Cloud Service Gateway

CSG5000 Series Appliance Datasheet

Introduction

Versa CSG5000 series appliances are the family of latest generation high end enterprise networking appliances designed to provide market leading performance, scale, and functionality.

Versa CSG appliances deliver rich set of NGFW / UTM, SD-WAN, advanced routing, SSE together with genuine multitenancy functions across a wide price-performance range. Versa CSG5000 series appliances are setting the high end of the CSG portfolio, hence CSG5000 series appliances are ideal for Enterprises and Telcos who need high performance campus, data center, WAN Edge or SASE gateway functions fulfilled by a single appliance.

As with the rest of Versa CSG family, CSG5000 series appliances run VOS natively and supported by Versa management and control software including Versa Concerto, Versa Director and Versa Analytics.

Product Description

Versa CSG5000 series appliances leverage latest chipset and processor technologies to deliver highest performance and scale to our customers.

The Versa CSG5000 family is a series of high-performance appliances for deployment in large enterprise branch, campus, data center and cloud locations. Thanks to its built-in hardware accelerators and high-performance multi-core x86 processors, CSG5000 achieves market leading performance and scale for all stateful and stateless functions. Built-in hardware acceleration allows certain functions to be off-loaded to hardware engines while cycles of processors are used for stateful and other functions including deep inspection or elaborate traffic processing functions. Combination of the two in a single appliance gives best of both worlds for our customers.

The Versa CSG5000 comes with rich set of interfaces built-in so that our customers do not need to worry about ordering and installing these separately. The CSG5000 provides 25/10GE and 100GE interfaces, allowing our customers to use standards based proven optical modules to give our customers non-proprietary connectivity options. CSG5000's high speed interfaces enable a variety of connectivity and topology options. Some of these topologies may be 100GE based on LAN-WAN-interconnects, while others may be 25/10GE based or may consist of a mix of 100GE and 25/10GE connections to establish desired connection solution. CSG5000's interfaces are software controlled in its functionalities, giving flexibility to use any port for LAN or WAN purposes or in trust, untrust zones.

Versa CSG5000 series appliances are designed and built to deliver carrier-grade reliability, and in field serviceability to maximize uptime and to enable mission critical connectivity and security needs of our customers. The Versa CSG5000 is designed with redundant in-field hot replaceable fans and power supply units, with front to back cooling. CSG5000 offers AC and DC PSU options.

The CSG5000 comes with integrated rack mount ears making it easy to install on standard 19" wide racks. If desired, optional shelf or rack rails can be used in addition to meet specific stringent earthquake requirements of a given geography.

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 and indicators on the front face plate.

High Performance Platforms for a Software Defined World

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

Versa's Software Defined solution provides full control of appliance resources via software parameters allowing our customers to tune resource allocations, performance and scale based on their needs. While platform comes with optimized balance between scaling and performance, software defined platform tuning capabilities can help tailor this further for the need. Such tuning capabilities include assigning specific applications (ie: voice, video, or deep scanning functions) to pre-determined or dedicated set of hardware resources; optimization for pps vs bps or other performance criteria options. Such platform tuning capabilities built into the platform software being made available to our customers allows optimization of performance, latency, scaling and other parameters for needs of specific deployments.

CSG 5000 Series Back and Front View

Versa CSG5000 series platforms are based on latest silicon technologies with embedded high core count x86 processors, high capacity, high speed DRAM to run very large-scale sessions at high performance to serve needs of very large sites and traffic concentration points. A combination of high core count and associated parallel processing, coupled with hardware-based acceleration capabilities yield highly desirable market leading high-end platforms.

Versa CSG5000 series appliances are also excellent choices to host 3rd party software in the form of virtual machines eliminating the need to deploy any specialized hardware or use add-on compute blade modules. Versa's uCPE architecture is based on KVM/QEMU and virtio interfaces to support rich set of 3rd party VMs. Such open and standards based open architecture combined with easy-to-use GUI based Versa Director allows deployments of 3rd party VMs in service chain(s) on CSG5000 series platforms. With built-in uCPE capabilities, our customers can consolidate multiple products into one appliance, eliminating the need for appliance sprawl.

Versa CSG5000 series platforms support several Zero Touch Provisioning (ZTP) options for ease of deployment purposes. Versa ZTP process provides auto-provisioning capabilities as well as automatic downgrade or upgrade of software as chosen by our customers.

Resiliency and Manageability Advantage

The Versa CSG5000 platform offers 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. IPMI can be disabled if desired.

In addition, the Versa CSG5000 also provides management Ethernet port to connect to out of band management networks.

Versa CSG5000 series appliances comes with LED based indicators that are intuitive to instantly provide device, cloud connectivity and interface status information to technicians on site.

Security Advantage

Versa CSG5000 platform hardware has been designed with security use-cases in mind. A TPM chip along with hardware based crypto acceleration integrated into the appliance ensures the integrity and security of critical data used for encryption and authentication. Also, the appliance is built with Secure Boot and Secure BIOS 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	CSG5200
Recommended Deployment	Enterprise Branch High Performance	
Throughput		
Routing	120 Gbps	200 Gbps
Stateful Firewall	120 Gbps	200 Gbps
SD-WAN DIA	100 Gbps	160 Gbps
SD-WAN site to site	60 Gbps	96 Gbps
NGFW with SD-WAN	40 Gbps	64 Gbps
NGFW + AV with SD-WAN (w/TLS Proxy)	20 Gbps	35 Gbps
NGFW + IPS with SD-WAN (w/TLS Proxy)	15 Gbps	25 Gbps
NGFW + UTM with SD-WAN (w/TLS Proxy)	10 Gbps	15 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	CSG5200
Networking Interfaces		
Wired Interfaces	CSG5000: 16 x 10/25 GbE ports SFP28 4 x 100 GbE ports QSFP28	CSG5200: 16 x 10/25 GbE ports SFP28 4 x 100 GbE ports QSFP28
Management Interfaces	1 x GE for OOB management 1x GE IPMI 1x RJ45 RS232 (console) 2x USB 3.0	
Storage	1 TB SSD	2 TB SSD
Other Interfaces and Modules		
TPM	Yes	
Acceleration	Bulit-in Crypto, Compression, Decompression Acceleration Engines	
Physical Characteristics		
Unit Weight	15Kg (33 lbs)	17 kg (37.5 lb)
Unit Dimensions	438mm(W) x 88mm(H) x 600mm(D) (17.24" x 3.46" x 23.62")	438mm(W) x 88mm(H) x 670mm(D) (17.24" x 3.46" x 26.37")
PSU	2 field replaceable, hot swappable AC PSUs: 850W 1+1 redundancy – front to rear airflow Or 2 field replaceable, hot swappable DC PSUs: 800W 1+1 redundancy – front to rear airflow	2 field replaceable, hot swappable AC PSUs: 1300W 1+1 redundancy – front to rear airflow
Unit Power	AC: 100V – 240V, 50-60Hz DC: -40VDC ~-60VDC (with min input: -36VDC and max input: -75VDC support)	AC: 100V – 240V, 50-60Hz
Cooling	Front to rear cooling with 3 FRU fans with built in 2+1 redundancy	Front to rear cooling with 4 FRU fans with built in 3+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 VOS™ for the WAN edge, see the VOS™ 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 come with 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 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 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.

Versa Networks, Inc, 2550 Great America Way, Suite 350, Santa Clara, CA 95054 | Tel: +1 408.385.7660 | Email: info@versa-networks.com | www.versa-networks.com