DATA SHEET

Cloud Service Gateway

CSG700 Series Appliances Datasheet

Introduction

Versa Cloud Service Gateway (CSG) 700 series are next-generation branch networking and security appliances delivering SD-WAN, NGFW, UTM, on-premises ZTNA and carrier class routing features all in one. Versa CSG700 series appliances are ideal for enterprise branch offices that require integrated high performance branch connectivity and security solutions.

Versa CSG700 series appliances run VOS™ (Versa Operating System) natively and are managed by Versa's centralized management stack that includes Versa Concerto, Versa Director, and Versa Analytics software. Versa's software-defined architecture enables enterprises to migrate from legacy WAN, routing and security solutions that are typically separate solutions, to Versa's integrated solution, achieving superior business agility, branch modernization, solution consolidation and lower TCO.

Product Description

Versa CSG700 series appliances are designed for deployment in enterprise branches to deliver the industry's richest set of branch networking and security functions. The versatile CSG700 series appliances deliver carrier-grade reliability while supporting a diverse set of WAN access technologies (MPLS and broadband), mobile connectivity options (via sub-6 class 5G, Advanced LTE modules), enterprise grade WLAN AP option, together with additional Ethernet (copper, with and without PoE, fiber GE interface add-on options) and non-Ethernet connectivity options such as A/VDSL2 and T1/E1 interfaces.

CSG700 Series Appliances Connectivity Capabilities

- Copper and fiber-based Ethernet WAN and LAN ports come built-into the appliance and additional interfaces are available via NICs.
- Factory-installed, integrated 5G, or Advanced LTE module(s) can be ordered to provide WAN connections over the air.
- Factory installed, integrated 802.11ac or 802.11ax WLAN AP module can be ordered to provide enterprise-grade wireless LAN coverage for the branch.
- POE+ NIC module powered with an external power-supply-unit (PSU) can be ordered to support powering of up to 4 PoE connected devices (up to 120 Watts PoE in total)
- T1/E1-NIC option provides 4 ports of T1/E1 interfaces to allow seamless connectivity via legacy WAN networks while supporting PPP, HDLC and Frame Relay encapsulations for legacy WAN connections.
- A/VDSL2-NIC option provides one port of VDSL2 with up to 200+ Mbps in upstream and downstream directions. A/ VDSL2-NIC is capable of auto-detecting ADSL2 connections where VDSL is not available and adapts itself to ADSL. A/ VDSL2-NIC comes in two flavors; Annex A (for POTS based connections) and Annex B (for ISDN based connections)

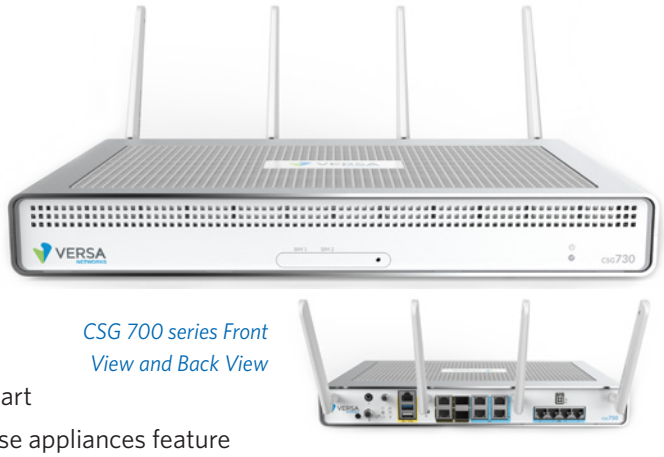
The CSG700 Series Appliance Models

- CSG730: Optimized for small enterprise branches, this appliance delivers essential routing, SD-WAN, and foundational security features. Built for versatility, it can operate in environments with a wider temperature range, ensuring reliable performance in challenging conditions.

CSG750: A robust solution for medium-sized enterprise branches, integrating advanced SD-WAN and security capabilities—including NGFW, UTM, and ZTNA—into a single appliance.

CSG770: Engineered to cover needs of medium to large branches, this high-performance appliance supports advanced SD-WAN and security solutions with high performance and scale. Additionally, it includes uCPE (universal CPE) functionality, allowing for flexible deployment of third-party VNFs (virtual network functions) eliminating appliance sprawl.

CSG780: The most recent addition to CSG700 family of branch appliances, CSG780 is built for deployments that demand superior SD-WAN and security performance. CSG780 scales uCPE support further while maintaining a comprehensive set of advanced networking and security functions.



CSG 700 series Front View and Back View

Deployment and Management

The CSG700 series appliances are managed through centralized Versa Concerto or Versa Director platforms, which enable configuration, monitoring, and provisioning. Additionally, Versa Analytics leverages bigdata analysis to deliver insights into device, network, application, and security performance. With true multi-tenancy across the entire Versa suite, CSG700 series appliances can be deployed by managed service providers (MSPs) as part of their offerings or directly by enterprises. Designed for simplicity, these appliances feature Zero-Touch Provisioning (ZTP) and centralized management, ensuring easy deployment and seamless operation.

Versa CSG700 series appliances offer flexible deployment options, whether placed on a shelf, desk, or mounted in a rack. Their sleek, modern design allows them to blend seamlessly into office environments. Featuring a fanless architecture, these appliances enhance reliability while ensuring silent operation, making them ideal for noise-sensitive settings, including home offices.

Versa CSG700 series appliances provide ease of access and management while being rack mounted, thanks to its design that offers interfaces, antenna, power connections and indicators on the front side of the unit all in a single side. Status LEDs provide succinct visualization of the operational status of the device with cloud connection and other indicators for technicians on premises.

The Cloud Services Gateway Advantage

Versatility and Flexibility

The CSG700 series appliances are based on x86 compute architecture, taking advantage of the architecture flexibility while delivering good price-performance options for the need. CSG700 series appliances come with hardware offload functions for encryption and compression/decompression to deliver most efficient, high-performance appliances for the branch.

Resiliency and Manageability Advantage

Versa CSG700 series appliances are designed for resiliency and durability to ensure business continuity and services. The fanless design, even in the highest performing model, ensures very high mean time between failure (MTBF) values, reducing requirements for sparing and technician-based services. CSG700 appliances come with dual BIOS support for increased resiliency and reliability during BIOS upgrades. The CSG700 series appliances have clearly designed LEDs that are unique and intuitive to instantly provide device and interface status for ease of manageability.

Security Advantage

The platform hardware has been designed for FIPS 140-2 compliance and comes configured from the factory as a trusted platform. Preinstalled FIPS class stickers provide default factory sealing and deliver evidence of tamper proof operation. A TPM chip integrated into the appliance ensures the integrity and security of critical data, such as encryption and authentication keys.

LTE Advantage

LTE support is supported broadly across CSG700 models and can be used as primary or backup WAN connection options for branch connectivity. Enterprise customers can deploy CSG700 series appliances with up to four independent LTE simultaneous connections, providing unmatched resiliency. Load sharing and flexibility for mobile access from the branch.

Each appliance can be ordered with two factory-installed enterprise grade internal LTE class modems to provide simultaneous connectivity via two active LTE access links. The appliance also has two USB slots that can be simultaneously connected to two LTE dongles. With two internal modems and two USB-attached modems, customers can deploy up to four simultaneous LTE based WAN connections.

CSG700 revision-1 units support CAT6 LTE modems which provide performance up to 300 Mbps downstream and up to 50 Mbps upstream directions. CSG700 revision-2 units support CAT12 global LTE Advanced Pro modems with downlink performance up to 600 Mbps and uplink performance up to 150 Mbps. For more details on LTE modem modules, please see respective datasheets.

Embedded LTE modules are firmware controlled, allowing for maximum carrier flexibility and independence. The Versa CSG700 appliance has two externally accessible SIM card slots, one for each embedded LTE modem. If the appliance is configured with two LTE modems, each SIM card is used to control one LTE radio.

5G Advantage

Sub-6 class 5G module is available on CSG750 and CSG770 platforms for use as primary or backup WAN connection. Embedded 5G modem option enables enterprise customers to make full use of higher performance connections across mobile networks.

Versa's embedded 5G modem module uses 4 antennae for high performance connectivity across a wide range of 5G and LTE bands. Versa CSG700 series 5G SKUs come with 4 indoor, high gain omni-directional antenna. Versa's antennas are attached using standards based SMA connectors. If desired, 3rd party antenna extenders can also be connected to the unit for improved signal characteristics. Such extension extender options can include indoor or outdoor class antenna options.

Versa CSG700's 5G module is fully firmware controlled, allowing for maximum carrier flexibility and configurability. Embedded 5G module is a global module that can be operated on networks of 5G operators across the globe.

For more details on Versa 5G module for CSG700 series, please refer to 5G module datasheet.

Wi-Fi Advantage

Each CSG700 series appliance can be ordered with a factory-installed WiFi module to provide enterprise-grade WLAN connectivity within the branch. CSG700 revision-1 platforms support WiFi5 802.11ac WLAN AP modules and CSG700 revision-2 platforms support WiFi6 802.11ax WLAN AP class modules.

Embedded WLAN AP modules, either WiFi5 or WiFi6 flavors, support up to 8 SSIDs and 255 wireless clients concurrently across each band, totaling to 16 SSIDs and 512 clients. The embedded WLAN AP module supports 2.4-GHz and 5-GHz frequency bands simultaneously (Dual Band, Dual Concurrent Access).

Versa's WLAN AP modules support 2x2 MU-MIMO with beamforming capabilities and they are suitable for small-to-medium size office deployments. The WLAN AP module also supports band steering capabilities and has sufficient transmission power and MRC capabilities to process weak wireless signals from distant client devices providing the best possible user experience. For more information, see respective datasheets for WiFi5 WLAN AP module and WiFi6 WLAN AP modules.

NIC Options

Versa provides extensive NIC options to expand wired connection capabilities. Versa's PoE NIC provides 120W total across 4x GE ports. Each of the ports can supply its share of power from the aggregate PoE capacity and PoE power can be shifted based on the need. Note, a second PSU (power supply unit) is required for the NIC to provide the additional PoE power. Thanks to PoE NICs, WLAN APs, cameras, VoIP phones, and other PoE-capable devices can be powered without using AC adapters by leveraging the POE supplied by CSG700 series appliance. In addition, Versa provides 8 port copper GE NIC (without PoE) and 4 port GE SFP NIC options to serve the needs of our customers. Furthermore, CSG700 Series platforms also support additional NIC options such as ADSL/VDSL2 NIC and T1/E1 NIC. For more details on NICs, please refer to respective datasheets.

GPS Advantage

The CSG700 series appliances have an internal GPS for automatically identifying the location of the device using GPS and GLOSNASS positioning systems. The device location is uploaded to Versa Director and Versa Analytics and is used to facilitate provisioning and device mapping for use cases such as placing the device on a map and geo-fencing.

Scaling and Performance

Customers can select appropriate Versa CSG700 series appliance model based on the expected throughput and the required features for their branch deployments. The table below lists the expected throughput of each appliance model.

	CSG730	CSG750	CSG770	CSG780
Recommended Deployment	Small Branch	Medium Branch	Medium, Large Branch	Medium, Large Branch
Throughput				
Routing, Stateful Firewall, CGNAT	1,000 Mbps	2,750 Mbps	4,000 Mbps	5,000 Mbps
SD-WAN DIA, NGFW DIA	250 Mbps (*)	2,300 Mbps	3,100 Mbps	3,600 Mbps
SD-WAN site to site	250 Mbps	800 Mbps	1750 Mbps	2,500 Mbps
NGFW + SD-WAN	N/A	700 Mbps	1350 Mbps	2,100 Mbps
NGFW + AV	N/A	300 Mbps	600 Mbps	1,000 Mbps
NGFW + AV + SD-WAN	N/A	210 Mbps	500 Mbps	800 Mbps
NGFW + IPS	N/A	160 Mbps	475 Mbps	700 Mbps
NGFW + IPS + SD-WAN	N/A	135 Mbps	350 Mbps	500 Mbps
NGFW + UTM/UTP	N/A	125 Mbps	300 Mbps	425 Mbps
NGFW + UTM/UTP + SD-WAN	N/A	100 Mbps	225 Mbps	350 Mbps

(*) Certain feature restrictions apply. Please refer to Versa documentation.

(**) Performance and scaling numbers shared in product datasheets can vary from vendor to vendor depending on testing scenarios and testing methods utilized. Versa references real-life based scenarios for its performance testing. Furthermore, Versa's security functions run by default in high-security mode and performance numbers shared above are obtained in the same mode to provide best guidance to its customers. For details on each test scenario including running security functions in alternative mode such as higher performance mode, please contact Versa reps.

Hardware Specifications

	CSG730	CSG750	CSG770	CSG780
Networking				
Wired Interfaces	2 x Cu/SFP GE combo and 4 x Cu GE ports			
Wireless Interfaces	Two configurable wireless slots for single LTE, dual LTE, and LTE/Wi-Fi combinations			No wireless options
NIC Support	See NIC Details Section			
Management	1 x RJ45 RS232 console, 1 x GE Cu (dual purpose)			
Other Interfaces and Modules				
TPM	2.0			
Hardware acceleration	Built-in crypto and compression/decompression via hardware			
USB	2 x USB 2.0			
Physical Characteristics				
Unit Weight	5.38 lb / 2.65 kg			
Unit Dimensions	1.75" / 4.45 cm (h) x 13.25" / 33.65 cm (w) x 8.75" / 22.22 cm (d)			
Shipping Box Weight	10.36 lb. / 4.7 kg			
Shipping Box Dimensions	7"/ 17.78 cm (h) x 16.875" / 42.86 cm (w) x 12.25" / 31.11 cm (d)			
PSU	External AC PSU, plus additional PSU for the PoE NIC			
Unit Power	110-240 VAC, 50-60 Hz			
Total POE Power	60 W			
Cooling	Passive (fanless)			
Mounting	Desk Stand and Rack Mount			
Operational and Compliance				
Operational Temperature	(temperature) hardened appliance -13F to 140F (-25C to 60C) @ 3,000 m altitude	32F to 104F (0C to 40C) @ 3,000 m altitude		
Storage Temperature	-4F to 158F (-20 to 70 C)			
Humidity	10-85%			
FCC Classification	FCC Part 15, Class A			
Environmental	ROHS			
Safety	Certified for global deployments			
Regulatory	FCC (US), CE (EU), CB (IEC), JRF/JPA(JP)			

Warranty and Support

Versa Cloud Services Gateway 700 series appliances include a 2-year Return to Factory (RTF) Warranty. Versa Networks offers enhanced warranty and advanced replacement options such as Next Business Advance Shipment (NBDAS), Next business Day Advance Replacement (NBDAR) and Same Day Advance Replacement 4 hours (SDAR).

Ordering Guide

Versa Cloud Services 700 series appliances are versatile platforms providing a variety of optional capabilities to suit the needs of the enterprise. The ordering information for the CSG700 series appliance model with optional add-on modules is provided in the Versa CSG Ordering Guide. For additional help on ordering CSG700 platforms, please contact to Versa sales or Versa Authorized Resellers.

About Versa Networks

Versa Networks the leader in SASE offers fully featured SD-WAN with integrated NGFW/UTP, ZTNA, advanced scalable routing, SD-LAN, genuine multi-tenancy, big-data based analytics and latest AI-ML technologies as part of its single stack software solution. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, Liberty Global Ventures, and Blackrock Ventures.

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