Cloud Services Gateway 700 Series

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Cloud Services Gateway 700 Series

These articles provide an overview of the Cloud Service Gateway (CSG) 700 series appliance, including chassis specifications and components; general safety standards; and instructions for installing, connecting, and replacing an appliance.

At a Glance

The Versa Cloud Services Gateway (CSG) 700 series appliances deliver highly secure site-to-site data connectivity to small- and medium-sized businesses and to home offices. These appliances provide the following features:

- Unified board design that supports different CPUs and memory sizes
- Up to 10 Ethernet ports including:
    - Four built-in 1 Gigabit per second (GB) Ethernet over copper (EoC) ports
    - Two 1-GB EoC or SFP ports, available through separate interfaces
    - Four 1-GB EoC with Power over Ethernet (PoE) ports, available if a Network Interface Card (NIC) module is installed
- MDI and MDIX autoswitchable EoC ports
- Two USB ports for plugging in external LTE or WiFi modems
- PoE source support on four Ethernet ports
- Two built-in wireless slots
- GPS connector for geographical location
- External AC power supply
- Kensington security lock to physically lock down the appliance
- Fanless design
- Fixed chassis with no field-replaceable parts
- Desktop mount or rack-mountable in a 19" rack

CSG700 Appliance Models

The CSG700 appliances are available in the following models:

- CSG730
- CSG750
- CSG770

The CSG 700 appliance models differ only in CPU, memory, and storage size. See Table 1.

Table 1: CSG700 Appliance Models

CSG Appliance Model	CPU	Memory	Storage
CSG730	Intel Denverton with 2 cores	4 GB DRAM	32 GB
CSG750	Intel Denverton with 4 cores	8 GB DRAM	64 GB
CSG770	Intel Denverton with 8 cores	16 GB DRAM	128 GB

Chassis Views

Figure 1 and Figure 2 show the front and rear panels of the CSG730 appliance. The panels for the CSG750 and CSG770 appliances are identical to the CSG730 appliance.

Note: The front panel is the side of the appliance with the SIM slots and two LEDs, for status and power. This is the side that is visible when you install the appliance in an office environment. The rear panel has the power and reset buttons and various connectors and ports. This is the side that is visible when you mount the appliance in a 19-inch rack.

Figure 1: Front Panel of the CSG730 Appliance
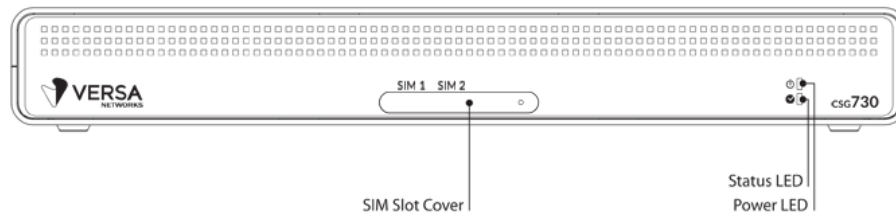
Figure 2: Rear Panel of the CSG730 Appliance
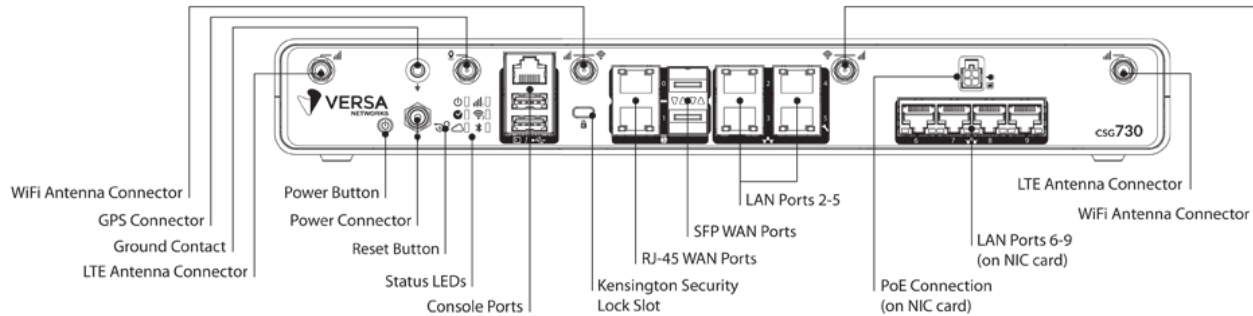
Components and Specifications

A CSG700 series appliance chassis is made of aluminum for optimal heat dissipation. This article lists the chassis and regulatory compliance specifications for a CSG700 series appliance. It also lists certifications and export control classification numbers (ECCNs) for the appliance.

Chassis Specifications

Table 1 lists the chassis specifications for a CSG700 series chassis.

Table 1: CSG700 Series Chassis Specifications

Item	Specification
Services and Slot Density	
RJ-45 ports 10/100/1000 Mbps	4 + 2
SFP Ethernet ports	2
External USB ports (USB 2.0)	2
RJ-45 serial console port	1
Memory DDR4 ECC DRAM	CSG730: 4 GB CSG750: 8 GB CSG770: 16 GB
Disk 1 SSD, M.2 SATA-based	1
Disk 1 SSD default size	CSG730: 32 GB CSG750: 64 GB CSG770: 128 GB

Disk 2 and Disk 3, USB-based	Flexible
Power supply	AC input
Power Specifications	
AC input voltage	100–240 Volts
AC input line frequency	50–60 Hz
Typical power consumption with PoE disabled	35 Watts
Typical power consumption with PoE enabled	60 Watts
Chassis Physical Specifications	
Chassis height	1.73" (4.4 cm)
Chassis width	8.75" (22 cm)
Chassis depth	13.25" (33.6 cm)
Rack height	1 RU
Chassis weight	5.84 lb (2.65 kg)
Package Specifications	
Package height	7" (17.78 cm)
Package width	16.7" (42.4 cm)
Package depth	12" (30.48 cm)
Package weight	15.4 lb (7 kg)
Operating Conditions	
Temperature	0 to 35°C (32 to 95°F) at sea level
Humidity	10 to 85% relative humidity
Altitude	Maximum 3000 m (10000 ft)
Noise level	0 dBm
Storage Conditions	
Temperature	20 to 70°C (68 to 158°F) at sea level
Humidity	10 to 85% relative humidity

Reliability	
MTBF	Minimum of 200,000 hours

Regulatory Compliance

Table 2 lists the regulatory compliance specifications for a CSG700 series chassis.

Table 2: CSG700 Series Regulatory Compliance Specifications

Item	Specification
Safety	CE Marketing
Security	TPM 2.0 Designed to be FIPS 140-2 Level 2 compliant
EMC	FCC Part 15, Class A
Environmental	RoHS
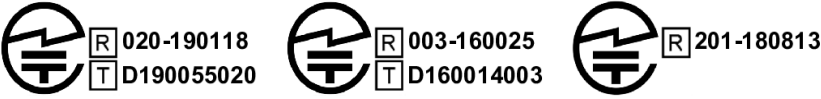
Certifications

A CSG700 series appliance complies with the certificates listed in Table 3.

Table 3: CSG700 Series Certifications

Region	Certifications
Europe	• EN 300 328 Version 2.1.1 (Bluetooth) • EN 301 489-17 Version 1.0 (Bluetooth) • EN 301 489-19 Version 1.0 (GPS) • EN 303 413 (GPS) • EN 50385 MPE(SAR Evaluation) • EN 55032 • EN 60950-1 CE(LVD)
America	• FCC 47 CFR Part 15B • FCC 47 CFR Part 15C, 15.247 (Bluetooth) • MPE • FCC ID: 2ARF9CSG-BT • Contain FCC ID: N7NMC7455 • Contain FCC ID: 2ARF9CSG-W1

Japan	• JATE Article 9&34 (Bluetooth & RJ45) • MIC_STD-T66 (Bluetooth) R 020-190118 T D190055020 R 003-160025 T D160014003 R 201-180813

Export Control Information

Table 4 lists the ECCN, HTS, and CCATS numbers.

Table 4: ECCN, HTS, and CCATS Numbers

Item	ECCN Number	HTS Number	CCATS Number	Use of Item by Versa
MatrixSSL software module	5E002	8542310000	G161333	SSL-VPN Proxy
QuickSec IPsec toolkit as used by Versa Analytics, Versa Director and Versa FlexVNF	5D002	8542310000	G161333	IPSec crypto module
Hardware-based encryption and decryption	5A002U	8542310001	G156910L1	CSG700 series appliance

Front and Rear Panel Components

This article describes the front and rear panel components of a CSG700 series appliance. For the exact location of these components on the appliance, see At a Glance.

Front Panel

The front panel of a CSG700 series appliance has two status LEDs and two SIM card slots.

LEDs

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

Table 1: Front Panel LEDs in a CSG700 Series Appliance

LED	Color	Status
Power	Green	• Off: Appliance is not powered on. • Green: Appliance is powered on.
Status	Green, Red	• Off: Appliance hardware is up, but there is a problem with the software. • Solid green: Appliance is up and running. • Blinking green: Appliance is in the process of booting up. • Red: Major error condition exists in the system or there is a corrupt software configuration. • Blinking red: System crash, overheating, or a persistent error condition exists.

SIM Card Slots

The front panel of a CSG700 series appliance has two nano-SIM card slots. If you subscribe to a single wireless service, use the SIM 1 slot to install the LTE device. If you are subscribing to dual wireless service, use both the SIM 1 and SIM 2 slots to activate the LTE devices.

Note: It is strongly recommended that you use only preactivated SIMs in the SIM card slots.

Rear Panel

The rear panel of a CSG700 series appliance has six status LEDs, power and reset buttons, a Kensington security lock slot, and an input for a GPS antenna.

LEDs

The rear panel of a CSG700 series appliance has six LEDs located in two rows.

Table 2 lists the LEDs, their color and states, and the status they indicate.

Table 2: Rear Panel LEDs in a CSG700 Series Appliance

LED	Color	Status
Power	Green	• Off: Appliance is not powered on. • Green: Appliance is powered on.
Status	Green, Red	• Off: Appliance hardware is up but there is a problem with the software. • Solid green: Appliance is up and running. • Blinking green: Appliance is in the process of booting up. • Solid red: Major error condition exists in the system or there is a corrupt software configuration. • Blinking red: System crash, over heating, or a persistent error condition exists.
Wireless	White	• Off: Wireless module not installed. • Solid white: Wireless module is up and running. • Blinking white: Wireless module is booting up or there is traffic on the wireless module.
LTE	White	• Off: LTE module not installed, or there is a major hardware problem. • Solid white: LTE module is up and running. • Blinking white: LTE module is booting up or there is traffic on the LTE module.

Power Button

The Power button on the rear panel of a CSG700 series appliance turns the power on and off.

To turn the power on, press and immediately release the Power button when the appliance is off.

To turn the power off, press the Power button when the appliance is on. If you press and immediately release the button, the appliance shuts down gracefully. If you press and hold the button for a longer period, it turns off power to the appliance ands shuts it down.

Reset Button

The Reset button on the rear panel of a CSG700 series appliance resets the appliance. The reset functionality depends on the number of time you press it, as described in Table 3.

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. Each time you press the Reset button, you hear a buzzer sound.

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.

Kensington Security Lock

The Kensington security lock on he rear panel of a CSG700 series appliance is a small metal-enforced hole for attaching a Kensington lock to secure the appliance.

GPS Input

The GPS antenna input on the rear panel of a CSG700 series appliance allows you to connect an external GPS antenna. When you connect a GPS antenna to the appliance, it automatically identifies the geographical location of the unit, allowing you to detect any theft or movement of the appliance. Knowing the precise location of the unit also enables Versa Director to provision devices when the serial number is not mandated for the zero-touch provisioning (ZTP) process.

Network Interface Card Modules

The CSG700 series appliance offers interface modularity, providing four Ethernet ports that support two types of NICs:

- 1-GB Ethernet over copper (EoC) port
- 1-GB EoC with PoE port

The four Ethernet ports on the NIC module are labeled Port 6 to Port 9.

Figure 1 shows the four RJ-45 connectors for the four Ethernet ports. (1-GB EoC port and for the 1-GB EoC with PoE port.)

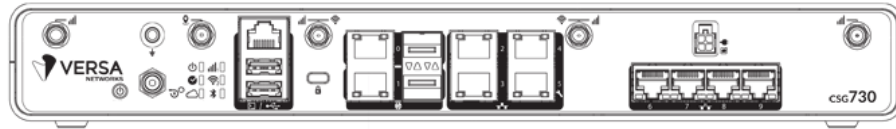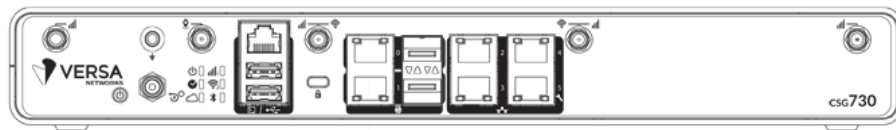**Figure 1: RJ-45 Connectors for 1-GB EoC Port With or Without PoE Port**

Figure 2 shows the four RJ-45 connectors/SFP slots for the 1-GB EoC/SFP combination port.

Figure 2: RJ-45 Connectors or SFP Slots for 1-GB EoC/SFP Combination Port

LTE Modem Module

You can order the CSG700 series appliance with single or dual LTE modem modules. If you order the appliance with a single LTE modem, use the SIM 1 slot on the front panel of the appliance to install the LTE device. If you order the appliance with dual LTE modems, use both the SIM 1 and SIM 2 slots to activate the LTE devices.

The CSG700 series LTE modem module is a high-performance Cat-6 LTE Advanced modem that provides up to 300 Mbps download speeds and 50 Mbps upload speeds. The LTE modem supports multiple carriers, and it has been certified by major global carriers. The modem has a single SIM card that is externally accessible.

The LTE firmware-driven modem module provides the following capabilities:

- Externally accessible SIM card that supports dual-LTE modems.
- Connects to most global carrier's network based on the SIM card inserted. For example, if a SIM card is inserted from carrier A, the modem will auto-detect the SIM card and connect to carrier A's network. If a SIM card is inserted from carrier B, the modem will connect to the network of carrier B.
- Global navigation satellite system (GNSS) receiver enables tracking and location-based services.
- Stores up to three firmware versions, thereby allowing the modem to switch to other networks.
- Firmware can be upgraded over the air
- Secure boot provides secure connectivity by preventing unauthorized code on target devices.

The LTE modem connections are metered connections, and the Versa software implementation ensures that the LTE service is charged only when needed. Policies and scenarios that determine the use of LTE interfaces are set by network operators and implemented by Versa FlexVNF accordingly.

Table 1 lists the supported LTE specifications .

Table 1: LTE Specifications

Specification	APAC Modem	Americas and EMEA Modem
Peak download/upload rate	300/50 Mbps	300/50 Mbps
Frequency bands 4GLTE	1, 3, 5, 7, 8, 18, 19, 21, 28, 38, 39, 40, and 41	1 through 5, 7, 8, 12, 13, 20, 25, 26, 29, 30, and 41
Frequency bands 3G WCDMA	1, 5, 6, 8, 9, and 19	2, 4, 5
Frequency bands 3G SCDMA	39	
Supported carrier aggregation	1 + (8, 18, 19 ,21), 3 + (5, 7, 19, 28), 7 + (5, 7, 28), 19 + 21, 38 + 38, 39 + 39, 40 + 40, and 41 + 41	1 + 8, 2 + 2/5/12/13/29, 3 + 7/20, 4 + 4/5/12/13/29, 5 + 2/4/30, 7 + 3/7/20, 8 + 1, 12 + 2/4/30, 13 + 2/4, 20 + 3/7, 30 + 5/12, 41 + 41
Location Solution	Standalone, Xtra, SUPL 1.0 & 2.0, GLONASS, Galileo, BeiDou	Standalone, Xtra, SUPL 1.0 & 2.0, GLONASS, Galileo, BeiDou
Approvals	CE, GCF, JRF/JPA, KC, NCC	CE, FCC, GCF, IC, NCC, PTCRB
Certified Carriers	NTT Docomo, Telstra, KDDI, Softbank	AT&T, Bell, Rogers, Sprint, Telus, Verizon, Vodafone, US Cellular, Anatel

WiFi Access Point Module

You can order the CSG700 series appliance with the WiFi access point (AP) module. If you do so, the WiFi AP module comes preinstalled in Wireless slot 2.

The WiFi AP module is a dual-band module that simultaneously supports 2.4 GHz, for longer distances, and 5 GHz, for faster throughput. It provides the following WiFi capabilities:

- WiFi radios preconfigured for 2.4GHz and 5.0-GHz operation
- Supports 802.11ac Wave 2 standard and 2x2:2 Multi User Multiple Input Multiple Output (MU-MIMO) for more efficient transmission to multiple clients
- Built-in support for WiFi mesh capabilities
- Supports IEEE 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac protocols
- Supports channel bandwidth of 20 MHz, 40 MHz, and 80 MHz
- Supports channel bonding with channel bandwidths of 5 MHz, 10 MHz, 20 MHz, and 40 MHz
- Background scanning automatically selects the best and cleanest channel
- Supports up to 512 concurrent clients across both frequencies, while each radio supports up to 256 clients
- Supports up to 8 SSIDs simultaneously
- Supports client steering capabilities across respective frequency bands based on load and number of clients in each frequency thereby allowing end devices to have optimum experience
- Certified for FCC and CE

The WiFi AP module has a hardware-based cryptographic engine that includes secure boot. WiFi security is provided by 802.11i, AES-CCMP, AES-GCMP, PRNG, TKIP, WAPI, WEP, WPA, WPA2, and WPS based encryption methods.

You can seamlessly integrate the WiFi AP module with Versa FlexVNF features, including over-the-air traffic analysis and other analytics. FlexVNF provides queuing mechanisms, including weighted round-robin (WRR). In addition, the WiFi AP module has a built-in QoS feature that prioritizes and manages over-the-air traffic. It also has built-in spectrum analyzer capabilities to detect rogue frequencies in an environment, if desired.

Interface Numbering

Figure 1 shows the mapping of the Ethernet ports to Virtual Network Interface (VNI) numbering.

Figure 3: Port-to-VNI Mapping
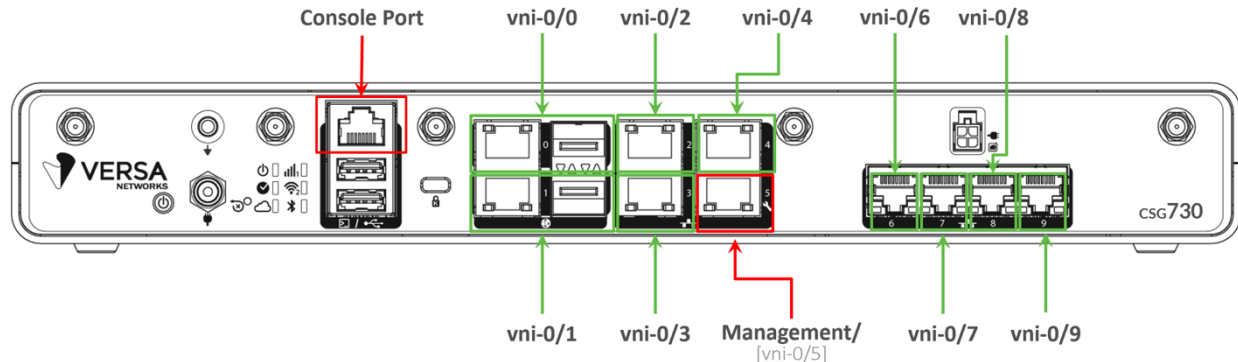
Power Supply and Airflow

This article describes the AC power supply, AC power cord specifications, and airflow requirements for CSG700 appliances.

AC Power Supply for CSG700 Series Appliances

By default, CSG700 series appliances ship with one AC power supply unit.

If you order the CSG700 series appliance with the power over Ethernet (PoE) NIC module, an additional power supply unit ships with the appliance.

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

Table 1: CSG700 Series Appliance AC Power Supply Specifications

Item	Specification
AC input voltage	100–240 Volts
AC input line frequency	50–60 Hz
Typical power consumption with PoE disabled	35 Watts
Typical power consumption with PoE enabled	60 Watts

Airflow Requirements

The CSG700 series appliance is made of aluminum for optimal heat dissipation.

The appliance has no fans, to minimize noise and to maximize the life of the appliance. Cooling occurs by natural airflow through the vents on the top of the appliance.

When planning your site for installing a CSG700 series appliance in a 19-inch rack, allow a minimum of 0.5 RU space above the appliance to allow hot air to flow out of the appliance. However, itt is recommended that you allow 1 RU space above the appliance for cooling.

When placing a CSG700 series appliance on a desk, ensure that the vents on the top 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 will cause the chassis to overheat and then shut down.

Planning and Installation

This article provides general safety standards and warnings regarding to installing or connecting a CSG 700 series appliances.

General Safety Guidelines

Caution: Before installing or removing a CSG700 series 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 CSG700 series 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.
- 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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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 FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Prepare the Site for Installation

To prepare your site for installing a CSG700 series 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 and conductive material.
- 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 humidity of 10% to 85%, non-condensing.

Rack Requirements

You can mount a CSG700 series appliance in a 19-inch four-post rack using slide rails. Table 1 lists the rack requirements.

Table 1: Rack Requirements for a CSG700 Series 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 allows 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

A CSG700 series appliance has a fanless design and cools by airflow through the vents on the top of the appliance.

When planning your site for installing a CSG700 series appliance in a 19-inch rack, allow a minimum of 0.5 RU space above the appliance to allow hot air to flow out of the appliance. However, itt is recommended that you allow 1 RU space above the appliance for cooling.

When placing a CSG700 series appliance on a desk, ensure that the vents on the top 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 will cause the chassis to overheat and then shut down.

Install a CSG700 Series Appliance

This article provides instructions about how to unpack a CSG700 series appliance and mount it in a 19-inch rack.

Unpack a CSG700 Series Appliance

The CSG700 series appliance is packed in a plastic box, 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 CSG700 series 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: Unpacking a CSG700 Series Appliance
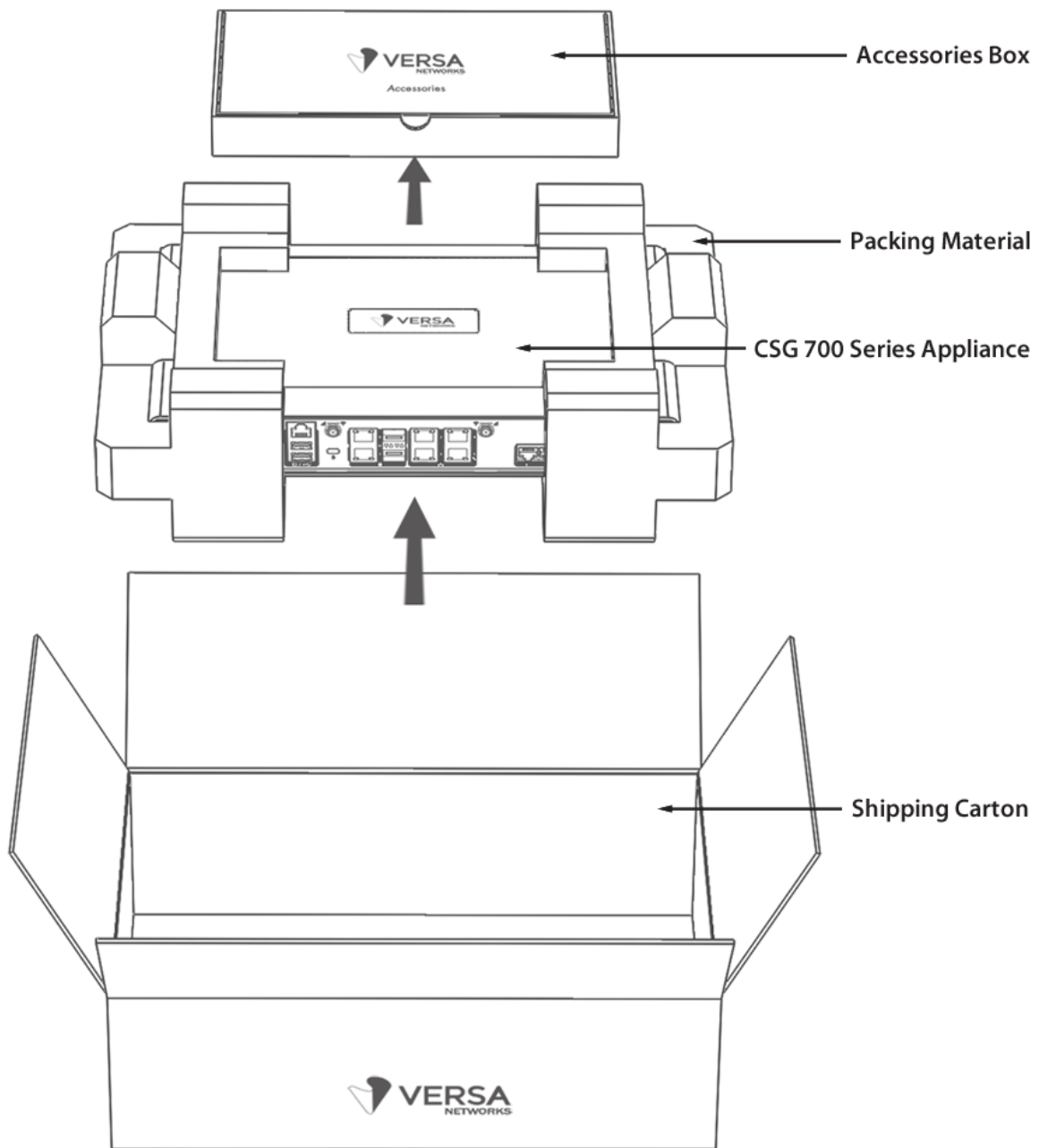
Note: It is recommended that you save the shipping carton and packing material when unpacking the appliance, in case you need to later move the appliance or return it. See Return Hardware.

Packing List for a CSG700 Series Appliance

The cardboard carton in which a CSG700 series 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 CSG700 series appliance.

Table 1: Parts Shipped with a CSG700 Series Appliance

Component	Quantity
CSG700 series appliance chassis	1
AC power adapter	1
Power cable	1
65 Watt PoE power adapter (included with PoE NIC module only)	1
Cat 6 cable	1
Cat 5e cable	1
LTE antenna (included with LTE module only)	2 for single LTE module 4 for dual LTE module
WiFi antenna (included with WiFi module only)	2
GPS antenna	1
Rack-mounting ears	2
Screws for mounting ears	8

Mount a CSG700 Series Appliance in a Rack

You can mount a CSG700 series appliance in a four-post 19-inch rack. Two people are required to mount the appliance.

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

- Number 2 Phillips (+) screwdriver
- Tape measure

To mount a CSG700 series 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 22 cm wide (about 8.6 inches wide) and must fit within the mounting posts.

3. Allow a minimum of 0.5 RU space above the appliance for airflow, to allow hot air to flow out. However, it is recommended that you allow 1 RU space above the appliance.

Figure 2: Space a CSG700 Series Appliance when Rack Mounting

Minimum of 0.5 RU clear space above the CSG appliance
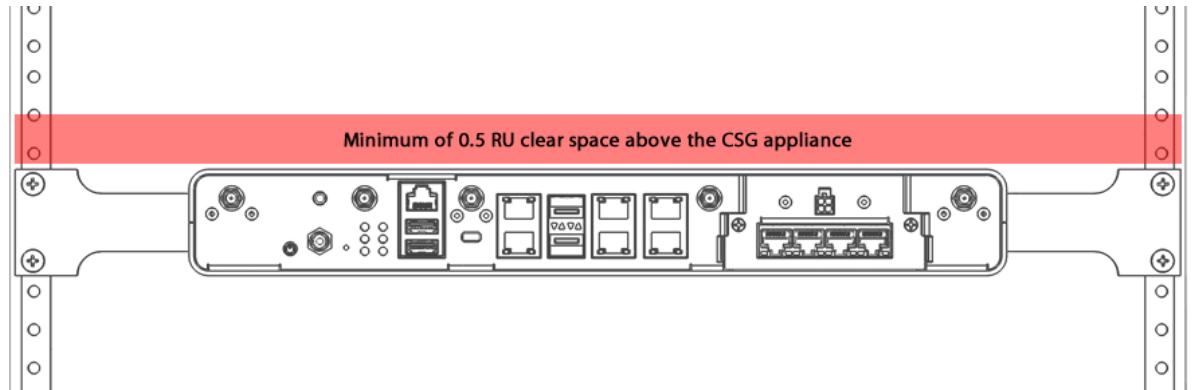
4. Attach the two mounting ears to each side of the appliance chassis using the eight mounting ear screws that are shipped with the appliance. Use four screws to attach each mounting ear.

Figure 3: Attach the Mounting Ears to a CSG700 Series Appliance

Mounting Ear Screws

Mounting Ear

Mounting Ear Screws

Mounting Ear
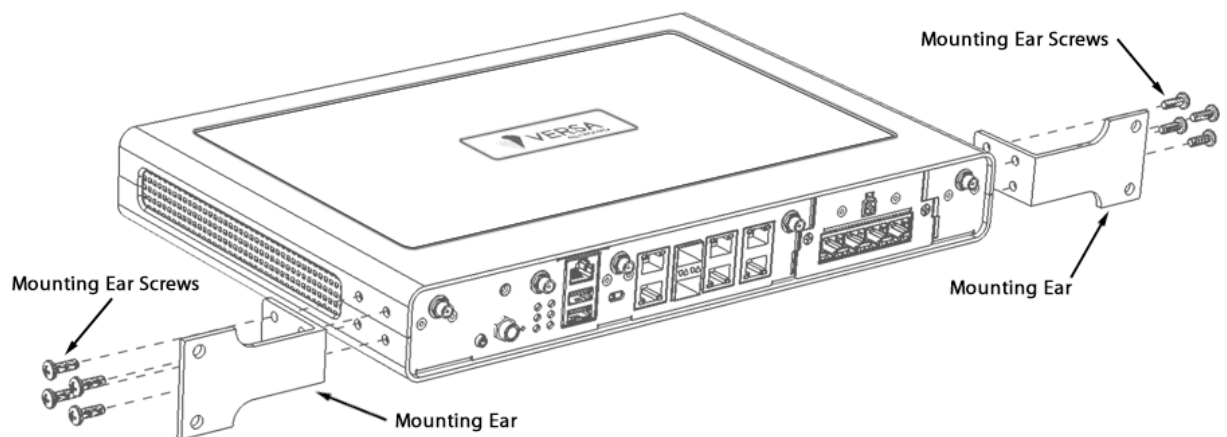
5. Grasp both sides of the appliance chassis, making sure that the front of the chassis is facing you.
6. Stand in front of the rack and lift the chassis. Then, gently insert the chassis into the rack and slide it as far back as possible.

7. **Figure 4: Inserting a CSG700 Series Appliance into the Rack**
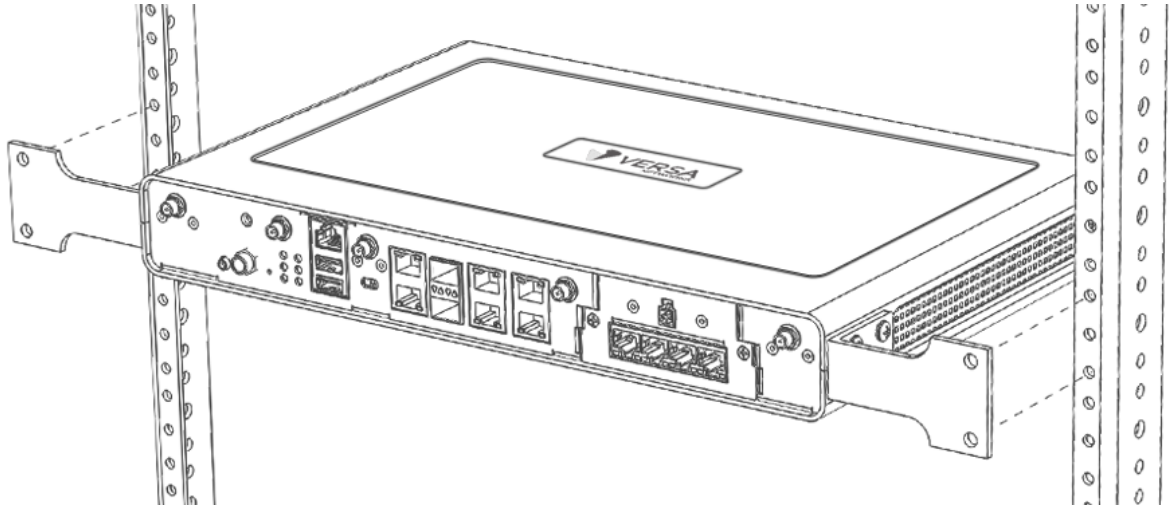
8. Have the second person secure the mounting ears to the front of the rack using the rack-mount screws that are shipped with the appliance. Insert and then tighten the screws.

Figure 5: Secure the Mounting Ears to the Rack
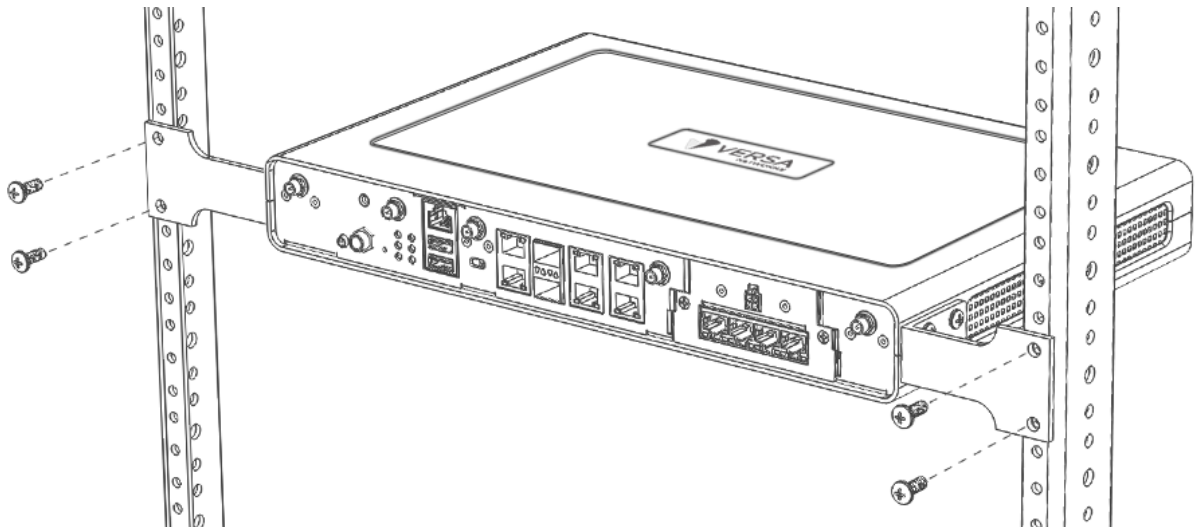
Connect a CSG700 Series Appliance

This article describes how to connect a CSG700 series appliance to an AC power source and to a management console.

Step 1: Connect Earth Ground to a CSG700 Series Appliance

To ensure proper operation of a CSG700 series appliance and to meet safety and electromagnetic interference (EMI) requirements, you must connect the appliance to earth ground before you connect power to the appliance.

If you use a three-prong power cable to connect power to a CSG700 series appliance, the power cable provide the ground connection.

If you use a twoprong power cable to connect power to a CSG700 series appliance, connect the appliance to earth ground before you connect power to the appliance:

1. Connect one end of the grounding cable to a proper earth ground, such as the rack in which the CSG700 series appliance is mounted.
2. Secure the grounding lug to the protective grounding terminal with washers and screws.

Step 2: Connect AC Power to a CSG700 Series Appliance

Before you begin connecting AC power to a CSG700 series appliance, ensure that you have:

- Electrostatic discharge (ESD) wrist strap.
- AC power cord shipped with the appliance. The cord has plugs appropriate for your geographical location.

To connect a CSG700 series appliance to an AC power source:

1. Attach one end of the ESD grounding strap to your bare wrist, and connect the other end to the ESD point on the rack.
2. Plug one end of the AC power cord into the power supply in the appliance.
3. Plug the other end of the AC power cord into an AC power source outlet.
4. Plug the DC end of the power supply unit into the back of the CSG700 series appliance.

Step 3: Connect a CSG700 Series Appliance to a Management Console

You can configure and manage a CSG700 series appliance using a management console. To connect a CSG700 series appliance to a management console, use the console port on the appliance, which accepts a cable with an RJ-45 connector.

To connect a CSG700 series appliance to a management console:

1. Plug one end of the console cable into the console port located on the rear panel of the CSG700 series appliance.
2. Plug the other end of the cable into the console server or into a management console.

Return Hardware

This article describes how to return a CSG700 series appliance for return or replacement.

Locate the Model and Serial Number

To return a CSG700 series appliance to Versa Networks, you need the model and serial number of the appliance. These numbers are printed on the shipping box and on the unit label located on the bottom of the appliance.

Obtain a Return Material Authorization

If you are returning an appliance to Versa Networks, open a support case with the Versa Networks Customer Support team and obtain a Return Material Authorization (RMA) number. Before you open a case and request an RMA number, have the following information ready:

- Your existing case number, if any
- Serial and model numbers of the appliance
- Physical location of the appliance
- Your name, organization name, telephone number, fax number, and shipping address
- Failure or problem description with details

To obtain an RMA number:

1. Open a support case with Versa Networks in one of the following ways:
   • Log in to https://support.versa-networks.com/support/login.
   • Call toll-free 1-888-498-5810.
2. A customer support representative will validate your case and issue an RMA number for use to use when returning the appliance to Versa Networks.

Repack the Appliance

To return a CSG700 series appliance, repack it in its original packing. You need the following tools to do this:

- Phillips Number 2 (+) screwdriver
- Original cardboard carton in which you received the appliance

To repack the appliance in its original packing:

1. Shut down the CSG700 series appliance.
2. Disconnect power to the appliance and remove all cables.
3. If the appliance is mounted in a 19-inch rack, unscrew the mounting ears and gently slide the chassis out of the rack.
4. Place the chassis in the plastic packing bag.
5. Secure the chassis in the cardboard carton, placing the side packing foam on both sides of the appliance chassis and the top packing foam over the top.
6. Close the cardboard carton and seal it with packing tape.
7. Write the RMA number on the shipping label or on the outside of the box for tracking purposes.