
CSG2500 Hardware Guide

At a Glance

The Versa Cloud Services Gateway (CSG) 2500 appliances deliver carrier-grade reliability, high performance, and high compute capacity for enterprise-grade routing, SD-WAN, next-generation security, and uCPE scenarios. They are designed for WAN edge deployments in large regional offices, campus sites, or data centers that require advanced secure SD-WAN along with a comprehensive advanced application, cloud-intelligent SD-WAN, and SASE services on premises.

The CSG2500 appliances run Versa Operating System™ (VOS™) software, which integrates security, routing, SD-WAN, multitenancy, and analytics in a single operating system and supports Versa Networks management and control software including Versa Director and Versa Analytics. Versa Director supports configuration, monitoring, and provisioning of Versa CSG appliances, and Versa Analytics provides device, network, and security analytics for the Versa CSG appliances. Versa CSG appliances enable secure, scalable, and reliable enterprise-wide networking.

The CSG2500 appliances come with LAN and WAN ports, including eight RJ45 based 1-Gigabit Ethernet and eight SFP+ based 10-Gigabit Ethernet interfaces. The 10-Gigabit Ethernet interfaces are available as SFP+ 10-Gigabit or SPF+ 1-Gigabit fiber modules, which provide more connectivity options. You can configure any of these ports as LAN or WAN ports even though CSG2500 interfaces show LAN, WAN, and port number markings.

CSG2500 appliances provide the following features:

- Management Ethernet ports:
 - One RJ45 1-Gigabit Ethernet port
 - One RJ45 serial console port
 - One intelligent platform management interface (IPMI) port
 - Two USB 3.0 management ports
- Field replaceable 1+1 redundant, hot-swappable power supply units (PSUs)
- Three field replaceable 2+1 fans for cooling
- Rack-mountable in a 19-inch rack
- Eight 1G/10G SFP/SFP+ Ethernet ports for LAN/WAN interfaces
- Eight 10/100/1000BASE-T Ethernet ports for LAN/WAN interfaces

CSG2500 Appliance Models

The CSG2500 appliance is available in a single model, with 1 TB of SSD storage.

Chassis Views

The CSG2500 appliance front panel is the side of the appliance with LEDs for status and power, a soft reset button, and ports. It also has integrated rack-mount ears for installation in standard 19-inch racks. This is the side that is visible when you install the appliance in an office environment. The rear panel has the hot-swappable power supply units, ground contact, and cooling fans. This is the rear side when you mount the appliance in a 19-inch rack.

Figure 1 and Figure 2 show the front and rear panels of a CSG2500 appliance.

Figure 1: Front Panel of a CSG2500 Appliance

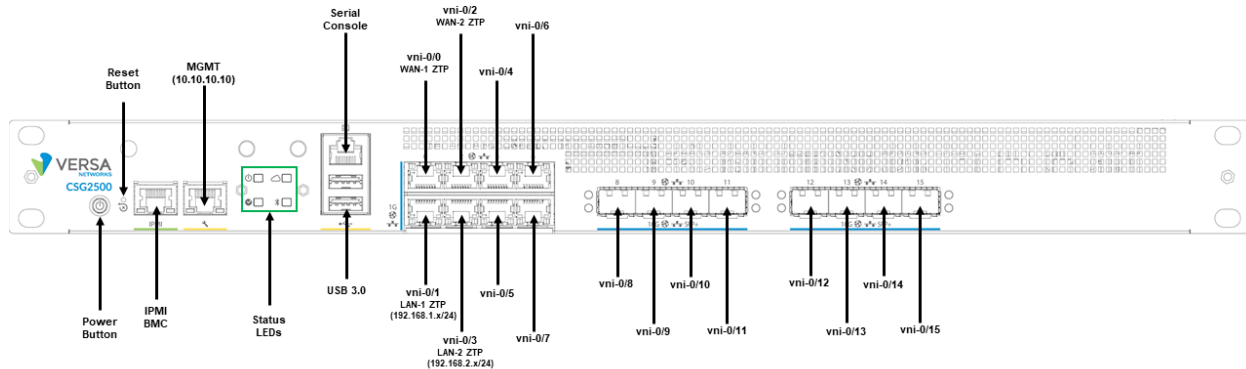
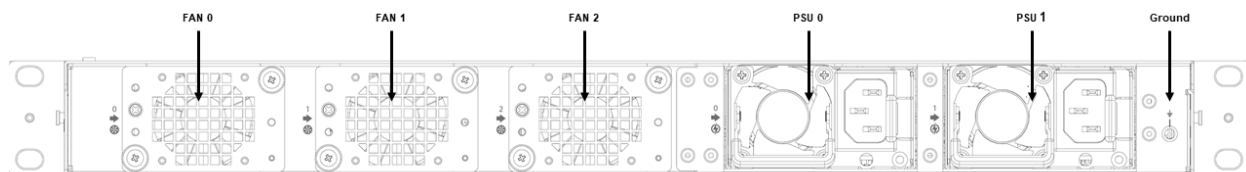


Figure 2: Rear Panel of a CSG2500 Appliance



CSG2500 Series Appliance Specifications

This article lists the chassis and regulatory compliance specifications for the CSG2500 appliance. It also lists

https://docs.versa-networks.com/Hardware/Cloud_Services_Gateway_2500_Series/Complete_CSG2500_Series_Hardware_...

Updated: Wed, 23 Oct 2024 07:54:49 GMT

Copyright © 2024, Versa Networks, Inc.

certifications and export control classification numbers (ECCNs) for the appliance.

Chassis Specifications

Table 1 lists the chassis specifications for a CSG2500 appliance chassis.

Table 1: CSG2500 Appliance Chassis Specifications

Item	Specification
Services and Slot Density	
1-Gigabit Ethernet RJ-45 ports 10/100/1000BASE-T	1
External USB ports (USB 3.0 Type A)	2
RJ-45 serial console port	1
10/100/1000BASE-T Ethernet ports for LAN/WAN interfaces	8
1G/10G SFP/SFP+ Ethernet ports for WAN/LAN interfaces	8
SSD	1 TB
Power supply	Field-replaceable 1+ 1 redundant, hot-swappable AC input
Power Specifications	
AC input voltage	100–240 Volts
AC input line frequency	50–60 Hz
Maximum power rating	650 W
Typical power consumption	383 W
Power supply efficiency rating	Platinum (80 Plus) or better
Chassis Physical Specifications	
Chassis height	1.73" (44 mm)
Chassis width	17.24" (438 mm)
Chassis depth	21.65" (550 mm)
Chassis weight	33 lb (15 kg)

Item	Specification
Rack height	1 RU
Package Specifications	
Package height	9.64" (245 mm)
Package width	23.62" (600 mm)
Package depth	28.34" (720 mm)
Package weight	43 lb (19.50 kg)
Operating Conditions	
Temperature	0°C to 40°C (32°F to 104°F) at sea level
Humidity	15% to 85% non-condensing
System cooling	Front-to-back cooling with 3 FRU fans with built-in 2+1 redundancy
Noise level	Idle: 52.3 dBA Full load: 66.8 dBA
Storage Conditions	
Temperature	–20°C to 80°C (–4°F to 167°F) at sea level
Humidity	95% non-condensing
Memory DDR4 ECC DRAM	96 GB
Cores	24 cores

Regulatory Compliance

Table 2 lists the regulatory compliance specifications for the CSG2500 appliance chassis.

Table 2: CSG2500 Appliance Regulatory Compliance Specifications

Item	Specification
Safety	2014/35/EU <ul style="list-style-type: none"> • CB (IEC/EN60950-1 and IEC/EN 62368-1) • UL (CSA 22.2 No 62368-1 and UL62368-1)
Security	TPM 2.0
EMC	FCC (US), CE (EU), CB (IEC), UL
Environmental	RoHS 2.0

Certifications

CSG2500 appliances comply with the certificates listed in Table 3.

Table 3: CSG2500 Appliance Certifications

Region	Certifications
European Union	Safety and EMC: <ul style="list-style-type: none"> • EN 60950-1:2005 • EN 62368-1:2014 • CE—EU Directive 2014/35/EU 2014/30/EU
America	EMI and Wireless: <ul style="list-style-type: none"> • FCC 47 CFR Part 15, Subpart B, Class A • ANSI C63.4-2014
Japan	VCCI—CISPR 32:2016 Class A

Export Control Information

Table 4 lists the ECCN, HTS, and CCATS numbers for a CSG2500 appliance.

Table 4: ECCN, HTS, and CCATS Numbers

Item	ECCN Number	HTS Number	CCATS Number	Versa Use of Item
Embedded SSL software module	5E002	8542310000	G161333	SSL VPN proxy
IPsec toolkit used by Versa Operating System™ (VOS™) devices	5D002	8542310000	G161333	IPsec cryptographic module
Hardware-based encryption and decryption	5A002U	8542310001	G156910L1	CSG2500 appliance

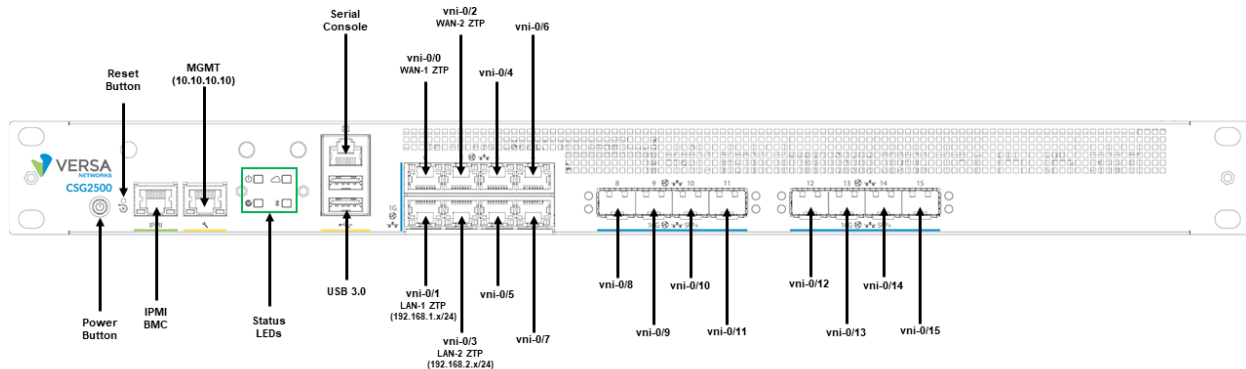
Front and Rear Panel Components

This article describes the front and rear panel components of a Cloud Services Gateway (CSG) 2500 appliance. For the exact location of these components on the appliance, see [At a Glance](#).

Front Panel

The front panel of a CSG2500 appliance has a power button, a reset button, and six status LEDs located in two rows, as shown in Figure 1.

Figure 1: Front Panel of a CSG2500 Appliance



LEDs

Table 1 lists the LEDs, their colors and states, and the status they indicate.

Table 1: Front Panel LEDs in a CSG2500 Appliance

LED	Color	Status
Power	Green	<ul style="list-style-type: none">• Off—Appliance is not powered on.• Green—Appliance is powered on.
Status	Green, Red	<ul style="list-style-type: none">• Off—Appliance hardware is up, but there is a problem with the configuration or software.• Solid green—Controller connection is up and running, and probes and control plane are operational.• Blinking green—Controller connection is in the process of being established.• Solid red—Controller or CA has rejected this appliance, there is a certificate mismatch, or the appliance is not authorized.• Blinking red—Controller is unreachable or unresponsive.
Cloud	Green, Red	Currently not supported.

Power Button

Pressing the power on/standby button on the front panel of a CSG2500 appliance turns the power on.

To turn the power off, use one of the following methods:

- Press and release the power on/standby button. This method initiates a controlled shutdown of applications and the operating system before the appliance enters standby mode.
- Press and hold the power on/standby button for 4 seconds or more. This method forces the appliance to enter standby mode without exiting the application and the operating system. If an application stops responding, you can use this method to force a shutdown.

Reset Button

The Reset button on the front panel of a CSG2500 appliance resets the appliance to the factory-default settings. The reset functionality depends on the number of times you press the button within a span of 30 seconds, as described in Table 3. In between each press of the reset button, you must pause for a second to register the key press.

The Reset button is recessed so that it is not accidentally pressed while the appliance is operational.

To press the Reset button, use a sharp, narrow tool.

Table 3: Reset Button Press Behavior

Number of Presses	Behavior
2	Reset the appliance to the factory-default snapshot.
4	Reset the appliance to the branch prestaging configuration.
6	Reset the appliance to the branch staging configuration.
8	Reset the appliance to branch post-staging configuration.

Reset the Appliance from the CLI

You can reset the appliance to the factory-default configuration by issuing the **request system reset** CLI command. To do this, your first connect to the appliance through the serial console port or by using SSH.

The factory-default reset procedure can take up to 20 minutes to complete. Do not power off the appliance during this time.

To reset an appliance to the factory-default configuration:

1. To connect to the appliance through the serial console port, see [Configure a Management Console to Connect to a CSG2500 Appliance](#).
2. To connect to the appliance using SSH, connect your PC to the management port of the appliance. For the port mapping on the CSG2500 appliance, see [Interface Numbering](#). The management port has the default static IP address 10.10.10.10/24. Configure the PC IP address to any IP from this segment, for example, 10.10.10.1/24. Open an SSH session to the appliance using its IP address, 10.10.10.10.
3. Log in to the appliance using the username "admin" and the password "versa123".
4. Start the CLI:

```
% cli
```

5. Issue the following command to reset the configuration to the factory default. If the current software version on the appliance is the same as that of the factory reset snapshot, the procedure takes about 10 minutes to complete. If the software versions are different, the procedure takes about 20 minutes to complete. Do not power off the appliance during the process.

```
# request system reset
```

6. Verify that all Versa services are running by issuing the **vsh status** command from the Linux bash CLI. The following is a sample output of this command. If all the services are shown as stopped, issue the **vsh start** command from the Linux bash CLI to start them manually.

```
# vsh status
versa-service  is Running, [*] process 6784
versa-infmgr   is Running, [-] process 5623
versa-rfd      is Running, [-] process 5838
versa-vmod     is Running, [-] process 5839
versa-ip2user  is Running, [-] process 5844
```



```
versa-imgr      is Running, [-] process 5848
versa-acctmgrd  is Running, [-] process 5845
versa-fltrmgr   is Running, [-] process 5648
versa-vstated   is Running, [-] process 5625
versa-addrmgrd  is Running, [-] process 5857
versa-rt-cli-xfm is Running, [-] process 5798
versa-rtd       is Running, [-] process 5827
versa-dhcpd     is Running, [-] process 5620
versa-eventd    is Running, [-] process 5843
versa-vrrpd     is Running, [-] process 5643
versa-dnsd      is Running, [-] process 5646
versa-ppmd      is Running, [-] process 5793
versa-snmp-xform is Running, [-] process 5800
versa-certd     is Running, [-] process 5849
versa-ntpd      is Running, [*] process 5612
versa-dhclient6 is Running, [-] process 5807
versa-redis     is Running, [-] process 6927
versa-av-redis  is Running, [-] process 5003
versa-spackmgr  is Running, [-] process 5832
versa-monit     is Running, [*] process 6078
versa-confd     is Running, [*] process 4798
versa-fail2ban  is Running, [*] process 6093
versa-auditd    is Running, [*] process 6116
versa-nodejs    is Running, [-] process 5775
```

7. Power off the appliance:

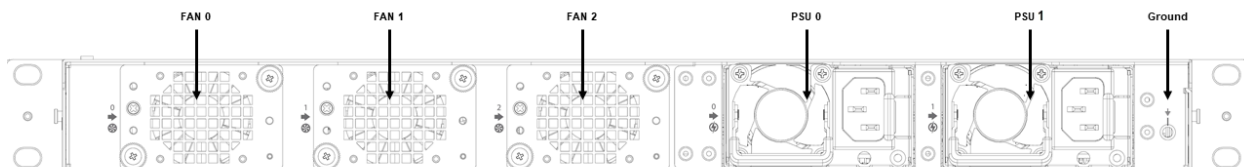
```
# sudo poweroff
```

Rear Panel

The rear panel of a CSG2500 appliance has the following components, as shown in Figure 2:

- Two hot-swappable power supply units (PSUs), each 650 W, that provide 1+1 redundancy with front-to-back airflow
- Three front-to-back cooling fans that provide 2+1 redundancy
- One ground contact

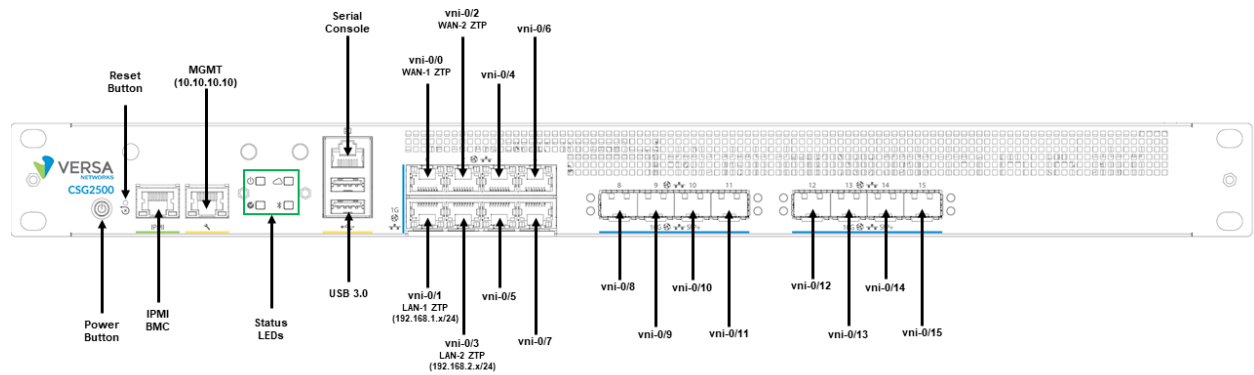
Figure 2: Rear Panel of a CSG2500 Appliance



Interface Numbering

Figure 1 shows the mapping of the Ethernet ports to virtual network interface (VNI) numbering for the CSG2500 appliance.

Figure 1: CSG2500 Port-to-VNI Mapping



Power Supply and Airflow

This article describes the AC power supply and airflow requirements for Cloud Services Gateway (CSG) 2500 appliances.

AC Power Supply

By default, CSG2500 appliances ship with AC redundant and hot-swappable power supply units (PSUs). These modular power supply units that can be removed from the appliance.

Table 1 describes the AC power supply specifications for each power supply unit.

Table 1: CSG2500 AC Power Supply Specifications

Item	Specification
AC input voltage	100–240 V
AC input line frequency	50–60 Hz
Power type	Field replaceable 1+1 redundant
PSU	Field replaceable unit (FRU) 650 W, hot-swappable

Airflow Requirements

The CSG2500 series appliances have 2+1 redundant fans, which are hot swappable in the field. The fans provide front-to-back cooling.

When planning your site for installing a CSG2500 series appliance in a 19-inch rack, keep in mind that the front side of the rack is the cool area, and the rear side is where hot air exits from the fan. Ensure that there is space on the rear side of the appliance to allow air to exit from the fan.

When placing a CSG2500 series appliance on a desk, ensure that there is space on the rear side of the appliance to allow air to exit from the fan. Also ensure that the vents on the side of the unit are never blocked, to allow hot air to flow out of the appliance. Covering the vents prevents heat from dissipating out of the appliance, which can cause the chassis to overheat and then shut down.

Validated SFPs for CSG2500 Series Appliances

This article lists the small form-factor pluggable (SFP/SFP+) optics supported on the CSG2500 series appliance fiber interfaces, and it describes the remote switches that have been tested with the SFPs.

Supported VNI Ports for SFPs

The following table describes the VNI ports, the controller, and the SFP and SFP+ transceivers supported on the CSG2500 appliance.

Appliance	Ports	Controller	Supported SFP/SFP+
CSG2500	vni-0/8 through vni-0/15	Intel X710	1-Gigabit Ethernet/ 10-Gigabit Ethernet fiber ports

Supported 10-Gigabit Ethernet SFP+ Transceivers

The following table describes the 10-Gigabit Ethernet SFP+ transceiver modules supported on the CSG2500 appliance.

Type	Manufacturer	Part Number	vni-0/8 through vni-0/15	Transceiver Description
Short-reach (SR)	Finisar	FTLX8574D3BCL	Yes	10GBASE-SR/SW 300-m multimode datacom SFP+ optical transceiver
Long-reach (LR)	Finisar	FTLX1471D3BCL/	Yes	10GBASE-LR

Type	Manufacturer	Part Number	vni-0/8 through vni-0/15	Transceiver Description
		FTLX1475D3BCL		1310-nm single-mode datacom SFP+ optical transceiver

Supported 1-Gigabit Ethernet SFP+ Transceivers

The following table describes the 1-Gigabit Ethernet SFP+ transceiver modules supported on the CSG2500 appliance.

Type	Manufacturer	Part Number	vni-0/8 through vni-0/15	Transceiver Description
Short wavelength (SX)	Finisar	FTLF8519P3BNL	Yes	1000BASE-SX, up to 500 m, multimode datacom SFP+ optical transceiver
Long wavelength (LX)	Finisar	FTLF1318P3BTL	Yes	1000BASE-LX, up to 10 km, multimode datacom SFP+ optical transceiver

Note: The Intel Skylake-D processor does not support single-speed 1-Gigabit Ethernet optics. To connect at 1-Gigabit Ethernet speeds, you must use a qualified dual-rate optics.

Compatible Remote Switches

The following switches have been tested with a 1-Gigabit Ethernet link connection to CSG2500 appliance:

- Cisco Nexus-3048T
- Juniper EX-2200
- Dell (S3048, S4128F) switches.

Connection Recommendations

The following are recommendations for connecting at 1-Gigabit Ethernet speeds:

- After you dynamically insert an SFP or change the SFP speed, you must disable and then re-enable the VNI interface on the CSG2500 appliance.

- If the configuration on the remote device changes, you must disable and then reenable the VNI interface on the CSG2500 appliance.
- Ensure that you have enabled the 1-Gigabit Ethernet interface in the Versa Operating System™ (VOS™) software.
- For 1-Gigabit Ethernet SFPs, you must turn off auto-negotiation on the remote device, and you must set the connection speed 1-GE. For example, for Cisco switches, in the interface configuration, configure the speed to 1000:

```
interface Ethernet 1/25
speed 1000
```

For Juniper switches, configure no-auto-negotiation on the interface:

```
enable;
ether-options {
    no-auto-negotiation;
    link-mode full-duplex;
    speed {
        1g;
    }
}
```

Note: Before you order units in bulk, validate connections with the target remote device in a lab or testing environment to ensure that there are no compatibility or link issues.

Connect a CSG2500 Appliance

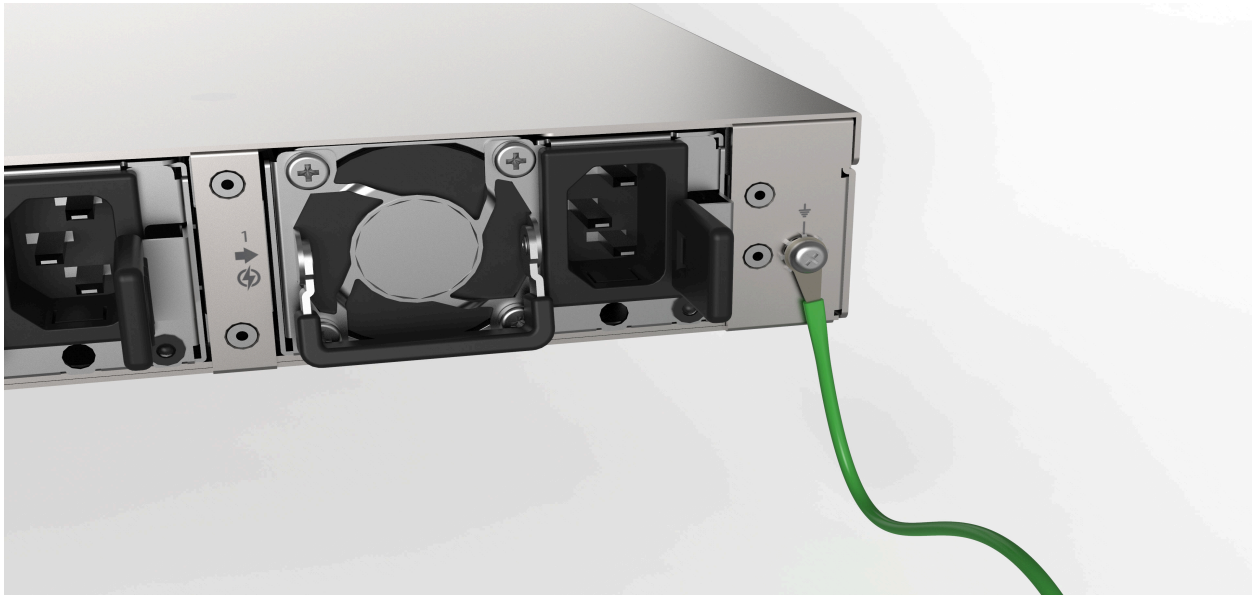
This article describes how to connect a Cloud Services Gateway (CSG) 2500 appliance to an AC power source and to a management console.

Versa Networks recommends that you use an uninterruptible power strategy that prevents power interruptions. A UPS can isolate unpredictable power outages or blackouts, brownouts, lightning, power surges, or spikes.

Step 1: Connect Earth Ground to a CSG2500 Appliance

1. To ensure proper operation of a CSG2500 appliance and to meet safety and electrostatic discharge (ESD) requirements, you must connect the appliance to earth ground before you connect power to the appliance.

Figure 1: Connect Earth Ground to a CSG2500 Appliance



2. Ensure that the rack is properly grounded and in compliance with ETSI ETS 300 253. Verify that there is a good electrical connection to the grounding point on the rack and that the grounding point has no paint or isolating surface treatment.
3. Attach the grounding wire (#18 AWG) to the grounding point on the device's rear panel.
4. Connect the other end of the wire to rack ground.

Caution: The earth connection must not be removed unless all supply connections are disconnected.

Step 2: Connect AC Power to a CSG2500 Appliance

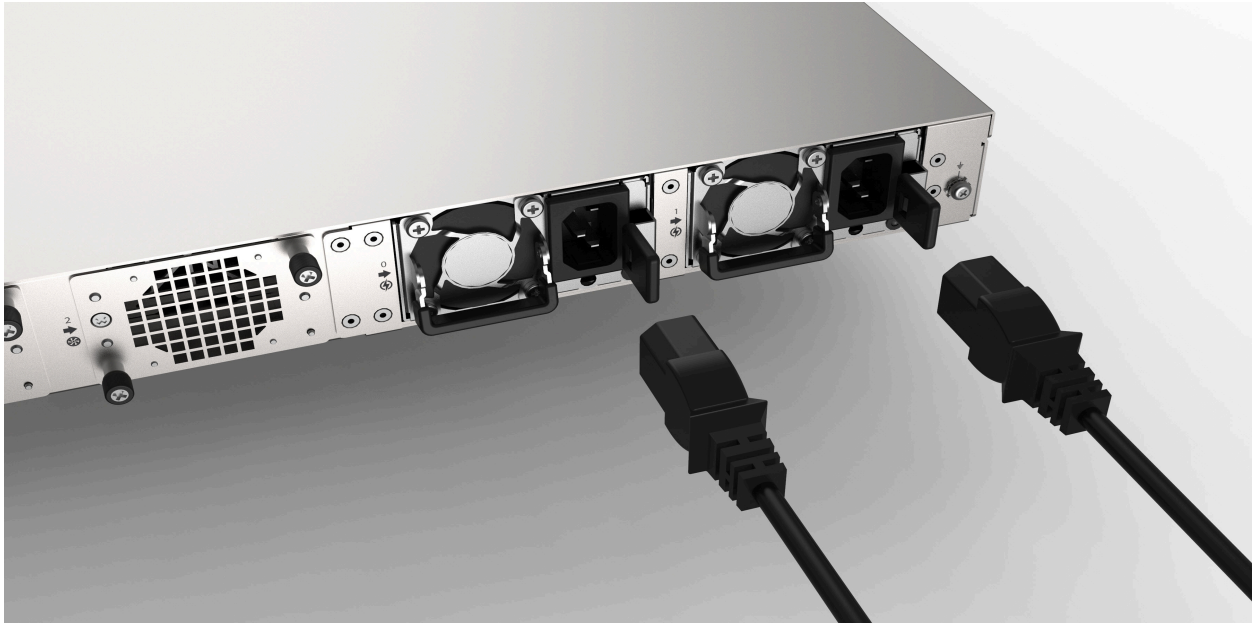
Before you begin connecting AC power to a CSG2500 appliance, ensure that you have:

- Electrostatic discharge (ESD) wrist strap.
- An AC power cord is shipped with the appliances only for U.S. customers. Each power supply has a C14 plug that allows you to plug in standard power cords with C13 termination. The other end of the cord must have appropriate NEMA 5-15 local plug.

To connect a CSG2500 appliance to an AC power source:

1. Install two AC power supply units (PSUs) in the device.
2. Connect an external AC power source (C13) to each PSU.
3. Plug the NEMA 5-15 end of the AC power cord into an AC power source outlet.
4. Push the power button to power on the device.

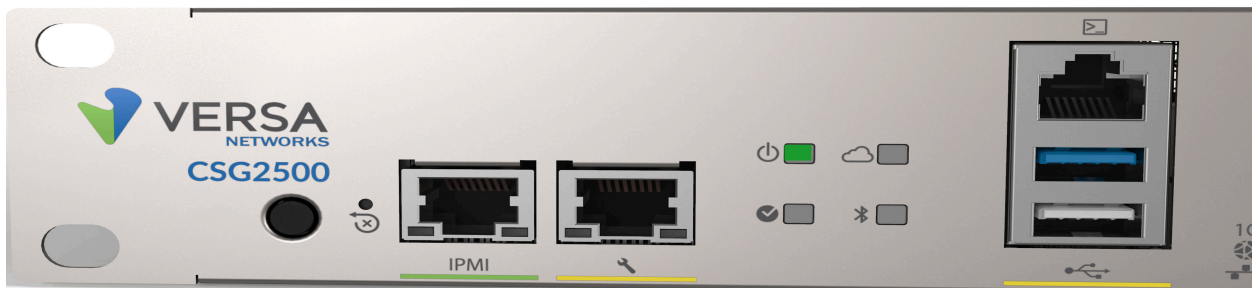
Figure 2: Connect AC Power to a CSG2500 Appliance



Step 3: Check that the CSG2500 Appliance Is Powered On

To check the CSG2500 appliance is powered on, check that the Power LED is on. When the appliance is operating normally, the power LED is green.

Figure 3: Check the CSG2500 Appliance Power Status



Step 4: Configure a Management Console To Connect to a CSG2500 Appliance

The CSG2500 appliances is equipped with an RJ45 serial console port, and you use an RJ45-to-USB serial console cable to connect the console port. To communicate with the appliance, you must have a terminal emulation program, such as PuTTY, running on your system.

When you set up the connection, use the following default console port settings:

- Speed (baud): 115200

https://docs.versa-networks.com/Hardware/Cloud_Services_Gateway_2500_Series/Complete_CSG2500_Series_Hardware_...

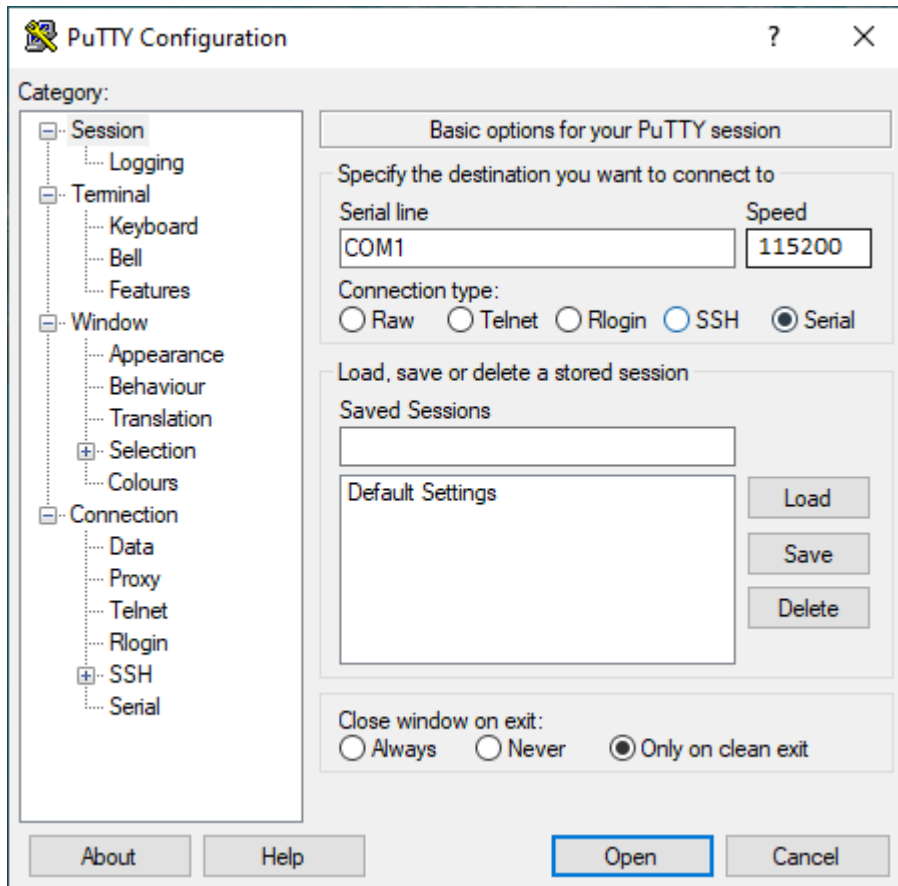
Updated: Wed, 23 Oct 2024 07:54:49 GMT

Copyright © 2024, Versa Networks, Inc.

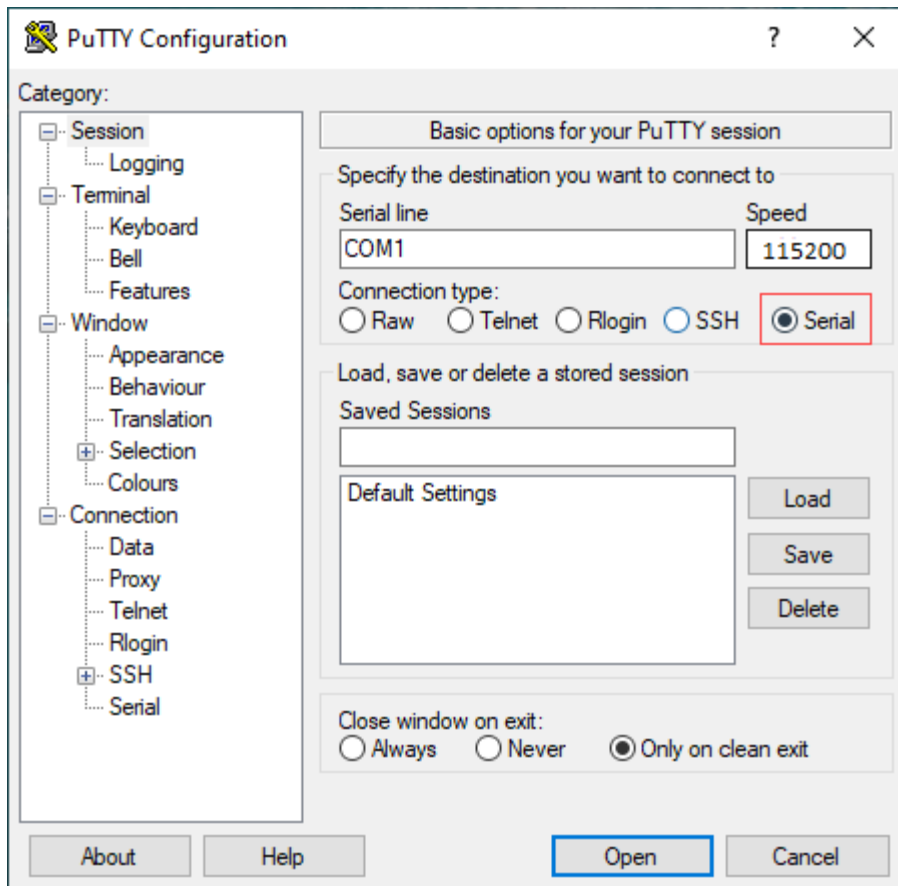
- Data bits: 8
- Stop bits: 1
- Parity: None
- Flow control: None

To connect a management console to a CSG2500 appliance:

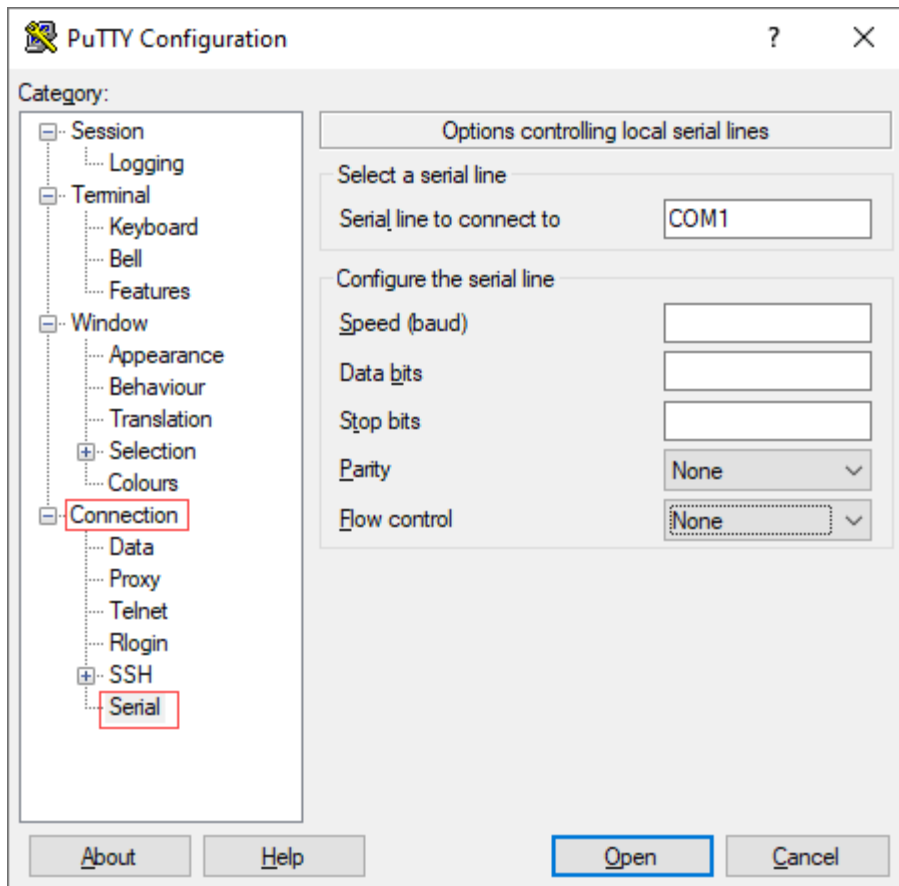
1. Open the PuTTY application. The PuTTY configuration window displays.



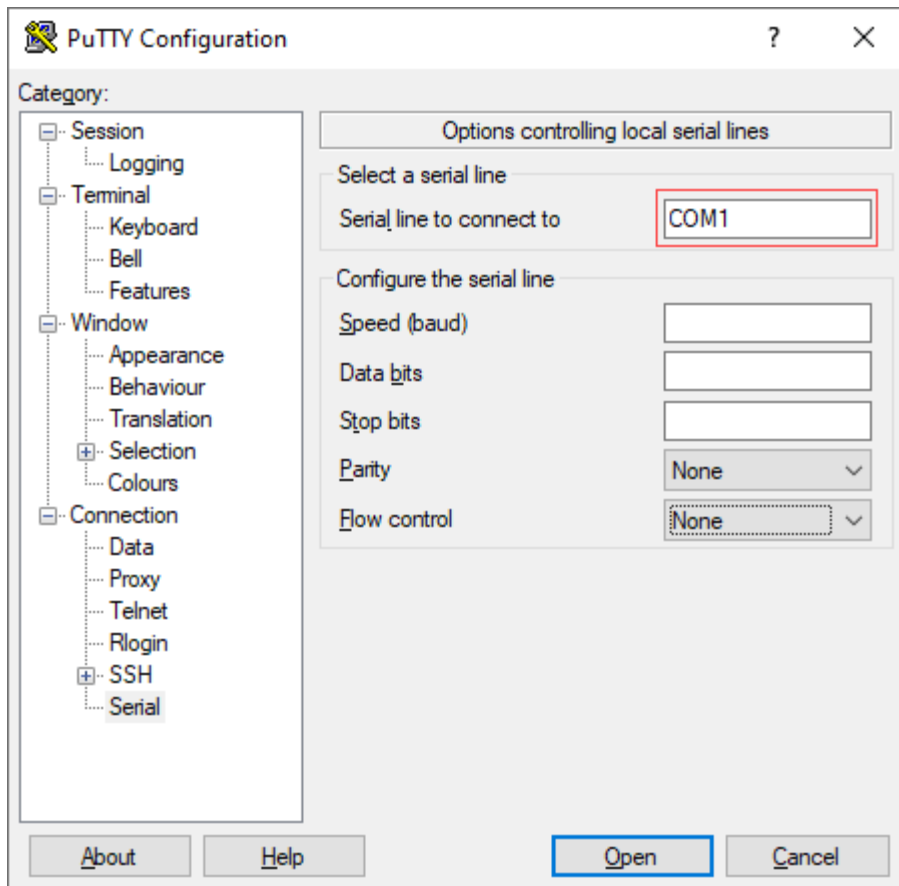
2. In the Category navigation pane, click Session, and then in the Connection Type menu, click Serial.



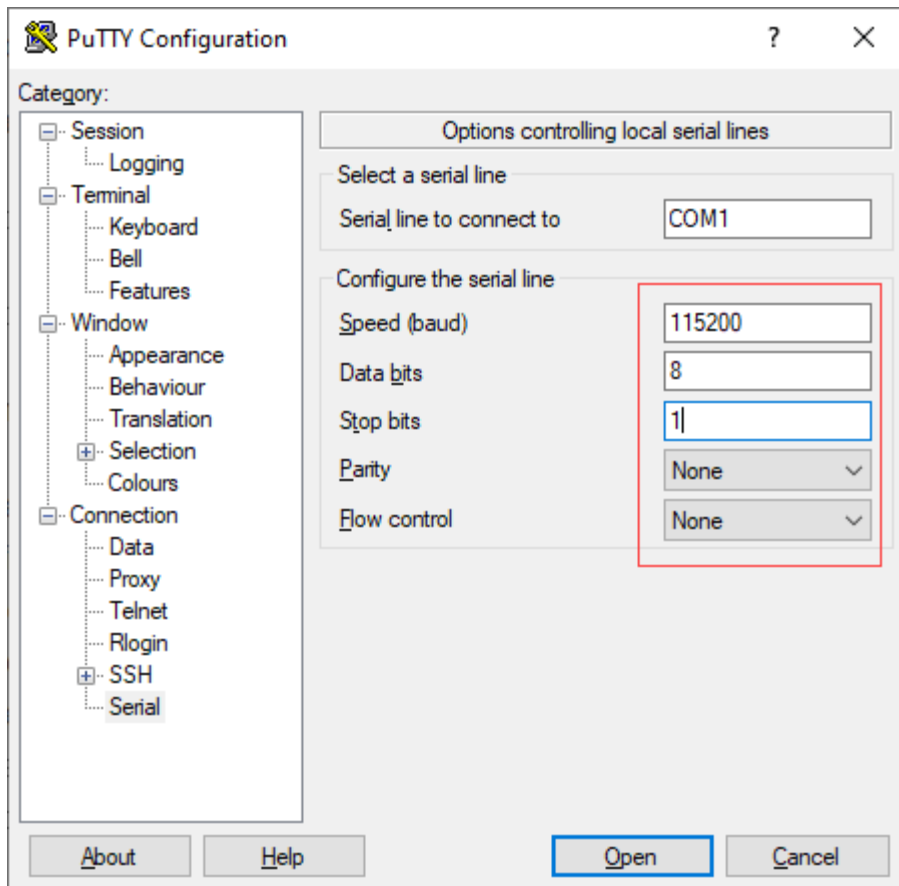
3. In the Category navigation pane, click Connection > Serial. The Options Controlling Local Serial Lines page displays.



4. In the Serial Line To Connect To field, enter the COM port to which your device is connected. The default COM port is COM1.

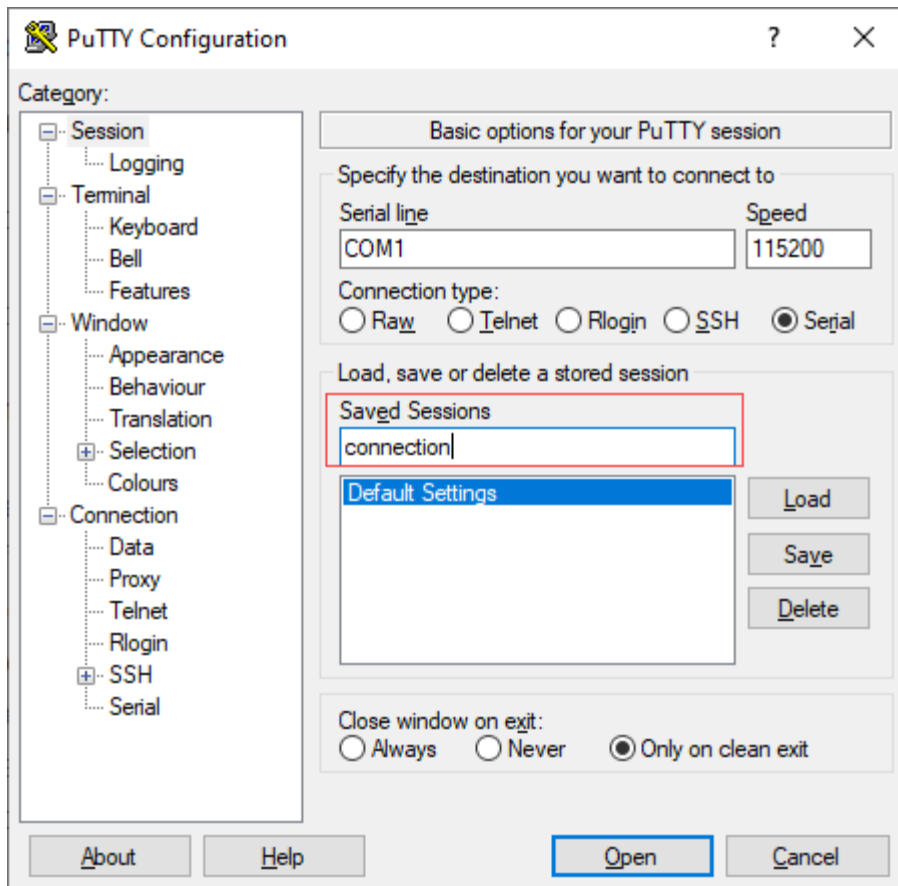


5. In the Configure the Serial Line section, enter the following information.

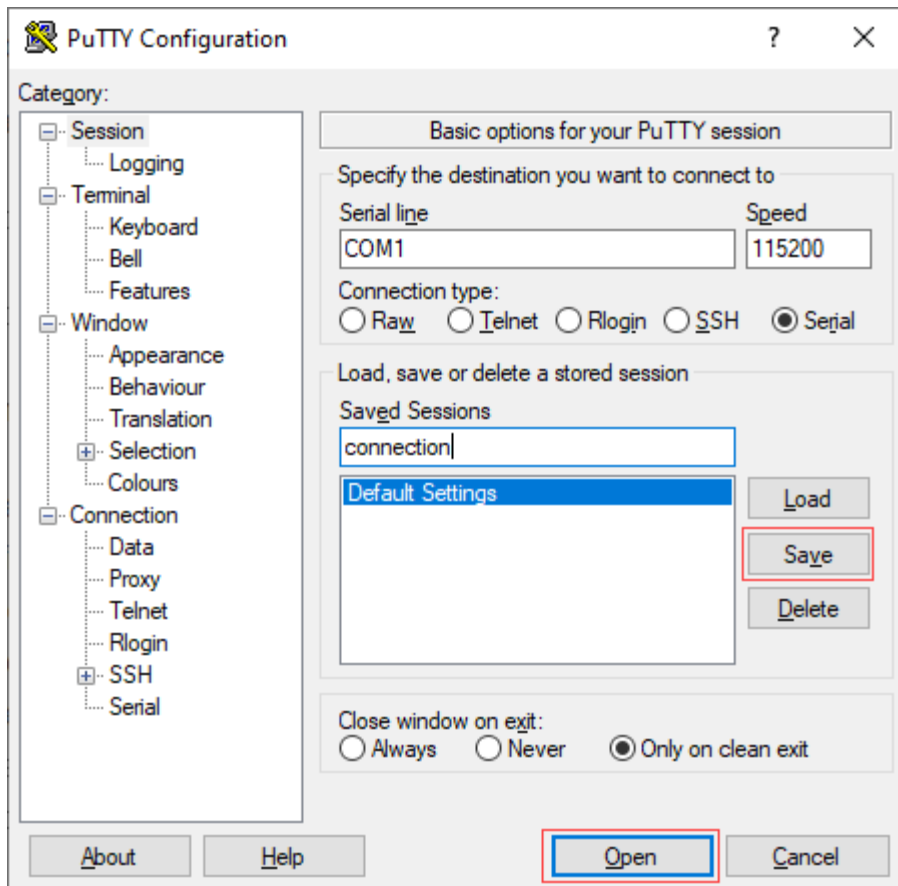


- In the Speed (Baud) field, enter the digital transmission speed. For CSG2500 appliance, the speed must be 115200 baud.
- In the Data bits field, enter the number of data bits used for each character. The recommended value is 8.
- In the Stop bits field, enter the number of bits to send at the end of every character. The recommended value is 1.
- In the Parity field, select None. This is the method of detecting errors in transmission.
- In the Flow Control field, select None. This is the method of preventing data overflow.

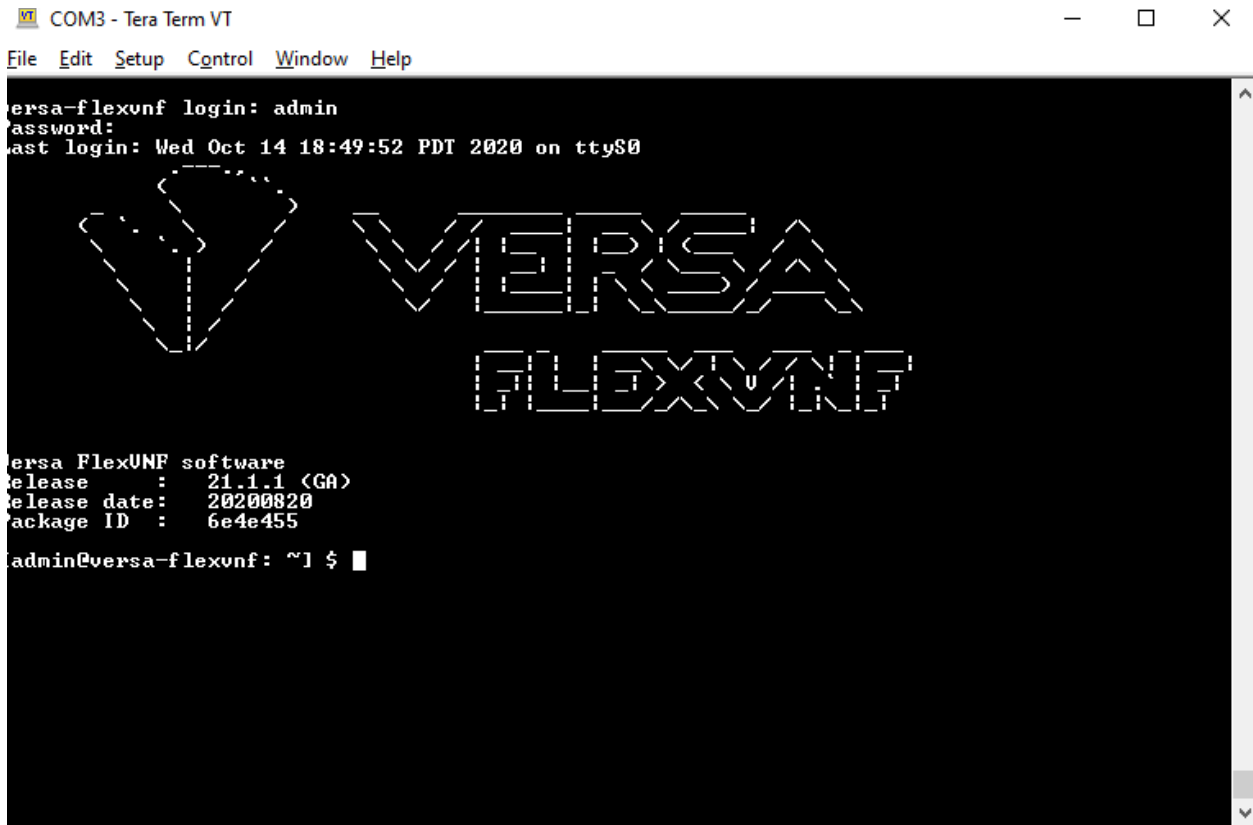
6. Optionally, in the Category navigation pane, click Session, and then in the Saved Sessions field, enter a name to save the session settings.



7. Click Save.
8. To open the session, click Open.



9. Log in to the appliance CLI with the username "admin" and the password "versa123".



```
COM3 - Tera Term VT
File Edit Setup Control Window Help

versa-flexunf login: admin
password:
last login: Wed Oct 14 18:49:52 PDT 2020 on ttyS0

  VERSA
  FLEXUNF

Versa FlexUNF software
release      : 21.1.1 (GA)
release date : 20200820
package ID   : 6e4e455

admin@versa-flexunf: ~1 $
```

Installation Guidelines

This article provides general safety standards and warnings related to installing or connecting a Cloud Services Gateway (CSG) 2500 appliance.

General Safety Guidelines

Caution: Before installing or removing a CSG2500 appliance, ensure that the appliance chassis is electrically connected to ground. When you are installing or removing an appliance, ensure that you wear an ESD grounding wrist strap. To put the ESD grounding strap on properly, attach it to an ESD point and then place the other end of the strap around your bare wrist, making good skin contact. Failure to use an ESD grounding strap could damage the appliance.

- Install the CSG2500 appliance in compliance with the following local, national, and international electrical codes:
 - United States—National Fire Protection Association (NFPA 70), United States National Electrical Code.
 - Other countries—International Electromechanical Commission (IEC) 60364, Part 1 through Part 7.
 - Evaluated to the TN power system.
 - Canada—Canadian Electrical Code, Part 1, CSA C22.1.
- Locate the emergency power-off switch in the installation area. In case of an electrical accident, turn off the power quickly.

https://docs.versa-networks.com/Hardware/Cloud_Services_Gateway_2500_Series/Complete_CSG2500_Series_Hardware_...

Updated: Wed, 23 Oct 2024 07:54:49 GMT

Copyright © 2024, Versa Networks, Inc.

- Disconnect power to the appliance before installing or removing it.
- Disconnect power from the circuit that is being used for the appliance.
- If hazardous conditions exist, do not work alone.
- If you are working under conditions that might be hazardous to the eyes, wear safety glasses or goggles.

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with CE and FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Warning: Operation of this equipment in a residential environment could cause radio interference.

Warning: Operation of this equipment is for indoor use only.

Install a CSG2500 Appliance

This article provides instructions about how to unpack a Cloud Services Gateway (CSG) 2500 appliance and how to

install it. You can mount a CSG2500 appliance directly in a 19-inch rack, or you can install a slide rail in a 19-inch rack and then mount the CSG2500 appliance on the slide rail. The minimum depth of the slide rail is 698 mm (27.48 inches) and the maximum depth is 998 mm (39.39 inches).

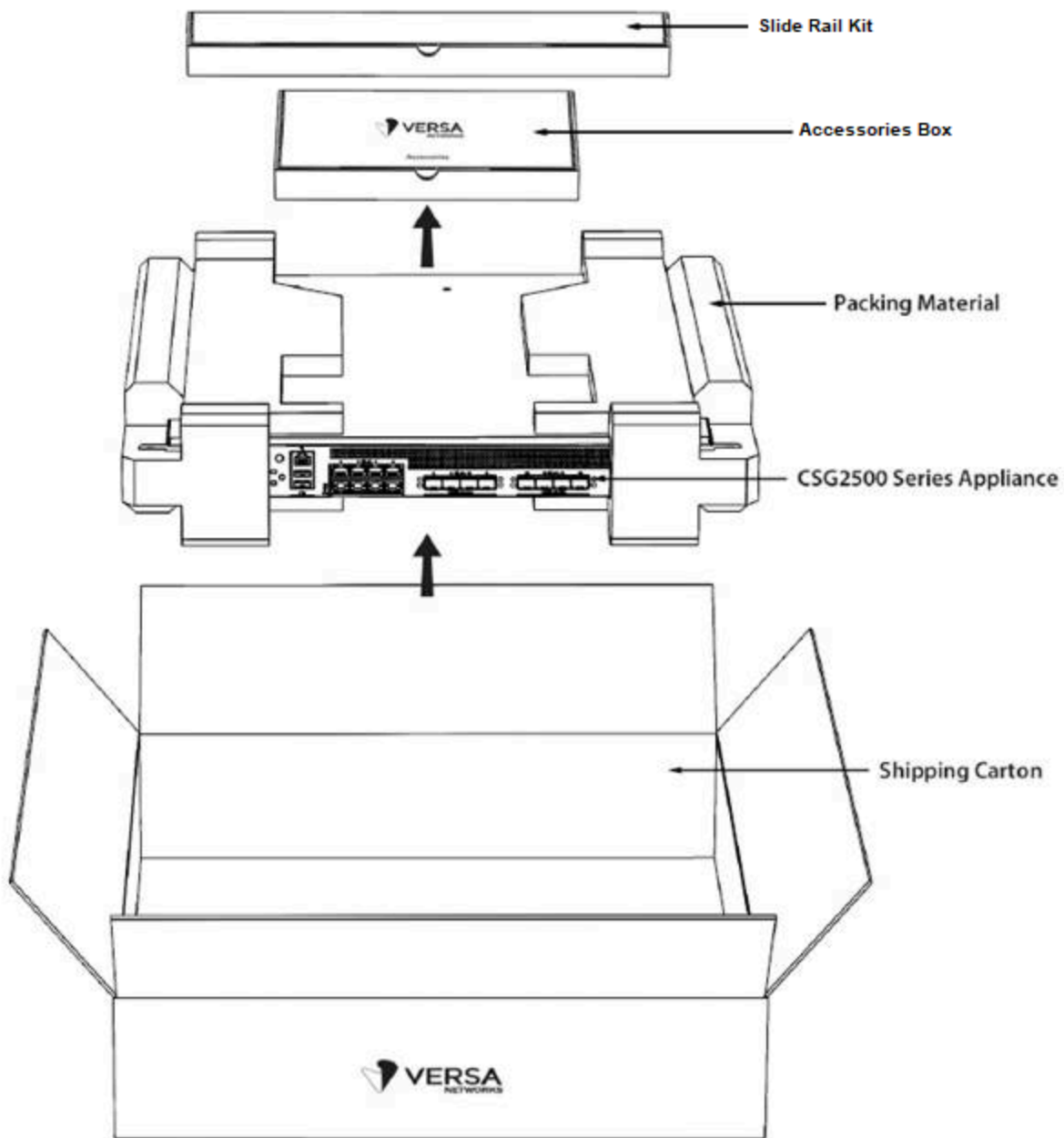
Unpack a CSG2500 Appliance

The CSG2500 appliance is packed in a plastic bag, and it is shipped in a cardboard carton, secured with foam packing material. The carton also contains an accessory box. It is recommended that you unpack the appliance only when you are ready to install it.

To unpack a CSG2500 appliance:

1. Open the top flaps of the cardboard carton.
2. Remove from the box the foam packing material holding the appliance and the accessories in place. See Figure 1.
3. Remove the accessory box and the appliance from the foam packing material.
4. Remove the accessories from the accessories box.
5. Verify the components against the packing list that is included in the box.

Figure 1: Unpack a CSG2500 Appliance



Note: It is recommended that you save the shipping carton and packing material when unpacking the appliance, in case you need to later move the appliance or return it. See [How To Return Hardware](#).

Packing List for a CSG2500 Appliance

The cardboard carton in which a CSG2500 appliance is shipped contains a packing list. Check the packing list against the parts that you receive in the shipping carton.

Table 1 lists the parts shipped with a CSG2500 appliance.

Table 1: Parts Shipped with a CSG2500 Appliance

Components	Quantity
CSG2500 appliance chassis	1
Power cable (US only)	1
Console cable USB to RJ-45	1
Grounding wire (#18 AWG)	1
Rear-post brackets	2
Rear-post bracket ears	2
Screws for ear locking	2
Screws for rack mounting	4
Screws	20

Mount a CSG2500 Appliance in a Rack

You can mount a CSG2500 appliance in a four-post 19-inch rack.

To mount the appliance, ensure that you have the following tools:

- Number 2 Phillips (+) screwdriver
- Tape measure

To mount a CSG2500 appliance in a four-post 19-inch rack:

1. Place the appliance chassis on a flat, stable surface.
2. Check the internal dimensions of the rack with a tape measure. The appliance is 43.8 mm wide (about 17.24 inches) and must fit within the mounting posts.
3. Attach the two rear post brackets to the appliance chassis using the six bracket screws that are shipped with the appliance. Use the rack screws to secure the switch in the rack.
4. Lock the position of the rear post bracket ears using the included position-locking screws. You can adjust the rear post bracket ears to fit different rack depths, from 56 cm to 75 cm.

Mount a CSG2500 Appliance on a Slide Rail

You can install a slide rail in a 19-inch rack and then install a CSG2500 appliance on the slide rail. You can purchase an

https://docs.versa-networks.com/Hardware/Cloud_Services_Gateway_2500_Series/Complete_CSG2500_Series_Hardware_...

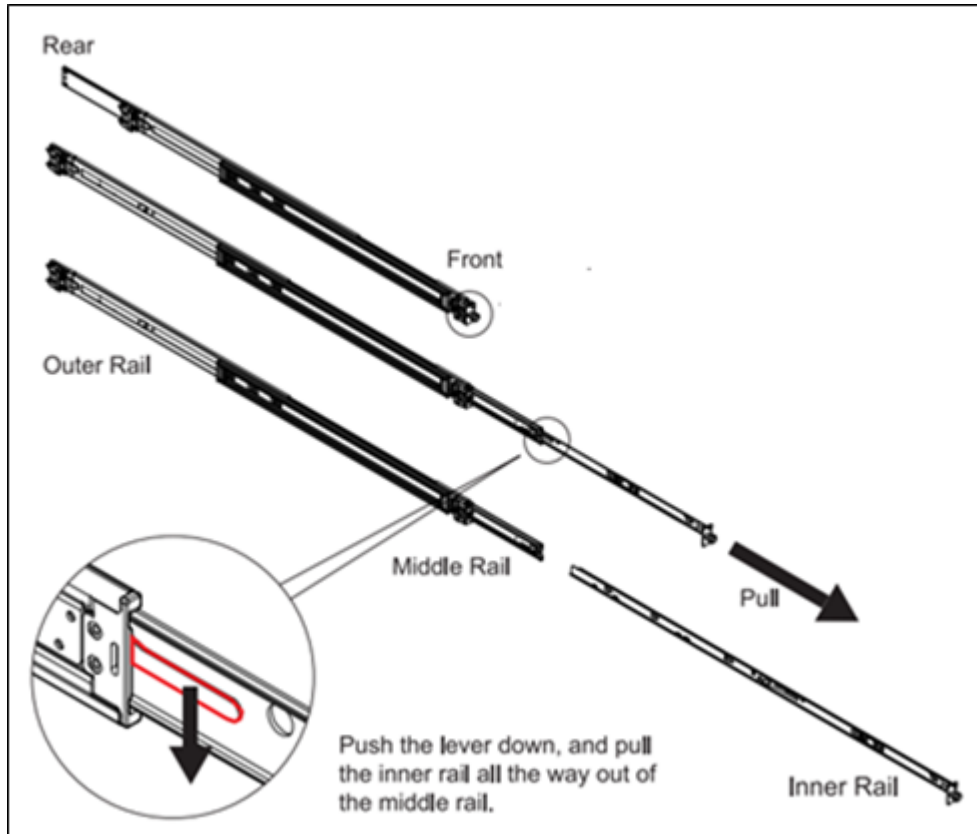
Updated: Wed, 23 Oct 2024 07:54:49 GMT

Copyright © 2024, Versa Networks, Inc.

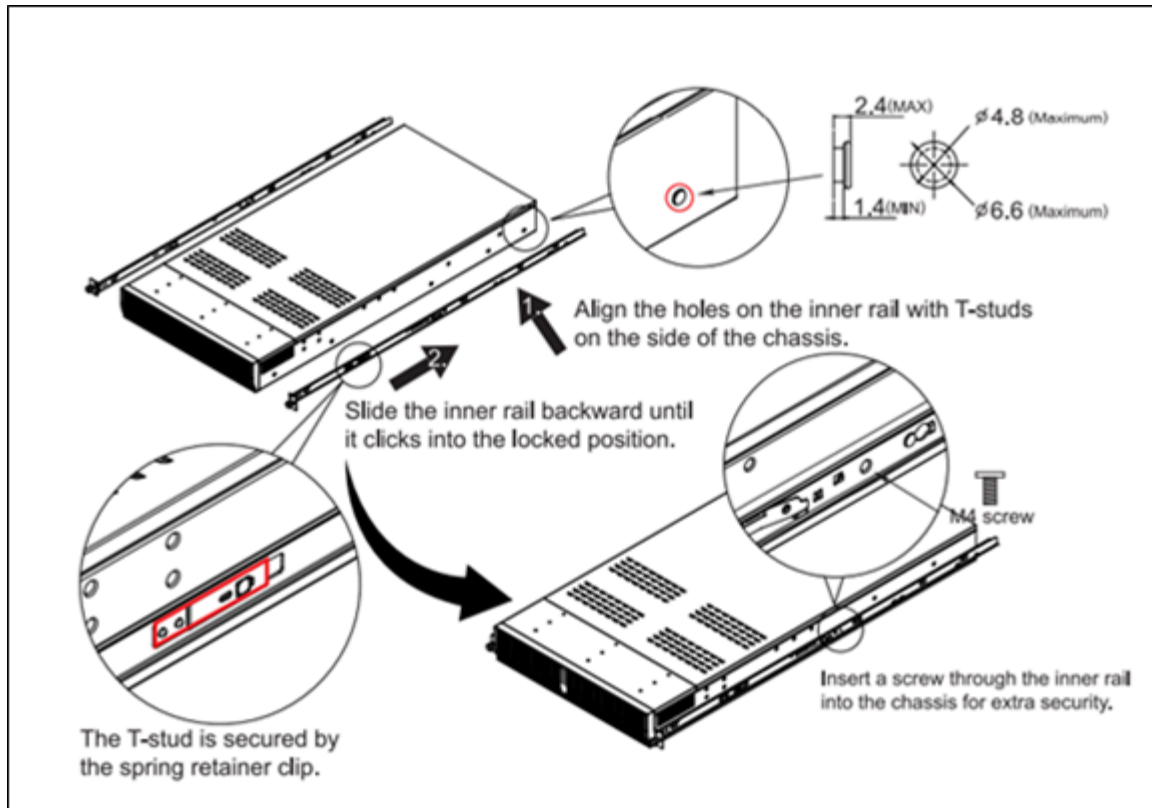
optional slide rail kit when you purchase a CSG2500 appliance.

To install a slide rail in a 19-inch rack and install a CSG2500 appliance on the slide rail:

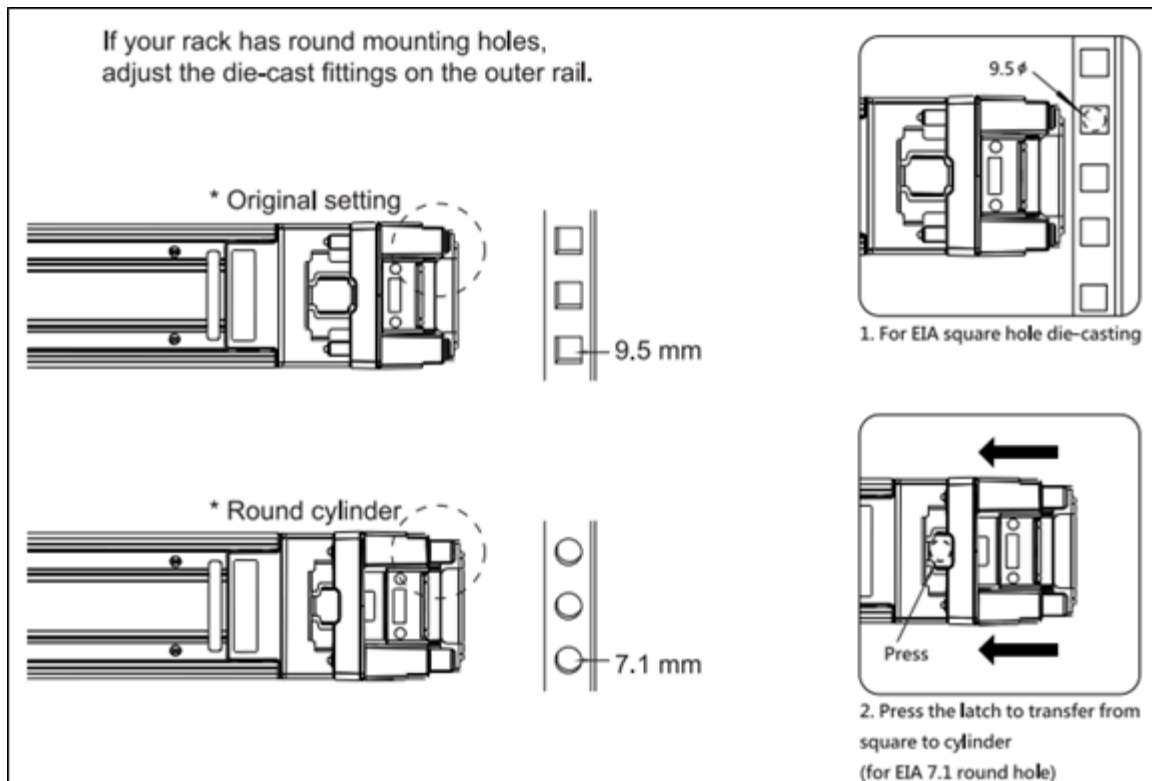
1. Push the lever down and pull the inner rail all the way out of the middle rail.



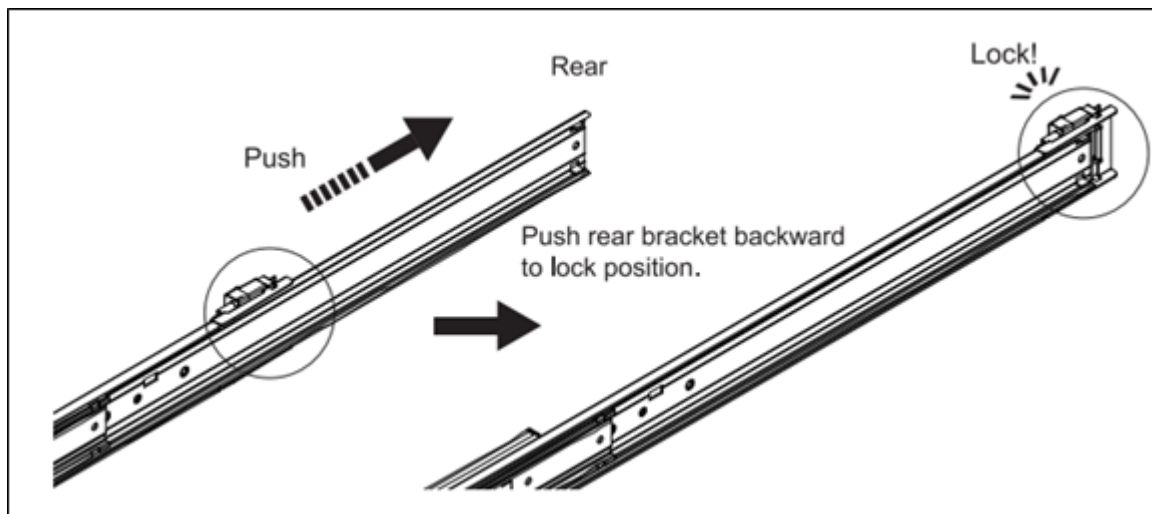
2. Align the holes on the inner rail with T-studs on the side of the chassis. Slide the inner rail backward until it clicks into the locked position.



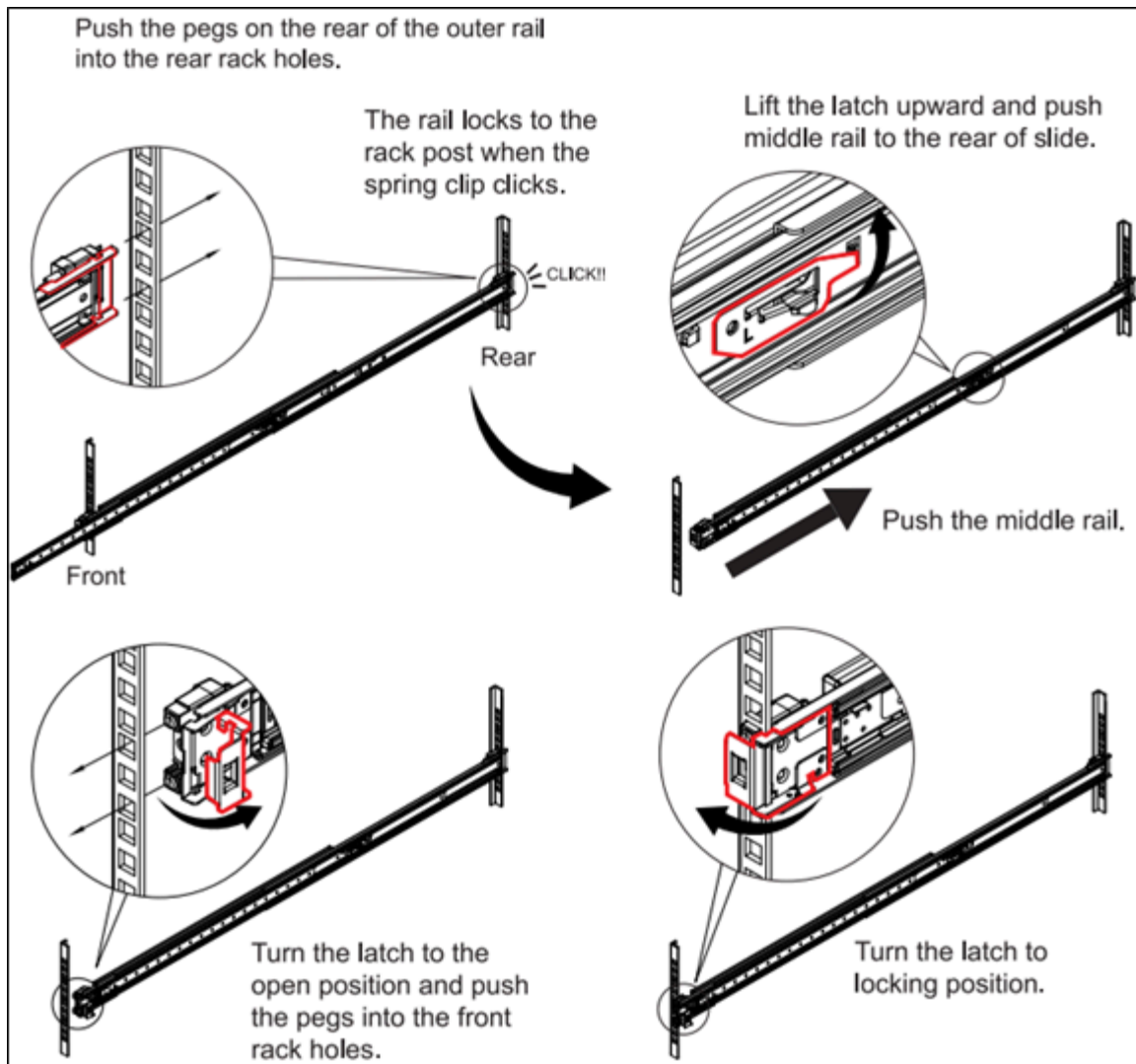
3. Adjust the die-cast fittings on the outer rail if the rack has round mounting holes. Press the latch to transfer from square to round mounting hole.



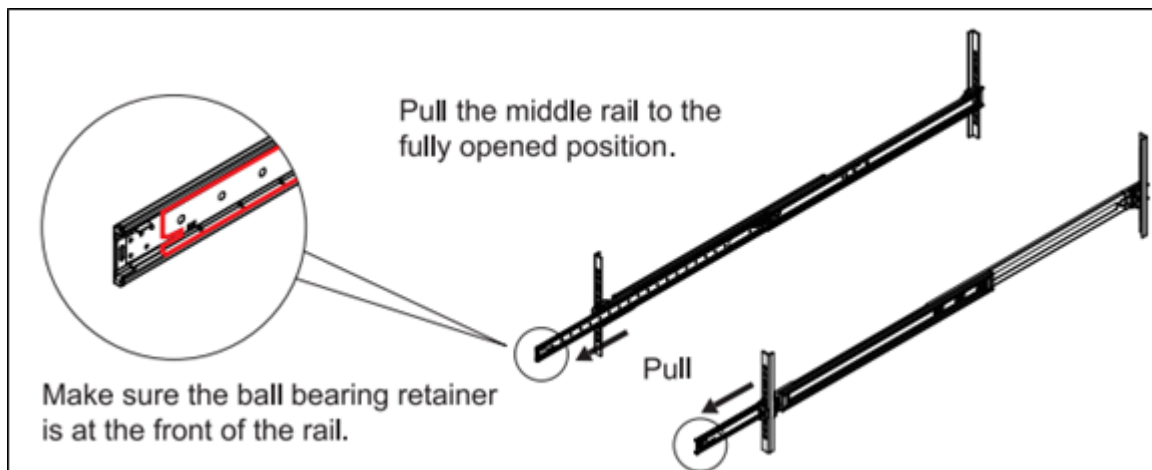
4. Push rear bracket backward to lock position.



5. Push the pegs on the rear of the outer rail into the rear rack holes. Turn the latch to the open position and push the pegs into the front rack holes.

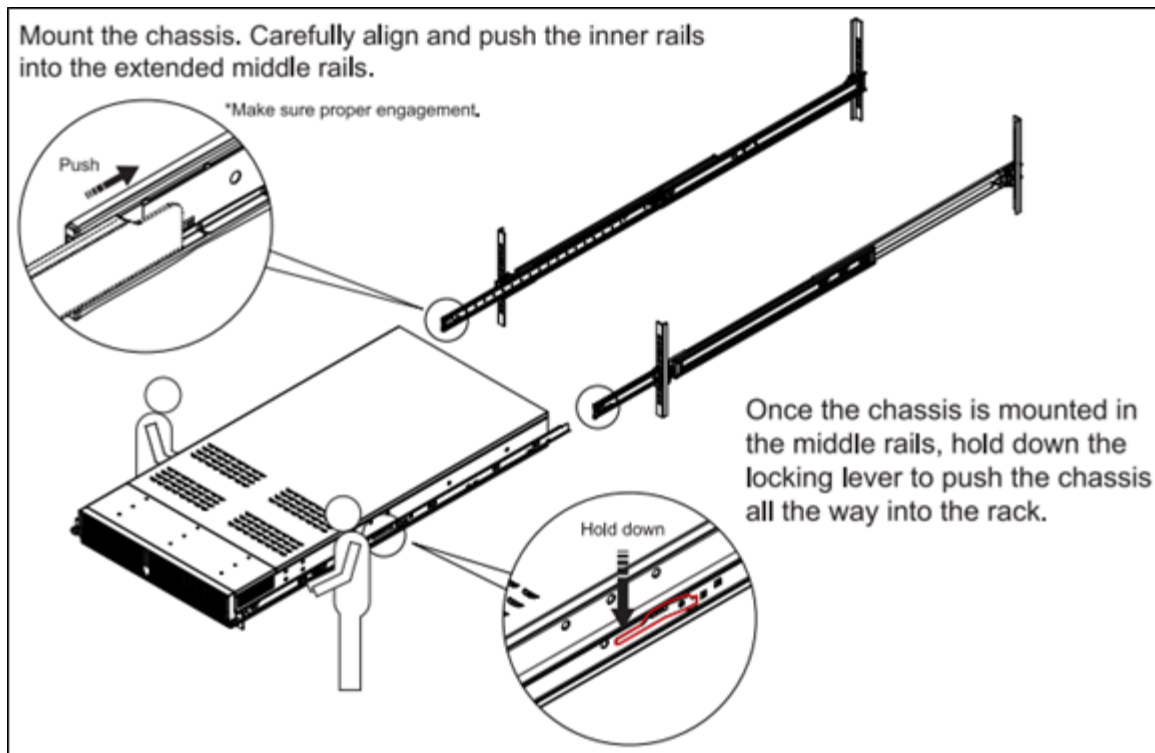


6. Pull the middle rail to the fully opened position. Make sure the ball bearing retainer is at the front of the rail.



7. Mount the chassis. Align and push the inner rails into the extended middle rails. After the chassis is mounted in the

middle rails, hold down the locking lever to push the chassis all the way into the rack.



Prepare the Site for Installation

To prepare your site for installing a Cloud Services Gateway (CSG) 2500 appliance, follow the guidelines and requirements listed in this article.

Site Preparation Guidelines

- Install the appliance in an enclosed and secure environment, and allow only authorized personnel to access the device.
- Keep the area around the appliance free from dust.
- Follow ESD prevention procedures to avoid any damage to the appliance.

Environmental Requirements

- Ensure that the area in which you operate the appliance has adequate air circulation so that the cooling system functions normally. Ambient air temperature may not be sufficient to cool the chassis to acceptable operating temperatures without adequate circulation.
- Avoid temperature extremes.
- High humidity conditions can cause moisture to penetrate into the chassis. The appliance can operate in relative

https://docs.versa-networks.com/Hardware/Cloud_Services_Gateway_2500_Series/Complete_CSG2500_Series_Hardware_...

Updated: Wed, 23 Oct 2024 07:54:49 GMT

Copyright © 2024, Versa Networks, Inc.

humidity of 10% to 85%, non-condensing.

Rack Requirements

You can mount a CSG2500 appliance in a 19-inch four-post rack using slide rails. Table 1 lists the rack requirements.

Table 1: Rack Requirements for a CSG2500 Appliance

Requirement	Guidelines
Rack type	Use a 19-inch four-post rack that has bracket holes spaced at 1 U (1.75 in. or 4.45 cm) increments, and that has panels strong enough to support the weight of the appliance.
Rack size	Comply with the size and strength standards of a 19-inch rack. Ensure that the rack rails are spaced wide enough to accommodate the external dimensions of the appliance chassis. Ensure that the spacing of rails and the adjacent racks allow for proper clearance around the appliance and the rack.
Rack firmly secured to building structure	Secure the rack to floor brackets and to ceiling brackets to ensure maximum stability.

Airflow Requirements

The CSG2500 series appliances have 2+1 redundant fans, which are hot swappable in the field. The fans provide front-to-back cooling.

When placing a CSG2500 series appliance on a desk, ensure that there is space on the rear side of the appliance to allow air to exit from the fan. Also ensure that the vents on the side of the unit are never blocked, to allow hot air to flow out of the appliance. Covering the vents prevents heat from dissipating out of the appliance, which can cause the chassis to overheat and then shut down.