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. First product of this range is Versa CSG5000 itself. Additional products in this range will follow.

The Versa CSG5000 is a high-performance appliance 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. The Versa CSG5000 offers AC and DC power supply options.

The CSG5000 comes with faceplate 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

CSG 5000 Series Back and Front View

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.

The Versa CSG5000 comes embedded with high core count x86 processor, and high-capacity / high performance DRAM to run very large-scale sessions simultaneously at high performance to serve needs of very large sites or traffic concentration points. Combination of high core count and associated parallel processing, high-capacity DRAM, hardware offload / acceleration capabilities and fast speed interfaces translate to highly desirable software defined and controlled high-end platforms, Versa CSG5000 series

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 together 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.

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 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
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 (w/TLS Proxy)	20 Gbps
NGFW + IPS with SD-WAN (w/TLS Proxy)	15 Gbps
NGFW + UTM with SD-WAN (w/TLS Proxy)	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
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	Bulit-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	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
Unit Power	AC: 100V – 240V, 50-60Hz DC: -40VDC ～-60VDC (with min input: -36VDC and max input: -75VDC support)
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 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 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 and SASE, combines full-featured SD-WAN, complete integrated security, advanced scalable routing, genuine multi-tenancy, and sophisticated analytics to meet WAN Edge and SASE requirements from small to very large enterprises and Service Providers. Versa product offerings are 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.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Versa Networks. Versa Networks reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Versa Networks sales representative for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.