
Throughput Performance for Release 22.1.3

This article provides throughput performance numbers for Versa Operating System™ (VOS™) Release 22.1.3.

All throughput performance testing was done under the following conditions:

- SD-WAN and CGNAT services with default configuration were activated during performance testing.
- Testing was done with UDP traffic, as specified in RFC 2544, with a 0.1 percent acceptable loss rate, using 1024 sessions with application offloading and with CPU isolation enabled.
- The session timeout was set to high value (3,600 seconds).
- The encryption was AES128-GCM, which is the default encryption.
- A Spirent tester was used for testing SD-WAN traffic (refer to Layer 1 traffic statistics).
- Performance is the amount of traffic processed by the CPU; that is, it is an aggregate of WAN-to-LAN and LAN-to-WAN traffic.
- Performance numbers were captured at 100 percent of the service load under ideal test conditions, so all numbers should be considered as maximum values.
- Four or more physical interfaces were used, for optimal performance.
- CSG5000 series and Dell-7515 appliances were tested with four 100-Gigabit Ethernet ports with eight pollers for branch-to-branch tests and sixteen pollers for DIA tests.

For all testing, the following internet mix (IMIX) distribution was used:

Frame Size (Bytes)	Percentage
66	45
78	8
218	8
594	2
1354	16
1418	21

Versa Cloud Services Gateways (CSGs)

For items in the table marked with a plus (+), values are limited because of the number of ports used.

Model	Packet Size	UDP Throughput	
		Direct Internet Access (DIA)	SD-WAN Branch to Branch
CSG350	1400	2 Gbps	700 Mbps
	Internet mix	1.2 Gbps	315 Mbps
	100	230 Mbps	60 Mbps
CSG355	1400	2.5 Gbps	700 Mbps
	Internet mix	1.2 Gbps	315 Mbps
	100	230 Mbps	60 Mbps
CSG365	1400	4 Gbps+	1 Gbps
	Internet mix	1.7 Gbps	475 Mbps
	100	350 Mbps	95 Mbps
CSG730	1400	2.1 Gbps	675 Mbps
	Internet mix	950 Mbps	280 Mbps
	100	200 Mbps	60 Mbps
CSG750	1400	4 Gbps+	1.7 Gbps
	Internet mix	2.5 Gbps	780 Mbps
	100	525 Mbps	160 Mbps
CSG770	1400	4 Gbps+	3.5 Gbps
	Internet mix	3.5 Gbps	1.6 Gbps
	100	725 Mbps	340 Mbps
CSG1300	1400	16.75 Gbps	7.2 Gbps
	Internet mix	6.85 Gbps	3.45 Gbps
	100	1.35 Gbps	740 Mbps

Model	Packet Size	UDP Throughput	
		Direct Internet Access (DIA)	SD-WAN Branch to Branch
CSG1500	1400	40 Gbps+	24 Gbps
	Internet mix	19 Gbps	11.65 Gbps
	100	3.75 Gbps	2.15 Gbps
CSG2500	1400	40 Gbps+	37 Gbps
	Internet mix	37 Gbps+	22 Gbps
	100	8.35 Gbps	4.35 Gbps
CSG5000	1400	180 Gbps	95 Gbps
	Internet mix	88 Gbps	57 Gbps
	100	17 Gbps	13 Gbps

Versa White Boxes

For items in the table marked with a plus (+), values are limited because of the number of ports used.

Model	Packet Size	UDP Throughput	
		Direct Internet Access (DIA)	SD-WAN Branch to Branch
Versa 110/510	1400	4 Gbps+	1 Gbps
	Internet mix	1.7 Gbps	450 Mbps
	100	360 Mbps	90 Mbps
Versa 120/520	1400	4 Gbps+	2.4 Gbps
	Internet mix	2.9 Gbps	1.2 Gbps
	100	575 Mbps	270 Mbps

Model	Packet Size	UDP Throughput	
		Direct Internet Access (DIA)	SD-WAN Branch to Branch
Versa 200	1400	2.1 Gbps	675 Mbps
	Internet mix	950 Mbps	290 Mbps
	100	200 Mbps	60 Mbps
Versa 210	1400	4 Gbps+	1.7 Gbps
	Internet mix	2.5 Gbps	780 Mbps
	100	525 Mbps	160 Mbps
Versa 220	1400	12.5 Gbps	4.2 Gbps
	Internet mix	6.7 Gbps	2.15 Gbps
	100	1 Gbps	365 Mbps
Versa 240	1400	16.75 Gbps	7.25 Gbps
	Internet mix	6.85 Gbps	3.45 Gbps
	100	1.35 Gbps	740 Mbps
Versa 810	1400	33 Gbps	11 Gbps
	Internet mix	13.65 Gbps	4.85 Gbps
	100	2.75 Gbps	1.05 Gbps
Versa 1000	1400	40 Gbps+	20.5 Gbps
	Internet mix	27 Gbps	10 Gbps
	100	4.15 Gbps	1.95 Gbps
Versa 1800	1400	40 Gbps+	37 Gbps
	Internet mix	37 Gbps+	22 Gbps
	100	9 Gbps	4.5 Gbps

Versa Dell Appliances

For items in the table marked with a plus (+), values are limited because of the number of ports used.

Model	Packet Size	UDP Throughput	
		Direct Internet Access (DIA)	SD-WAN Branch to Branch
VEP-1425	1400	4 Gbps+	1.7 Gbps
	Internet mix	2.5 Gbps	780 Mbps
	100	525 Mbps	160 Mbps
VEP-1445	1400	12.5 Gbps	4.2 Gbps
	Internet mix	6.7 Gbps	2.15 Gbps
	100	1 Gbps	365 Mbps
VEP-1485	1400	16.75 Gbps	7.25 Gbps
	Internet mix	6.85 Gbps	3.45 Gbps
	100	1.35 Gbps	740 Mbps
VEP-4600-V910	1400	34 Gbps	11.3 Gbps
	Internet mix	14.8 Gbps	4.5 Gbps
	100	2.95 Gbps	1.15 Gbps
VEP-4600-V930	1400	40 Gbps+	25.5 Gbps
	Internet mix	20 Gbps	13 Gbps
	100	4.2 Gbps	2.3 Gbps
R7515-V2800	1400	180 Gbps	95 Gbps
	Internet mix	88 Gbps	57 Gbps
	100	17 Gbps	13 Gbps

Additional Information

[Hardware and Software Requirements for Headend](#)

[https://docs.versa-networks.com/Getting_Started/Deployment_and_Initial_Configuration/Scalability_and_Performance/Through...](https://docs.versa-networks.com/Getting_Started/Deployment_and_Initial_Configuration/Scalability_and_Performance/Throughput)

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