



VMware Edges

Edge device for the Windstream Enterprise SD-WAN with VMware

Windstream Enterprise SD-WAN with VMware

The VMware SD-WAN offers smaller branch level to data center enterprise-class appliances that provide secure, optimized connectivity to applications in any location, including private data centers, public clouds and hybrid deployments.

Performance

Application performance is optimized by multiple automated algorithms that keep application sessions running if a connection goes down. The algorithms include Dynamic Path Selection, Dynamic Packet Link Steering, Dynamic Remediation (forward error correction), Dynamic Bandwidth Detection and Dynamic Failover.

Security

SD-WAN with VMware is PCI DSS compliant as validated by a third-party Qualified Security Assessor (QSA) with Report on Compliance (ROC) on file. Multi-factor authentication is required for all end-users accessing the WE Connect portal and all traffic is IPsec encrypted, ensuring end-to-end encryption for data transmission over public networks. Windstream Enterprise Managed Network Security (MNS) can be combined with SD-WAN for next-generation, on-premises equipment, Virtual Network Function (VNF) or cloud-based firewall protection.

Connectivity

Windstream Enterprise SD-WAN with VMware platform provides complete access flexibility to utilize best available options, including Windstream Enterprise provided and managed third-party broadband and 4G LTE, third-party MPLS or customer provided broadband (BYOB). Windstream Enterprise has deployed VMware SD-WAN gateways into our Cloud Core™ network, enabling redundant, diverse, low-latency connectivity to leading cloud platforms/ applications—along with additional Windstream Enterprise provided services, such as OfficeSuite UC®, Dynamic IP, UCaaS, MNS, Cloud Connect and Managed LAN services.

SD-WAN Concierge™ fully managed experience

Evaluation phase

- + Live demo onsite or virtual
- + Coordinated proof of concept

Implementation phase

- + Manage project plan to ensure on-time delivery
- + Define and implements business and security policies

Operations phase

- + Technical service manager will offer expert guidance to help you maximize the benefits of your entire Windstream Enterprise solution
- + Provides education and guidance on how to utilize the WE Connect SD-WAN portal and implement self-service configuration changes
- + Delivers periodic performance reviews

Key specifications

Numbers based on independent testing by Windstream Enterprise.

Throughput from 10MB to 5GB

Desk, wall or rack mount

High availability with active/active connectivity

WE Connect

Insight Engine

Unprecedented visibility to make informed decisions:

- + Site health insights
- + Top applications insights
- + Top devices insights
- + New applications insights

Actionable insights

- + Identify anomalies; top 10 apps
- + Identify traffic deviations; 30-day average
- + Set custom thresholds
- + Single-click drill down
- + Immediate change control of business policies
- + Bandwidth spiking

Digital experience

Gain complete visibility and control of your network by location, application, device and user

Create your own dashboards with a variety of widgets to choose from and grant others permission to customize their own dashboards

Create personalized naming for locations and devices and add customized tagging to create filters for simplified monitoring and reporting

Create customized reporting for data aggregation across any set of user-defined sites

Receive alerts when your network performance becomes degraded or fails and Windstream Enterprise takes proactive measures to resolve issues

Access WE Connect with 2-factor authentications to protect your information

Mobile visibility

Network summary

Top apps

Top destinations

Top sources



Physical Edge Specifications

Performance and scale

Edge Device	510N	610N	620N	640N	680N	3400	3800
Maximum throughput (IMIX)	100 Mbps	100 Mbps	750 Mbps	1 Gbps	2 Gbps	2 Gbps	5 Gbps
Maximum tunnel scale	25	50	100	400	800	4,000	6,000
Maximum throughput (VNF)	N/A	N/A	100 Mbps	350 Mbps	500 Mbps	N/A	N/A
Flow per second	2,400	2,400	4,800	19,200	19,200	38,400	38,400
Max concurrent flows	240K	240K	480K	1.9M	1.9M	1.9M	1.9M
Max number of routes	100K	100K	100K	100K	100K	100K	100K
Maximum segments	16	16	16	16	16	16	16

Connectivity

Edge Device	510N	610N	620N	640N	680N	3400	3800
LAN/WAN 1G RJ-45	4	6	6	6	6	6	6
LAN/WAN 1G SFP		2					
L2 switching only RJ-45							
LAN/WAN 1G/10G SFP+			2	2	2	4	4
USB ports (3G/4G LTE)	2 (2.0)	2 (3.0)	2 (3.0)	2 (3.0)	2 (3.0)	2 (3.0)	2 (3.0)

Memory, storage, and third-party VNFs

Edge Device	510N	610N	620N	640N	680N	3400	3800
System memory (RAM)	4 GB	4 GB	8 GB	8 GB	32GB	32GB	32GB
System flash	8 GB	16 GB	16 GB	8 GB	N/A	N/A	N/A
System storage			120GB (SSD)	120GB (SSD)	120GB (SSD)	256GB (SSD)	256GB (SSD)
VNF capable	No	No	Yes	Yes	Yes	No	No

Dimension, power, environment and reliability

Edge Device	510N	610N	620N
Cooling	Fan-less	Fan-less	with Fan
Mounting	Desktop/wall mount/ 19-inch rack mount	Desktop/wall mount/ 19-inch rack mount	Desktop/wall mount/ 19-inch rack mount
Size (W x D x H) in mm	206 x 180 x 39.7	206 x 200 x 52	206 x 200 x 52
Weight in lbs.	2	2.9	3.1
Power supply	External: AC	External: AC	External: AC
AC input	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz
Power load (typical/max)	15W/40W	16W/26W	20W/30W
Operating conditions	Temp. (0°C to 40 °C) Humidity (5% to 85%) Altitude (5,000 m)	Temp. (0°C to 40 °C) Humidity (5% to 85%) Altitude (5,000 m)	Temp. (0°C to 40 °C) Humidity (5% to 85%) Altitude (5,000 m)
Non-operating conditions	Temp. (-40 °C to 70 °C) Humidity (5% to 95%) Altitude (5,000 m)	Temp. (-40 °C to 70 °C) Humidity (5% to 95%) Altitude (5,000 m)	Temp. (-40 °C to 70 °C) Humidity (5% to 95%) Altitude (5,000 m)
MTBF* (25 °C ambient temperature)	40.6 years	22.8 years	22.8 years



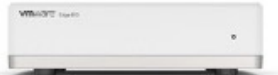



*MTBF based on Telcordia SR-332 methodology, excludes system fans in the calculation

Dimension, power, environment and reliability

Edge Device	640N	680N	3400	3800
Mounting	Desktop wall mount/ RMK	Desktop wall mount/ RMK	1RU rack mount	1RU rack mount
Size (W x D x H) in mm	206 x 200 x 52	206 x 200 x 52	434 x 381 x 44	434 x 381 x 44
Weight in lbs.	3.3	3.3	13.75	15.74
Power supply	External: AC	External: AC	Internal: AC	Internal: AC
Redundant power supply	No	No	Yes (1+1)	Yes (1+1)
AC input	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz	Voltage: 100v to 240v auto-ranging Frequency: 50Hz to 60Hz
Power load (typical/max)	35W/120W	40W/120W	165W/400W	200W/400W
Operating temperature	10 °C to 40 °C	10 °C to 40 °C	0 °C to 45 °C	0 °C to 45 °C
Operating humidity	5% to 85%	5% to 85%	5% to 85%	5% to 85%
Operating altitude	5,000m	5,000m	3,048m	3,048m
Non-operating conditions	40 °C to 70 °C	40 °C to 70 °C	-40 °C to 70 °C	-40 °C to 70 °C
Non-operating humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Non-operating altitude	5,000m	5,000m	10,688m	10,688m
MTBF* (25 °C ambient temperature)	22.8 years	22.8 years	17.1 years	17.1 years

*MTBF based on Telcordia SR-332 methodology, excludes system fans in the calculation

Devices

Front	Back
 <p>Edge 510N</p>	 <p>Edge 510N</p>
 <p>Edge 610N, 620N, 640N, 680N</p>	 <p>Edge 610N, 620N, 640N, 680N</p>
 <p>Edge 3400/3800</p>	 <p>Edge 3400/3800</p>

Cloud-enabled connectivity, communications and security—guaranteed.

Windstream Enterprise drives business transformation through the convergence of our proprietary software solutions and cloud-optimized network to unlock our clients’ revenue and profitability potential. Our managed services streamline operations, enhance productivity and elevate the experience of our clients and their end users while securing their critical data and brand reputation. Analysts certify Windstream Enterprise as a market leader for our product innovation, and clients rely on our unrivaled service guarantees and best-in-class management portal. Businesses trust Windstream Enterprise as their single-source for a high-performance network and award-winning suite of connectivity, collaboration and security solutions—delivered by a team of technology experts whose success is directly tied to our clients’ complete satisfaction.

To learn more about Windstream Enterprise, visit windstreamenterprise.com

