

Cloud Service Gateway

CSG5000 Series Appliance Datasheet

Introduction

Versa CSG5000 series appliances are a family of high-performance, next-generation enterprise networking appliances based on x86 architecture. Versa CSG appliances are purpose built to deliver very high-performance, with comprehensive on-premises NGFW and UTM functions, fully featured SD-WAN, scalable advanced routing, on-premises SASE and genuine multitenancy features. Versa CSG5000 series appliances run VOST™ (Versa Operating System) natively and are ideal for Enterprises and Telcos who need high performance campus, data center and WAN Edge appliances.

Versa CSG5000 series appliances are supported by Versa management and control software including Versa Director and Versa Analytics.

Product Description

Versa CSG5000 series appliances deliver carrier-grade reliability, together with high performance and high compute capacity to maximize uptime while serving robust connectivity and security needs of our customers..

Versa CSG5000 units come preloaded with 16 x 10/25 GE and 4 x 100GE interfaces. 10/25GE interfaces are offered in the form of SFP+/SFP28, while 100GE interfaces are offered in the form of QSFP28, giving our customers plenty of connectivity options.

CSG5000's high speed interfaces enable a variety of connectivity and topology options. Some of these topologies may be 100GE focused on LAN-WAN-interconnects, while others may be 25/10GE focused deployments or a mix of 100GE and 25/10GE interfaces. Our customers can use any and all of these interface combinations.

Versa CSG5000 interfaces are marked with appropriate port numbers for ease of installation and cabling convenience. All ports are fully controlled by software, giving flexibility to use any port for LAN or WAN purposes or in trust, untrust zones .

Versa CSG5000 is a high performance appliance for deployment in large Enterprise branch, campus and data center locations with built-in hardware acceleration and high core count x86 CPUs to achieve performance and scale. Built-in hardware acceleration allows certain functions to be off-loaded to hardware engines while processor cycles are used for stateful and other functions deep inspection or deep traffic processing functions.

CSG5000 is designed with redundant in-field hot replaceable fans and power supply units, with front to back cooling, and high performance compute envelope. Versa CSG5000 series appliances are built to meet and exceed uptime requirements of Enterprise and Telco deployments.

CSG5000 come with faceplate integrated rack mount ears making it very easy for them to be installed on standard 19" wide standard racks.

Versa CSG5000 series appliances are designed to simplify operations and accessibility and to improve visibility of device operational status and health by having all interfaces, on the front face plate.. Status LEDs placed on front faceplate provide succinct visualization of the operational status of the device and connections.



Platforms for a Software Defined World

Versa networks is driving platform innovation with hardware designs and software implementation that are built for Software Defined world. CSG platforms are purpose built to cater for Software Defined Networking use-cases.

High performance Versa CSG5000 series appliances come with very high core count processor, based on latest semiconductor technologies available in the market. Such high core count architecture based processing allow traffic of different flows to be spread over many cores to make use of extensive parallel processing capabilities.



CSG 5000 Series Back and Front View

Versa's Software Defined solution provides full control of appliance resources via software allowing our customers to tune resource allocations, performance and scale within the platform based on their needs. Software defined platform capabilities such as assigning specific applications (ie: voice, video) to pre-determined or dedicated set of cores as desired. Also optimization for pps vs bps or other performance tuning capabilities are also possible. Such fine tooling capabilities at the platform software allows optimization of performance, latency, scaling and other parameters per the deployment needs.

High capacity DRAM allows running very large scale sessions simultaneously to serve needs of very large sites or traffic concentration points.

Combination of high core count, high capacity DRAM, hardware offload capabilities and fast speed interfaces translate to highly desirable software defined and controlled high-end platform, the CSG5000.

Versa CSG5000 appliances are excellent choices as compute resources to host 3rd party software in the form of VMs (virtual machines) without the need to purchase any specialized hardware or compute add-on blade modules. Such open architecture in hardware and software allows our customers to consolidate multiple functions into one appliance, eliminating the need for appliance sprawl.

Lastly, Versa CSG5000 platforms support a number of Zero Touch Provisioning (ZTP) options for ease of deployment purposes. Versa Director administered ZTP and auto-provisioning capabilities also include automatic downgrade or upgrade of these appliances used by our customers.

Resiliency and Manageability Advantage

The Versa CSG5000 series appliances are designed for resiliency and durability to ensure business continuity and services. The appliances come with secure BIOS and securing booting capabilities. Furthermore, Versa CSG5000 platforms have separate, built-in IPMI capabilities, accessible via a dedicated out-of-band Ethernet interface. Through IPMI Versa offers additional out-of-band hardware-based platform management capabilities.

The Versa CSG5000 series appliances have specially designed LEDs that are unique and intuitive to instantly provide visual 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 along with crypto acceleration integrated into the appliance ensures the integrity and security of critical data, such as encryption and authentication keys. Also the appliance is built with Secure Boot capabilities.

Scaling and Performance

Versa CSG5000 series appliance models should be chosen based on the expected throughput and the required features for the branch architecture. The table below lists the expected throughput of each appliance model.

CSG5000	
Recommended Deployment	Enterprise Branch High Performance
Throughput	
Routing	120 Gbps
Stateful Firewall	120 Gbps
SD-WAN DIA	100 Gbps
SD-WAN site to site	60 Gbps
NGFW with SD-WAN	40 Gbps
NGFW + AV with SD-WAN	20 Gbps
NGFW + IPS with SD-WAN	15 Gbps
NGFW + UTM with SD-WAN	10 Gbps

Note: Realistic deployment scenarios were used during performance and scaling testing. Details of performance and scale test results can be provided upon request

Hardware Specifications

CSG5000	
Networking Interfaces	
Wired Interfaces	16 x 10/25 GbE ports SFP28 4 x 100 GbE ports QSFP28 Fully controlled by software and useable for LAN or WAN purposes
Management	1 x GE ports (management) 1x RJ45 RS232 (console) 1x GE IPMI port 2x USB 3.0
Storage	1 TB SSD
Other Interfaces and Modules	
TPM	Yes
Acceleration	Built-in Intel Quick Assist for Crypto, Compression, Decompression Acceleration Engines
Physical Characteristics	
Unit Weight	15Kg (33 lbs)
Unit Dimensions	438mm(W) x 88mm(H) x 600mm(D) (17.24" x 3.46" x 23.62")
PSU	Internal 850W 1+1 redundancy - front to rear airflow
Unit Power	100V - 240V, 50-60Hz
Cooling	Front to rear cooling with 3 FRU fans with built in 2+1 redundancy
Mounting	Rack mountable unit
Operational and Compliance	
Operational Temperature	0-40C @ 3,000 m altitude
Storage Temperature	-20 C to 80 C (-4 - 167 F)
Humidity	15-85%
Environmental	ROHS compliant
Regulatory	FCC (US), CE (EU), CB (IEC), UL

Note 1: For a complete list of software features supported by VOST™ for the WAN edge, see the VOST™ datasheet.

Note 2: Refer to the latest Versa CSG5000 appliance release notes and product documentation for the latest information on supported features, interfaces, limitations, performance, and best practices

Warranty and Support

Versa CSG5000 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 CSG Appliance Ordering Guide.

Ordering Guide

Versa CSG5000 series appliances are versatile platforms providing a variety of capabilities to suit the needs of the enterprise. For more details on how to order CSG5000 series appliances, please refer to the ordering guide.

About Versa Networks

Versa Networks, the leader in Secure SD-WAN, combines full-featured SD-WAN, complete integrated security, advanced scalable routing, genuine multi-tenancy, and sophisticated analytics to meet WAN Edge requirements for small to extremely large enterprises and Service Providers. Versa Secure SD-WAN is available on-premises, hosted through Versa-powered Service Providers, cloud-delivered, and via the simplified Versa Titan cloud service designed for Lean IT. The company has transacted hundreds of thousands of software licenses globally through its global Service Providers, partners, and enterprises. Versa Networks is privately held and funded by Sequoia Capital, Mayfield, Artis Ventures, Verizon Ventures, Comcast Ventures, Liberty Global Ventures, Princeville Global Fund and RPS Ventures.

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