	RJ-45: 10GBASE-T	RJ-45: 5GBASE-T
S0U77A (24p SFP 1G TAA)	24 Gb/s	No	No	No
S0U78A (8p SFP+ 1G/10G LRM TAA)	80 Gb/s	No	SFP+: 10GbE accessories	No

Table 6: Line module specifications - 2.5 GbE through 10M Ethernet

Part#	Maximum Band-width	2.5 GbE	1 GbE	100M Fast Ethernet	10M Ethernet
S0U61A (24p 10M/100M/1G)	24 Gb/s	No	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U62A (24p 10M/100M/1G Class4 PoE)	24 Gb/s	No	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U63A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G)	60 Gb/s	No	RJ-45: 1000 BASE-T SFP+: 1GbE accessories	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U64A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G)	70 Gb/s	No	RJ-45: 1000 BASE-T SFP+: 1GbE accessories	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U65A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE)	80 Gb/s	RJ-45: 2.5 GBASE-T	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	No

Part#	Maximum Band-width	2.5 GbE	1 GbE	100M Fast Ethernet	10M Ethernet
S0U66A (16p Smart Rate 1G/2.5G/5G Class6 PoE)	80 Gb/s	RJ-45: 2.5 GBASE-T	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	No
S0U67A (24p SFP 1G)	24 Gb/s	No	SFP: 1GbE accessories	SFP: 100M accessories	No
S0U68A (8p SFP+ 1G/10G LRM)	80 Gb/s	No	SFP: 1GbE accessories	SFP: 100M accessories	RJ-45: 10 BASE-T
S0U71A (24p 10M/100M/1G TAA)	24 Gb/s	No	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U72A (24p 10M/100M/1G Class4 PoE TAA)	24 Gb/s	No	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U73A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G TAA)	60 Gb/s	No	RJ-45: 1000 BASE-T SFP+: 1GbE accessories	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U74A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA)	70 Gb/s	No	RJ-45: 1000 BASE-T SFP+: 1GbE accessories	RJ-45: 100 BASETX	No
S0U75A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA)	80 Gb/s	RJ-45: 2.5 GBASE-T	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	No
S0U76A (16p Smart Rate 1G/2.5G/5G Class6 PoE TAA)	80 Gb/s	RJ-45: 2.5 GBASE-T	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	No
S0U77A (24p SFP 1G TAA)	24 Gb/s	No	RJ-45: 1000 BASE-T	RJ-45: 100 BASETX	RJ-45: 10 BASE-T
S0U78A (8p SFP+ 1G/10G LRM TAA)	80 Gb/s	No	SFP+: 1GbE accessories	SFP: 100M accessories	No

Table 7: Line module specifications - PoE

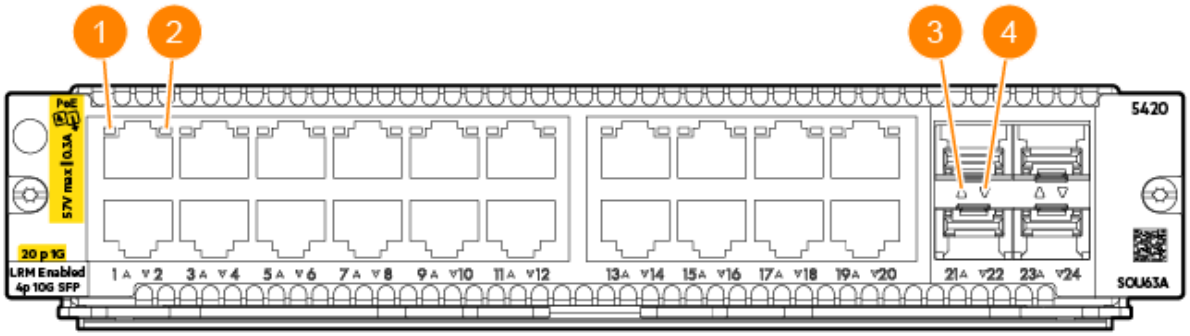
Part#	Maximum Band-width	PoE
S0U61A (24p 10M/100M/1G)	24 Gb/s	No
S0U62A (24p 10M/100M/1G Class4 PoE)	24 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-24
S0U63A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G)	60 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20

Part#	Maximum Band-width	PoE
S0U64A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G)	70 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20
S0U65A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE)	80 Gb/s	Yes, Class 8 (90W PoE) on 1G/2.5G/5G/10G BASE-T ports 1-8
S0U66A (16p Smart Rate 1G/2.5G/5G Class6 PoE)	80 Gb/s	Yes, Class 6 (60W PoE) on 1G/2.5G/5G BASE-T ports 1-16
S0U67A (24p SFP 1G)	24 Gb/s	No
S0U68A (8p SFP+ 1G/10G LRM)	80 Gb/s	No
S0U71A (24p 10M/100M/1G TAA)	24 Gb/s	No
S0U72A (24p 10M/100M/1G Class4 PoE TAA)	24 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-24
S0U73A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G TAA)	60 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20
S0U74A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA)	70 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20
S0U75A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA)	80 Gb/s	Yes, Class 8 (90W PoE) on 1G/2.5G/5G/10G BASE-T ports 1-8
S0U76A (16p Smart Rate 1G/2.5G/5G Class6 PoE TAA)	80 Gb/s	Yes, Class 6 (60W PoE) on 1G/2.5G/5G BASE-T ports 1-16
S0U77A (24p SFP 1G TAA)	24 Gb/s	No
S0U78A (8p SFP+ 1G/10G LRM TAA)	80 Gb/s	No

1	S0U61A HPE Aruba Networking CX 5420 24p 10M/100M/1G Module
2	S0U62A HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE Module
3	S0U63A HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM Module
4	S0U64A HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G Module
5	S0U65A HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE Module
6	S0U66A HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module
7	S0U67A HPE Aruba Networking CX 5420 24p SFP 1G Module
8	S0U68A HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM Module

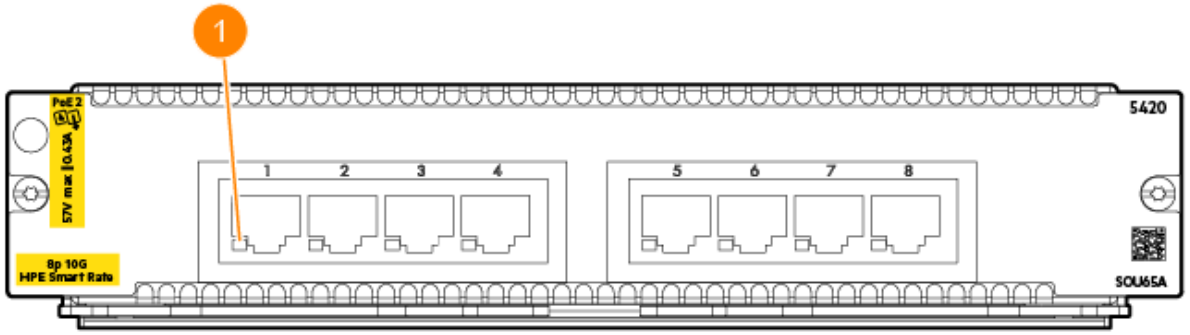
Line Modules LEDs

Figure 8 *Example of S0U63A Line module LEDs*



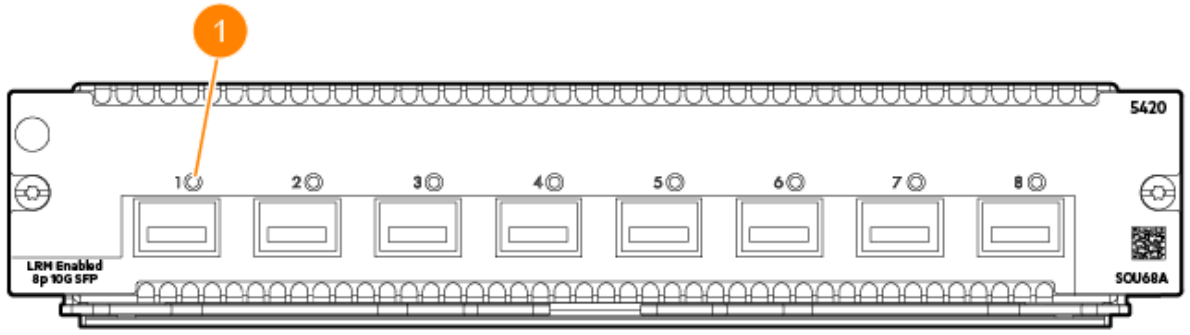
1	RJ45 port LED for upper port
2	RJ45 port LED for lower port
3	SFP+ port LED for upper port
4	SFP+ port LED for lower port

Figure 9 *Example of S0U65A LED Line module LEDs*



1	RJ45 port LED

Figure 10 *Example of S0U68A Line module LEDs*



1	SFP+ module port LED

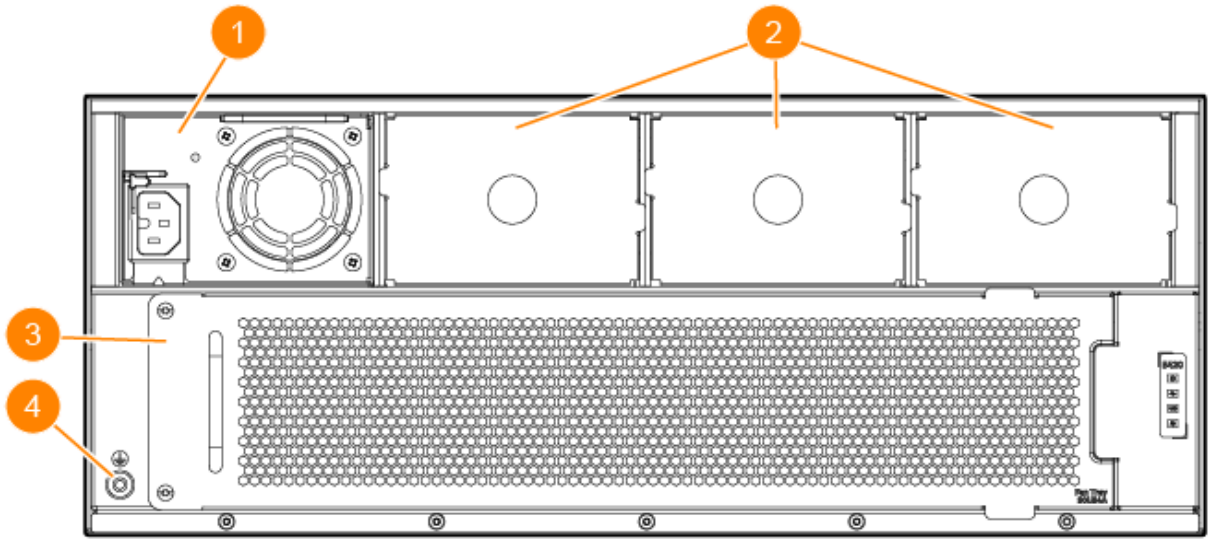
Rear of the Switch

The rear of the switch includes:

- Four power supply slots
- Fan trays
  - On the 5420 switch: One fan tray with four fixed fan modules each
- Rear LED display
- Grounding lug

As an example, the following figure indicates the location of the slots and modules on a 5420 switch.

Figure 11 *HPE Aruba Networking 5420 rear panel*

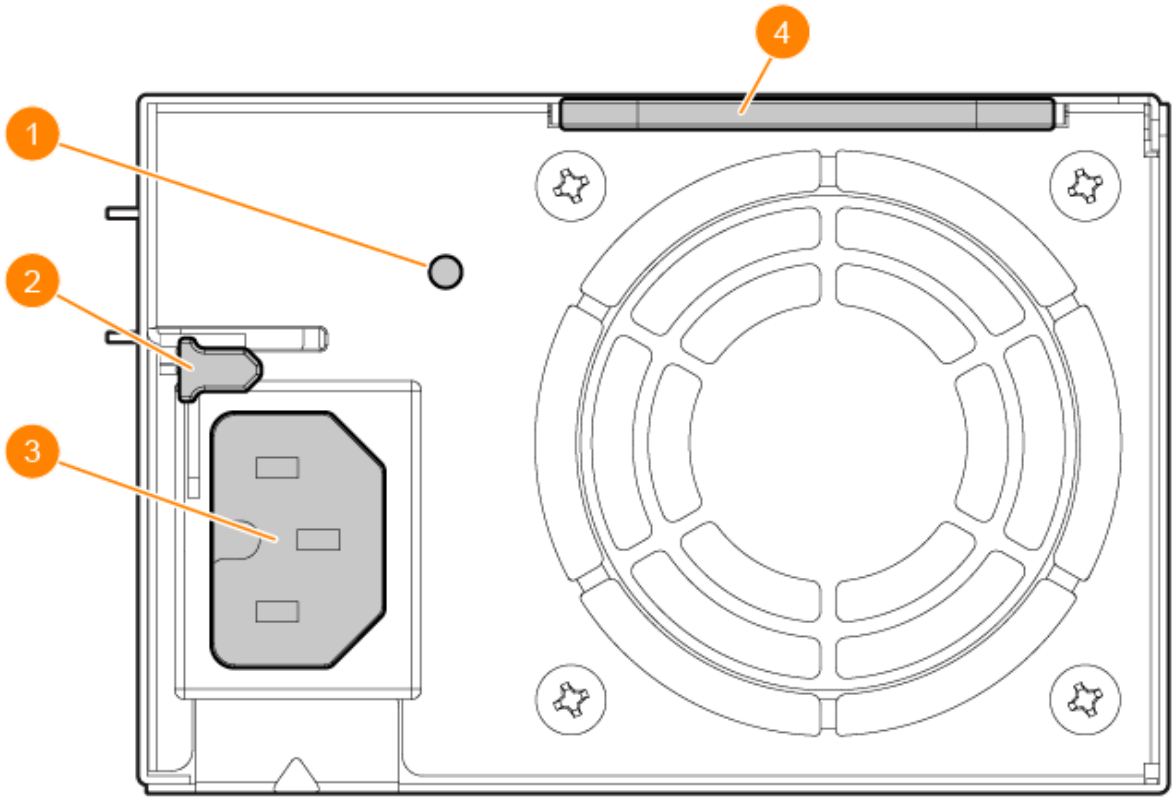


1	A power supply slot with power supply unit (PSU) installed
2	Empty PSU slot with a slot cover in place
3	Fan tray
4	Grounding lug

Power Supply Units (PSUs) and Slots

The HPE Aruba Networking 5420 has four power supply unit slots that support the S0U53A HPE Aruba Networking 5420 1600W AC Power Supply.

Figure 12 *HPE Aruba Networking 5420 1600W Power Supply*



1	Dual color LED (green and amber)
2	Latch release tab
3	AC inlet
4	Power supply handle

- A single PSU is sufficient for fans and management cards to come up and provide user access and diagnostics.
- At 220V AC, only one PSU are required for full operation.
- Options for redundancy during configuration include n+n and n+1. As long as there is at least 2 PSUs in the chassis, n+1 redundancy can be configured. With 4 PSUs, n+n redundancy can be configured.
  - 4 PSUs offers 2+2 or 3+1 redundancy
  - 3 PSUs offers 2+1 redundancy
  - 2 PSUs offers 1+1 redundancy
- The PSUs are hot swappable.

PSU LEDs

There is a single, dual color LED on the PSU to indicate PSU status:

- Power LED (green)
- Power fail LED (amber)

PSU slot cover

HPE Aruba Networking recommends installing and maintaining blank power supply slot covers in all empty PSU slots for optimal system thermal and cooling performance.

Power Cords and Inlet Adapters

CAUTION

- Use only an HPE Aruba Networking 5420 C16 inlet adapter with an S0U53A HPE Aruba Networking 5420 1600W AC Power Supply.

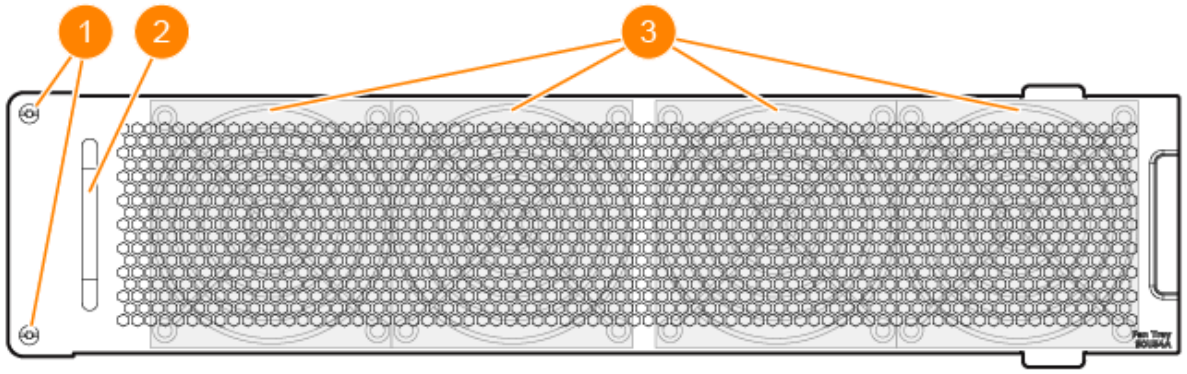
HPE Aruba Networking includes the power cords and inlet adapters approved for use with your Aruba 5420 switch. Different countries or regions may require different power cords. A list of the power cords that apply to your Aruba 5420 switch power supply units is provided under 1600W PSU C15 Power Cord Information.

Remove all power cords from the switch and power supply unit before mounting or dismounting the switch. Always turn OFF the AC power from the AC outlet / source before disconnecting the AC cord from the power supply AC inlet.

Fan Trays

The HPE Aruba Networking 5420 switch hot swappable fan trays house four fixed fans each, providing a total of four fixed fans.

Figure 13 *Fan tray*



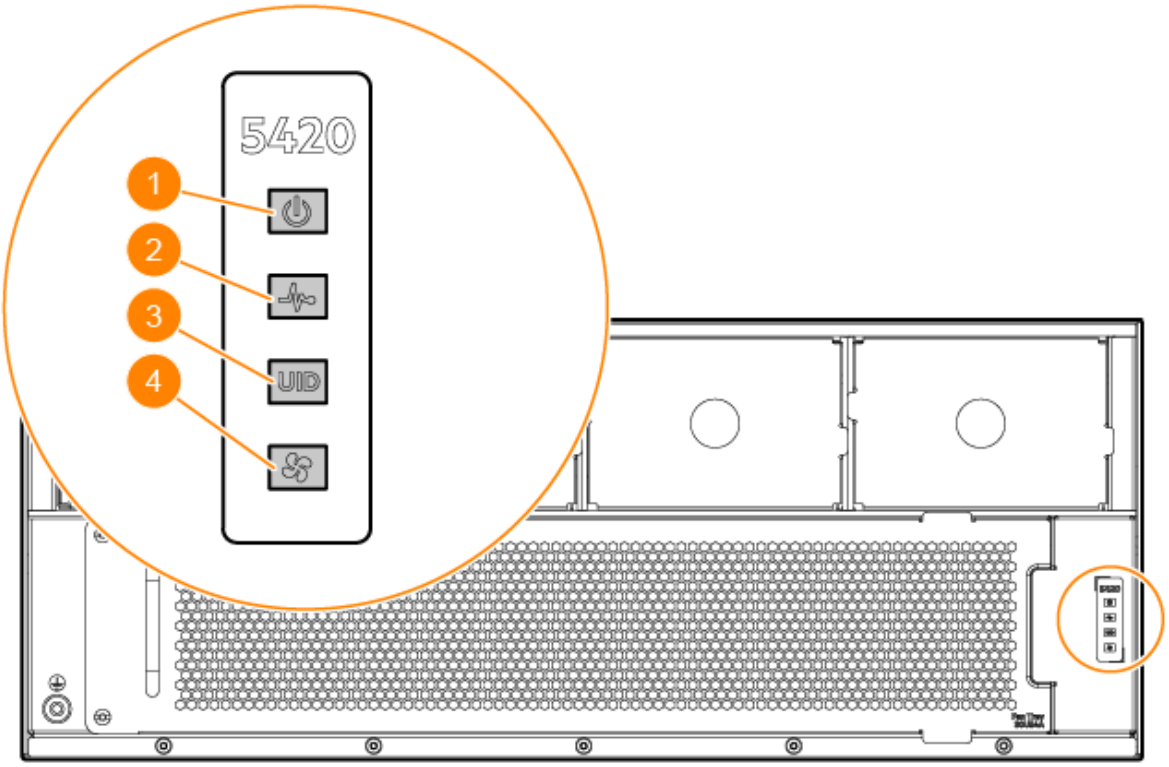
1	Screws for securing the fan tray in a fan tray slot
2	Handle for removing or installing the fan tray
3	Fixed fans (4)

Fan tray status LEDs are on the active management module and on the rear LED display. See Management Module Slots and Rear Panel LEDs for more information.

If the active management module or ArubaOS-CX operating system detect that a fan tray has failed, all remaining fans will automatically operate at maximum speed.

Rear Panel LEDs

Figure 14 *Rear panel LEDs*



1	Chassis power LED
2	Chassis health LED
3	Chassis identification (UID) LED
4	Fan tray status LED

Power Cords, Power Inlet Accessories, and Power Supplies

HPE Aruba Networking includes the power cord approved for use with your Aruba switch and power supply. Different countries/regions may require different power cords. For a list of the power cords approved for use with your HPE Aruba Networking 5420 switch, see the section that lists power cords under Power Cord Information.

CAUTION

Only HPE Aruba Networking approved power cords are supported for use with HPE Aruba Networking devices. Lost or damaged power cords must be replaced only with HPE Aruba Networking approved

CAUTION

power cords. If your installation requires a different power cord than the one supplied with the switch and/or power supply, be sure that the cord is adequately sized for the current requirements of the switch. In addition, be sure to use a power cord displaying the mark of the safety agency that defines the regulations for power cords in your country or region. The mark is your assurance that the power cord can be used safely with the switch and power supply.

Do not use a damaged or non-recommended power cord with your switch. Using such power cords voids the switch and power supply warranty. It can also cause serious electrical problems, including injury or death to personnel, and damage to the switch and other property. If you cannot verify that you have a power cord approved for use with your switch model, contact your authorized Aruba dealer or sales representative for assistance.

Remove the power cord from the switch and power supply before mounting or dismounting the switch.

Power Cord Information

Japan power cord warning

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

1600W PSU C15 Power Cord Information

NOTE

The S0U53A (1600W) PSU, when operating at high line (200-240 VAC), provides 1600W of power. When operating at low line (100-127 VAC), the S0U53A provides 1000W of power.

Table 8: C15 Power Cord Types for the HPE Aruba Networking 5420 1600W Power Supply (S0U53A)

Country or Region	Part #	Option*	SKU	Description
Argentina	8121-1481	#ARM	J9960A	HPE 2.5m C15 to IRAM 2073 250V Power Cord
Australia/New Zealand	8121-1476	#ABG	J9941A	HPE 2.5m C15 to SAA/3 250V Power Cord
Brazil	8121-1265	#AC4	J9951A	HPE 2.5m C15 to BR3 10Amp 250V Power Cord
Chile	8121-1477	#A1X	J9946A	HPE 2.5m C15 to CEI 23-50 3-pole 250V Power Cord
China	8121- 1484	#AKM	J9949A	HPE 2.5m C15 to PRC/3 250V Power Cord
Continental Europe	8121-1479	#ABB	J9945A	HPE 2.5m C15 to CEE 7-VIIG 250V Power Cord

Country or Region	Part #	Option*	SKU	Description
Denmark	8121-1486	#ACE	J9948A	HPE 2.5m C15 to DK 2-5A 250V Power Cord
India	8121-1721	#ACJ	JL696A	HPE 2.5m C15 to ZA/3 250V Power Cord
Israel	8121-1478	#AKJ	J9958A	HPE 2.5m C15 to IL-3 90 Degree 250V Power Cord
Japan high line	8120-8945	#ACF	JL336A	HPE 2.5m C15 to 498GJ JP 3-pole 125V Power Cord
Japan low line	8121-1738	#ACF	JL352A	HPE 2.5m C15 to 6/15AJ 200V 15Amp JP Non-locking Power Cord
South Africa	8121- 1483	#ACQ	J9956A	HPE 2.5m C15 to ZA/3 250V Power Cord
South Korea	8121-1479	#AC6	J9945A	HPE 2.5m C15 to CEE 7-VIIG 250V Power Cord
Switzerland	8121-1480	#ACD	J9957A	HPE 2.5m C15 to SEV 6534-2 Type 12G 250V Power Cord
Taiwan	8121-1511	#ARB	J9947A	HPE 2.5m C15 to TW15CS3 125V Power Cord
Thailand	8121-1485	#AKL	J9952A	HPE 2.5m C15 to NEMA 5-15P TH 250V Power Cord
UK, Malaysia	8121-1475	#ACC, #ARE	J9942A	HPE 2.5m C15 to BS 1363/A 250V Power Cord
North America	8121-0914	#ABA	J9953A	HPE 2.5m C15 to NEMA 5-15P Power Cord
220V North America Locking	8121-0941	Non-Locking Hi-voltage	J9955A	HPE 2.5m C15 to NEMA L6-20P 250V Locking Power Cord
PDU Cable NA/JP/TW**	8121-1091	#B2B	J9943A	HPE 2.5m C15 to C14 PDU NA/JP/TW Power Cord
PDU Cable Rest of World (except India)	8121-1094	#B2C	J9944A	HPE 2.5m C15 to C14 PDU Rest of World Power Cord
PDU cable, India	P09373-001	PDU for India	JL672A	HPE 2.5m C15 to C14 PDU India Power Cord
220V NA (North America)	8120-8945	#B2E	JL336A	HPE 2.5m C15 to NEMA 6-20P 250V Non-locking Power Cord

**The (#<xxx> is specified for the country/region where the unit will be installed to have the proper power cord included with the purchase. If needed, the SKU number can be ordered separately through normal HPE Aruba Networking purchase channels.*

***NA (North) America; JP (Japan); TW (Taiwan).*

Power over Ethernet (PoE) Operation

PoE is enabled by default on the following HPE Aruba Networking 5420 line modules:

Table 9: HPE Aruba Networking 5420 switch PoE ready line modules

Part#	PoE per port	PoE	Standard	EA Certified Logo
S0U62A (24p 10M/100M/1G Class4 PoE)	24 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-24	802.3at	
S0U63A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G)	60 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20	802.3at	
S0U64A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G)	70 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20	802.3at	
S0U65A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE)	80 Gb/s	Yes, Class 8 (90W PoE) on 1G/2.5G/5G/10G BASE-T ports 1-8	802.3bt	
S0U66A (16p Smart Rate 1G/2.5G/5G Class6 PoE)	80 Gb/s	Yes, Class 6 (60W PoE) on 1G/2.5G/5G BASE-T ports 1-16	802.3bt	
S0U72A (24p 10M/100M/1G Class4 PoE TAA)	24 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-24	802.3at	
S0U73A (20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G TAA)	60 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20	802.3at	

Part#	PoE per port	PoE	Standard	EA Certified Logo
S0U74A (20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA)	70 Gb/s	Yes, Class 4 (30W PoE) on 10/100/1000 BASE-T ports 1-20	802.3at	
S0U75A (8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA)	80 Gb/s	Yes, Class 8 (90W PoE) on 1G/2.5G/5G/10G BASE-T ports 1-8	802.3bt	
S0U76A (16p Smart Rate 1G/2.5G/5G Class6 PoE TAA)	80 Gb/s	Yes, Class 6 (60W PoE) on 1G/2.5G/5G BASE-T ports 1-16	802.3bt	

For instructions on using the switch PoE features, see the *Monitoring Guide* for your switch.

Ethernet Alliance PoE Certified

Certified HPE Aruba Networking PoE power sourcing equipment (PSE) has been verified for IEEE 802.3™ PoE interoperability by passing the Ethernet Alliance (Gen 1 or Gen 2) PoE Certified program test plan, minimizing interoperability issues between PoE products.

The Ethernet Alliance PoE Certification Program provides thorough testing of PoE devices for interoperability with IEEE 802.3™ PoE standard devices. Certified products will be easily recognizable by the logos below, which also identify the amount of power available or required. User experience will be enhanced by minimizing confusion between standards-based PoE from proprietary powering solutions.

Gen 1 EA PoE Certified Logo	Gen 2 EA PoE Certified Logo

For more information on EA PoE Certification, visit the Ethernet Alliance website.

HPE Aruba Networking 5420 PoE operation includes these features:

- Maximum PoE power per slot is 960W
- HPE Aruba Networking 5420 switches support a maximum PoE load of more than 5760W with four power supply units of 1600W installed
- Interoperates with IEEE 802.3af, IEEE 802.3at, and IEEE 802.3bt compliant Powered Devices (PD)
- Compatible with non-Aruba, pre-standard IEEE 802.af PDs designed earlier than IEEE 802.3af standard.
- Detects and supplies power to Single Signature (SS) Type 1-4 PDs
- Detects and supplies power to Dual Signature (DS) Type 3-4 PDs
- Long first class event supported on Type 3-4 PSE
- Multi-Event classification permits mutual ID of SS Class 0-8 and DS Class 1-5
- Support LLDP Data Link Layer (DLL) Type 1-2 extension 12-octet TLV and Type 3-4 extension 29-octet TLV
- Default PSE assigned class delivers the maximum PSE capable power at initial power up based on PD requested class
- Always-on PoE is a feature that provides the ability for a switch to continue to provide power across user initiated reboots through software. Always-on PoE is enabled by default and no additional configuration is needed.
- Continues to deliver power during "warm" reboot of the switch
- Conducts power management based on port priority configuration
- Delivers Rapid Power Down (RPD) of PDs in the event of a PSU failure
- Delivers SNMP trap support for port-status change and threshold limit
- Provides LED indication of PoE status and fault

For more information on HPE Aruba Networking 5420 Switch PoE operation, see *Power Over Ethernet (PoE) Planning and Implementation Guide for ArubaOS-CX Switches*.

Switch Software Features

For information on the HPE Aruba Networking 5420 Switch Series software features, visit https://networkingsupport.hpe.com/home

Chapter 5

Unpacking, Lifting, and Moving the Chassis

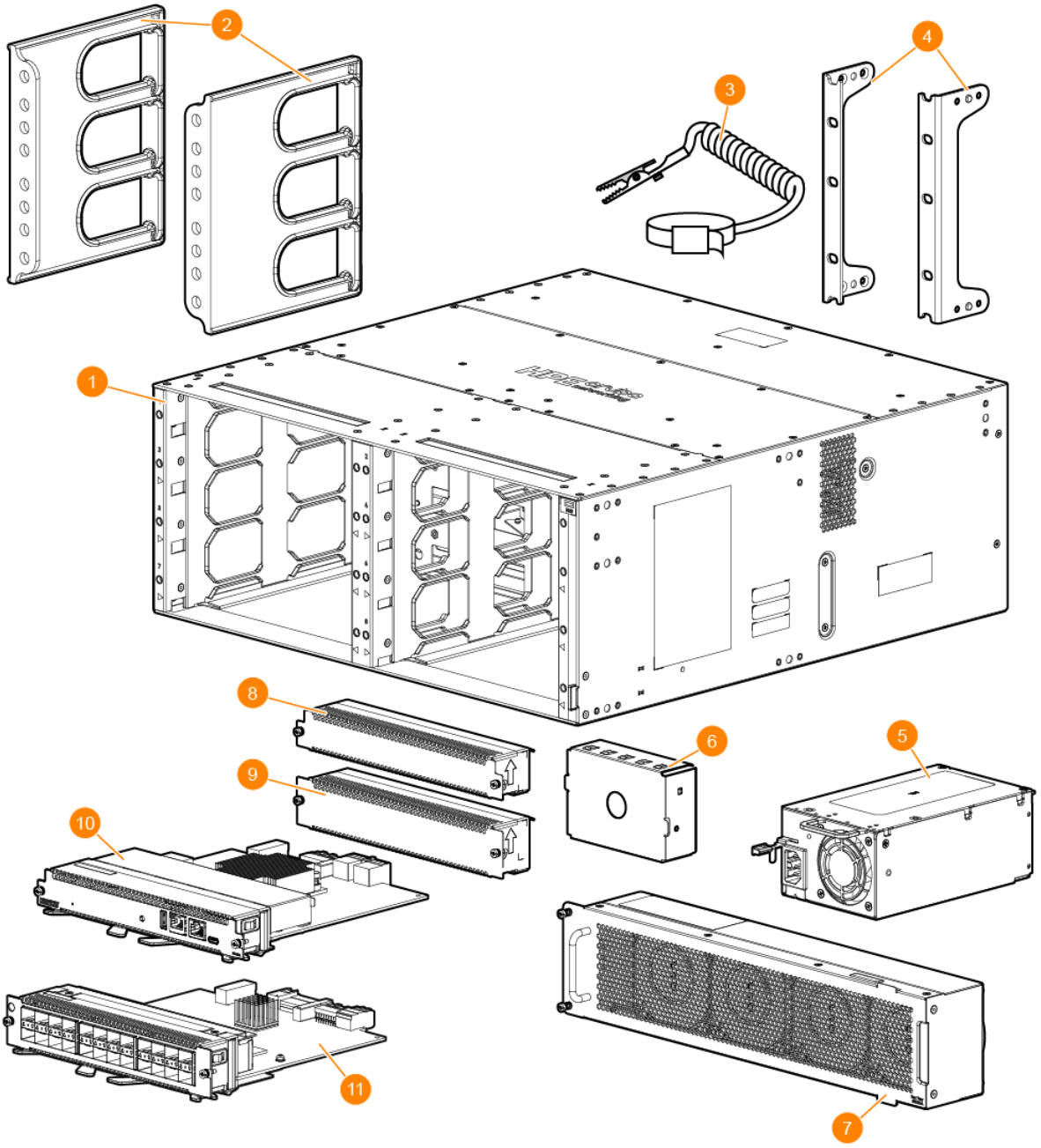
Unpacking the Switch Components

Identify the components received with your HPE Aruba Networking 5420 Switch Series chassis.

Some components may ship separately from the pallet on which you received your 5420 Series chassis.

1. Open the top of the carton.
   a. Remove the documentation folder.
   b. Read the warning information included in the *Unpacking Information* booklet. The switch is heavy. To avoid possible injury, see the *Unpacking Information* booklet before moving the switch.
2. Remove all of the accessories.
3. Lift the top carton off of the chassis.
4. Remove any remaining packing material covering the switch.
5. Pull the poly covering away to expose the top, front, sides, and rear of the chassis.
6. Verify that the components you ordered are included in the shipment(s) you received. Components may include the following items shipped either on a pallet or in one or more separate packages.

Figure 15 *Hardware components*



Item	Description
1	HPE Aruba Networking 5420 Switch Series chassis
2	Cable manager bulkheads
3	ESD wrist strap
4	Front and center mounting brackets

Item	Description
5	Power supply unit (PSU) (sold separately)
6	Power supply unit slot cover
7	Fan tray
8	Line module slot cover
9	Management module slot cover
10	Line module
11	Management module

Attaching an ESD Wrist Strap

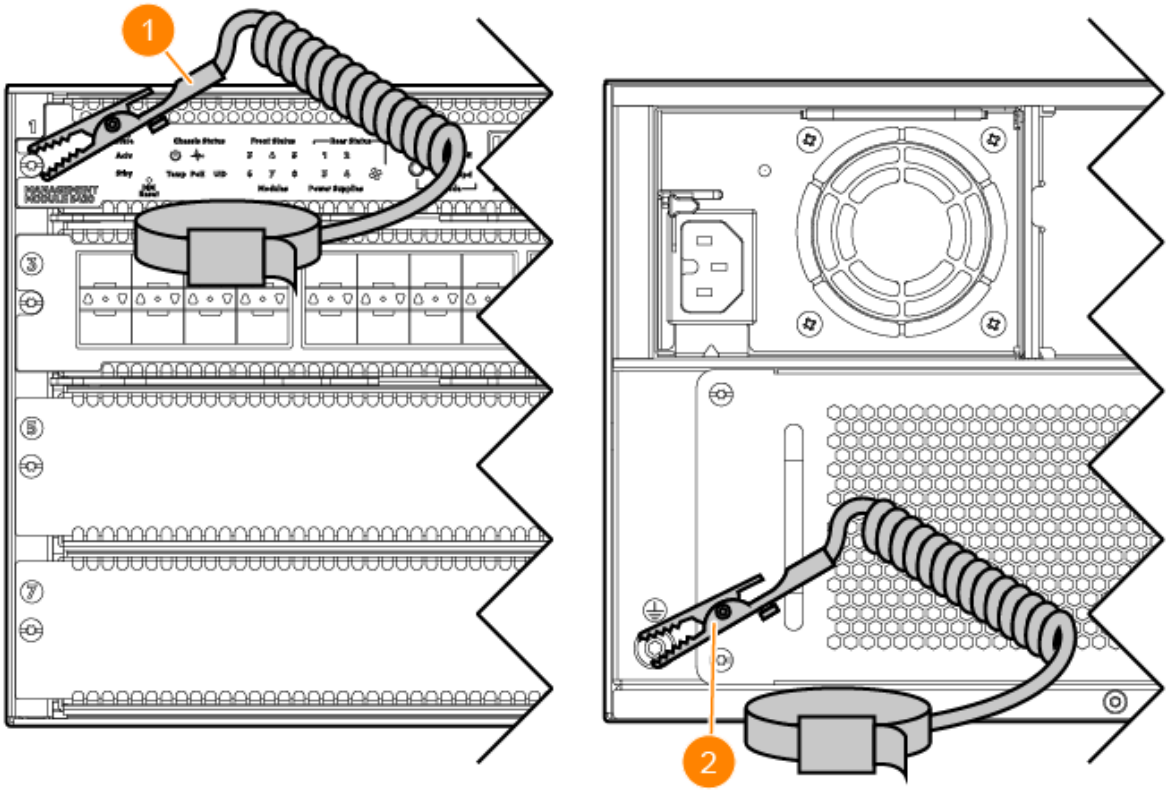
HPE Aruba Networking provides an ESD wrist strap with the switch. To minimize ESD damage to electronic components, wear the ESD wrist strap and make sure it is reliably grounded when handling, installing, or removing switch components.

- See Preventing Electrostatic Discharge Damage.
- Locate the ESD wrist strap shipped with your HPE Aruba Networking 5420 switch.

To use an ESD wrist strap:

1. Put on the wrist strap.
2. Tighten the wrist strap to make sure it makes good skin contact. Make sure the resistance reading between your body and the ground is between 1 and 10 megohms.

3. Attach the wrist strap securely to the front or rear of the chassis.



1	ESD wrist strap connection on the captive screw on the front panel
2	ESD wrist strap connection on the grounding lug on the rear panel

Removing Installed Components from the Chassis

After removing the power supplies, line modules, and fan trays as described completing the preceding actions, the switch weight is sufficiently reduced for carrying by four people.

CAUTION

- Fully populated HPE Aruba Networking 5420 switches weight ranges from 11-26kg.
- If you are manually moving the switch, or if the configured weight exceeds the lift capacity, then use the steps in this section to reduce the weight of the switch for safe manual moves.

To prevent electrostatic discharge (ESD) damage to switch components, follow these guidelines:

- Prepare an ESD-safe area to receive the removed components.
- Always wear an ESD wrist strap and make sure it is reliably grounded when installing or removing modules or other components. For information on how to use an ESD wrist strap, see Grounding.
- Hold modules by their edges. Do not touch any electronic components or printed circuit.
- Store uninstalled modules in antistatic bags for future use.

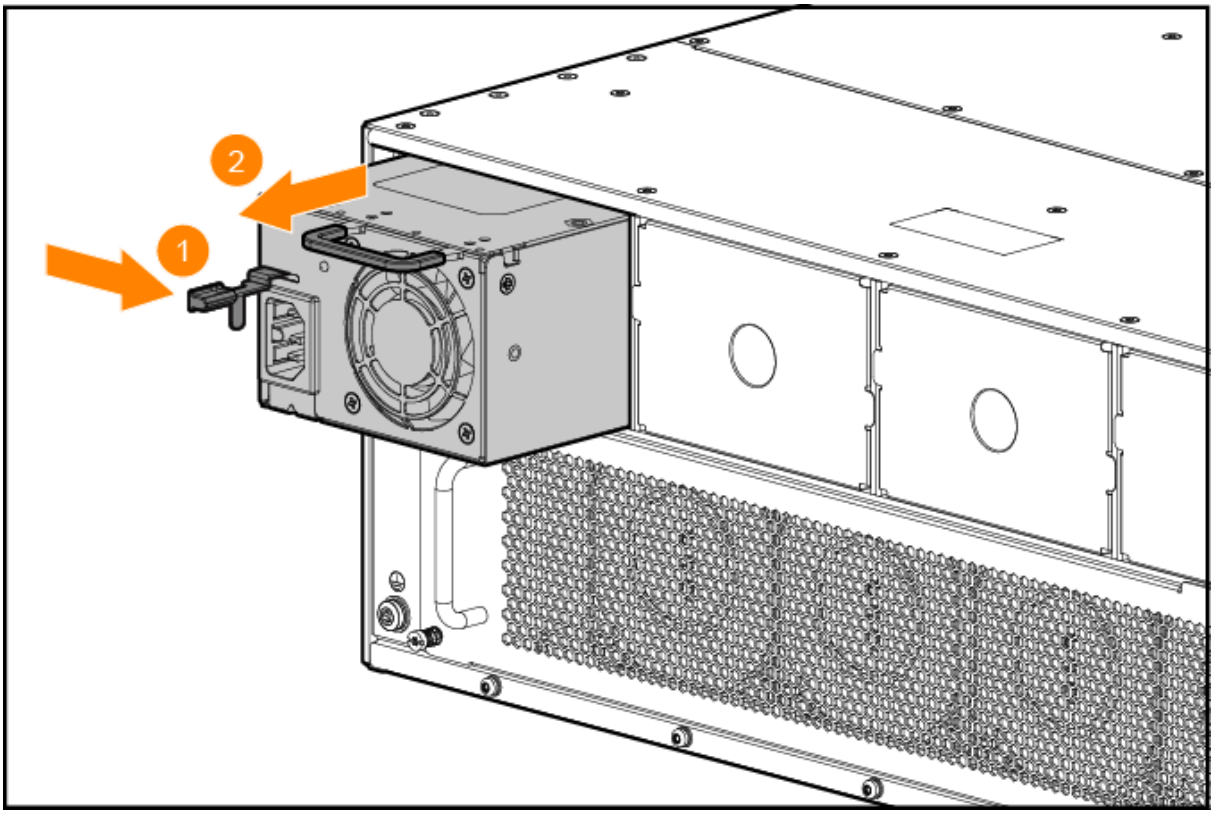
The following sections list the steps for removing chassis components.

Removing Power Supply Units

Handle your HPE Aruba Networking 5420 switch power supplies with care. Rough or careless handling can damage the power supplies and result in unplanned down time.

1. Turn OFF the AC power from the AC outlet / source before removing the power cord from the power supply.
2. Disconnect and remove all power cords from the switch.

3. Remove all installed power supply units.



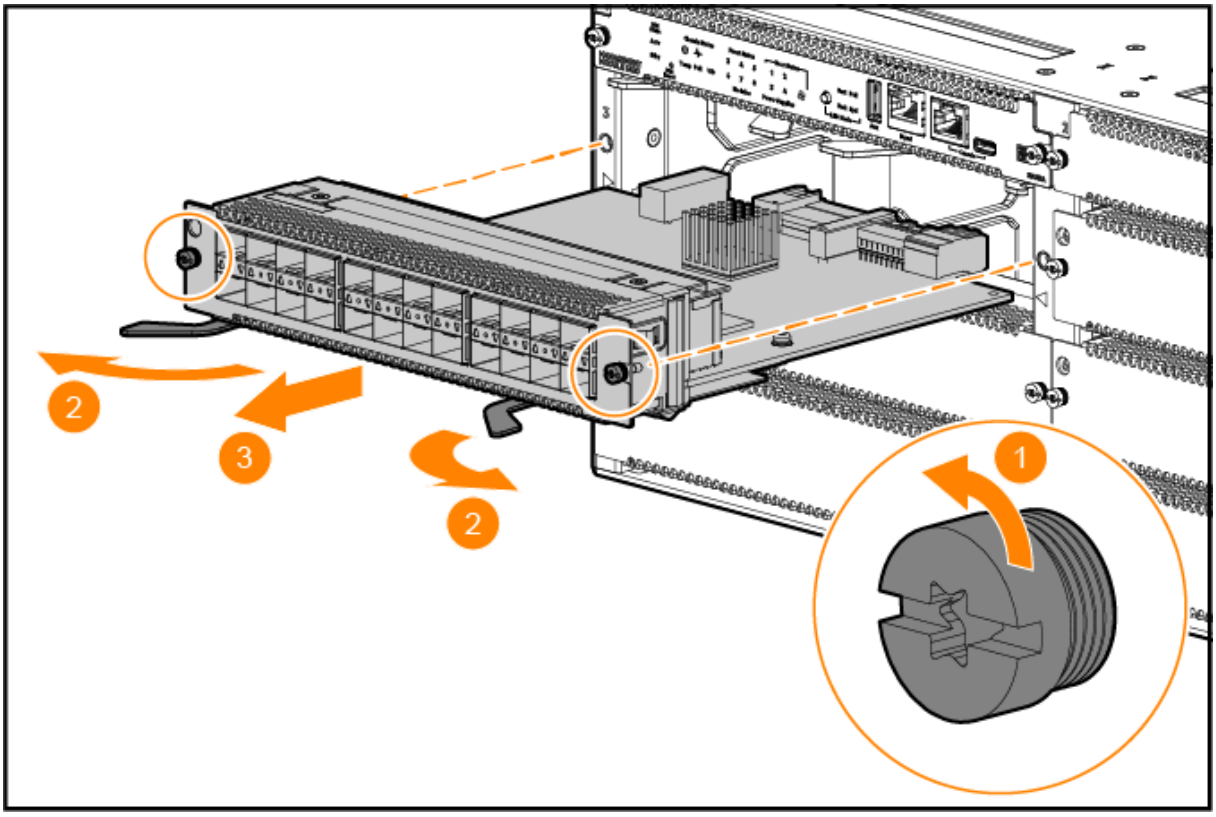
4. Install a slot cover.

Removing Line Modules

NOTE

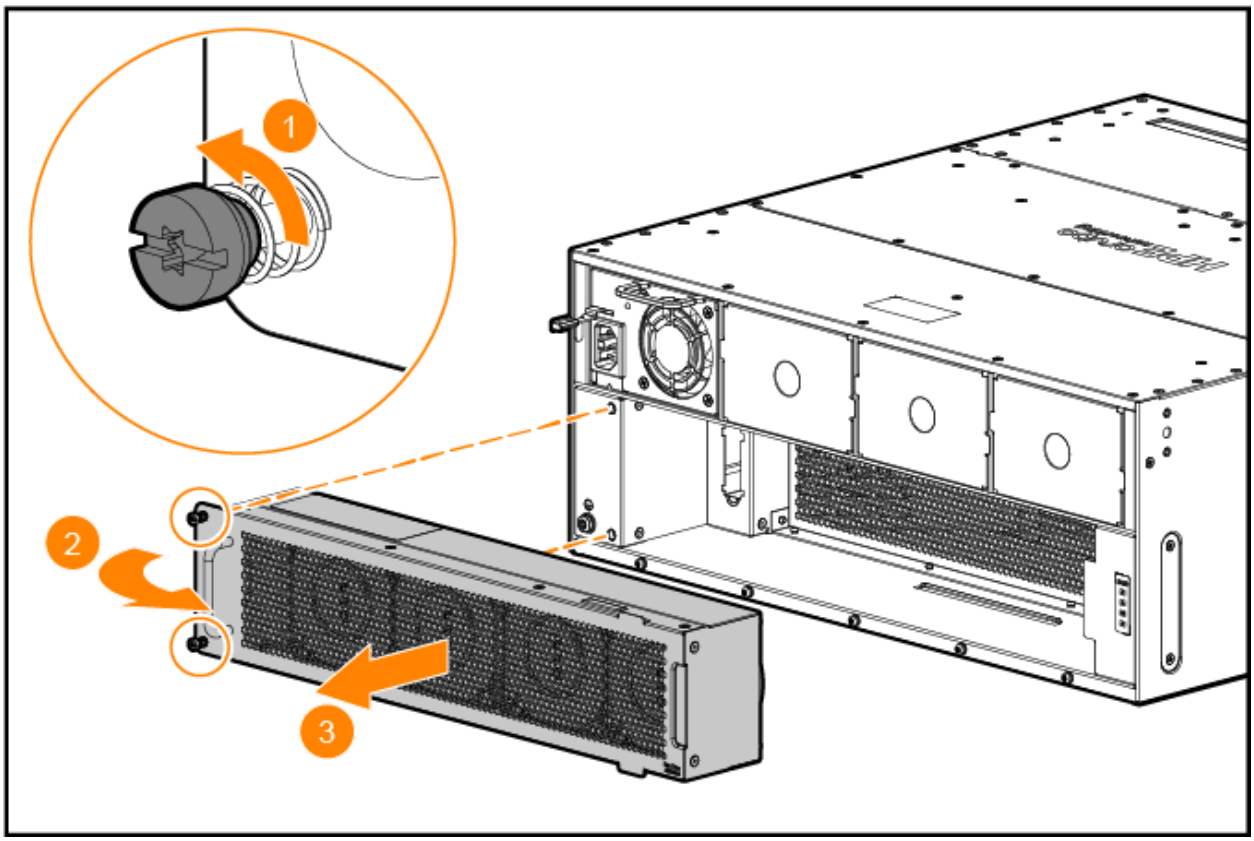
Handle your HPE Aruba Networking 5420 switch line modules with care. Rough or careless handling can damage the modules and result in unplanned down time.

1. Remove any installed line modules from slots 3 through 8.



2. Place removed line modules in anti-static bags.
3. Install line module slot covers on all empty line module slots.

Remove the Fan Trays



Procedure

NOTE

Handle your HPE Aruba Networking 5420 switch fan tray with care. Rough or careless handling can damage these components and result in unplanned down time.

1. Loosen the retaining screws securing the fan tray to the chassis.
2. Using the fan tray handle, swing the left end of the fan tray out of the slot and pull the fan tray away from the slot.

NOTE

If the fan tray needs to be removed during operation, the replacement fan tray must be installed within 3 minutes. Failure to do so may result in damage to the hardware and will cause the switch to shut down abruptly.

After removing the power supplies, line modules, and fan tray as described completing the preceding actions, the switch weight is sufficiently reduced for carrying by two people.

Move the Chassis to the Mounting Location

Mount devices installed in a rack or cabinet as low as possible. Mount the heaviest devices at the bottom of the rack and lighter devices higher up.

Before you begin, ensure that the following prerequisites are met:

- All line modules, and all power supply units are removed from the chassis. The chassis ships with a fan tray.
- Ensure that the equipment rack or other switch mounting site is prepared to receive the chassis. See Site Preparation

Use the following procedure to manually move the chassis

1. Remove the foam cushions from the front and back side of the chassis.
2. Pull away the poly bag covering the chassis to expose the bottom edge of the chassis on both sides.
3. With 2 people, carefully lift the chassis and move it to the mounting location.

Chapter 6
Mounting the Switch

Installing the Chassis in a Non-Rack Mounted Position

Skip this procedure if you plan to mount the switch in an equipment rack. (See Mounting the Chassis in a Rack.)

The following conditions must be met when performing a rack-free installation:

- A fully-populated HPE Aruba Networkin 5420 Switch can weigh up to 26kg (57.32 lb). Ensure the structure or table top supporting the switch is able to withstand this weight.
- The switch should be supported by a sturdy, flat surface.

The chassis is not equipped with rubber feet. Take care to avoid marking or scratching the mounting surface.

To reduce the risk of personal injury or damage to equipment in a rack-free environment:

- Never stack the HPE Aruba Networking 5420 chassis on top of another chassis or other equipment.
- Never place equipment on top of the HPE Aruba Networking 5420 chassis.
- Never place an HPE Aruba Networking 5420 chassis on a surface that cannot support the weight of the fully populated chassis.

Manually Positioning the Chassis on a Non-Rack Mount Surface

1. Ensure that site preparation for the mounting site has been completed. See Site Preparation.
2. Move the switch to the mounting site as described under Move the Chassis to the Mounting Location.
3. Use two people to lift and maneuver the switch safely. Do not position the rear of the chassis resting on the mounting surface, as the fan tray is installed and shipped together with the chassis.
4. Slide the chassis onto the mounting surface.
5. Carefully slide the chassis into the desired position on the mounting surface.
6. Go to Grounding the Chassis.

Mounting the Chassis in a Rack

CAUTION

Mount devices installed in a rack or cabinet as low as possible. Install the heaviest device at the bottom and install progressively lighter devices above.

CAUTION

Cooling air enters through the chassis front panel and exhausts through the chassis rear panel. Ensure that there is adequate airflow space of 30 cm (11.8 inches) between the front and rear panels of the chassis and other equipment or obstructions, and maintain 3 inches (7.6 cm) of clearance on the sides for proper airflow. For more on space and measurements, see Specifications

Shipping a Rack-Mounted HPE Aruba Networking 5420 Switch Chassis

HPE Aruba Networking supports shipping of rack-mounted HPE Aruba Networking 5420 switches where the rack or cabinet is:

- A Hewlett Packard Enterprise four-post rack product compatible with the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit.
- Certified for integrated shipping.
- Mounted to a shock pallet.
- Mounted with the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit.

NOTE

For information on Hewlett Packard Enterprise rack products, visit https://www.hpe.com/us/en/product-catalog/servers/server-racks.hits-12.html.

HPE Aruba Networking *does not support* shipping rack-mounted HPE Aruba Networking 5420 switches in:

- Two-post racks
- Racks not certified for integrated shipping
- Racks not mounted on a shock pallet
- Racks not offered by Hewlett Packard Enterprise
- Hewlett Packard Standard Series racks

CAUTION

Shipping an HPE Aruba Networking 5420 switch chassis in a two-post rack is not supported and may result in damage to the switch or components. The HPE Aruba Networking warranty does not apply to products damaged or rendered defective as a result of using non supported shipping methods.

1. (Optional) Remove all installed line modules and power supply units to lighten chassis for rack installation. These items can be reinstalled after the chassis is secure.
2. Install slot covers over all empty management module and line module slots.
3. Securely mount the switch in a compatible four-post rack or cabinet. Use the S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit as described in this guide under Preparing the Chassis for an Optional Four-Post Rack Mount.

For detailed mounting information, see Preparing the Chassis for an Optional Four-Post Rack Mount.

CAUTION

Switch packaging is not designed to accommodate transceivers installed in line modules. If you plan to re-ship the switch in its original packaging, remove any transceivers installed in line modules before preparing the switch for shipment.

Two-Post Rack Mounting

Preparing the Chassis for a Two-Post Rack Mounting

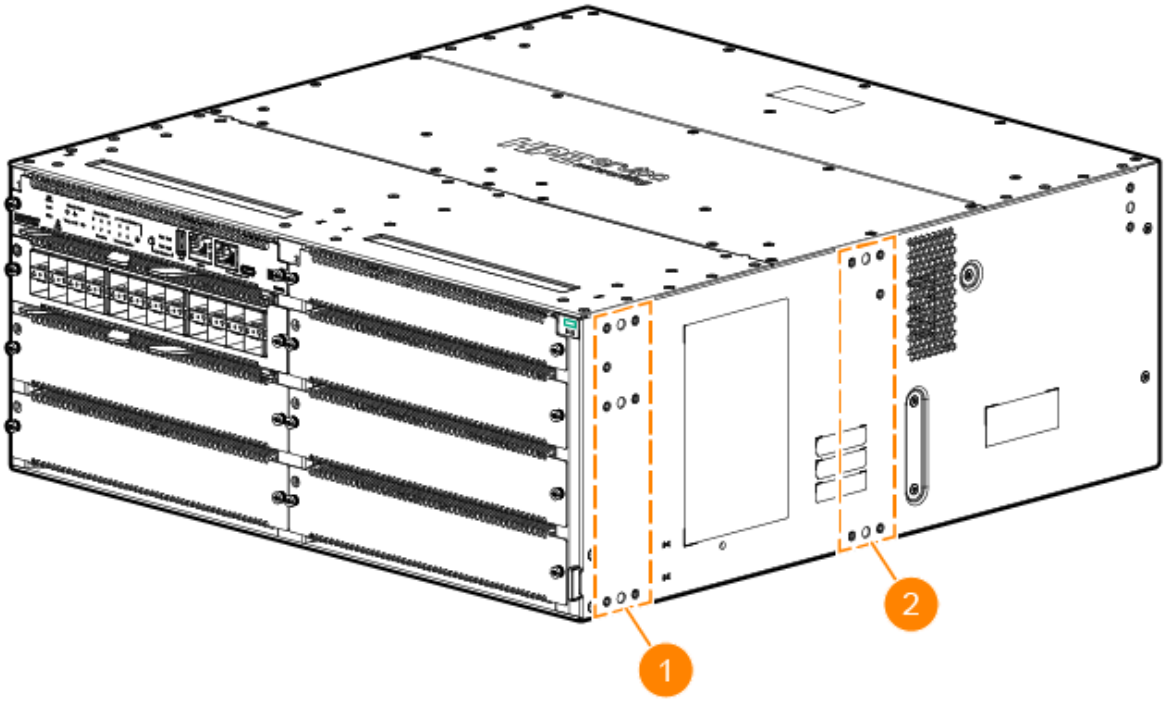
Before you begin, ensure that the following prerequisites are met:

- A two-post equipment rack assembled and properly secured.
- Verification that the rack is certified to support the weight of all equipment you plan to mount on it. (For HPE Aruba Networking 5420 switch and component weight information, see Product Weight and Dimensions.)
- Required parts of: mounting brackets, related screws, and screwdrivers.
  - The 5420 Switch Series requires and includes 1 set of mounting brackets.
- Two-post rack mount option selected.

NOTE

If you plan to install the (included) cable manager on the switch, you must install the rack mounting brackets in the front rack mount position, flanges flush with the front of the switch.

Figure 16 *Two-post rack mount options*



1	Mounting position "1". **NOTE:** If you plan to install the cable manager on the switch, you must use mounting position "1" to mount the switch in the rack.
2	Mounting position "2".

Procedure

Attach the rack mounting brackets to the chassis in the selected mounting position. For a flush mount with the front of the switch, mount the rack mounting brackets with the flange toward the front of the switch.

Figure 17 *Rack mounting bracket installation using the front (number 1) mounting position on the HPE Aruba Networking 5420 Switch*

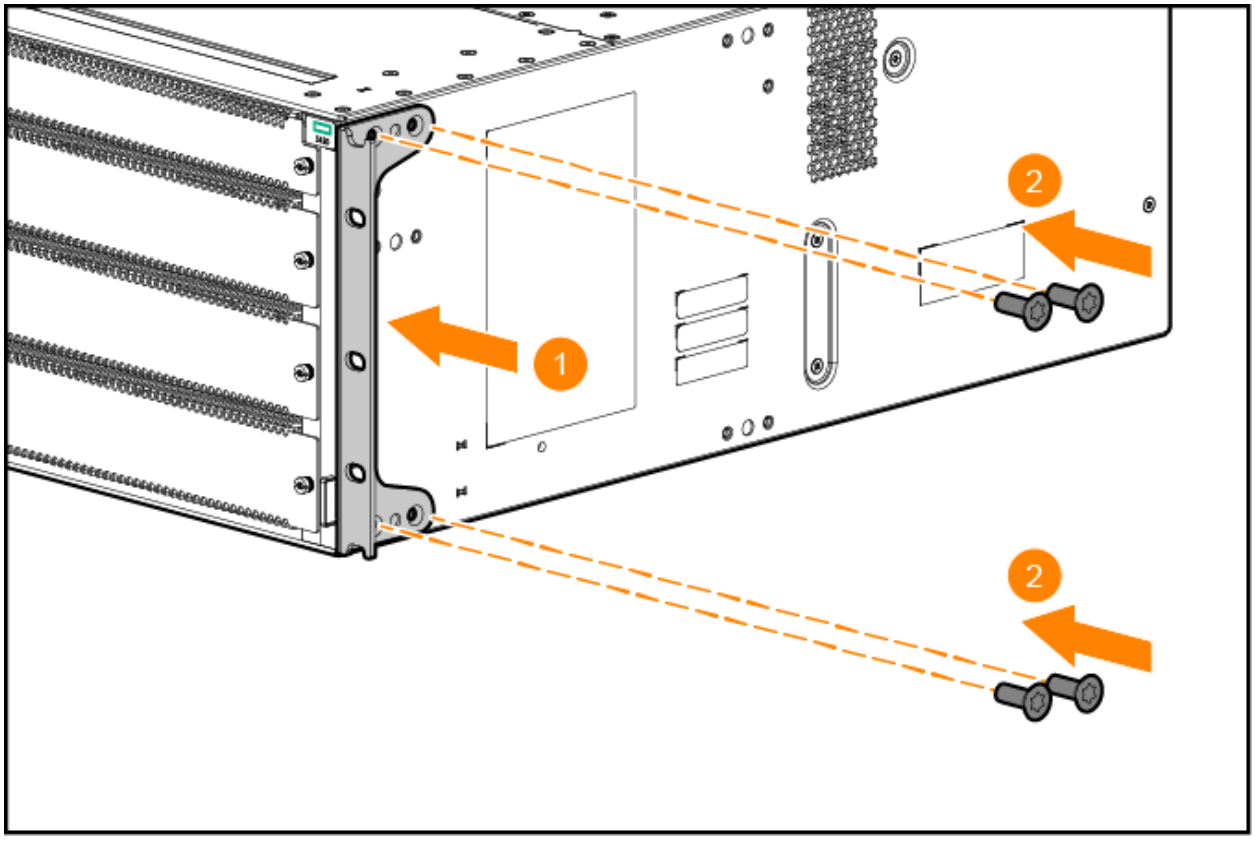
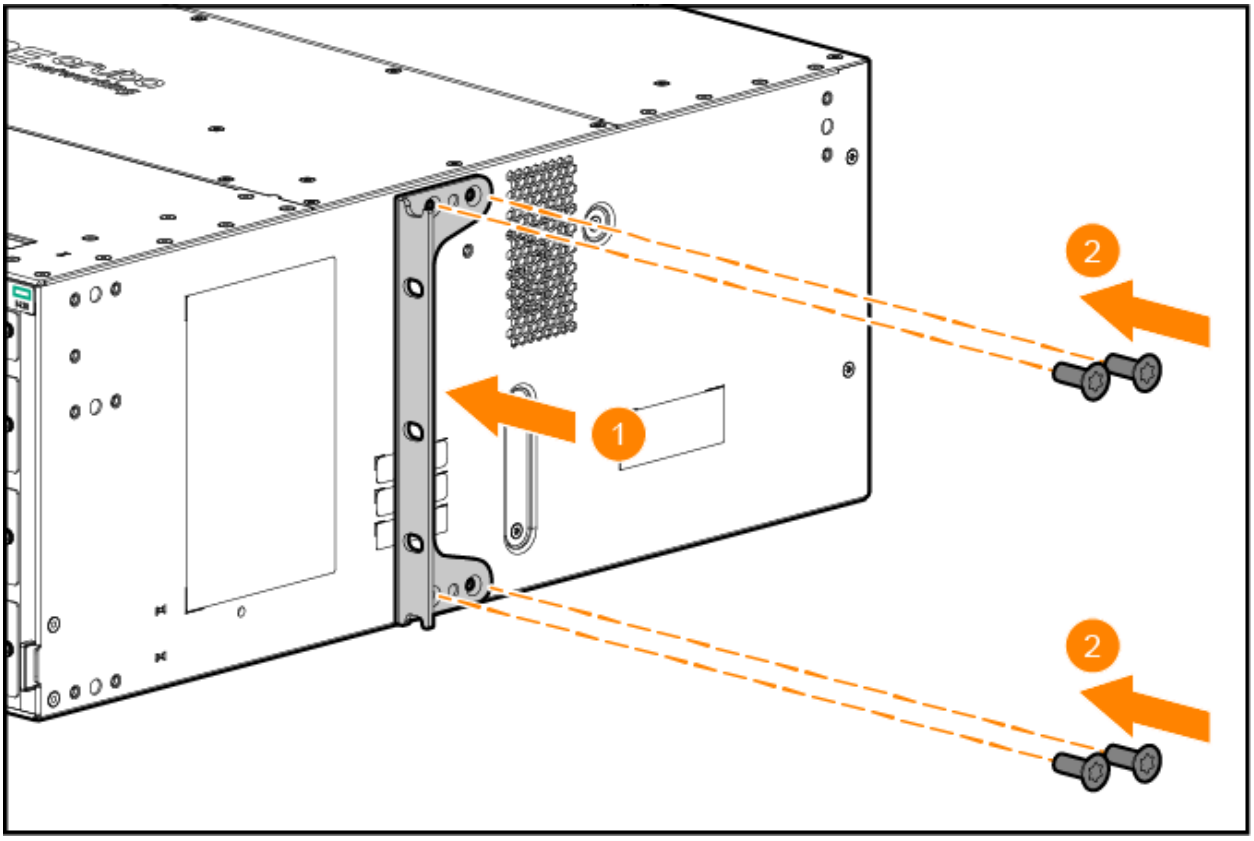


Figure 18 *Rack mounting bracket installation using the middle (number 2) mounting position on the HPE Aruba Networking 5420 Switch*



Manually Mounting the Chassis in a Two-Post Rack

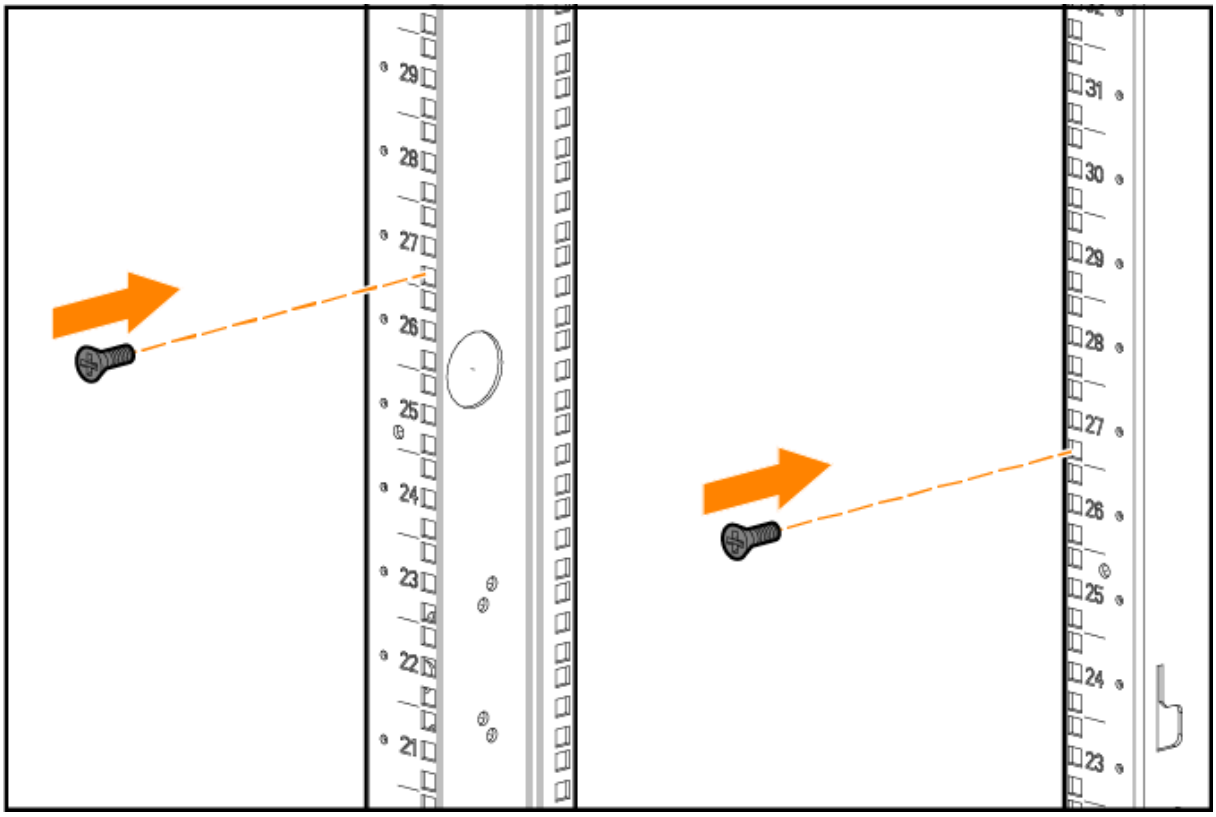
This procedure is for two or more persons manually mounting an HPE Aruba Networking 5420 4U chassis weighing less than 26 kg (57.3lbs) in a two-post rack.

Prerequisites

- The front rack mounting brackets included with the switch are installed on the chassis.
- The screwdriver and rack mounting screws are available in easy reach.

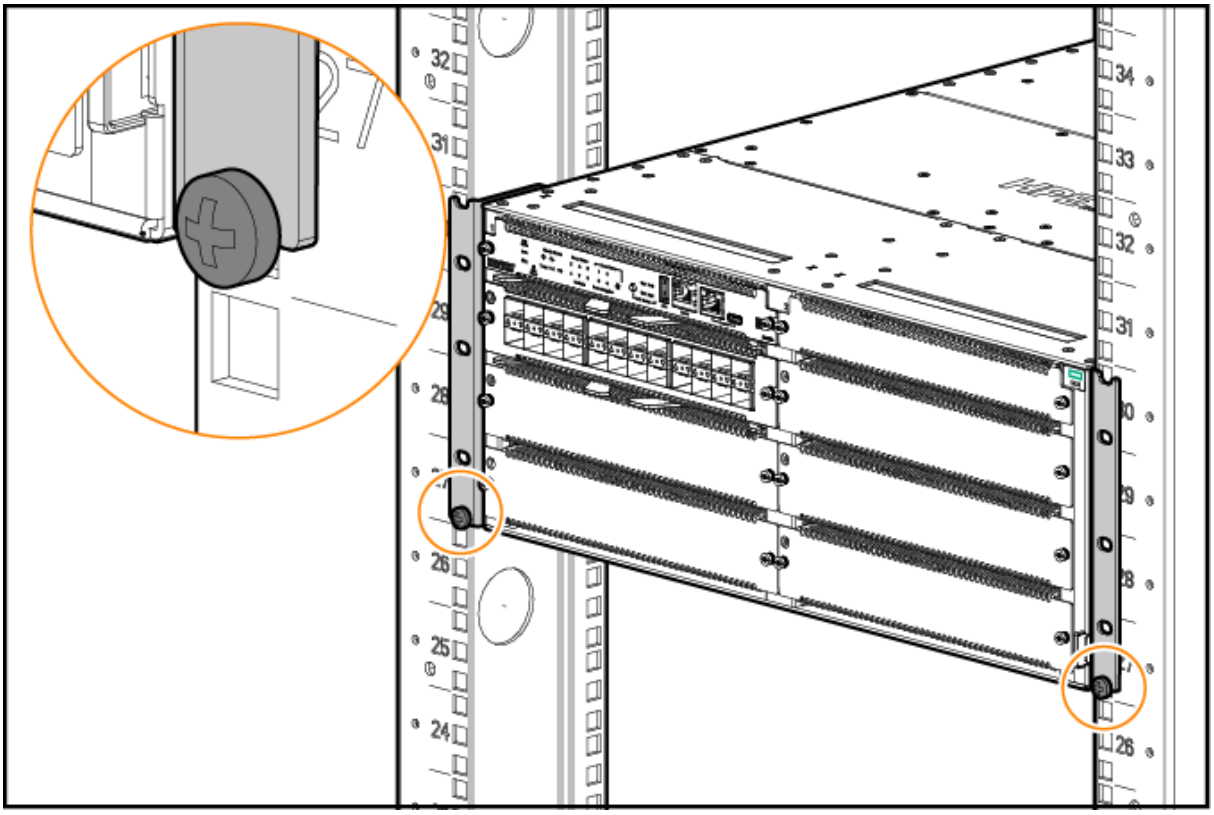
Procedure

1. On both rack posts, partially install a rack mounting screw at the level you want the bottom of the chassis to rest. Leave a gap between the screw heads and the surface of the posts sufficient to allow the mounting bracket to rest on each post.



2. With two people lifting, raise the switch, position it between the rack posts so that the lower ends of the rack mounting brackets rest on the screws you installed in step 1.

3. Hold the switch so that the rack mounting brackets firmly contact the rack posts.

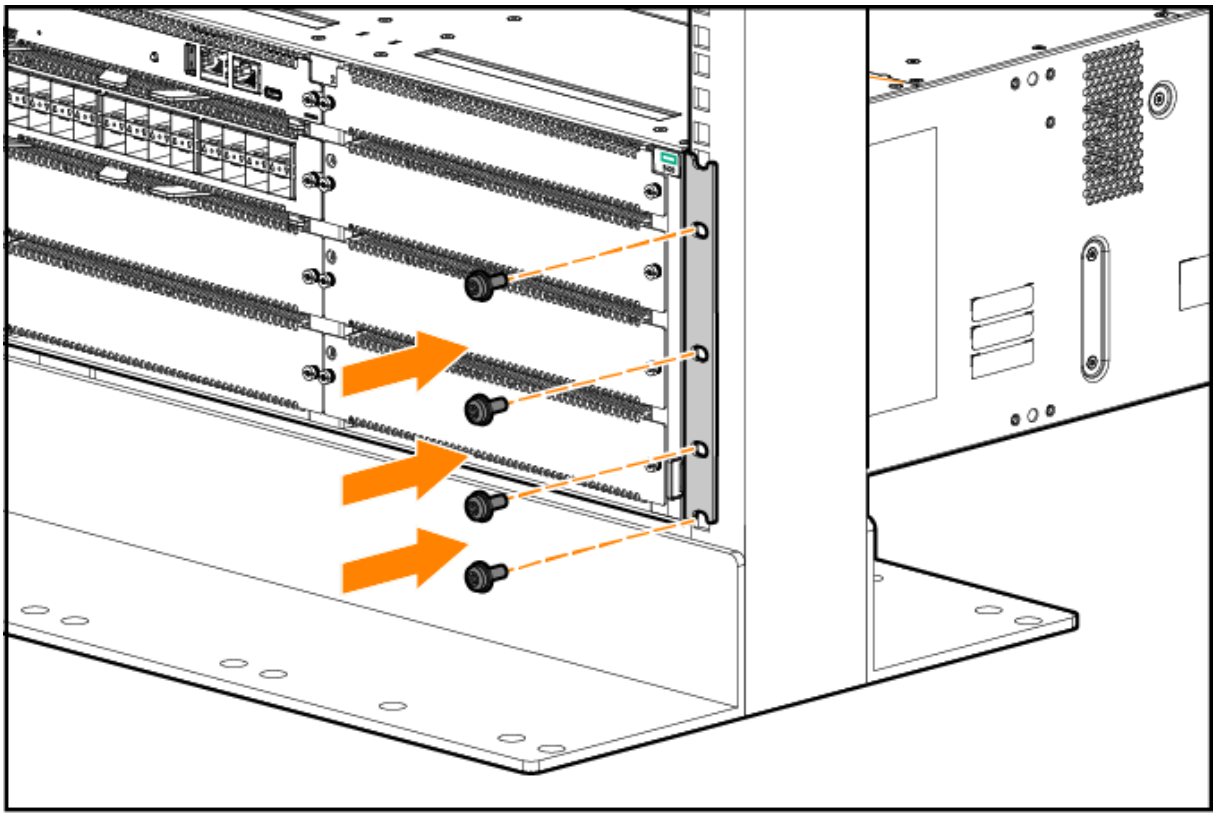


4. Use the screws provided in the accessory kit to secure the chassis in the rack.

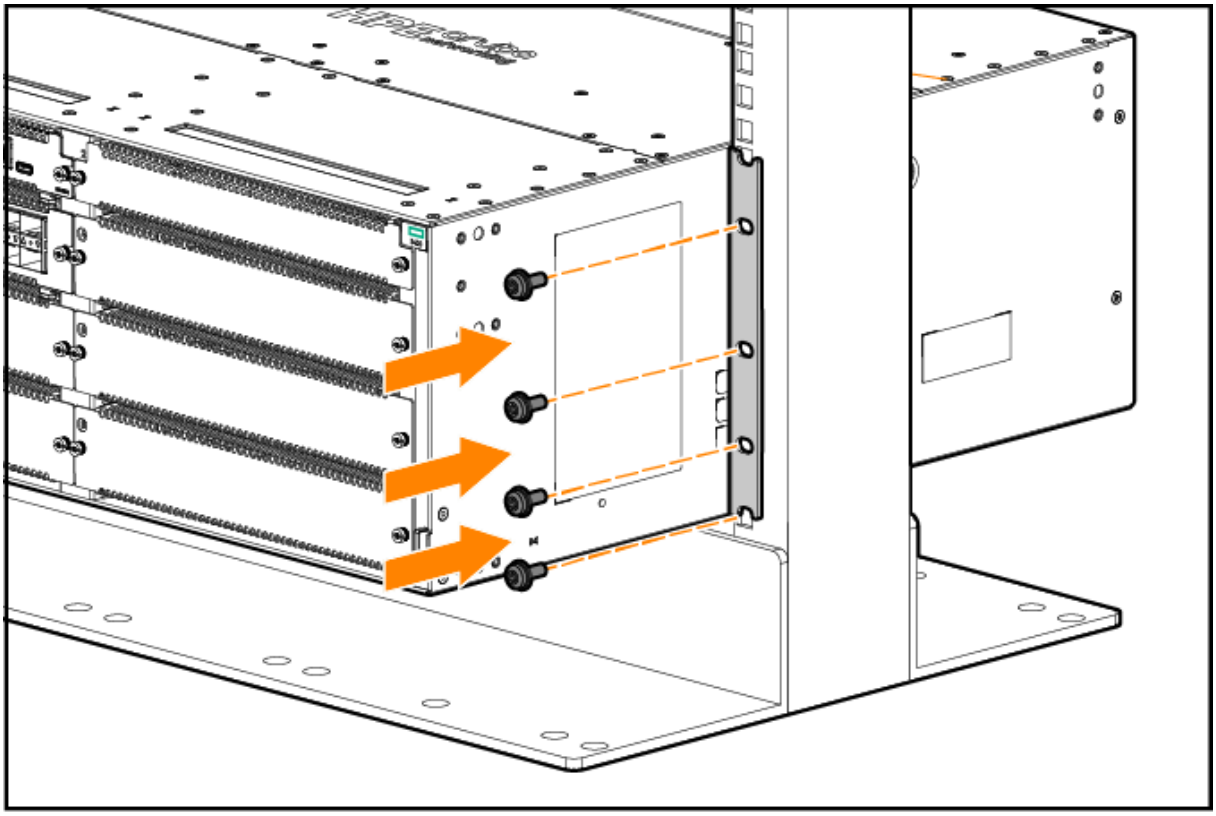
CAUTION

- For the HPE Aruba Networking 5420 Switch, use 4 screws in each of the two rack mounting brackets.

Mounting position 1



Mounting position 2



Before attempting to install components, configure the switch, or use the switch, be sure to secure it to the rack using the screws and rack mounting brackets provided. Failure to secure the chassis and

supporting hardware could result in unexpected shifting or movement of the switch and risk of personal injury or product damage.

5. Go to Grounding the Chassis

Four-Post Rack Mounting

Mount devices installed in a rack or cabinet as low as possible. Mount the heaviest devices at the bottom of the rack and lighter devices higher up.

Preparing the Chassis for an Optional Four-Post Rack Mount

To order the S1T82A HPE Aruba Networking four-post Rack Kit, contact your authorized HPE Aruba Networking product representative.

Installing the optional S1T82A HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit

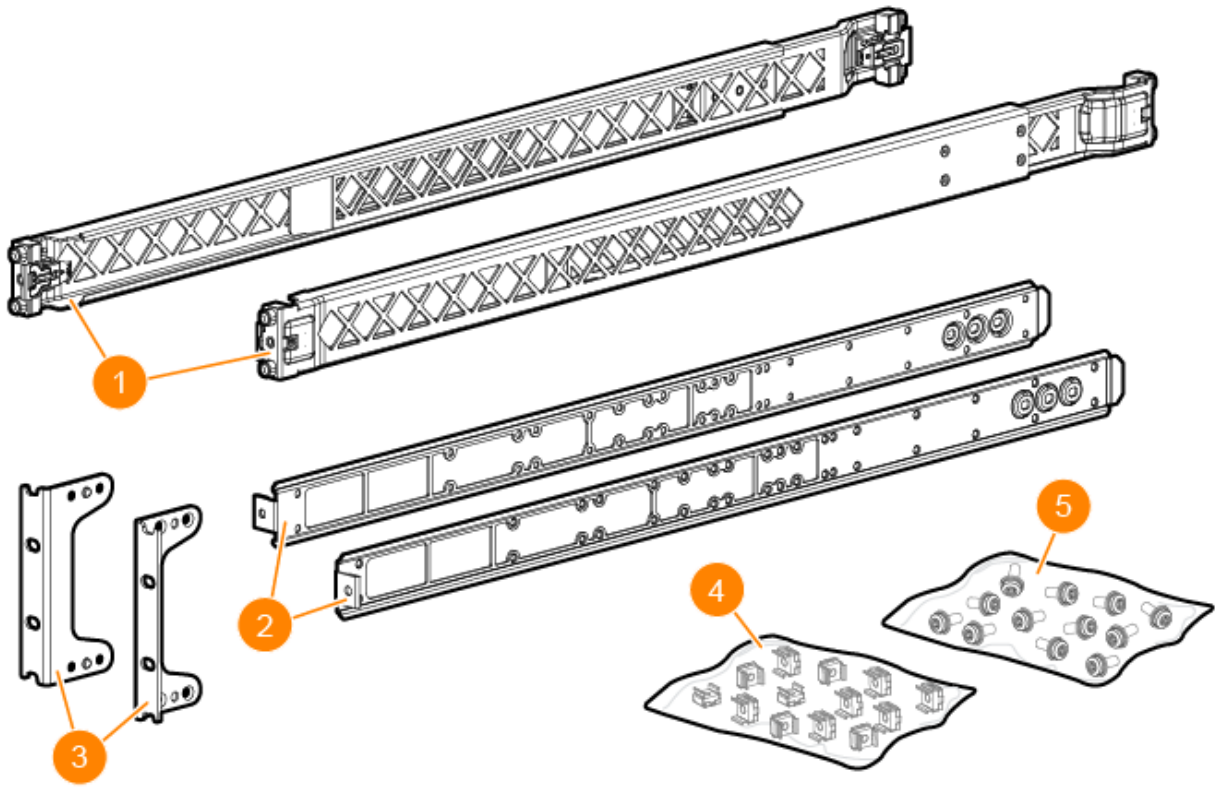
Before you begin, ensure that the following prerequisites are met:

- Ensure that the four-post rack or cabinet you plan to use is rated to support the weight of all devices you plan to install in the rack or cabinet. For information on Hewlett-Packard Enterprise racks, visit https://www.hpe.com/us/en/product-catalog/servers/server-racks.hits-12.html.
- Plan for the chassis space requirements before installing the rack mount kit.
- A four-post equipment rack or cabinet meeting the following specifications:
  - 19-inch rack
  - A front and rear air flow clearance of at least 30 cm (11.8 inches). (Air flow direction is front-to-rear)

NOTE

The four-post slide rails support only square hole and round hole rack configurations. They do not support threaded hole rack configurations.

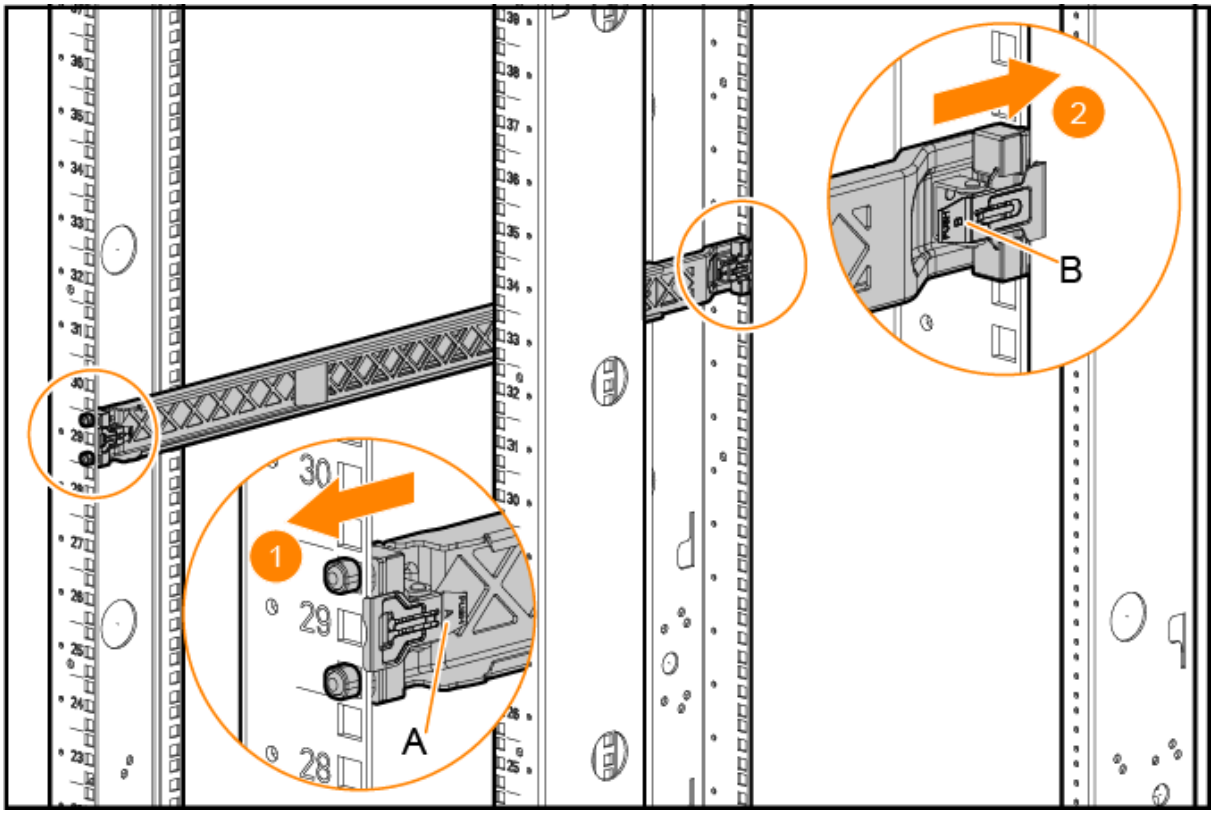
The equipment rack shown in this publication is for illustration purposes only, and may not match the equipment rack you are using.



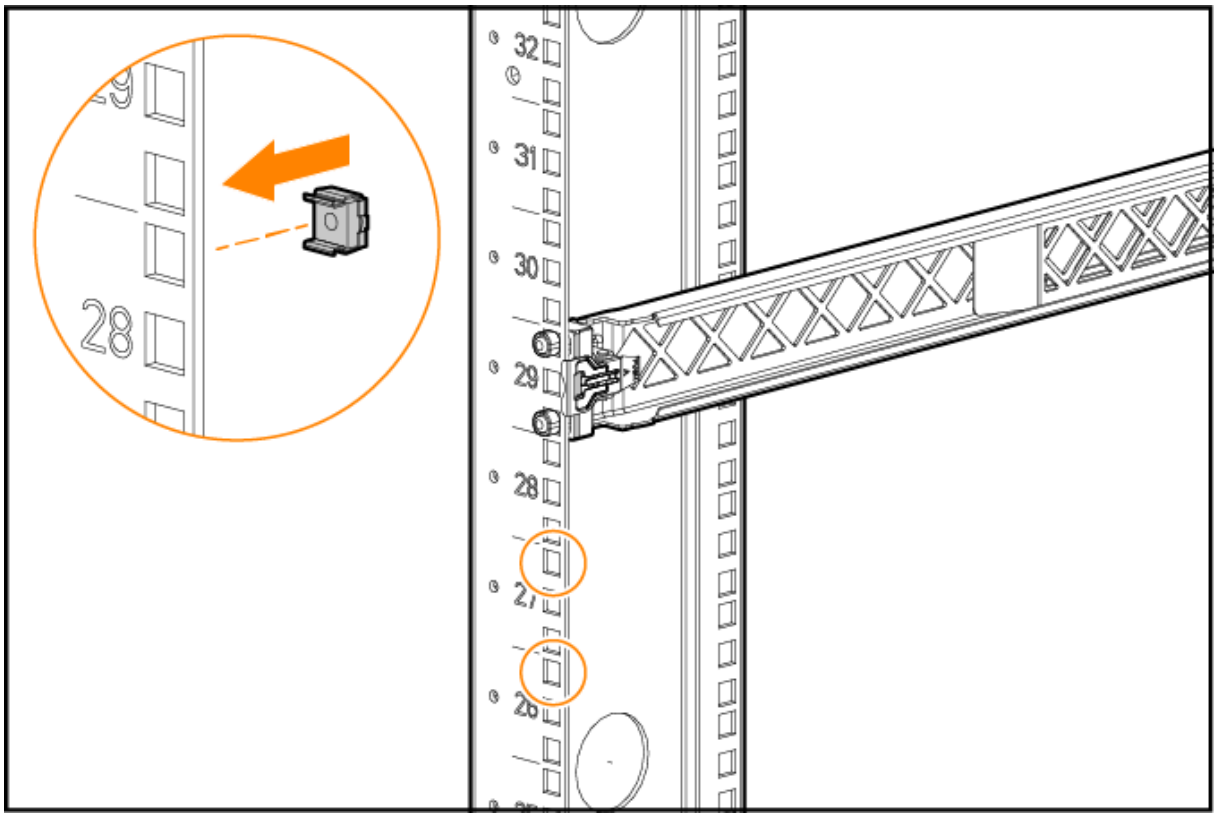
1	Adjustable slide rail (left side)	Attach to front and rear posts
2	Universal Rack Rail bracket	Attach to chassis
3	Rack brackets	Attach to chassis
4	Cage nuts	Secure rail to post
5	Screws	Secure brackets to post

Installing Rack Rails

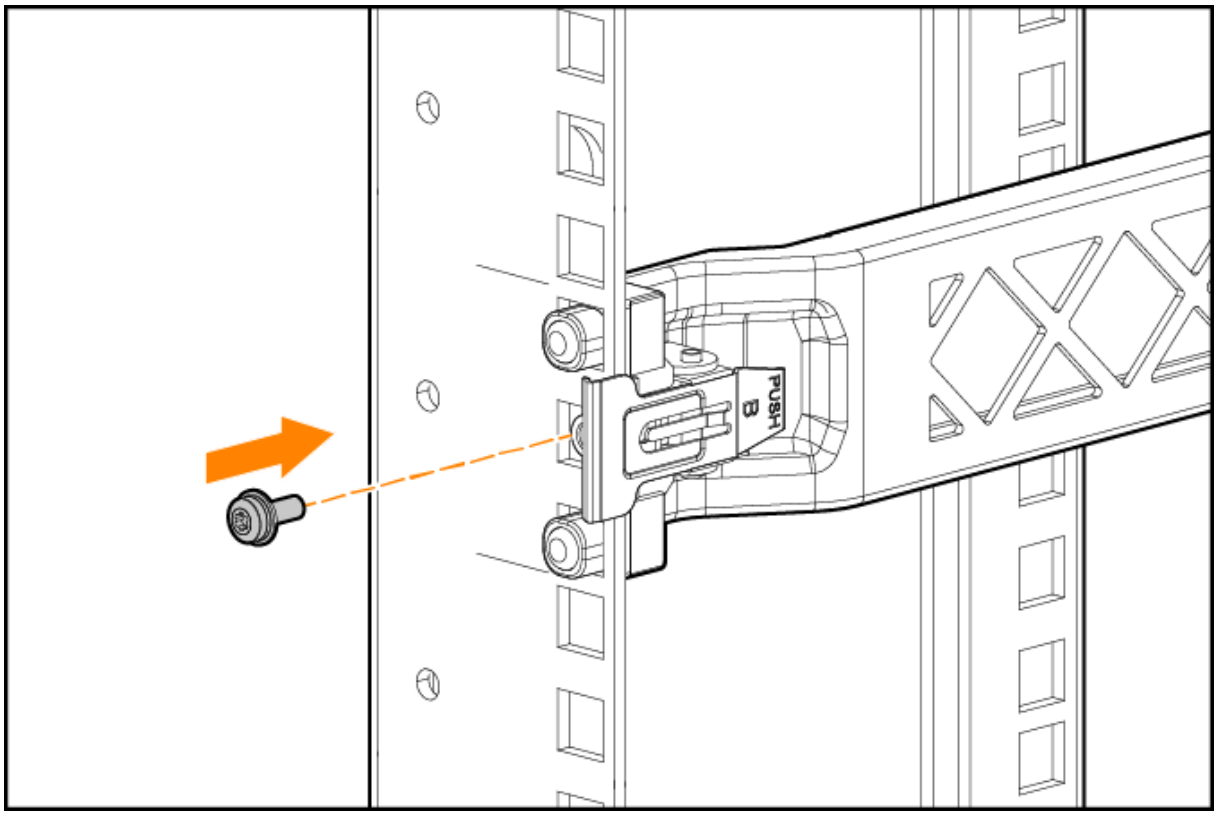
1. Install the rails into the rack. Install the universal rail into the rack at the top-most rack U of the switch.



2. Use a rack mount bracket to determine the proper positions for the cage nuts, and install the cage nuts.



3. Secure the universal rack rail by inserting a screw at the rear end of the rack.



Manually Mounting the Chassis in the Four-Post Rack

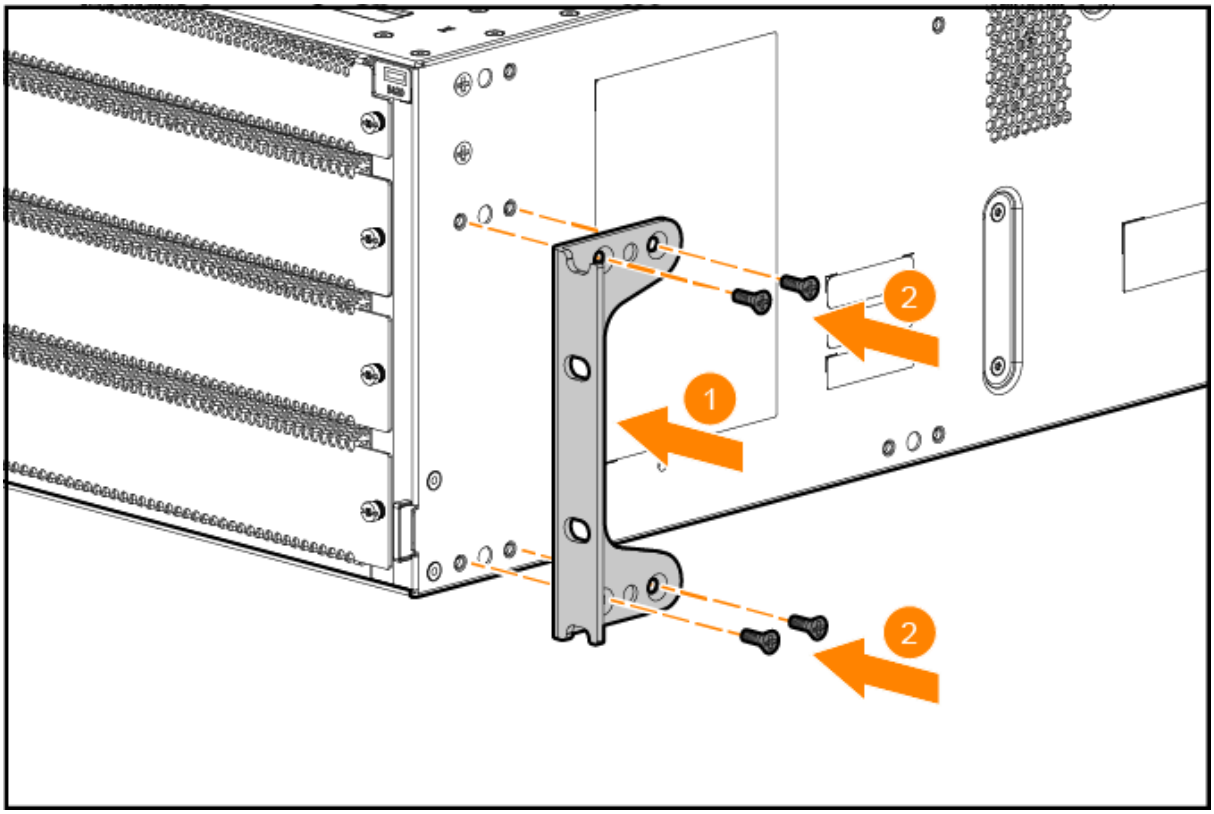
This procedure is for four persons manually mounting an HPE Aruba Networking 5420 8-slot chassis weighing less than 26 kg (58 lbs) in a two-post rack. See Product Weight and Dimensions.

Before you begin, ensure the following prerequisites are met:

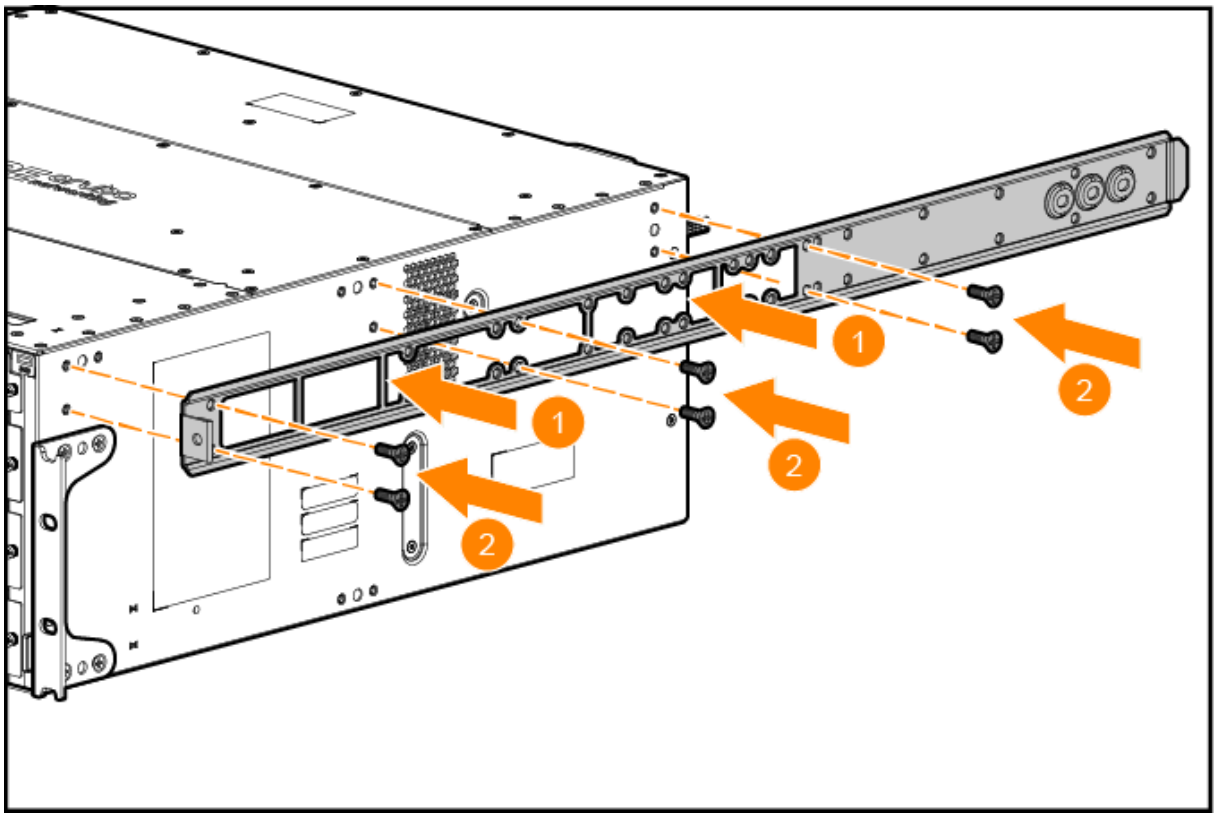
- The four-post rack mount hardware kit is installed on your four-post rack.
- Rack mounting brackets are mounted on the front of the switch. (See Installing rail spacers and front rack mounting brackets for the four-post rack mounting on page 1.)

Use the following procedure to manually mount the chassis in the four-post rack.

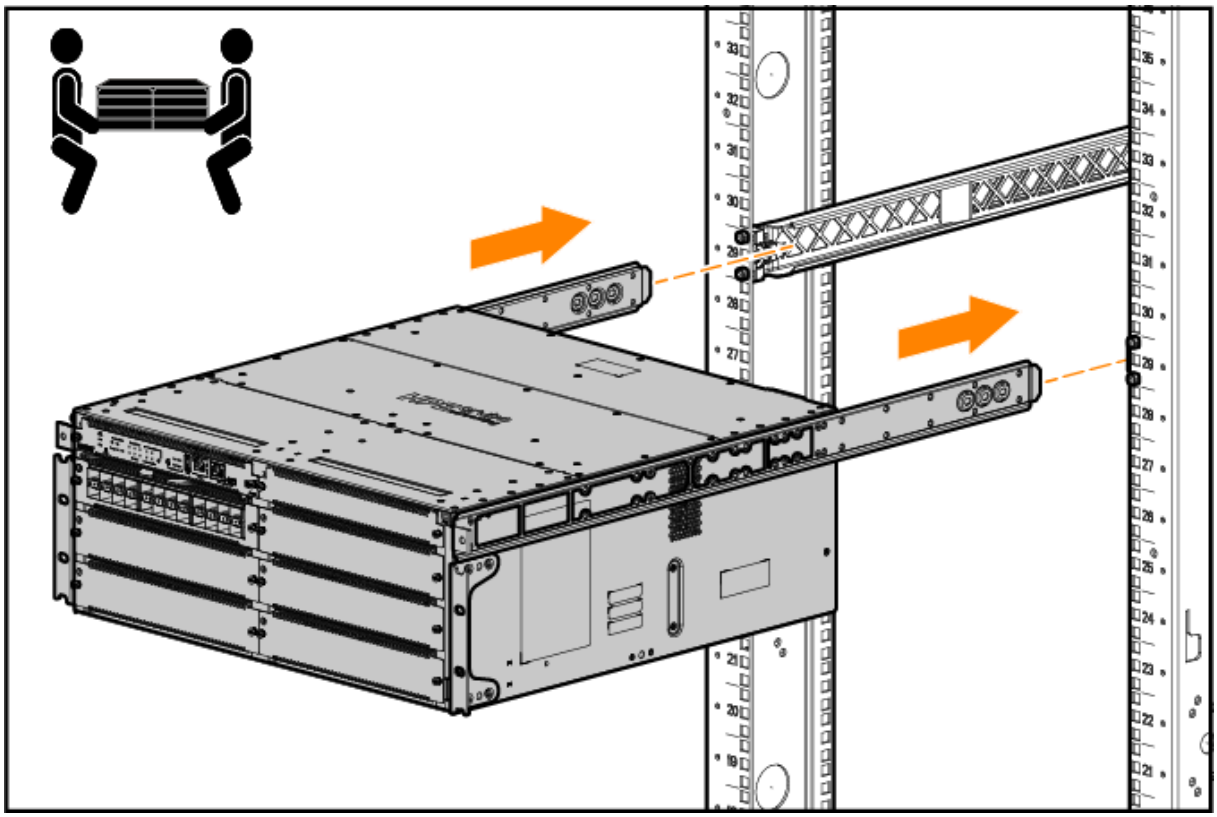
1. Secure the rack bracket and the 4U/7U Universal Rack Rail bracket to the chassis.



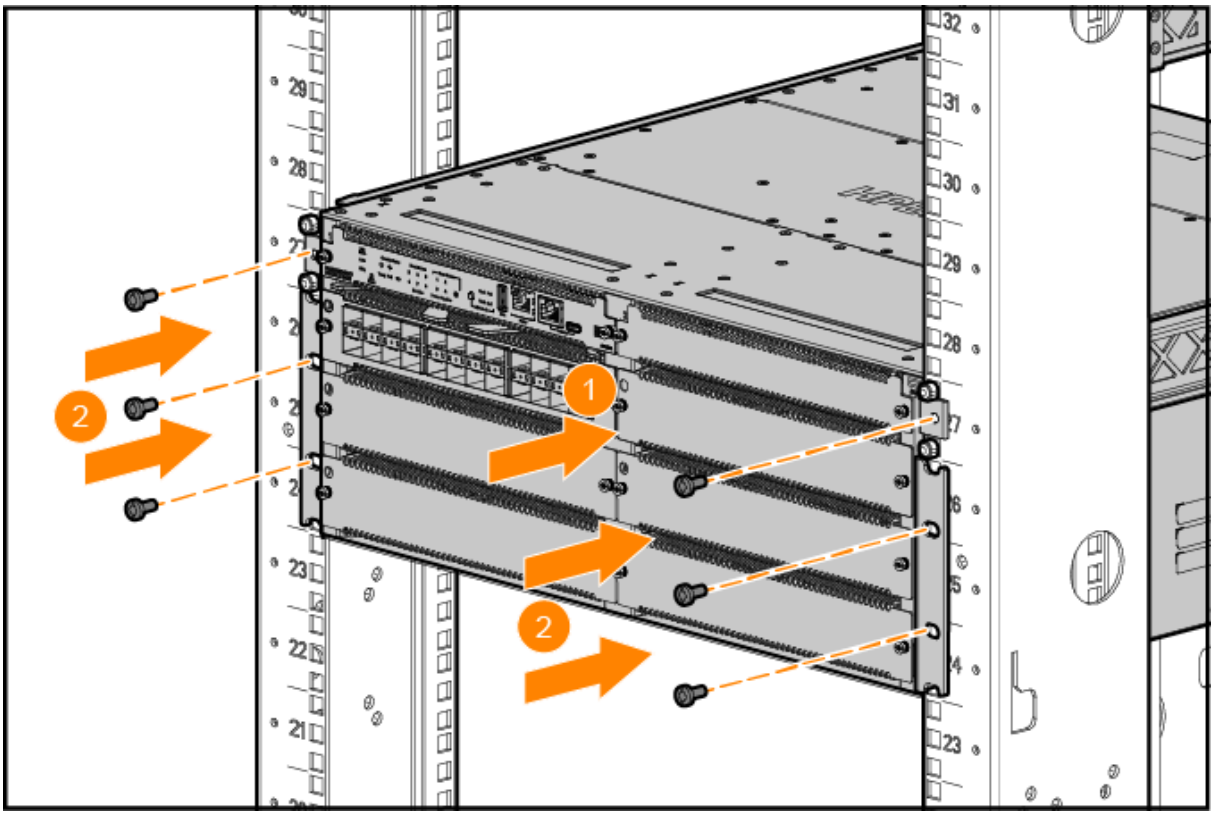
2. Secure the Universal Rail Rack bracket to the chassis.



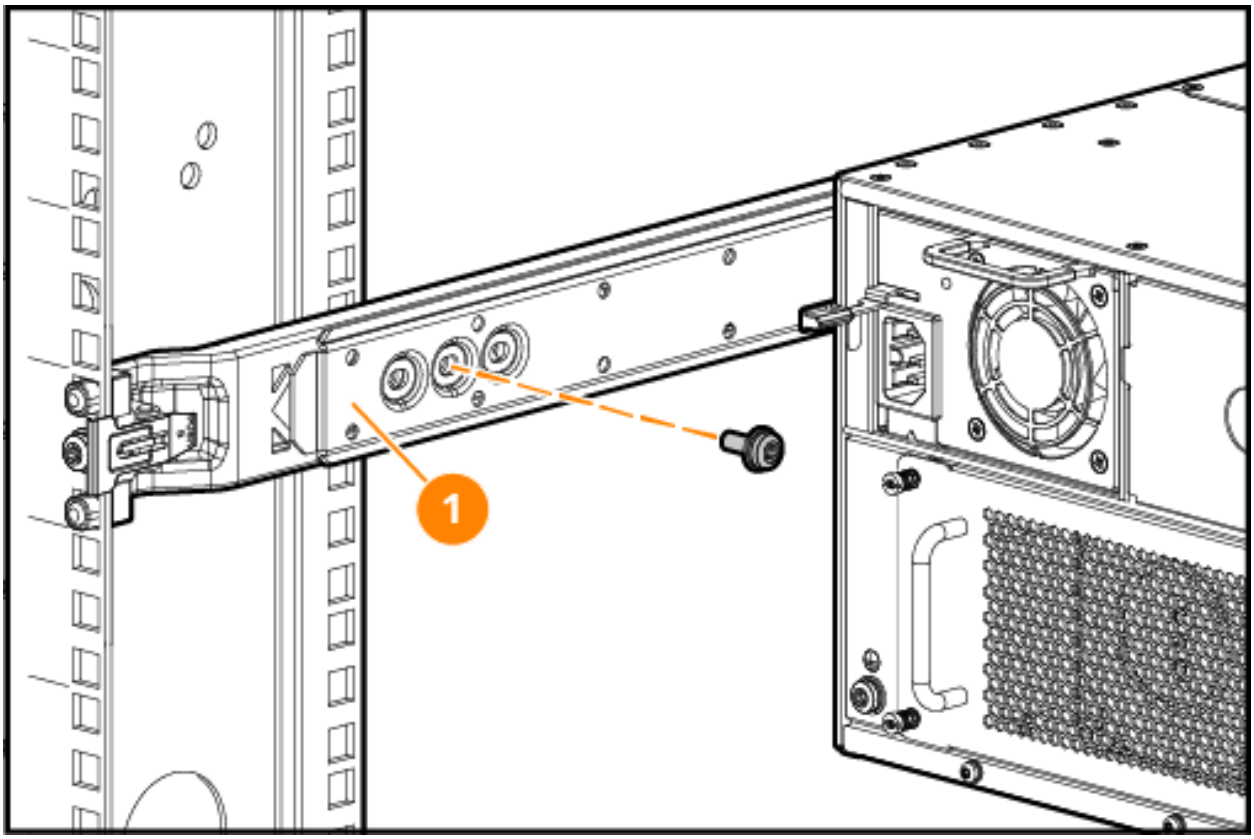
3. Align the chassis with the Universal Rack Rail and slide the switch chassis into the rack.



4. Starting the with Universal Rack Rail, secure the switch chassis with screws to the front columns.



5. To ship the rack, fasten two shipping screws on each of the Universal Rack Rail at the back of the rack,

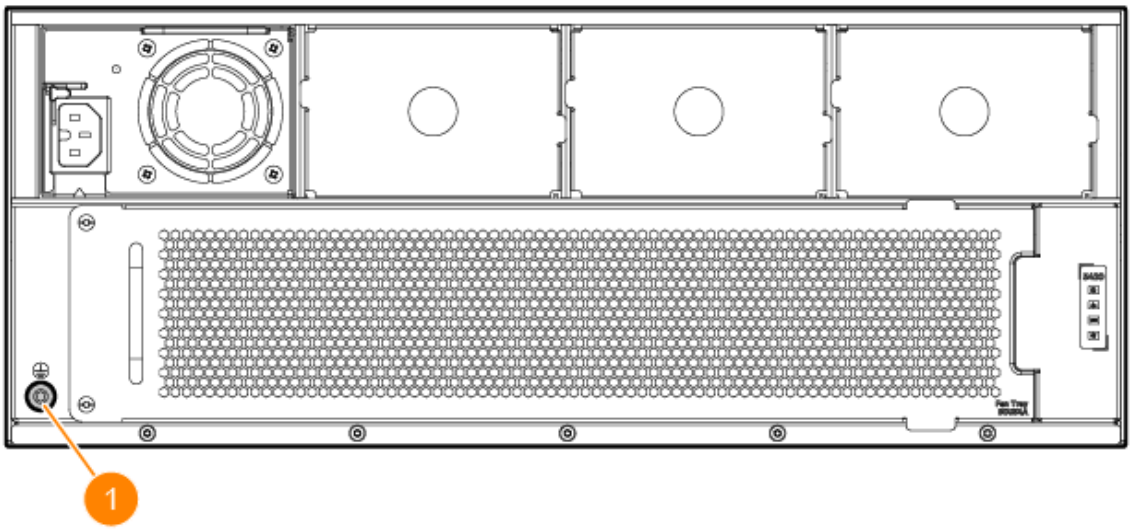


Grounding the Chassis

CAUTION

To protect the switch from hazards such as lightning shocks, interferences, and ESD discharges, reliably ground it. The switch is grounded through the safety wire in the power cords. If there is any doubt about the reliability of the grounding through the power mains, HPE Aruba Networking recommends an independent grounding connection for the chassis. Note the location of the grounding lug.

Figure 19 *Grounding the chassis*



1	Rear of chassis Grounding lug

Make sure the resistance between the chassis and the ground is less than 1 ohm.

NOTE

Use a 6 AWG stranded grounding cable.

Use the following procedure to ground the chassis.

1. Remove the grounding lug and two screws from the switch.
2. Crimp the grounding lug to a properly grounded 6 AWG stranded grounding cable.
3. Securely reattach the grounding lug to the switch with the two screws.

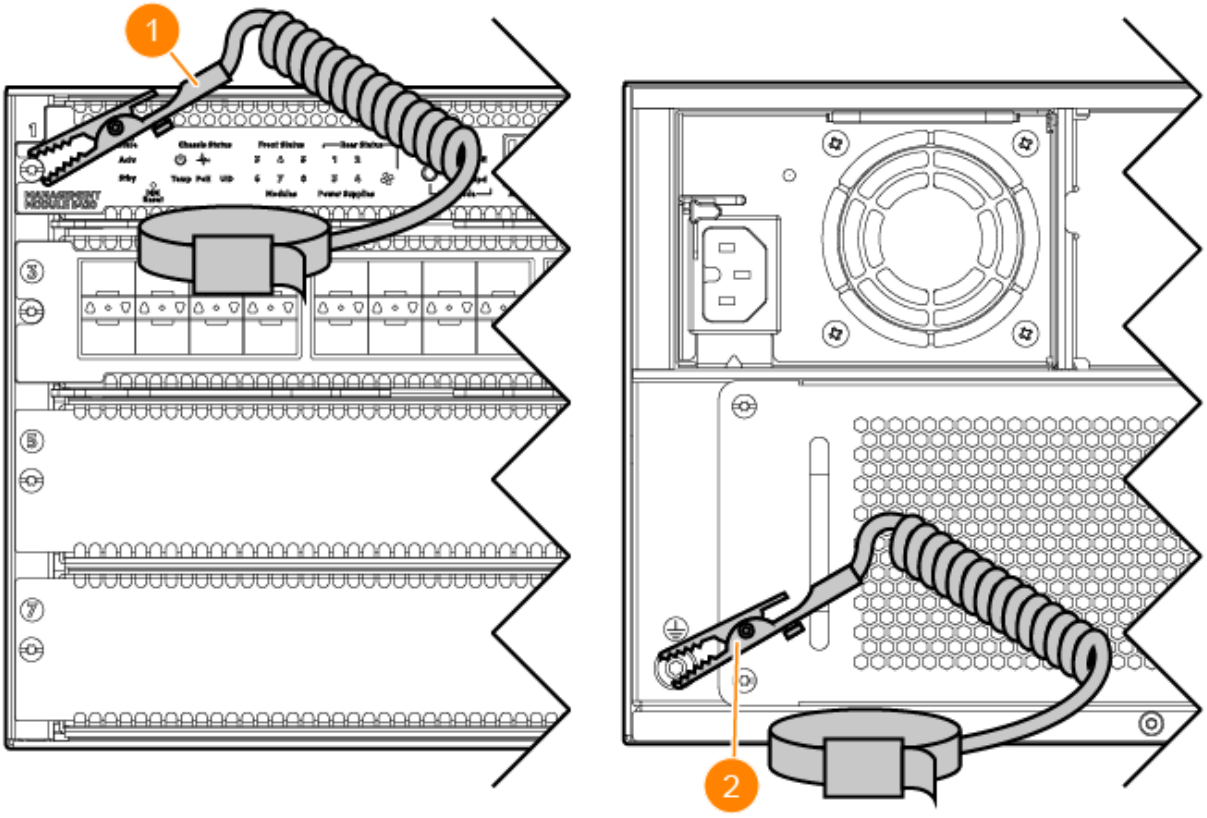
Chapter 7
Installing Components

Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis

Always wear an ESD wrist strap when handling the switch or its components. Ensure the strap is reliably grounded to an unpainted metal grounding point when installing or removing switch components.

- Hold management modules and line modules by their front panel. Do not touch any electronic components or printed circuitry.
- Store uninstalled modules in antistatic bags.
- Handle your HPE Aruba Networking 5420 Switch components with care. Rough or careless handling can damage the components and result in unplanned down time.

Figure 20 *Unpainted surfaces on the switch make good grounding points for the ESD strap*



1	ESD wrist strap connection point (captive screw) on the front of chassis
2	ESD wrist strap connection point (grounding lug) on the rear of chassis

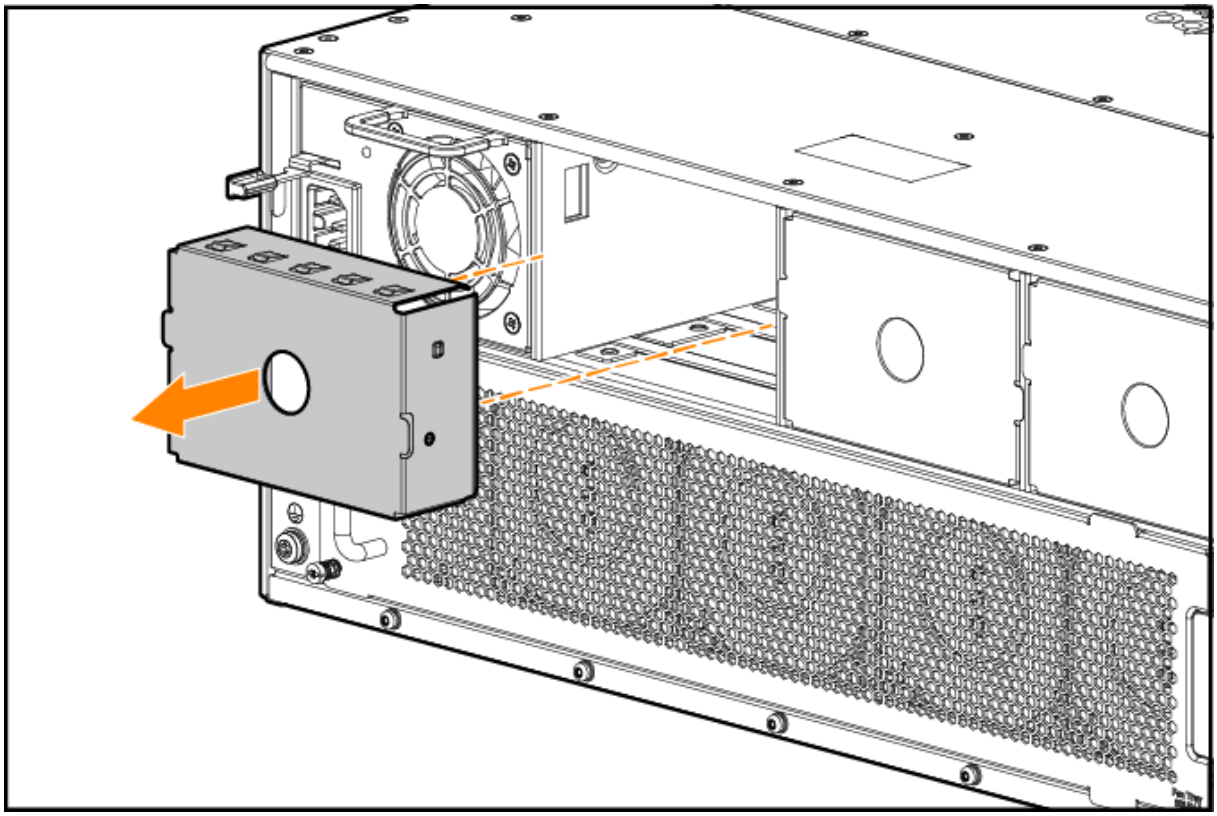
Installing a New Power Supply Unit in an Empty Slot

Mount the 5420 chassis in a rack or other location as described in Mounting the Switch.

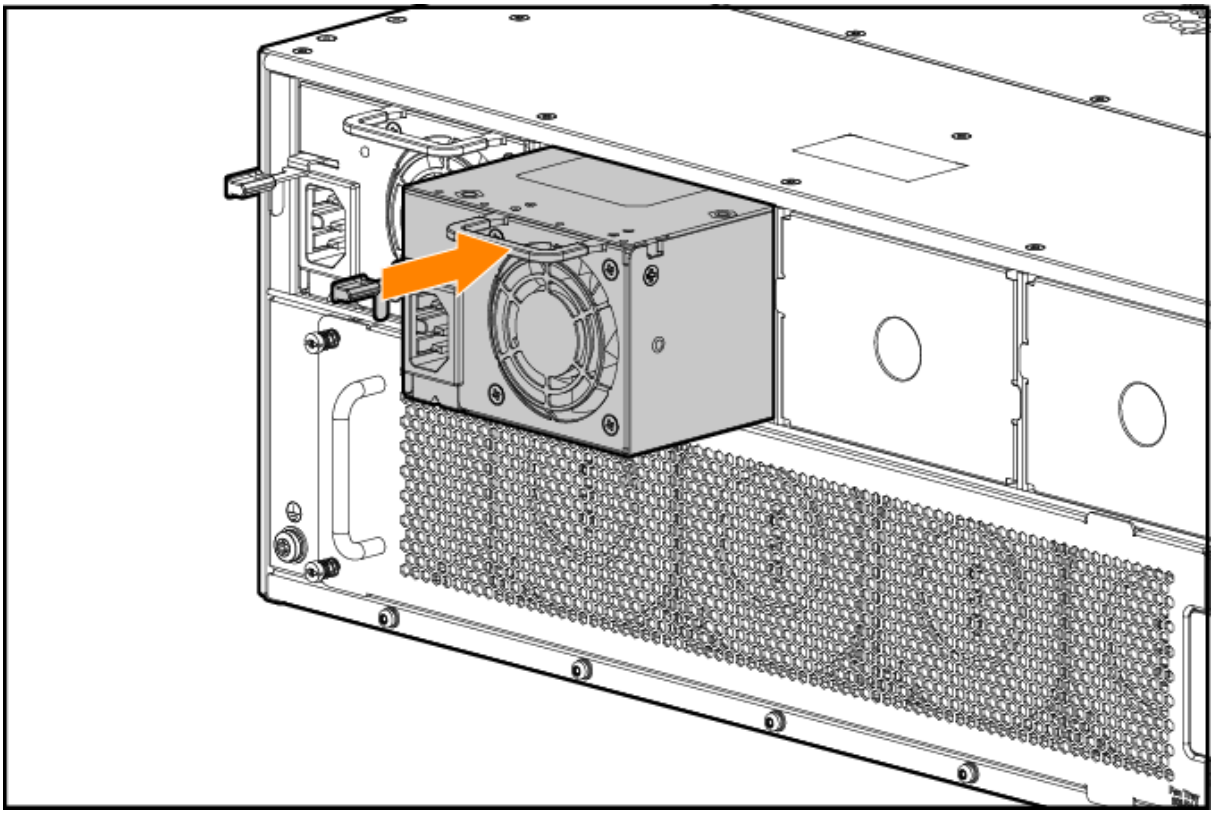
NOTE

HPE Aruba Networking 1600W Power Supply uses a C16 inlet.

1. Remove the slot cover from the back of the chassis to expose the power supply slot. Retain for future use.



2. Slide the power supply unit half way into the open power supply slot.



3. Grasp the power supply handle and slide the unit into the slot until it clicks into place. The front of the power supply unit must be firmly seated, with the front of the unit flush with the front of the chassis.
4. Power-on from the AC outlet / source AFTER connecting the AC cord to the PSU AC inlet and then verify that the installed power supply units are running properly. A steady green LED on the panel of a PSU indicates proper operation. (For more information on LED behavior, see the latest version of the *Monitoring Guide* at https://asp.arubanetworks.com/downloads.)

- The HPE Aruba Networking 5420 switches do not have a power switch. They are powered-on when the power cord is connected to the switch and to a power source.
- NEVER insert or remove the AC cord from the AC inlet of the PSU or the AC outlet / source, while the AC power is ON.
- Remember to always turn OFF the AC power from the AC outlet / source before unplugging the power cord from the PSU.
- Likewise, turn ON the AC power only AFTER plugging the AC cord connector into the PSU AC inlet and plugging the AC plug of the cord into an AC outlet / source.

The 5420 Series chassis and PSUs do not include a power on/off switch. PSUs are powered on by connecting the AC power cord at the rear of the chassis, and to an AC power source.

5. Restrain and tie-up the AC cords to the rack pole. This is to prevent them from coming loose.

6. Ensure that the AC power cords are not hanging or lying loose as this may result in the AC connector become loose / dislodged from the AC inlet of the power supply.

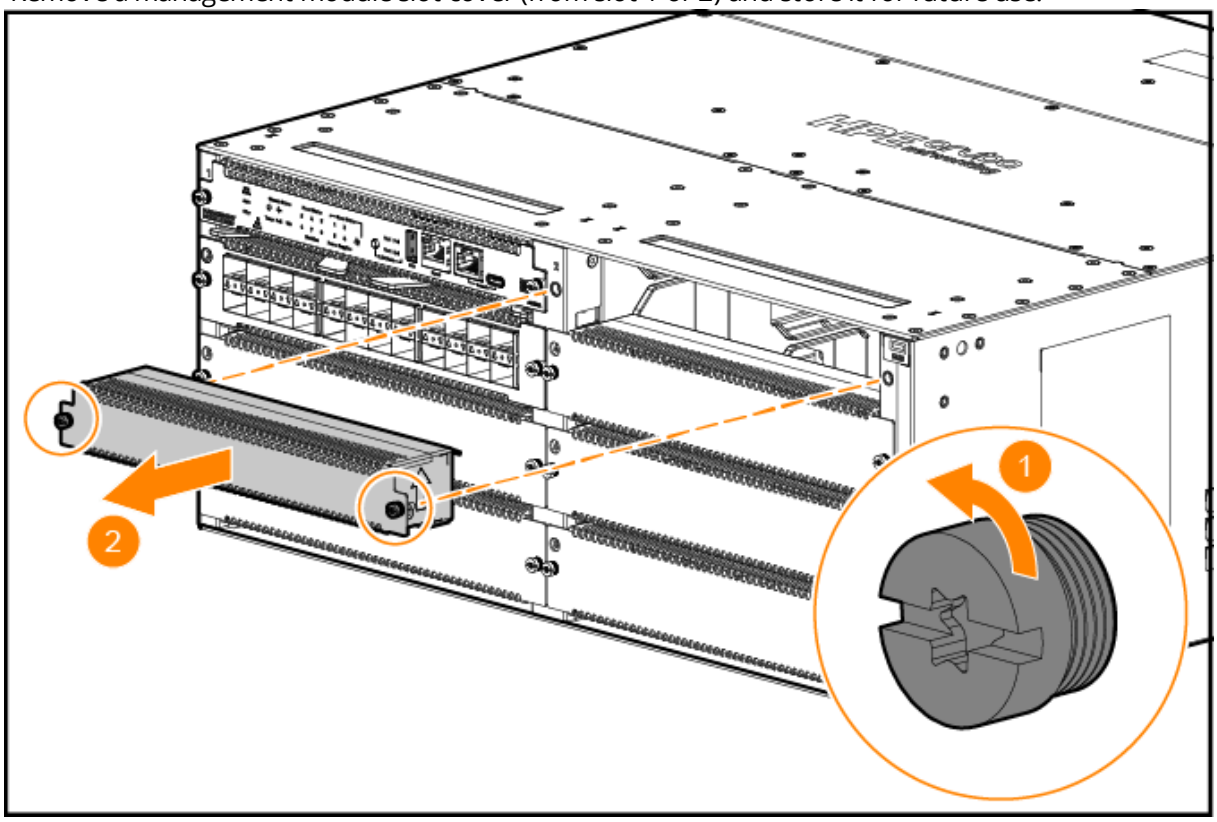
Installing Management Modules

Skip this task if your management modules are already installed.

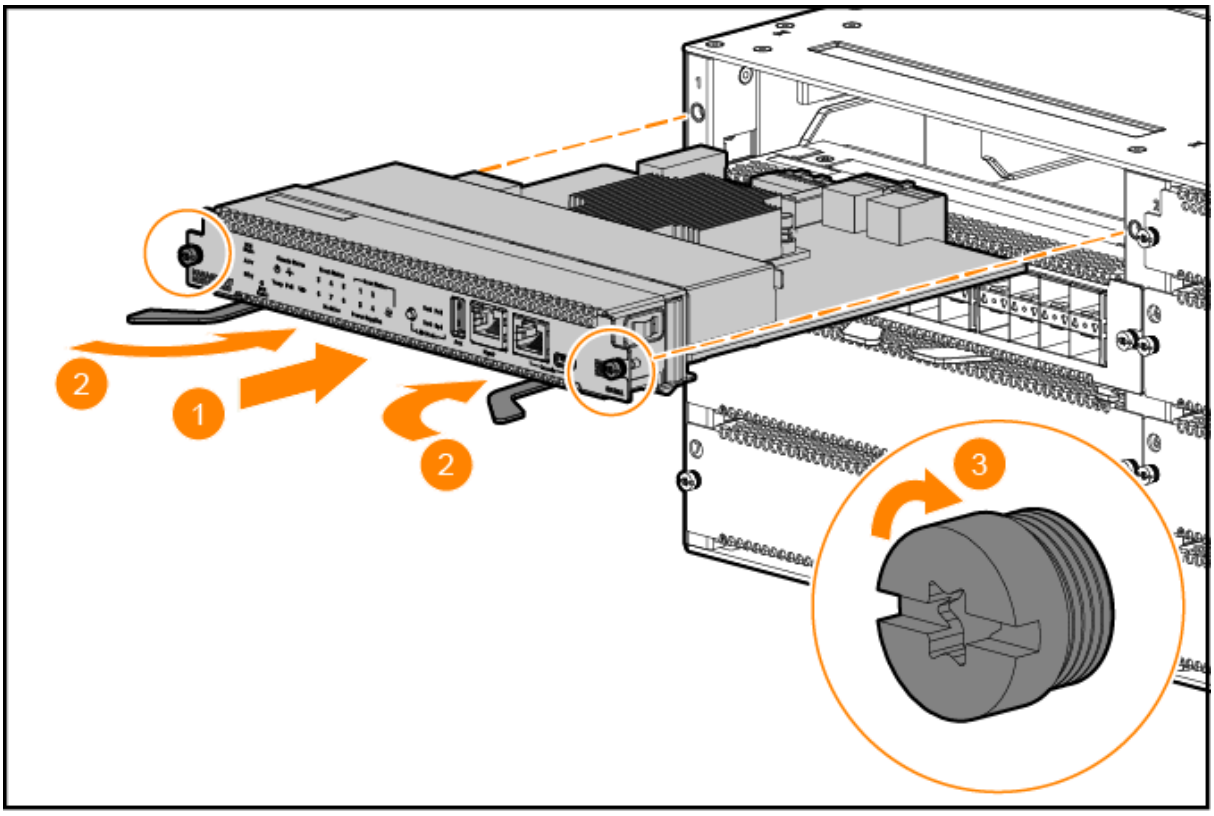
CAUTION

Handle your HPE Aruba Networking 5420 switch management modules with care. Rough or careless handling can damage the modules and result in unplanned down time.

1. Put on an ESD wrist strap and properly ground it on the switch.
2. Remove a management module slot cover (from slot 1 or 2) and store it for future use.



3. Install a management module in the uncovered slot.



4. Securely tighten screws at each end of the module to ensure the full engagement and proper operation of the module.

Installing Line Modules

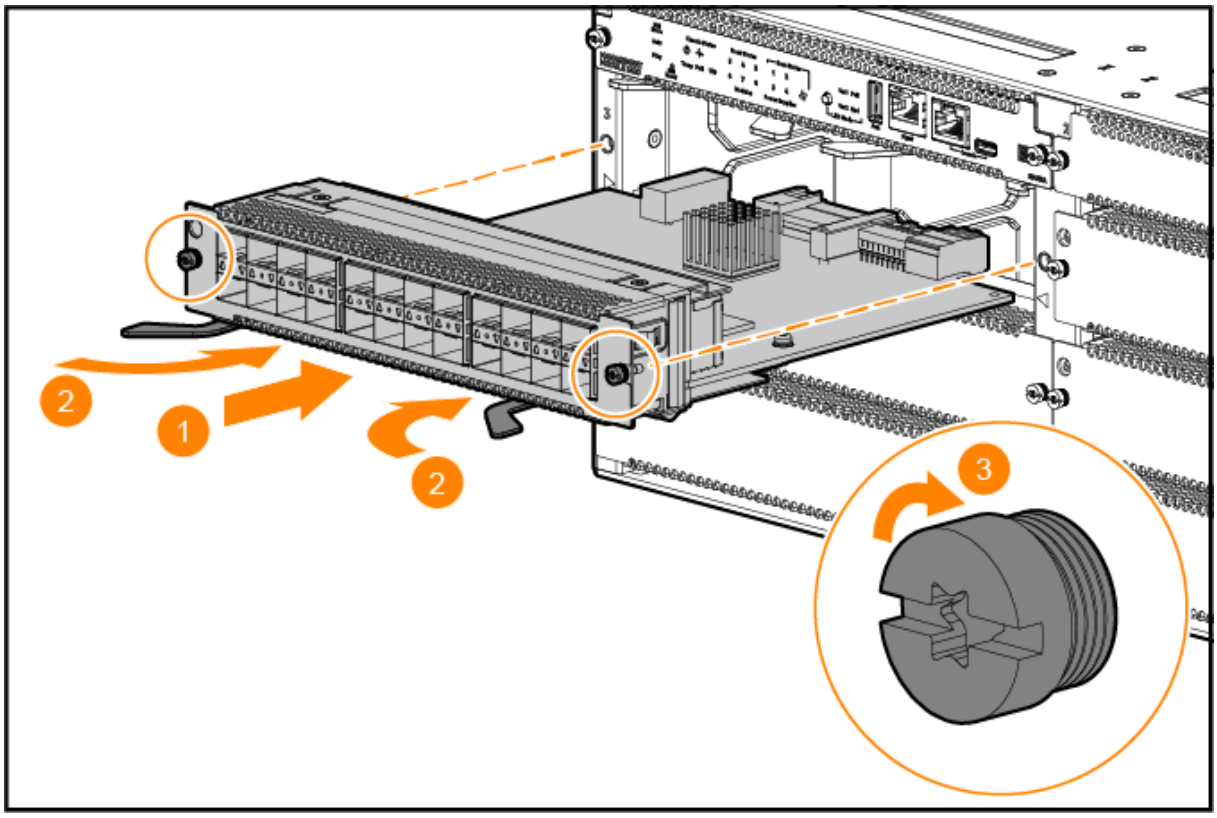
Use the following procedure to install the line modules.

CAUTION

Handle your HPE Aruba Networking 5420 switch line modules with care. Rough or careless handling can damage the modules and result in unplanned down time.

1. Put on an ESD wrist strap and properly ground it to the chassis. See Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis.
2. Remove a slot cover from a line module slot and store it for future use.

3. Seat a line module firmly in the uncovered slot.



4. Pivot the locking levers into the closed position.
5. Securely tighten screws at each end of the module to ensure the full engagement and proper operation of the module.
6. Repeat steps 1 through 3 for any additional line modules you want to install.

NOTE

If the switch configuration does not specify a module for a particular slot (i.e., in a default configuration), the line module installed in that slot will boot up when power is applied. However, if the slot is configured for a different type of line module than the one actually installed, the installed module will not boot up when power is applied. See Using Controlled Shut Down to Add or Replace Line Modules.

Installing or Removing Transceivers

The SFP form-factor optical transceivers are Class 1 laser devices. Avoid direct eye exposure to the beam coming from the transmit port.

- Use only supported, genuine HPE Aruba Networking transceivers with your switch. Consult Datasheets/Quickspecs for a list of supported transceivers and DACs. Use of non-supported transceivers may result in product malfunction. If you require additional transceivers, contact your authorized Aruba Sales representative.
- When handling line modules and transceivers, always wear an ESD wrist strap. Make sure it has snug skin contact and is reliably grounded.
- Do not remove the dust plug from a transceiver if you are not going to connect an optical fiber to it.
- Before installing a transceiver, first remove any connected optical fiber cable.

- To prevent particles from entering unused transceiver ports, keep dust plugs in any ports where a transceiver is not installed.

For information on HPE Aruba Networking optical transceivers and cable assemblies supported on your HPE Aruba Networking 5420 Switch, see the latest version of the *ArubaOS-Switch and ArubaOS-CX Transceiver Guide* at https://asp.arubanetworks.com/downloads.

You can install or remove SFP form-factor transceivers without having to power off the switch.

Installing a transceiver

1. Wear an ESD wrist strap with snug skin contact and reliable grounding. (See Attaching an ESD Wrist Strap .)
2. Unpack the module. Hold it carefully by its sides. Avoid touching the plated contacts.
3. Slide the transceiver into a slot until it clicks into place.

Removing a transceiver

1. Wear an ESD wrist strap with snug skin contact and reliable grounding. (See Attaching an ESD Wrist Strap.)
2. Disconnect the network cable from the transceiver before removing it from the module. Depending on when you purchased your transceiver, it may have either of three different release mechanisms: a plastic tab on the bottom, a wire bail, or a plastic collar.
   - To remove the transceivers that have the plastic tab or plastic collar, push in the plastic tab or collar toward the switch until you see the transceiver release from the switch (you can see it move outward slightly), and then pull it from the slot.
   - To remove the transceivers that have the wire bail, lower the bail until it is approximately horizontal, then using the bail, pull the transceiver from the slot.
3. Place the transceiver in an ESD-protectected container.
4. If you are leaving the transceiver slot empty, install a dust cover.

Installing a Fan Tray in an Empty Fan Tray Slot

A fan tray is installed in a slot on the rear of the chassis.

For proper cooling and ventilation, a powered-up 5420 Series chassis must have the fan tray installed and all fans in the fan tray running. Do not remove a fan tray from a powered up switch without having a replacement fan tray available. When replacing a fan tray in an operating switch, install the replacement fan tray within **three** minutes of removing the original fan tray.

CAUTION

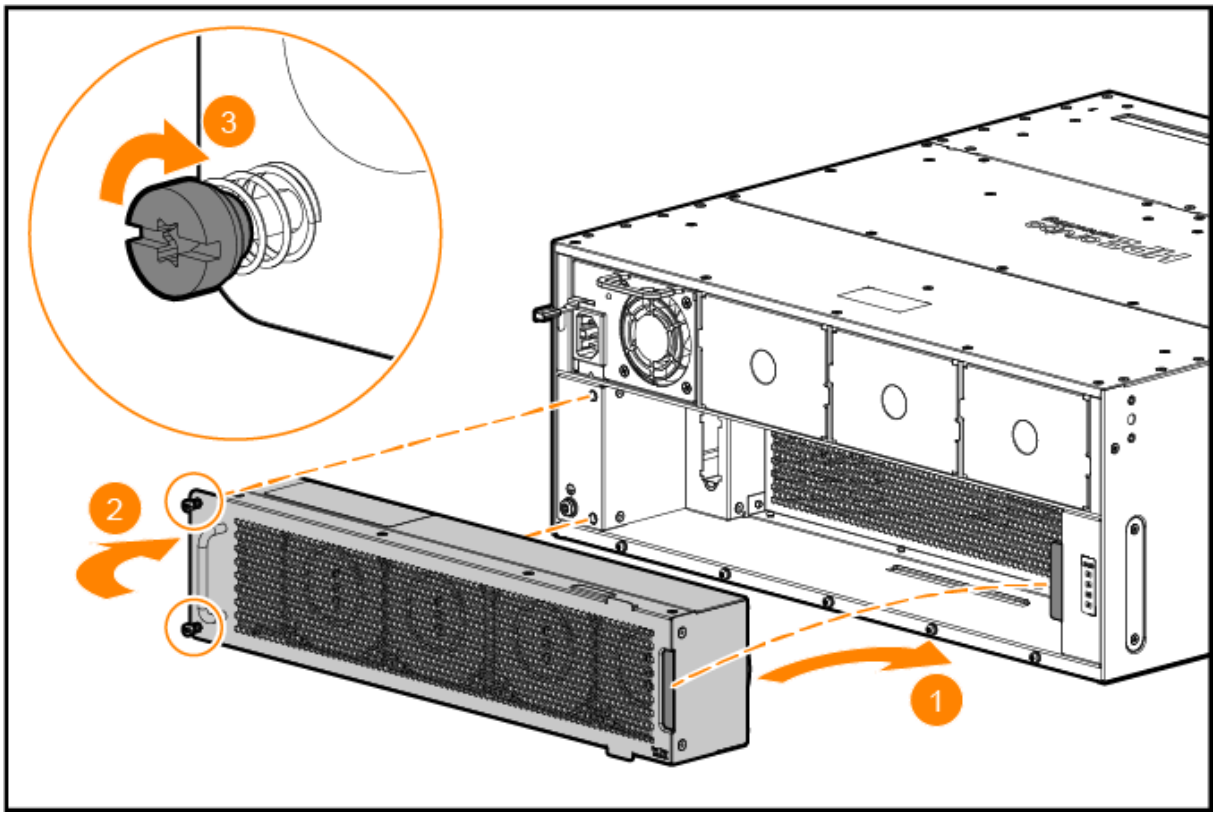
Handle your HPE Aruba Networking 5420 switch fan trays with care. Rough or careless handling can damage these components and result in unplanned down time.

CAUTION

The HPE Aruba Networking CX 5420 Switch requires the fan tray to be installed for operation.

Use the following procedure to install a fan tray in an empty fan slot:

1. Insert a fan tray.
2. Securely tighten screws to ensure the full engagement and proper operation of the module.



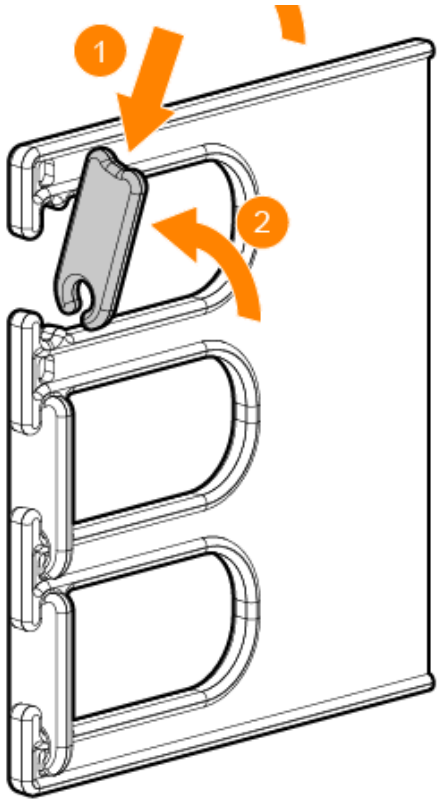
Installing the Cable Manager

The cable manager attaches through the rack mounting brackets to the rack for 2-post rack mounting. The cable manager attaches through the rack mounting brackets and the four-post mounting spacer for 4-post rack mounting.

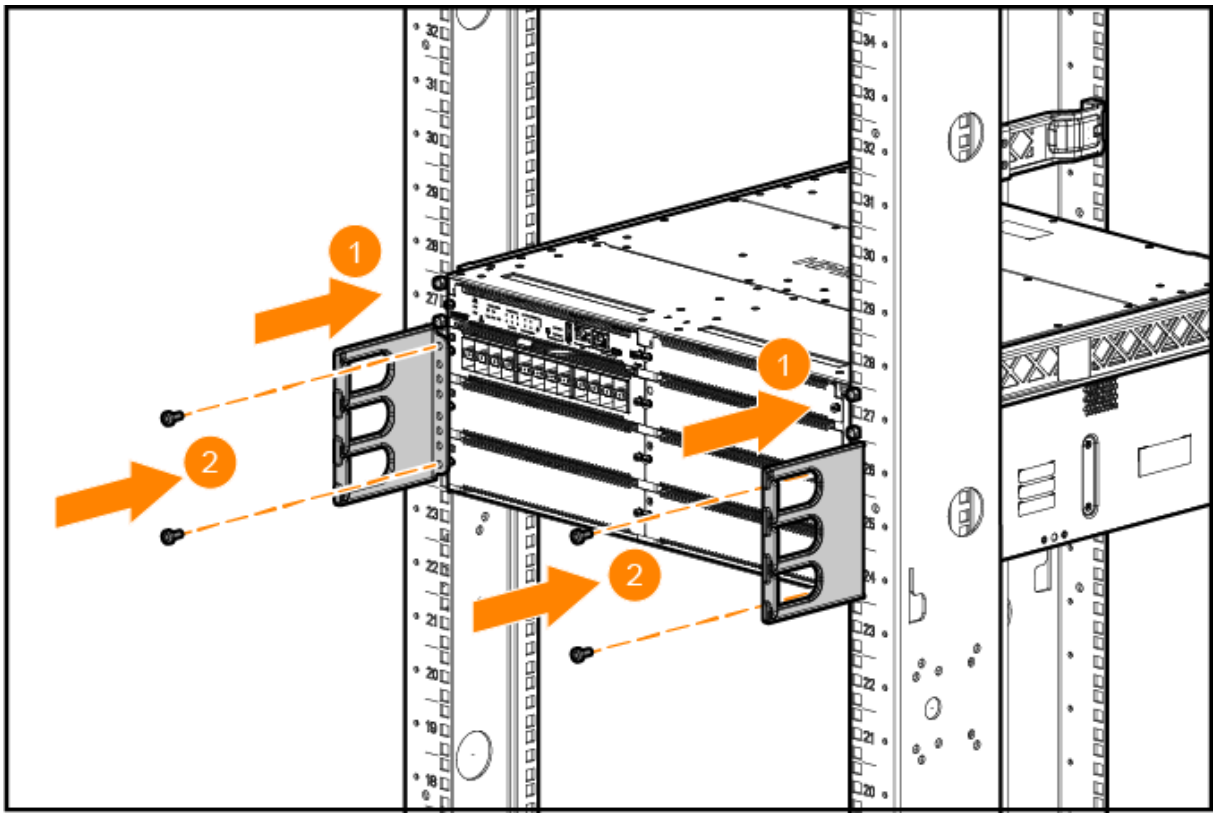
The switch is mounted in a four-post rack or with the rack mounting brackets in the front mounting position in a two post rack mount. (See the illustrations under Two-Post Rack Mounting.)

Use the following procedure to install the cable manager.

1. Attach three cable retainers to each cable manager bulkhead, as shown.



2. Position the cable manager bulkheads over the rack mounting brackets so that the holes in the attached angle brackets line up with holes going through the rack mounting brackets to the screw holes in the rack posts. Install and tighten the screws to secure the cable manager bulkheads on the rack posts.


1
2
1
2

Chapter 8
Activating the Switch

Power-On and Boot-Up

Before you begin, install the switch components as described in Installing Components.

Use the following procedure to power on and boot up the switch

1. Plug the supplied power cords into the AC inlets on the rear panel of the chassis.

- The HPE Aruba Networking 5420 switches do not have a power switch. They are powered-on when the power cord is connected to the switch and to a power source.
- NEVER insert or remove the AC cord from the AC inlet of the PSU or the AC outlet / source, while the AC power is ON.
- Remember to always turn OFF the AC power from the AC outlet / source before unplugging the power cord from the PSU.
- Likewise, turn ON the AC power only AFTER plugging the AC cord connector into the PSU AC inlet and plugging the AC plug of the cord into an AC outlet / source.

2. Plug the provided power cords into the AC power supplies for your switch. Each power cord should be plugged into a separate, dedicated, properly grounded 20-Amp circuit.

Do not plug multiple power supplies into the same circuit, as it may cause an overload condition.

3. Allow approximately five minutes for the switch to complete the NOS boot-up.
4. After the NOS boot-up completes, verify that the switch is operating properly by observing the LEDs. If you need a reference for interpreting LED behavior, see the *Monitoring Guide* by visiting the HPE Networking Support Portal at https://asp.arubanetworks.com/downloads.

Initial Management Access

For detailed information on using the following initial configuration methods, see the *Fundamentals Guide* on the HPE Aruba Networking Support Portal at https://asp.arubanetworks.com/downloads

Use one of the following methods to perform the initial configuration:

- Zero Touch Provisioning (ZTP).
- Wireless connection through a mobile device using Bluetooth and the Aruba CX Mobile App. The wireless connection is achieved by plugging in a Bluetooth adapter to the USB slot, and then connecting using the HPE Aruba NetworkingCX Mobile application.

The Bluetooth adapter is separately orderable (SKU# S1H23A). It is no longer shipped with HPE Aruba Networking CX switches.

- Connecting with SSH through the switch management port to a computer connected to the same network.
- Connecting the switch console port to a computer running terminal emulation software, and configuring switch settings by executing CLI commands.

Chapter 9

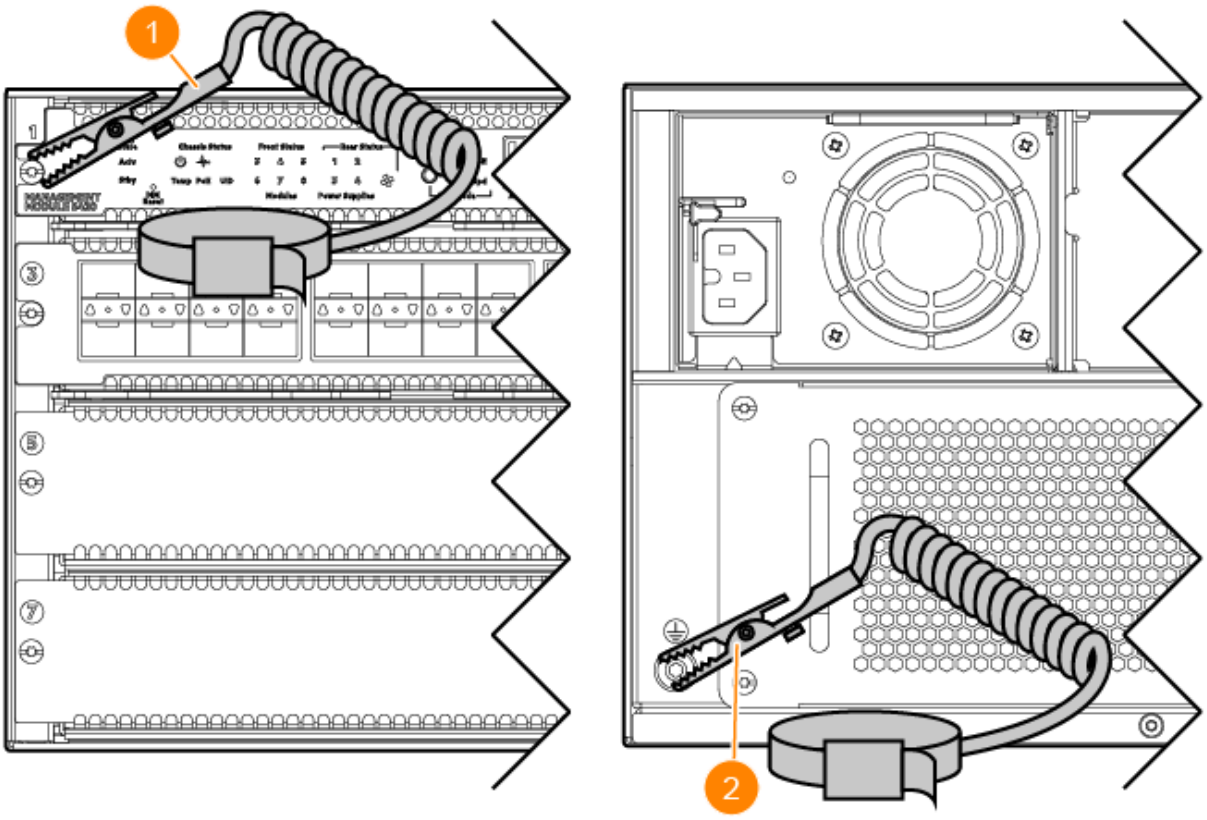
Adding or Replacing Switch Components

Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis

Always wear an ESD wrist strap when handling the switch or its components. Ensure the strap is reliably grounded to an unpainted metal grounding point when installing or removing switch components.

- Hold management modules and line modules by their front panel. Do not touch any electronic components or printed circuitry.
- Store uninstalled modules in antistatic bags.
- Handle your HPE Aruba Networking 5420 Switch components with care. Rough or careless handling can damage the components and result in unplanned down time.

Figure 21 *Unpainted surfaces on the switch make good grounding points for the ESD strap*



1	ESD wrist strap connection point (captive screw) on the front of chassis
2	ESD wrist strap connection point (grounding lug) on the rear of chassis

Adding or Replacing Line Modules with Controlled Shutdown or Hot Swap Methods

HPE Aruba Networking recommends using the CLI to shut down modules before removing them from the switch. This provides a controlled shutdown process that minimizes traffic loss and loss of function. However it also can cause a longer delay in getting the replacement module operational.

Unplanned hot swapping of modules is also supported, though it can result in traffic loss and some system interruption. Unplanned line card hot swap is enabled for a single card at a time with at least one minute required between unplanned hot swaps of multiple line cards.

Using Controlled Shut Down to Add or Replace Line Modules

If an empty line module slot is in the default configuration state, a module boots up when installed in the slot. If there is a configuration mismatch between an installed module and the slot in which it is installed, the module does not boot up. Use the procedures in this section to bring up a line module in cases where the slot configuration is a mismatch for the line module.

Adding a Line Module to an Empty, Unconfigured Slot

Before you begin, ensure the following prerequisites are met:

- Have an ESD wrist strap ready to use.
- Have available the line module you plan to install in the empty, **unconfigured** slot. When installing a line module in an unconfigured slot, the module will be brought up as `Admin-state up`.
- Know the configuration you want on the selected slot.

Use the following procedure to add a line module to an empty, unconfigured slot.

1. Put on a snugly fitting ESD wrist strap and attach it to the ESD connector on the front of the switch. (See Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis.)
2. Remove the blank slot cover from the chosen slot and store it for future use.
3. Install the module. As noted above, installing a line module in an unconfigured slot brings the module up as `Admin-state up`.

Removing or Replacing a Line Module

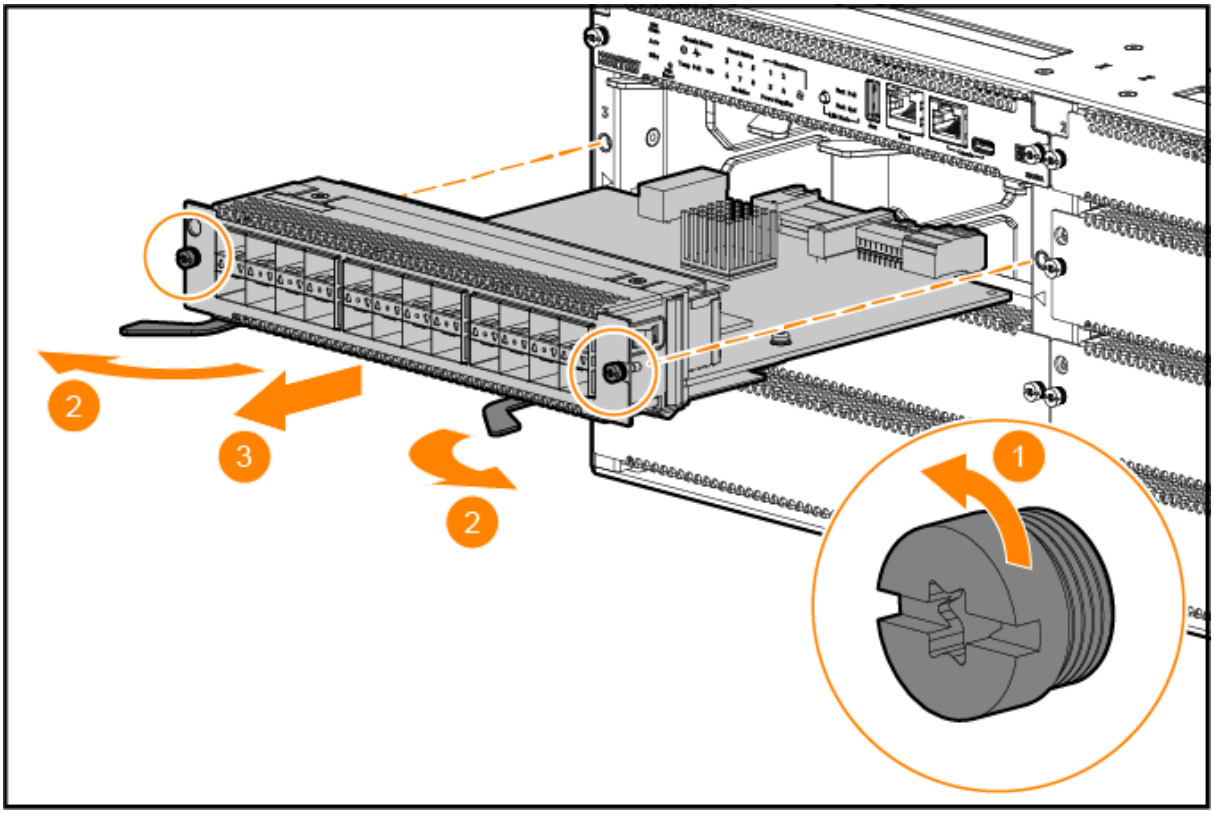
Have the replacement line module available and ready to install.

If you are exchanging one type of line module with a different type in the same slot, or not replacing the module at all, reset the slot to the default configuration by using the no module *<SLOT-NUM>* command. If you are exchanging a line module for another line module of the same type, resetting the slot is not needed. In this case, the existing slot configuration is retained.

When removing or installing line modules, make sure to wear a properly installed ESD wrist strap to avoid damage to the line card. See Attaching an ESD Wrist Strap for more information.

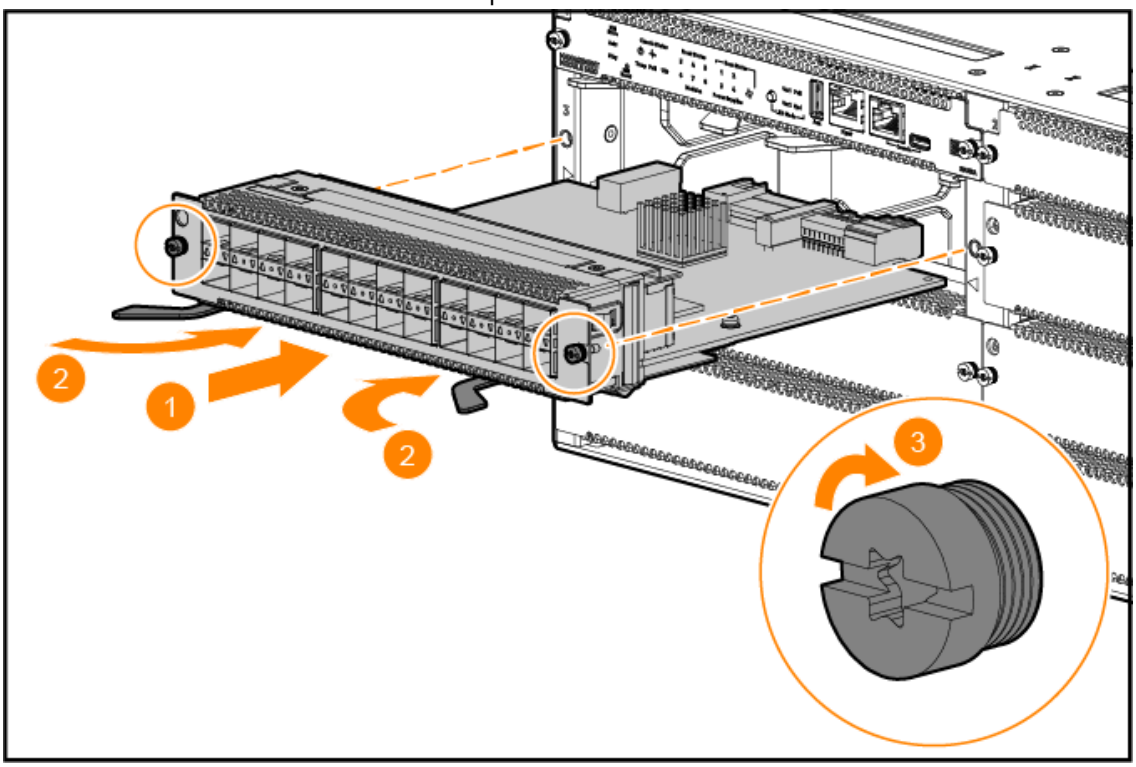
Use the following procedure to remove or replace a line module

1. Use the `module` <SLOT-ID> `admin-state down` command to bring down the module slot before removing the installed module.
2. Before removing the module, verify that it is down using the `show module` <*SLOT-ID*> command.
3. Loosen the screws securing the line module to the chassis.
4. Open the extractor handles and pull the module out of its slot, placing the module in an antistatic bag for protection from ESD damage.
5. If you do not plan to install another line module in the empty slot, then secure a line module slot cover over the slot opening.



6. To install another line module in the empty slot:
    a. Slide the line module part-way into the selected module slot.
    b. Open the extractor handles.

c. Push the module into the slot until it stops.



d. Firmly close the extractor handles

e. Securely tighten screws at each end of the module to ensure the full engagement and proper operation of the module.

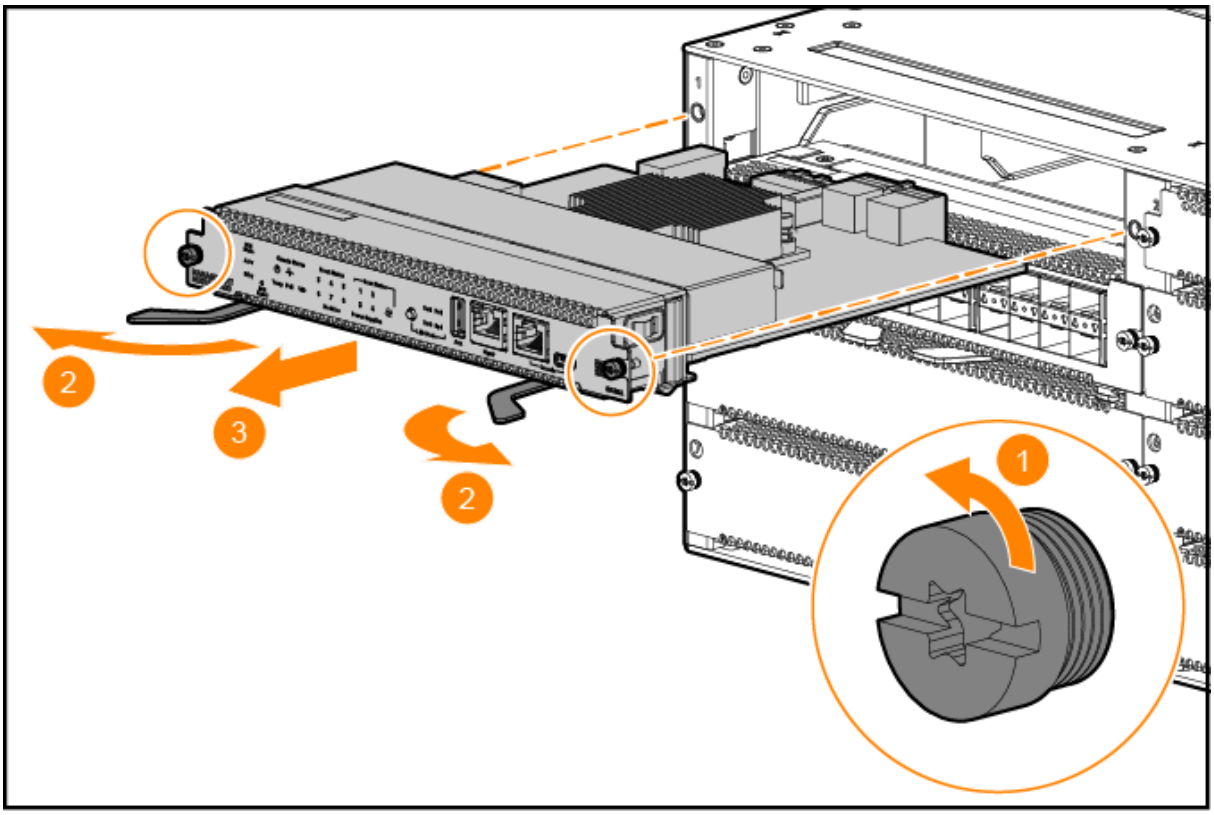
7. If you are replacing the module with a module of a different type, use the `no module` <SLOT-ID> command to set the slot to its default configuration and then reconfigure the slot for the new module type. See the *Fundamentals Guide* for more information.
8. If the replacement module is the same type as the original module, use the `module` <SLOT-ID> `admin-state up` command to bring up the module slot. The original configuration will be maintained.
9. Verify that the module successfully booted and is operational using the `show module` <SLOT-ID> command.

Removing or Replacing a Standby Management Module

If you are replacing the standby module, have the replacement available and ready to install.

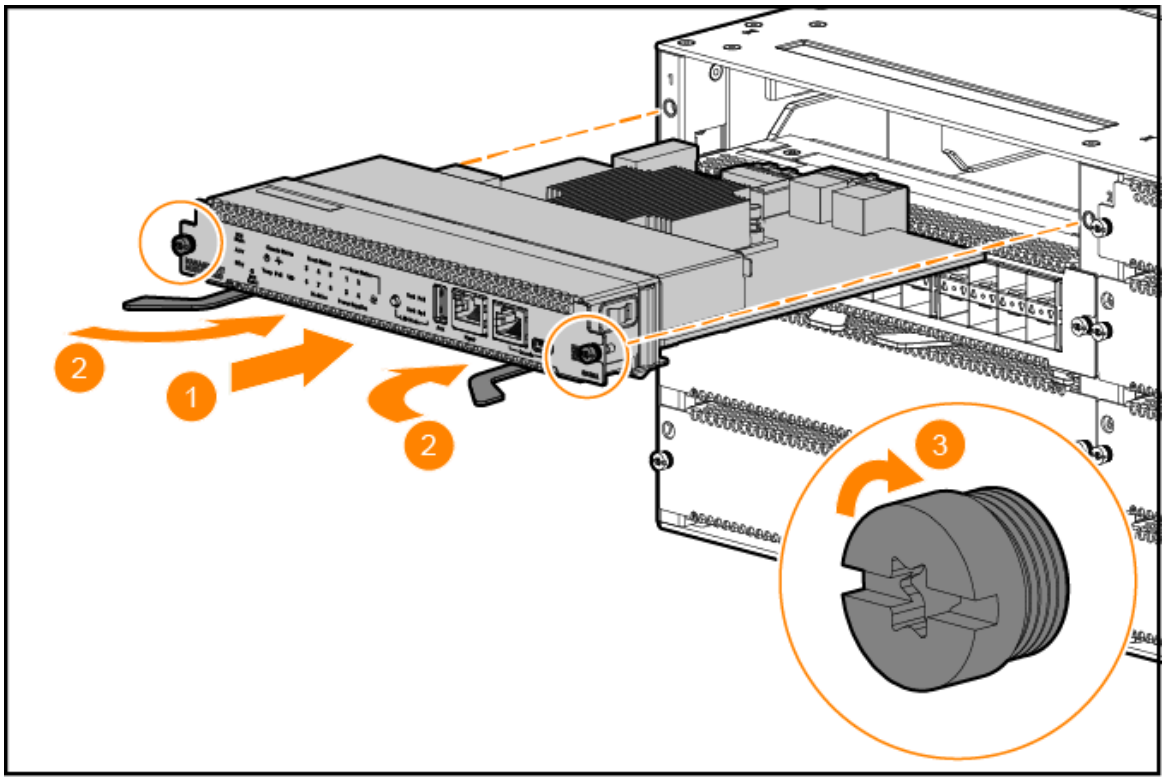
1. Put on an ESD wrist strap and connect it to the ESD connection point on the front of the chassis. (See Attaching an ESD Wrist Strap.)
2. Identify the standby Management module.

   The Stby LED shows a solid green and the Actv LED is dark.
3. Loosen the screws securing the standby module to the chassis.
4. Open the module levers and pull the module out of its slot. To help protect the module from ESD damage, place it in an anti-static bag.



5. If you do not plan to install another management module in the empty slot, then secure a management module slot cover over the slot opening.
6. To install another management module in the empty slot:
   a. Slide the management module part-way into the standby Management module slot. (The installed management module showing the lighted **Actv** LED indicates the active slot).
   b. Open the module locking levers.
   c. Push the module into the slot until it stops.

d. Firmly close the module locking levers.



e. Securely tighten screws at each end of the module to ensure the full engagement and proper operation of the module.

Removing or Replacing an Active Management Module

NOTE

To remove an active management module, both a standby and an active management module must be installed in the switch. If there is only one management module installed, then install your replacement module as a standby module before performing this procedure. (See Removing or Replacing a Standby Management Module.)

To remove the active management module from the switch, first use the redundancy-switchover command to convert the active module to standby and the standby module to active.

If you are replacing the active management module, have the replacement module available and ready to install, then follow the procedure below.

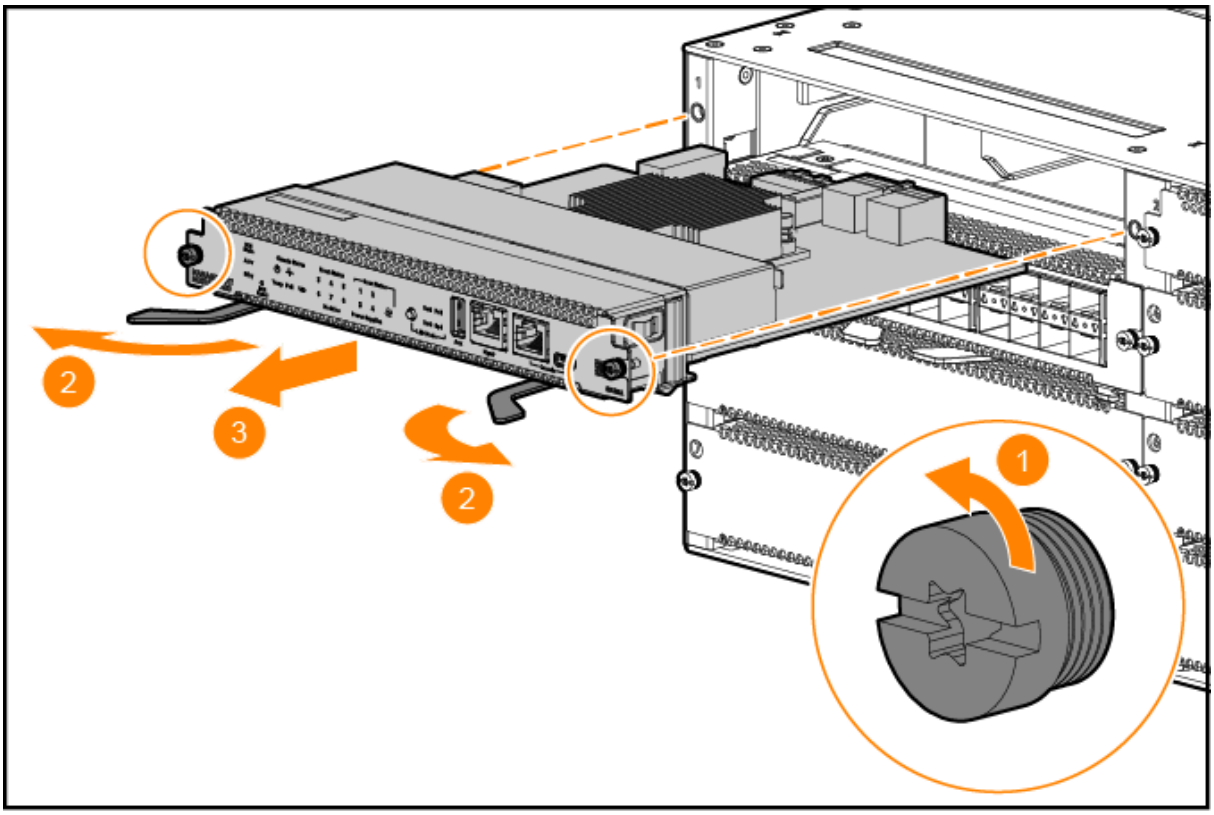
1. Put on an ESD wrist strap and connect it to the ESD connection point on the front of the chassis.
2. Identify the active management module. (The Mgmt State **Actv** LED shows solid green to indicate the active management module.)
3. Using the CLI, execute the redundancy-switchover command to convert the active management module to standby, and the standby management module to active.

   For more information on module commands, see the *Command-Line Interface Guide*.

NOTE

After using the redundancy-switchover command, check the Active and Standby LEDs on both modules to ensure that the Active/Standby conversion took place. If the Standby management module was not available when the command was executed, the conversion fails.

4. Loosen the screws securing the module you converted to Standby in step 3.
5. Open the locking module levers and pull the module out of its slot. Place the module in an antistatic bag for protection from ESD damage.



6. If you do not plan to install another management module in the empty slot, then secure a management module slot cover over the slot opening.

Replacing a Fan Tray

Fan tray is installed in the slot of the rear of the chassis.

- Ensure that the new fan tray is fully functional and operating after you replace the existing fan tray.
- Unpack the replacement fan tray and place it on an antistatic surface.
- Put on an ESD wrist strap and properly ground it on the switch. See Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis.

For proper cooling and ventilation, a powered-up 5420 Series chassis must have a fan tray installed and all four fans in each fan tray running.

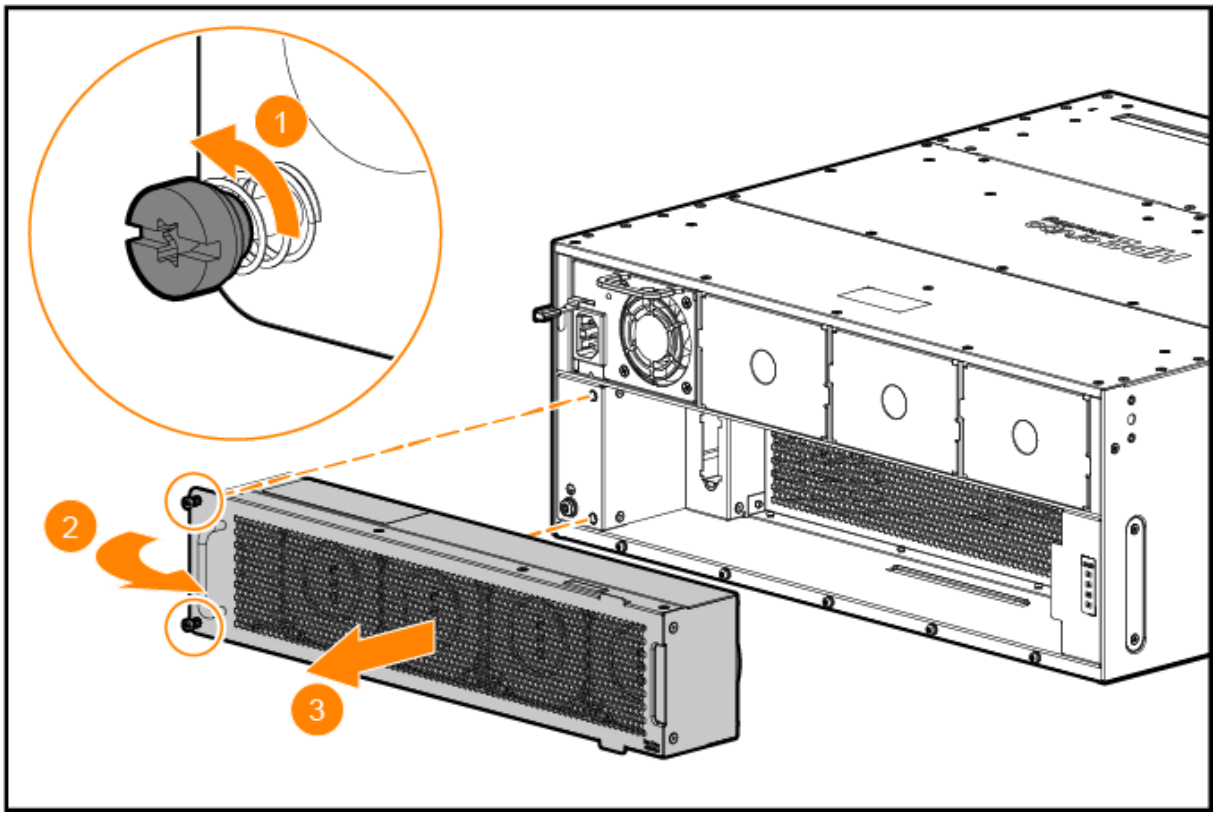
CAUTION

- Do not remove a fan tray from a powered up switch without having a replacement fan tray available
- When replacing a fan tray in an operating switch, install the replacement fan tray within three minutes of removing the original fan tray.
- Ensure that all fans in the replacement fan tray are operating after installation.
- Handle your HPE Aruba Networking 5420 switch fan tray with care. Rough or careless handling can damage these components and result in unplanned down time.

Removing the Fan Tray

To remove a fan tray:

1. Loosen the two retaining screws securing the fan tray to the chassis.
2. Grasp and pull the handle to pivot the fan tray out of the slot.



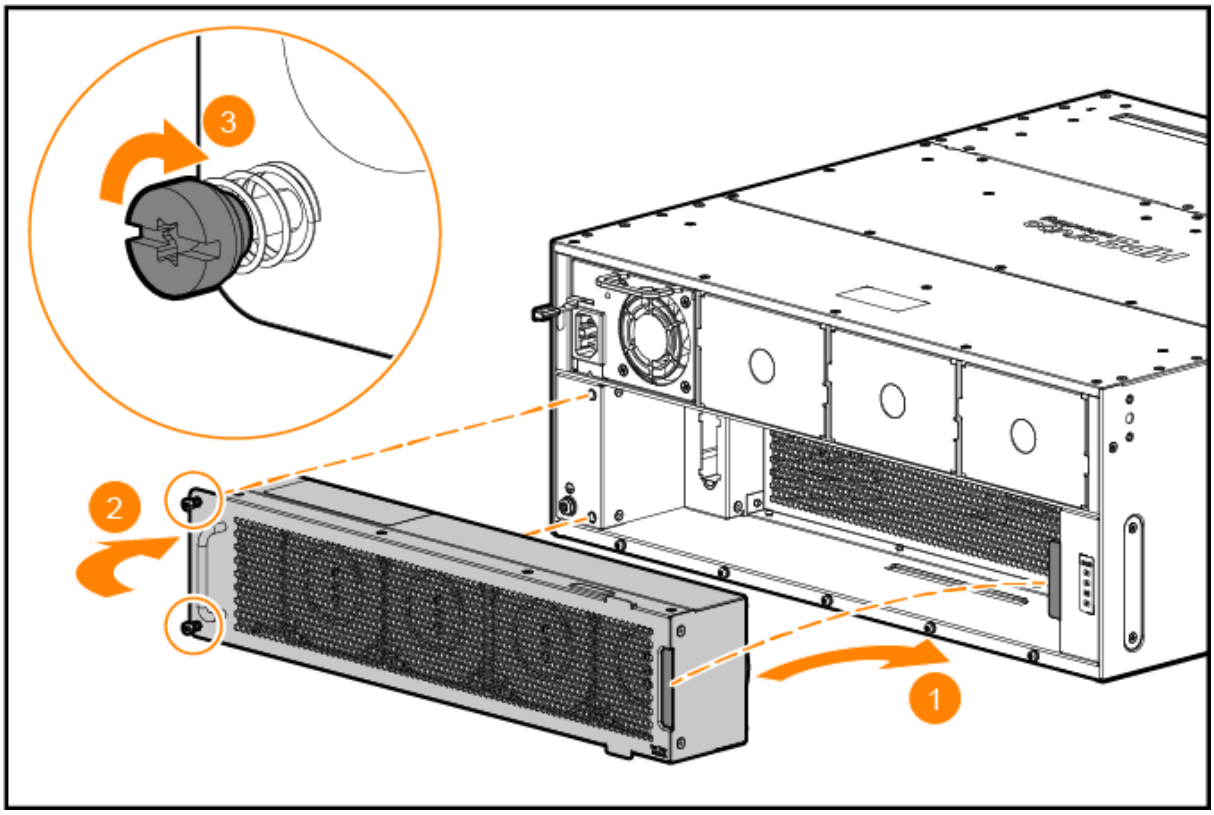
3. Shift the fan tray to the right to disengage it from the chassis.

Installing the Replacement Fan Tray

Before you begin, have the replacement fan tray available and ready to install, then remove the fan tray you are replacing. See Removing the Fan Tray

Use the following procedure to install the replacement fan tray.

1. Line the fan tray up with the empty slot.



2. Insert the fan tray into the slot at an angle as shown.
3. Seat the right end of the fan tray behind the flange on the right side of the slot.
4. Pivot the left end of the fan tray into the slot.
5. Securely tighten screws at each end of the module to ensure the full engagement and proper operation of the module.
6. Store the replaced fan tray in an antistatic bag for ESD protection.

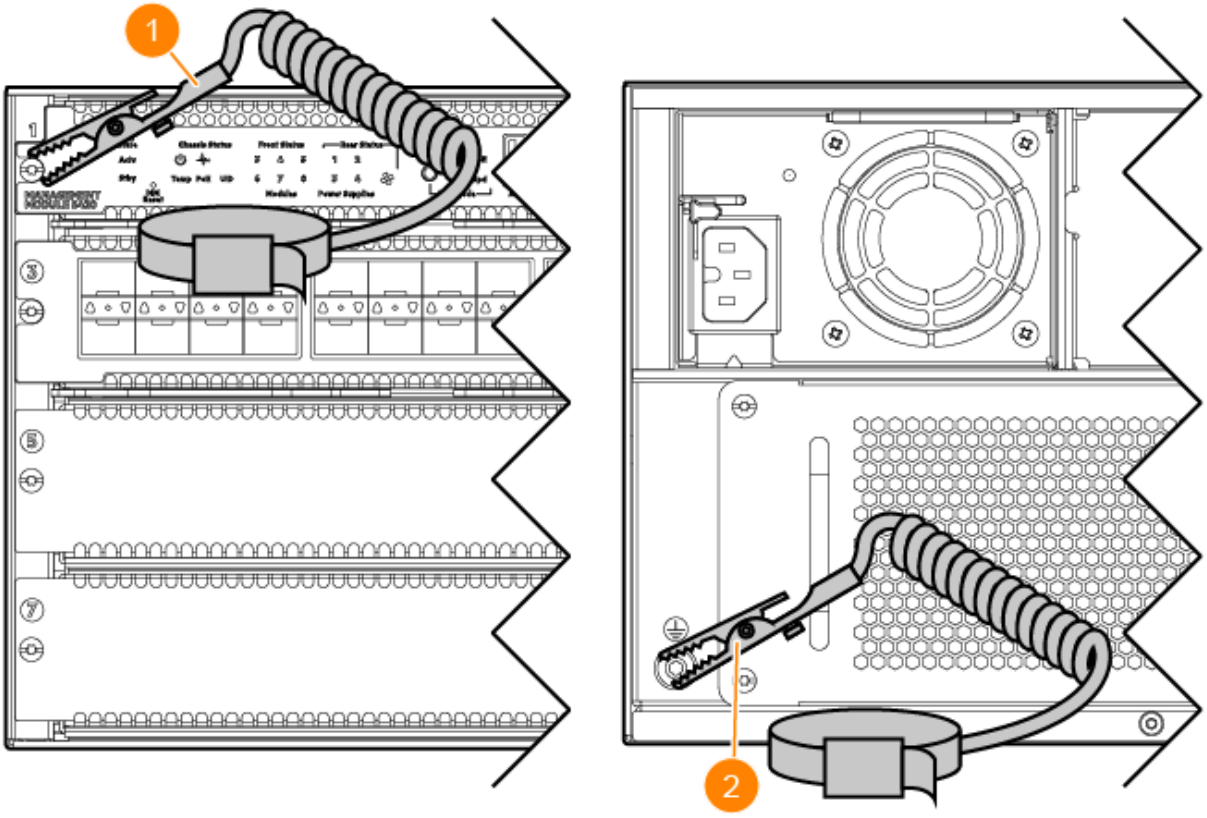
Chapter 10
Troubleshooting

Protect the switch and components from damage caused by ESD (electrostatic discharge). For more information, see Grounding the Chassis

Always wear an ESD wrist strap when handling the switch or its components. Ensure the strap is reliably grounded to an unpainted metal grounding point when installing or removing switch components.

- Hold management modules and line modules by their front panel. Do not touch any electronic components or printed circuitry.
- Store uninstalled modules in antistatic bags.
- Handle your HPE Aruba Networking 5420 Switch components with care. Rough or careless handling can damage the components and result in unplanned down time.

Figure 22 *Unpainted surfaces on the switch make good grounding points for the ESD strap*



1	ESD wrist strap connection point (captive screw) on the front of chassis
2	ESD wrist strap connection point (grounding lug) on the rear of chassis

Basic Troubleshooting Tips

The following situations cause most problems. Check for these items first when starting your troubleshooting:

- **Faulty or loose cables.** Look for loose or faulty connections. If they appear to be OK, make sure that the connections are snug. If that does not correct the problem, try a different cable.
- **Non standard cables.** Non standard and mis-wired cables may cause network collisions and other network problems, and can seriously impair network performance. Use a new, correctly wired cable. For pinouts and correctly wired cable, compare your cable to the cable information in the latest version of the *ArubaOS-Switch and ArubaOS Transceiver Guide* at https://asp.arubanetworks.com/downloads. A category 5 cable tester is a recommended tool for every 1000Base-T network installation.
- **Improper Network Topologies.** It is important to ensure that you have a valid network topology. Common topology faults include excessive cable length and excessive repeater delays between end nodes. If you have network problems after recent changes to the network, change back to the previous topology. If you no longer experience the problems, the new topology is likely at fault. In addition, make sure that your network topology contains no data path loops. Between any two end nodes, there must be only one active cabling path at any time. Data path loops cause broadcast storms that severely impact your network performance. Building redundant paths between important nodes in your network provides some fault tolerance. Before opening redundant paths, enable Spanning Tree Protocol support on the switch. Spanning tree ensures that only one of the redundant paths is active at any time, thus avoiding data path loops. Spanning Tree can be enabled through the switch console or the web browser interface. The 5420 switches also support Trunking (link aggregation), which allows using multiple network cables for a single network connection without causing a data path loop. For more information, go to https://asp.arubanetworks.com/downloads and see these publications:
  - Spanning Tree: *Layer 2 Bridging Guide*
  - Trunking: *Link Aggregation Guide*
- **Using event and debug logs, show tech, and run-time diagnostics.** These built-in features can help to isolate the sources of problems. For more information, see the *Diagnostics and Supportability Guide* at https://asp.arubanetworks.com/downloads.

Troubleshooting with Mist

If you are managing your switch with Mist, you can assess network health using SLE dashboards, troubleshoot with Marvis, and leverage AI-driven tools and dashboards to proactively identify and resolve issues. For full guidance, see Troubleshooting Mist.

Functions of the Management Module Reset Button

Use a hard reset on a management module only if other methods to recover from a loss of control have failed. Using a hard reset can result in corrupting the file system on the management module SSD (solid state drive). In this case, reformatting the management module SSD is required to recover.

Module	Soft reset: Press Reset button for less than five seconds	Hard reset: Press Reset button for five seconds or more
Module "A" Active	■ Resets management module "A" after a 5-10 second delay for orderly shutdown. ■ Failover occurs. Module "A" becomes the Standby after it comes back up. ■ Module "B" (the former Standby management module) becomes the new Active management module and maintains switch operation ■ If there is no Standby management module installed, or if the installed Standby module is inoperative, then the switch goes down while module "A" completes the reset process and resumes operation as the Active management module.	■ Immediately resets management module "A". There is no shutdown process. This action can result in a loss of data that was currently being processed in module "A". ■ Management module "B" does not reset; becomes the new Active management module. ■ If there is no second module installed, or if the installed second module is inoperative, then the switch goes down while management module "A" completes the reset process and resumes operation.
Module "B" Standby	■ Resets management module "B" during a 5-10 second reset delay for orderly shutdown. ■ The switch remains up and running. ■ Management module "B" returns to the Standby role when it completes its reset cycle. ■ No effect on the Active management module (Module "A"). **NOTE:** If a condition that causes a failover occurs while Module "B" is still in its reset cycle, a full chassis restart results.	■ Immediately resets management module B. There is no orderly shutdown process. ■ Management module "B" resumes as the Standby management module after the reset concludes. ■ No effect on the Active management module (Module "A").

PSU Output Ratings

Table 10: HPE Aruba Networking 5420 Switch Series

PSU and inlet accessory type	Output at 100-127/VAC	Output at 200-240VAC	Support
S0U53A1600W Power Supply with C16 Inlet	1000W	1600W	C16 inlet connector for C15 power cord deployments 80 PLUS Platinum-rated efficiency

System Power Consumption

To determine the maximum power consumption of an HPE Aruba Networking CX 5420 switch, determine the quantity of each component installed in the table titled "Component power usage". Multiply the quantity installed by the "Power per component" to determine the total power consumption of each component type. Sum the total of all component types to determine the total maximum power consumption for the system.

Table 11: Base chassis power consumption

Switch SKU and model	Included/installed components	Power
S0U59A HPE Aruba Networking 5420 6-slot Switch	**S0U60A** HPE Aruba Networking 5420 6-slot Chassis **S0U54A** HPE Aruba Networking 5420 6-Slot Fan Tray **S0U55A** HPE Aruba Networking 5420 Management Module	290W

Table 12: Component power usage (does not include added power consumption by any PoE delivery)

SKU	Description	Power per component
S0U54A	HPE Aruba Networking 5420 6-Slot Fan Tray	60W
S0U55A S0U58A	HPE Aruba Networking 5420 Management Module HPE Aruba Networking 5420 TAA Management Module	50W
S0U61A S0U71A	HPE Aruba Networking 5420 24p 10M/100M/1G Module HPE Aruba Networking 5420 24p 10M/100M/1G TAA Module	11W
S0U62A S0U72A	HPE Aruba Networking 5420 24p 10M/100M/1G Class4 PoE Module HPE Aruba Networking 5420 24p 10M/100M/1G Class4 PoE TAA Module	20W

SKU	Description	Power per component
S0U63A S0U73A	HPE Aruba Networking 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G Module HPE Aruba Networking 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G TAA Module	41W
S0U64A S0U74A	HPE Aruba Networking 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G Module HPE Aruba Networking 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA Module	35W
S0U65A S0U75A	HPE Aruba Networking 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE Module HPE Aruba Networking 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA Module	26W
S0U66A S0U76A	HPE Aruba Networking 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module HPE Aruba Networking 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE TAA Module	45W
S0U68A S0U78A	HPE Aruba Networking 5420 8p SFP+ 1G/10G LRM Module HPE Aruba Networking 5420 8p SFP+ 1G/10G LRM TAA Module	41W
S0U67A S0U77A	HPE Aruba Networking 5420 24p SFP 1G Module HPE Aruba Networking 5420 24p SFP 1G TAA Module	51W

Power consumption numbers reflect worst case conditions under maximum traffic loading. In practice actual power consumption is typically less than these limits.

Table 13: Component power usage (does not include added power consumption by any PoE delivery)

Nuber of PSUs	1600W PSU (S0U53A) @ 200-240VAC	1000W PSU (S0U53A) @ 100-127VAC
1	1600W	1000W
2	3176W	1985W
3	4752W	2970W
4	6328W	3955W

These power consumption limits are used by the management software to determine how much power to allocate for each module. If there is not enough available power for all line cards installed, the management software may not power all cards to stay below the available power.

Power available for PoE: Excess power available from the power supplies beyond the total system and line module allocation is available for PoE powered devices sourced by the line modules.

Redundancy: If power supply or AC grid redundancy is required, add additional power supplies to the system.

Example using an HPE Aruba Networking 5420:

- Installed components:
  - Two 1600W PSUs @ 200-240 VAC (high line)
  - Two management modules
  - Fan Tray always need to be installed in order for chassis to operate

- Five S0U62A HPE Aruba Networking 5420 24p 10M/100M/1G Class4 PoE Module
- One S0U68A HPE Aruba Networking 5420 8p SFP+ 1G/10G LRM Module

- System power required: 290W + (5 x 20W) + (1 x 41W) = 431W
- Available power: 2 x 1600W = 3176W (see System Power Consumption)
- Excess power available for PoE: 3176W -- 431W = 2745W
- If power supply redundancy is required:
  - Available power comes from one less PSU, which equals 1600W.
  - Excess power available for PoE is: 1600W -- 431W = 1169W.

HPE Aruba Networking CX 5420 Switch Acoustics Information

Measurement Configuration	Acoustics
Fiber Configuration (3xS0U67A, 3xS0U68A and 2xS0U55A)$_1$	Sound power (L_{WAd}): 4.7 Bel Sound Pressure (L_{pAm}, Bystander): 44.6 dB
PoE Configuration (6xS0U66A and 2xS0U55A)$_2$	Sound Power (L_{WAd}): 5.5 Bel Sound Pressure (L_{pAm}, Bystander): 52.1 dB

*Acoustics measured in 23°C semi-anechoic chamber. Measured in accordance with ISO 7779. Declared in accordance with ISO 9296. Values presented are the Declared A-Weighted Sound Power Level (LWAd) and the mean Bystander A-Weighted Sound Pressure Level (LpAm).

1: With 2x S0U53A power supply at low voltage line, loaded with 3xS0U67A, 3xS0U68A and 2xS0U55A, with a loading of 50% traffic on all ports.

2: With 4x S0U53A power supply at low voltage line, loaded with 6xS0U66A and 2xS0U55A, drawing a total of 2000W PoE, with a loading of 50% traffic on all ports.

Product Weight and Dimensions

Item	Description	Dimensions (W x D x H)	Weight
S0U53A	HPE Aruba Networking CX 5420 1600W AC Power Supply	3.94" x 6.5" x 2.67" (100 x 165 x 67.8 mm)	2.95 lb (1.34 kg)
S0U54A	HPE Aruba Networking CX 5420 6-slot Fan Tray	15.0" x 2.42" x 3.37" (381.45 x 61.5 x 85.65 mm)	3.79 lb (1.72 kg)
S0U55A	HPE Aruba Networking CX 5420 Management Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 36.2 mm)	1.76 lb (0.80 kg)
S0U56A	HPE Aruba Networking CX 5420 6-slot 2-post Rack Kit	N/A	0.66 lb (1.32 kg)

Item	Description	Dimensions (W x D x H)	Weight
S0U57A	HPE Aruba Networking CX 5420 6-slot Accessory Kit	N/A	1.32 lb (0.60 kg)
S0U58A	HPE Aruba Networking CX 5420 TAA Management Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.76 lb (0.80 kg)
S0U59A	HPE Aruba Networking CX 5420 6-slot Switch	17.4" x 17.6" x 6.85" (442.5 x 447.4 x 174.1 mm)	34.68 lb (15.73 kg)
S0U60A	HPE Aruba Networking CX 5420 6-slot Chassis	17.4" x 17.6" x 6.85" (442.5 x 447.4 x 174.1 mm)	29.12 lb (13.21 kg)
S0U61A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	29.12 lb (13.21 kg)
S0U62A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.68 lb (0.76 kg)
S0U63A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.85 lb (0.84 kg)
S0U64A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.81 lb (0.82 kg)
S0U65A	HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.68 lb (0.76 kg)
S0U66A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.90 lb (0.86 kg)
S0U67A	HPE Aruba Networking CX 5420 24p SFP 1G Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.98 lb (0.90 kg)
S0U68A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.54 lb (0.70 kg)

Item	Description	Dimensions (W x D x H)	Weight
S0U69A	HPE Aruba Networking CX 5420 6-slot TAA Switch	17.4" x 17.6" x 6.85" (442.5 x 447.4 x 174.1 mm)	34.68 lb (15.73 kg)
S0U70A	HPE Aruba Networking CX 5420 6-slot TAA Chassis	17.4" x 17.6" x 6.85" (442.5 x 447.4 x 174.1 mm)	26.19 lb (11.88 kg)
S0U71A	HPE Aruba Networking CX 5420 24p 10M/100M/1G TAA Module	8.45" x 8.35" x 1.43"	1.50 lb (0.68 kg)
S0U72A	HPE Aruba Networking CX 5420 24p 10M/100M/1G Class4 PoE TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.68 lb (0.76 kg)
S0U73A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 4p SFP+ 1G/10G LRM TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.85 lb (0.84 kg)
S0U74A	HPE Aruba Networking CX 5420 20p 10M/100M/1G Class4 PoE 2p SFP28 1G/10G/25G TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.81 lb (0.82 kg)
S0U75A	HPE Aruba Networking CX 5420 8p Smart Rate 1G/2.5G/5G/10G Class8 PoE TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.68 lb (0.76 kg)
S0U76A	HPE Aruba Networking CX 5420 16p Smart Rate 1G/2.5G/5G Class6 PoE TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.90 lb (0.86 kg)
S0U77A	HPE Aruba Networking CX 5420 24p SFP 1G TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.98 lb (0.90 kg)
S0U78A	HPE Aruba Networking CX 5420 8p SFP+ 1G/10G LRM TAA Module	8.45" x 8.35" x 1.43" (214.7 x 212.2 x 45.15 mm)	1.54 lb (0.70 kg)
S1T82A	HPE Aruba Networking CX 5420 6-slot 4-post Rack Kit	N/A	4.48 lb (2.03 kg)

Chapter 12
Safety and Regulatory Information

Table 14: Safety and regulatory information for HPE Aruba Networking 5420 switches

Topic	Range
Frequency	50Hz-60Hz
AC voltage	S0U53A PSUs: 100-127/200-240VAC
Current	11.6A @ 100-127VAC 9A @ 200VAC 8A @ 208-240VAC
Power output	S0U53A: 1600W @ 200-240Vac, 1000W @ 100-127Vac
80plus.org certification	Platinum for S0U53A PSU

For important safety, environmental, and regulatory information, see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts.

Safety and Regulatory

Safety-EU	EN 62368-1:2014 +A11:2017 EN 62368-1:2018+A11:2020
Safety-Worldwide	IEC 62368-1:2014 (Second Edition) IEC 62368-1:2018 (Third Edition)
North American	UL 62368-1, 3rd Ed. CAN/CSA C22.2 No. 62368-1:19, 3rd Ed
EMC	EN 55032:2015/CISPR 32, Class A FCC CFR 47 Part 15: 2018, Class A ICES-003, Class A VCCI-32, Class A CNS 15936, Class A KS C 9832, Class A AS/NZS CISPR 32, Class A EN 61000-3-2: 2019, Class A EN 61000-3-3: 2013 EN 55035, CISPR 35, KS C 9835
RoHS	EN IEC 63000:2018

Chapter 13
Websites

For more information on HPE Aruba Networking CX 5420 Switch Series, refer to the following websites.

Table 15: *Networking and General Websites*

Description	URL
Networking Websites	
HPE Networking Support Portal	https://networkingsupport.hpe.com/home
HPE Aruba Networking Software and Documentation	asp.arubanetworks.com/downloads
HPE Aruba Networking Security Advisories	www.arubanetworks.com/support-services/security-bulletins
Hewlett Packard Enterprise Networking Software	www.hpe.com/networking/software
Hewlett Packard Enterprise My Networking website	www.hpe.com/networking/support
Hewlett Packard Enterprise My Networking Portal	www.hpe.com/networking/mynetworking
Hewlett Packard Enterprise Networking Warranty	www.hpe.com/networking/warranty

Chapter 13

Support and Other Resources

Contacting Support

Table 16: *HPE Aruba Networking Support*

Main Site	www.hpe.com
Support Site	https://networkingsupport.hpe.com
Airheads Social Forums and Knowledge Base	community.arubanetworks.com
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephone	www.hpe.com/psnow/doc/a50011948enw
Software Licensing Site	licensemanagement.hpe.com
End-of-life Information	networkingsupport.hpe.com/notifications
Security Incident Response Team	Site: https://support.hpe.com/connect/s/securitybulletinlibrary Email: aruba-sirt@hpe.com

Table 17: *HPE Juniper Networking Support*

Main Site	www.juniper.net
Support Site	Mist Web UI: https://manage.mist.com Email: support@mist.com
Create Mist Ticket	https://www.juniper.net/documentation/us/en/software/mist/manage-mist/mist-management-guide/topics/task/support-create-ticket.html
End-of-life Information	https://support.juniper.net/support/eol/product/juniper_ap_series
Security Incident Response Team	Site: https://supportportal.juniper.net/s/global-search/%40uri#f-sf_primarysourcename=Knowledge&f-sf_articletype=Security Advisories Email: sirt@juniper.net | security@hpe.com

Be sure to collect the following information before contacting Support:

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing Updates

To download product updates:

HPE Aruba Networking Support Portal

asp.arubanetworks.com/downloads .

If you are unable to find your product in the HPE Networking Support Portal, you may need to search My Networking, where older networking products can be found:

My Networking .

www.hpe.com/networking/software .

To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center More Information on Access to Support Materials page:

www.hpe.com/support/AccessToSupportMaterials

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.

To subscribe to eNewsletters and alerts:

www.hpe.com/support/e-updates

Warranty Information

To view warranty information for your product, go to https://www.hpe.com/support/Networking-Warranties.

Regulatory Information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center: www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

www.hpe.com/info/reach

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