Cloud Services Gateway

CSG300 Series Appliances Datasheet

INTRODUCTION

Versa Networks Cloud Services Gateway (CSG) is a next-generation enterprise software-defined networking appliance that is based on x86 architecture to deliver cloud-native SD-WAN, SD-Security, and SD-Routing services. CSG300 series appliances are ideal for customers deploying Versa Secure SD-WAN in small Enterprise and home branch solutions.

Versa CSG300 series appliances are supported by the Versa centralized management software such as, Versa Director, and Versa Analytics. Versa Secure SD-WAN architecture helps migrate from legacy WANs to a Software-Defined Branch and home solution, thus achieving superior business agility, seamless connectivity and lower TCO.

PRODUCT DESCRIPTION

The versatile CSG300 series appliances deliver carrier-grade reliability, with enterprise-grade routing, SD-WAN and Next-Generation Firewall while supporting a diverse set of WAN access technologies (MPLS, Broadband) and wireless LAN & WAN access technologies (3G, 4G-LTE, LTE Advanced).

The CSG300 series appliances have Ethernet WAN and LAN ports for connectivity and can be ordered with an optional factory-installed LTE module for Cat-6 based 4G/LTE-Advanced access. An integrated 802.11ac Access Point (AP) module is orderable as an add-on factory-installed module, to provide enterprise-grade WLAN coverage for the branch. Field installable NICs expand the capabilities of CSG355 and CSG365 units further to provide 4 additional ports of Cu GE with POE+ to power up to 4 PoE connected devices (up to 60 Watts in total,

with each port supporting up to 30 Watts). Alternatively, ADSL2/VDSL or T1-E1 ports can be added onto CSG35 and CSG365 units using respective NICs.

Designed to be aesthetically pleasing, the CSG300 series appliances are cooled with silent fans, making them suitable for deployment in small enterprise offices and home office environments. They can also be deployed in a standard 19" rack.

The CSG300 series appliances consists of the following base models

• CSG350 is a compact and optimized appliance for deployment in small branches (up to 50 users) that require advanced application and cloud intelligence with hierarchical QoS, providing a cost-effective SDWAN solution.

• CSG355 is a powerful appliance for deployment in both small- and medium-sized branches (up to 50 users) that need advanced SD-Security (NGFW + UTM) along with comprehensive advanced application and cloud-intelligent SD-WAN services on-premises.

• CSG365 is a high-performance appliance for deployment at a small to medium-sized branch (up to 125 users) location that require advanced application and cloud-intelligent SD-WAN services, advanced SDSecurity (NGFW and UTM).

Versa provides Versa Director to configure, monitor, and provision CSG appliances, while big data based Versa Analytics application provides device, network, and security analytics for the CSG appliances deployed Versa OS. The CSG300 series appliances can be deployed by managed service providers (MSPs) for scalable managed services and by enterprises of all sizes from small and medium businesses to Fortune 500 companies. The CSG300 series appliances have been designed

for ease of use whether deployed as a desktop unit or deployed in a rack. Elegant design allows the appliances to be deployed in environments where silent operation is mandatory, such as in banks, retail offices, and home offices.

For rack-mounted deployments, the port side of the CSG300 series appliances is designed to simplify operations and accessibility and to improve visibility of device operational status and health. Status LEDs provide succinct visualization of the operational status of the device and of the Bluetooth, WLAN, and LTE connections.

CSG 300 series

THE CLOUD SERVICES GATEWAY ADVANTAGE

The CSG300 series appliances are highly performing, scalable entry-level and medium-branch appliances for Secure SD-WAN deployments.

Versatility and Flexibility

CSG300 series appliances are based on x86 architecture, taking advantage of the latest performance enhancements for packet processing, encryption offload, and compression/decompression offload via quickassist technology to deliver the most efficient, high performance appliance for the small branches and home offices. The innovative CSG300 series appliances are engineered to deliver high-performance and scalable multi-tenant, cloud-native enterprise-grade networking and security services, such as routing, SD-WAN, NGFW, CGNAT, 802.1x based access control and more.

Resiliency and Manageability Advantage

The CSG300 series appliances are designed for resiliency and durability to ensure business continuity and services. The appliances come with secure BIOS and securing booting capabilities. The CSG300 series appliances have specially 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 with security use-cases in mind. A TPM chip integrated into the appliance ensures the integrity and security of critical data, such as encryption and authentication keys.

LTE Advantage

Cat-6 class 4G/LTE-Advanced support is ubiquitous across all models and can be used as a primary or backup WAN access link for the branch and remote sites. Enterprise customers can deploy CSG300 series appliances with up to four independent LTE-A links simultaneously, providing unmatched resiliency and flexibility for wireless WAN access from the branch.

Each appliance can be ordered with up to two factory-installed, enterprise grade, internal CAT-6 LTE Advanced (LTE-A) modems to provide simultaneous connectivity (Active/Active) to two active LTE access links. Each LTE modem provides performance up to 300 Mbps downstream and up to 50 Mbps upstream.

The embedded LTE-A modules are firmware controlled, allowing for maximum carrier flexibility and independence. The appliance has two externally accessible SIM card slots, one for each embedded LTE-A modem. If the appliance is configured with two LTE-A modems, each SIM card is used to control one LTE radio each. The appliance also has one USB slots that can be connected to an LTE dongle if desired. With two internal modems and one USB attached modem, customers can deploy up to three simultaneous LTE WAN connections. For more information see the LTE Datasheet.

Wi-Fi Advantage

Each CSG300 series appliance can be ordered with a factory-installed 802.11ac (Wave2) high-performance dual-radio access point module to deliver enterprise-grade WLAN connectivity to the branch. The Wi-Fi AP module is an 802.11 a/b/g/n/an/ac (Wave2) access point that can support up to 8 SSIDs and 255 wireless clients concurrently (total 16 SSIDs). The embedded Wi-Fi AP module supports 2.4-GHz and 5-GHz frequency bands simultaneously (Dual Band, Dual Concurrent Access). The module supports 2x2 MU-MIMO with beamforming capabilities and is suitable for small-to-medium-office deployments. The WLAN AP module also supports Mesh Wi-Fi and frequency-band steering capabilities and has the sufficient transmission power and MRC capabilities to process weak wireless signals from distant client devices, thus providing the best possible user experience. For more information, see the Wi-Fi Modem datasheet.

NIC options

The 4-port PoE+ Network Interface Card (NIC) optional module can provide up to a total of 60 Watts of power to four connected devices, delivering 15.4 Watts (802.3af) or 30 Watts (802.3at) of power to each device. Note, a second PSU (power supply unit) is required for the CSG300 series appliances to provide the additional power needed to distribute power for operating the PoE ports. APs, cameras, VoIP phones, and other PoEcapable devices can be powered without using AC adapters by leveraging the POE ports on the appliance.

CSG355 and CSG365 platforms also support additional NIC options such as ADSL/VDSL NIC and T1/E1 NIC. For more details please refer to respective datasheets.

SCALING AND PERFORMANCE

Customers can select the correct CSG300 series appliance model based on the expected throughput and the required features for their branch architecture. The table below lists the expected throughput of each appliance model.

	CSG350	CSG355	CSG356
Recommended Deployment	Small Branch	Small Branch	Small/Medium Branch
THROUGHPUT			
Routing	1000 Mbps	1000 Mbps	1,000 Mbps
Stateful Firewall	1000 Mbps	1000 Mbps	1,000 Mbps
SD-WAN DIA	350 Mbps	350 Mbps	750 Mbps
SD-WAN site to site	250 Mbps	250 Mbps	500 Mbps
NGFW with SD-WAN	200 Mbps	200 Mbps	500 Mbps
NGFW + AV with SD-WAN	N/A	80 Mbps	150 Mbps
NGFW + IPS with SD-WAN	N/A	55 Mbps	100 Mbps
NGFW + UTM with SD-WAN	N/A	40 Mbps	70 Mbps

** For a complete list of software features supported by Versa Networks for the WAN edge, see the Versa Networks FlexVNF datasheet.
** Refer to the latest Versa CSG300 appliance release notes and product documentation for the latest information on supported features, interfaces, limitations, performance, and best practices
** The performance numbers are observed with Versa recommended configuration and traffic conditions. The SD-WAN performance is measured using IMIX packet size mix. The UTM traffic performance is measured assumes 1 Mb response for HTTP traffic when 100 percent traffic is inspected for UTM.

HARDWARE SPECIFICATIONS

	CSG350	CSG355	CSG356
NETWORKING			
Wired Interfaces	4xCu GE interfaces	6xCu interfaces + 1 NIC module slot	
Wireless Interfaces	2x internal wireless slots which can be configured as single LTE, dual LTE. Configurable with Cat-6 modems	3x internal wireless slots Configurable with up to 2x Cat-6 LTE modem options, SIM Cards externally accessible,1x Wi-Fi AP module – Simultaneous Dual Band Dual Radio, 802.11AC, 512 clients, 16 SSIDs Bluetooth for ZTP and Smart Phone App communications	
NIC Support	See NIC Details Section		
Management	1x RJ45 RS232 console, 1x USB2.0, 1x Cu GE (via dual purpose port), Bluetooth for smart phone app connectivity		
OTHER INTERFACES AND MODULES			
TPM	1.2		
Crypto Acceleration	QAT functionality in hardware		
USB	1 x USB 2.0		

PHYSICAL CHARACTERISTICS

Unit Weight	2.75 lb / 1.25 kg	4.4 lb / 2 kg
Unit Dimensions	1.38"/35 mm (h) x 5.91" / 150 mm (w) x 7.87" / 200 mm (l)	1.65"/42 mm (h) x 6.7"/170 mm (w) x 13.8"/365 mm (l)
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	Via Fan	
Mounting	Desk Stand, Rack Mount	

OPERATIONAL AND COMPLIANCE

Operational Temperature	0-40C @ 3,000 m altitude
Storage Temperature	-20 to 70 C
Humidity	10-85%
MTBF	70,000 + Hours
FCC Classification	FCC Part 15, Class A
Environmental	ROHS
Safety	CE Marketing
Regulatory	FCC (US), CE (EU), CB (IEC)

CSG300 NIC MODULES

Versa Cloud Services Gateway 300 series appliances offer field-based configurability using the NIC slot. NIC slots can carry the following NICS and other additional NIC types in the near future, giving our customers the opportunity to further configure their platforms based on their needs.

NIC Type	NIC Options	Notes
GE	4 x Cu GE with 802.3at (POE+)	4-port Cu 802.3at (POE+) ports supporting both Type 1 and Type 2 POE devices. Each port can provide up to 30W of power, with a maximum of 60W for the module, for connecting PoE devices such as cameras, access points, and VoIP handsets.
ADSL / VDSL	1 RJ45 port ADSL/VDSL	Two separate NICs: Single port ADSL, VDSL module supporting Annex A (POTS)Single port ADSL, VDSL module supporting Annex B (ISDN)
T1/E1	4 x RJ45 port T1/E1	Single NIC supporting T1/E1 framing, supports all common formats and PPP, HDLC, Frame relay encapsulations.

Contact your Versa sales representative for more information about upcoming interface, modules, and NIC support.

WARRANTY AND SUPPORT

Versa Cloud Services Gateway 300 series appliances include a 2-year Return to Factory (RTF) Warranty. Versa Networks offers enhanced warranty and advanced replacement options which can be ordered with the hardware. For more details please refer to the Versa Cloud Services Gateway Ordering Guide.

ORDERING GUIDE

Versa Cloud Services 300 series appliances are versatile platforms providing a variety of optional capabilities to suit the needs of the enterprise. The CSG ordering options provide similar flexibility to add optional hardware capabilities. When ordering CSG300 series appliance, Wi-Fi or wireline (POE+) NIC can be ordered as an add on option to be factory installed with the CSG 300 series appliance. The ordering information for the CSG 300 series appliance model with optional add-on modules is provided in the Versa Cloud Services Gateway Ordering Guide. CSG part numbers are structured logically to make the process of ordering flexible and intuitive. The Part Number for CSG 300 series consists of a base platform code (e.g. CSG 350) followed by optional Wireless modules (e.g. -W for Wi-Fi module) and/or followed by optional NIC modules (e.g. -4GP for 4 port Copper PoE+ ports). For more details on how to order CSG 300 series appliances, please refer to the ordering guide.

ABOUT VERSA NETWORKS

Versa Networks is the innovator of Secure SD-WAN architecture, a next-generation software platform that delivers integrated cloud, networking and security services. Versa's visionary solution, with an unrivalled depth of features and capabilities, enables enterprises to transition off legacy WANs to achieve business agility, branch modernization, and TCO advantages toward their digital transformation journey. The company has transacted over 200,000 software licenses through service providers, partners and enterprises globally. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, and Liberty Global Ventures.