



# Preparing to Install the Cisco SNS 3415 and Cisco SNS 3495 Hardware Appliances

This section provides information on how you can prepare your site for safely installing the Cisco SNS-3415 or Cisco SNS-3495 appliance.

This section contains the following topics:

- [Safety Guidelines, page 1](#)
- [Unpacking and Inspecting the Server, page 2](#)
- [Preparing for Server Installation, page 3](#)
- [Server Specifications, page 4](#)

## Safety Guidelines

**Note:** Before you install, operate, or service a Cisco SNS-3415 or Cisco SNS-3495 appliance, review the [Regulatory Compliance and Safety Information for Cisco Secure Access Control System](#) for important safety information.

### **Warning: IMPORTANT SAFETY INSTRUCTIONS**

**This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.**

#### **Statement 1071**

**Warning:** To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 40° C (104° F).

#### **Statement 1047**

**Warning:** The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device.

#### **Statement 1019**

**Warning:** This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 15 A.

#### **Statement 1005**

**Warning:** Installation of the equipment must comply with local and national electrical codes.

#### **Statement 1074**

When you are installing a server, use the following guidelines:

- Plan your site configuration and prepare the site before installing the server. See the [Cisco UCS Site Preparation Guide](#) for the recommended site planning tasks.
- Ensure that there is adequate space around the server to allow for servicing the server and for adequate airflow. The airflow in this server is from front to back.
- Ensure that the air-conditioning meets the thermal requirements listed in the [Server Specifications, page 4](#).

## Unpacking and Inspecting the Server

- Ensure that the cabinet or rack meets the requirements listed in the [Rack Requirements, page 4](#).
- Ensure that the site power meets the power requirements listed in the [Server Specifications, page 4](#). If available, you can use an uninterruptible power supply (UPS) to protect against power failures.

**Caution:** Avoid UPS types that use ferroresonant technology. These UPS types can become unstable with systems such as the Cisco UCS, which can have substantial current draw fluctuations from fluctuating data traffic patterns.

## Unpacking and Inspecting the Server

**Caution:** When handling internal server components, wear an ESD strap and handle modules by the carrier edges only.

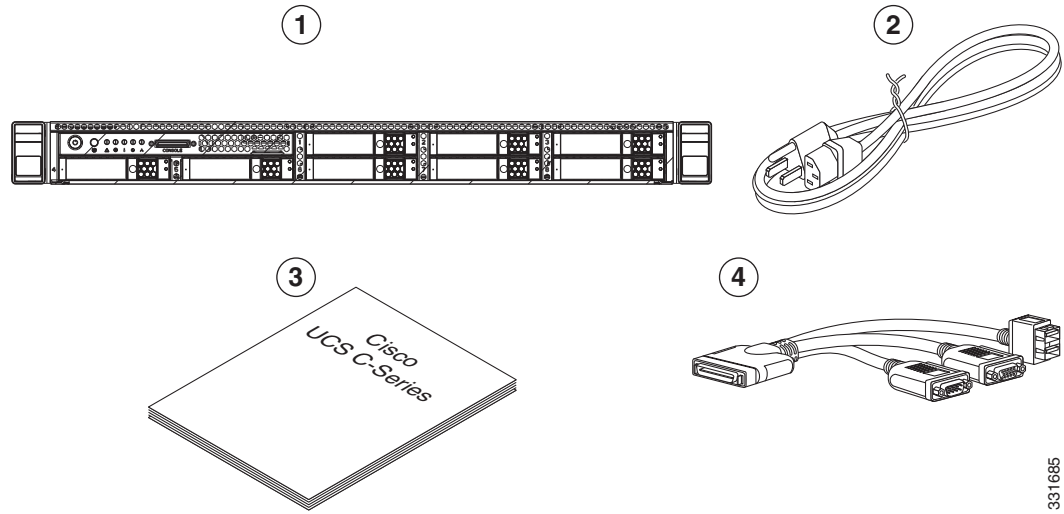
**Note:** Keep the shipping container in case the server requires shipping in the future.

**Note:** The chassis is thoroughly inspected before shipment. If any damage occurred during transportation or any items are missing, contact your customer service representative immediately.

To inspect the shipment, follow these steps:

1. Remove the server from its cardboard container and save all packaging material.
2. Compare the shipment to the equipment list provided by your customer service representative and [Figure 1 on page 3](#). Verify that you have all items.
3. Check for damage and report any discrepancies or damage to your customer service representative. Have the following information ready:
  - Invoice number of shipper (see the packing slip)
  - Model and serial number of the damaged unit
  - Description of damage
  - Effect of damage on the installation

**Figure 1 Shipping Box Contents**



1	Server	3	Documentation
2	Power cord (optional, up to two)	4	KVM cable

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## Preparing for Server Installation

This section provides information about preparing for server installation, and it includes the following topic

- [Installation Guidelines, page 3](#)
- [Rack Requirements, page 4](#)
- [Equipment Requirements, page 4](#)
- [Slide Rail Adjustment Range, page 4](#)

## Installation Guidelines

**Warning:** To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 40° C (104° F).

**Statement 1047**

**Warning:** The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device.

**Statement 1019**

**Warning:** This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 15 A.

**Statement 1005**

**Warning:** Installation of the equipment must comply with local and national electrical codes.

**Statement 1074**

When you are installing a server, use the following guidelines:

- Plan your site configuration and prepare the site before installing the server. See the [Cisco UCS Site Preparation Guide](#) for the recommended site planning tasks.

## Server Specifications

- Ensure that there is adequate space around the server to allow for servicing the server and for adequate airflow. The airflow in this server is from front to back.
- Ensure that the air-conditioning meets the thermal requirements listed in the [Server Specifications, page 4](#).
- Ensure that the cabinet or rack meets the requirements listed in the [Rack Requirements, page 4](#) section.
- Ensure that the site power meets the power requirements listed in the [Server Specifications, page 4](#). If available, you can use an uninterruptible power supply (UPS) to protect against power failures.

**Caution: Avoid UPS types that use ferroresonant technology. These UPS types can become unstable with systems such as the Cisco SNS-3415 or Cisco SNS-3495 appliance, which can have substantial current draw fluctuations from fluctuating data traffic patterns.**

## Rack Requirements

This section provides the requirements for the standard open racks.

The rack must be of the following type:

- A standard 19-in. (48.3-cm) wide, four-post EIA rack, with mounting posts that conform to English universal hole spacing, per section 1 of ANSI/EIA-310-D-1992.
- The rack post holes can be square .38-inch (9.6 mm), round .28-inch (7.1 mm), #12-24 UNC, or #10-32 UNC when you use the supplied slide rails.
- The minimum vertical rack space per server must be one RU, equal to 1.75 in. (44.45 mm).

## Equipment Requirements

The slide rails supplied by Cisco Systems for this server do not require tools for installation. The inner rails (mounting brackets) are pre-attached to the sides of the server.

## Slide Rail Adjustment Range

The slide rails for this server have an adjustment range of 24 to 36 inches (610 to 914 mm).

## Server Specifications

This section lists the technical specifications for the server and includes the following sections:

- [Physical Specifications, page 4](#)
- [Environmental Specifications, page 5](#)
- [Power Specifications, page 5](#)

## Physical Specifications

[Table 1 on page 5](#) lists the physical specifications of the server.

**Table 1 Physical Specifications**

Description	Specification
Height	1.7 in. (4.3 cm)
Width	16.9 in. (42.9 cm)
Depth	28.5 in. (72.4 cm)
Weight (fully loaded chassis)	35.6 lb. (16.1 Kg)

## Environmental Specifications

Table 2 on page 5 lists the environmental specifications of the server.

**Table 2 Environmental Specifications**

Description	Specification
Temperature, operating:	41 to 104°F (5 to 40°C)  Derate the maximum temperature by 1°C per every 305 meters of altitude above sea level.
Temperature, non-operating	-40 to 149°F (-40 to 65°C)
Humidity (RH), noncondensing	10 to 90%
Altitude, operating	0 to 10,000 feet
Altitude, non-operating	0 to 40,000 feet
Sound power level  Measure A-weighted per ISO7779 LwAd (Bels)  Operation at 73°F (23°C)	5.4
Sound pressure level  Measure A-weighted per ISO7779 LpAm (dBA)  Operation at 73°F (23°C)	37

## Power Specifications

The power specifications for the two power supply options are listed in the following sections:

- [450-W Power Supply, page 6](#)
- [650-W Power Supply, page 6](#)

You can get more specific power information for your exact server configuration by using the Cisco UCS Power Calculator:

[http://www.cisco.com/assets/cdc\\_content\\_elements/flash/dataCenter/cisco\\_ucs\\_power\\_calculator/](http://www.cisco.com/assets/cdc_content_elements/flash/dataCenter/cisco_ucs_power_calculator/)

**Note:** Do not mix power supply types in the server. Both power supplies must be either 450W or 650W.

**Note:** ACS 5.8.1 supports an optional redundant power supply unit for Cisco SNS-3415-ACS-K9.

## 450-W Power Supply

[Table 3 on page 6](#) lists the environmental specifications of the server.

**Table 3 Power Supply Specifications**

Description	Specification
AC input voltage range	Low range: 100 to 120 VAC High range: 200 to 240 VAC
AC input frequency	Range: 47 to 63 Hz (single phase, 50 to 60Hz nominal)
AC line input current (steady state)	6.0 A peak at 100 VAC 3.0 A peak at 208 VAC
Maximum output power for each power supply	450 W
Power supply output voltage	Main power: 12 VDC Standby power: 12 VDC

## 650-W Power Supply

[Table 4 on page 6](#) lists the environmental specifications of the server.

**Table 4 Power Supply Specifications**

Description	Specification
AC input voltage range	90 to 264 VAC (self-ranging, 180 to 264 VAC nominal)
AC input frequency	Range: 47 to 63 Hz (single phase, 50 to 60Hz nominal)
AC line input current (steady state)	7.6 A peak at 100 VAC 3.65 A peak at 208 VAC
Maximum output power for each power supply	650 W
Power supply output voltage	Main power: 12 VDC Standby power: 12 VDC