

SD-WAN Comparison Guide

The following TBI chart is an aid to quickly understand our best-of-breed SD-WAN vendors, differences, and positioning.

SMB: 1-100 employees

Mid-Market: 101-1,000 employees

Small Enterprise: 1,001-3,000 employees

Mid Enterprise: 3,001-10,000 employees

Large Enterprise: 10,001+ employees

	Aryaka	AT&T	BigLeaf	CenturyLink	CloudGenix	Ecessa	Expereo	Hypercore	Masergy	MetTel	Mitel	Netwolves	Nitel	Tata	Telstra	Verizon	TPX	Windstream/Earthlink									
Platform	ARYAKA	VELOCLOUD	BIGLEAF	VERSA	CLOUDGENIX	CESSA	ARYAKA	CISCO IWAN	CITRIX	VIPTELA	ZERO OUTAGES	SILVERPEAK	VELOCLOUD	VELOCLOUD	CISCO IWAN	MERAKI	VERSA	VERSA	CISCO IWAN	CISCO IWAN	VERSA	VIPTELA	VELOCLOUD	VELOCLOUD			
Carrier Requirements	Last mile carrier agnostic - Managed Service	Managed Service	Carrier agnostic - Managed Service	Managed Service	Carrier agnostic - Customer managed	Customer has to provide SLA, allowing Ecessa to provide updates	Last mile Carrier agnostic - Managed Service	Carrier agnostic - Managed Service	Carrier agnostic - Managed Service	Carrier agnostic - Managed Service	Carrier agnostic	Managed Service	Managed Service	Carrier agnostic - Managed Service	Managed service, option for MSP to self-manage	Managed service, option for MSP to self-manage	Carrier agnostic - Managed Service	Managed Service	Carrier agnostic - Managed Service	Managed service, circuit not required but encouraged	Managed service, circuit not required but encouraged	Managed service, circuit not required but encouraged	Carrier agnostic - Managed Service	Circuit required, \$1,500 MRC min.			
Minimum Site Requirement	Multi-site	Multi-site	None	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	None	Multi-site	Single site +	Single site +	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Multi-site	Single site +	Multi-site			
Customer Sweet Spot	International customers Customers using Cloud providers	Significant portion of sites within AT&T territory Mid-Market Small Enterprise Mid-Enterprise	Cloud App customers, Customers looking to keep existing firewall/security and not change configuration, SMB to Mid-Market	Multi-site with US-based HQ Significant portion of sites within CenturyLink territory	5 or more sites, Adopting a hybrid cloud strategy for existing and new apps Adopting cloud services (SaaS, UCaaS)	15-20 sites Mid-Market Small Enterprise	International customers Customers using Cloud providers	Existing Cisco customers, Mid-Enterprise, Enterprise	Existing Citrix customers using XenDesktop/XenApp	Mid-Enterprise Enterprise	Retail SMB - Mid Market	Requires deep visibility & analytics into network Small Enterprise Mid-Enterprise Large Enterprise	Construction Energy Finance Healthcare Manufacturing Retail	Customers leveraging Mitel phones, Retail SMB - Mid Market Small Enterprise	Existing Cisco customers Small Enterprise Mid-Enterprise	Existing Meraki customers SMB Mid-Market	Multi-site with US-based HQ	Global companies Small Enterprise Mid-Enterprise Large-Enterprise	Existing Cisco customers, Mid-Enterprise, Enterprise	Existing Cisco customers	Multi-site with US-based HQ	At least 60% of locations within Verizon footprint	Multi-site with US-based HQ	At least 60% of locations within Verizon footprint	At least 60% of locations within Verizon footprint	Retail SMB - Mid Market Small Enterprise	Retail Mid-Market Small Enterprise
International Operability	Yes	Yes	None	Coming soon	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Deployment	Physical or Virtual	Physical or Virtual	Physical	Physical (SMB & Mid-Market) or Virtual	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical	Physical, Virtual on roadmap	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical (MX Series)	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical, Virtual by Verizon only	Physical or Virtual	Physical or Virtual	Physical or Virtual	Physical or Virtual			
Deployment Differentiator	MPLS alternative, Global Private network CDN provider	Active/Active in US, with Cold Spare appliance in 51 countries.	Each customer location is connected to two BigLeaf gateways for redundancy, Customer freedom to set their own encryption from own firewall.	Multi-tenant, managed implementation with extensive work on building profiles per customer requirements.	Active/Active path selection per session for the same application. Can deploy in monitor only mode for rich network / application analytics without affecting traffic	Pure over-the-top, customer must provide bandwidth; 24/7 Support to help customer manage implementation.	MPLS alternative, Global Private network. CDN provider.	Leverage Cisco routers, either existing or new deployments.	Supports BGP and OSPF routing.	10G SD-WAN box available.	Flexibility with optional features to provide a custom solution. Only providing VoIP failover, inbound load balancing and active/failover SSL bonding when needed as optional features.	Forward error correction, Tunnel bonding technology.	Several NNIs to offer hybrid MPLS/ Broadband deployments; 4 SD-WAN gateways in North America.	Internet Gateways, Packet Duplication.	Vendor / circuit agnostic under Netwolves.	Vendor / circuit agnostic under Netwolves.	Multi-tenant, managed implementation.	Multi-tenant controller deployed at strategic aggregation points.	Leverage Cisco routers, either existing or new deployments.	Leverage Cisco routers, either existing or new deployments	Verizon network. Multi-tenant, managed implementation.	10G SD-WAN box available.	Internet Gateways, Packet Duplication.	Fully managed implementation (white-glove), ability to provide a hybrid SD-WAN and MPLS network design.			
Access Options	Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.	MPLS, Ethernet, Broadband, 3G/4G/LTE	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	Any transport (MPLS, Ethernet, Broadband, 3G/4G/LTE, Satellite, etc.)	MPLS, Ethernet, Broadband, Fixed wireless			
Resiliency & Failover	26 gateways across the globe	Internet Gateways Packet Duplication Link Aggregation	Warm spare and HA options available, Same IP failover, High-Availability option	Link aggregation, Redundant appliances are available for 50% discount.	Branch and DC HA models for scale out and redundancy, Application specific brownout detection at Layer 7, Seamless failover for network path down scenarios	Packet Duplication Link Aggregation Ports will fail open/closed based on configuration	26 gateways across the globe	Performance routing to avoid dropping traffic, WAN links running in Active/Active, HSRP to allow for redundant devices	Packet monitoring to detect failure and switch circuits, Packet Duplication for VoIP and other mission critical applications, Packet-based path selection	Automatically notifies service providers in the event of a network outage, Overnight hardware replacement, High availability option	Sub-second failover	Internet Gateways, Packet Duplication, Link Aggregation	Internet Gateways, Packet Duplication, Link Aggregation	Performance routing to avoid dropping traffic HSRP to allow for redundant devices	Performance routing to avoid dropping traffic HSRP to allow for redundant devices.	Link Aggregation High availability option	At customer site, based on design selected or built in at POP	Performance Routing to avoid dropping traffic, WAN links running in Active/Active, HSRP to allow for redundant devices	Auto failover, WAN links running in Active/Active	Link Aggregation, High availability option	Active/Active for performance monitoring based on the application profile, Active performance testing per application class, per path	Internet Gateways, Packet Duplication, Link Aggregation	Internet Gateways, Packet Duplication, Link Aggregation				
Routing Capabilities	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Load Balancing	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping	WAN, Application, QoS, Traffic Shaping			
Encryption	Yes (IPSec)	Yes	N/A	Yes	Yes (AES-256 and AES-128 for countries that require)	Yes	Yes (IPSec)	Yes	Yes (AES-128, AES-256, IPSec, GRE, and Citrix Virtual Path)	Yes (SSL and IPSec)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Firewall	N/A	Need to leverage a separate AT&T firewall solution, either on-premise or cloud-based	N/A	Basic – needs to leverage a separate CTL firewall solution either on-prem or cloud-based, Premium – firewall integrated into the SD-WAN edge device, includes content filtering, intrusion prevention & anti-virus	Zone-Based Firewall	Basic firewall integrated into the SD-WAN edge device; advanced security requires either on-premise or cloud-based firewall	N/A	Premise-based Cisco firewall integrated into SD-WAN edge device	Stateful firewall	N/A	Stateful inspection firewall. Includes intrusion detection/prevention, cloud-based content filtering, and application aware	Need to leverage a separate Masergy security solution, either cloud-based firewall or managed security solution	Need to leverage a separate MetTel firewall solution, either on-premise or cloud-based	Need to leverage a separate firewall solution either on-premise or cloud-based	Premise-based Cisco firewall integrated into SD-WAN edge device; Palo Alto option available	Premise-based Meraki MX firewall integrated into SD-WAN edge device; Palo Alto option available	Stateful firewall, IPS, AV, IP filtering, File Filtering, DNS Security, DNS Filtering	Select – needs to leverage a Tata firewall solution either on-premise or cloud-based, Prime – premise-based Cisco firewall integrated into SD-WAN edge device	Premise-based Cisco firewall integrated into SD-WAN edge device; upgraded Cisco options available	Stateful firewall, IPS, AV, IP filtering, File Filtering, DNS Security, DNS Filtering	Need to leverage a separate Verizon firewall solution, either on-premise or cloud-based	Need to leverage a separate Windstream/EarthLink firewall solution, either on-premise or cloud-based					
Cloud Connect	O365, Azure, AWS, Salesforce, Box, SAP, Autodesk AutoCAD Application Acceleration Site-to-site/Site-to-cloud	AWS, Azure, Blue Jeans, Box, Cisco, Google, HP Helion, IBM, Salesforce, Sunguard, VMware	No, can leverage any cloud connect services supplied by carriers	AWS, Azure (domestically with some international availability)	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	O365, Azure, AWS, Salesforce, Box, SAP, Autodesk AutoCAD Application Acceleration Site-to-site/Site-to-cloud	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	Equinix Marketplace (i.e., Azure, AWS, SoftLayer, DataPipe, etc.)	AWS, Azure, Google via Megaport	AWS, Azure, Google	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	No, can leverage any cloud connect services supplied by carriers	AWS, Azure, Google	No, can leverage any cloud connect services supplied by carriers	AWS, Azure, Google HPE, IBM, Oracle, Salesforce	Verizon SCI	AWS, Azure, Google HPE, IBM, Oracle, Salesforce	AWS, Azure, Google	AWS, Azure			
Notes	Fully managed service with support if the customer uses the Aryaka edge device (ANAP). Last mile management and procurement.	Available in 52 countries. Does not require network from AT&T.	Customer must have a firewall or router in place to create VPN connections. Support team 24/7 available. Provides switches for high availability deployments to avoid mis-configuration. Not strong with customers in a dual MPLS environment.	100% SLA only available with CenturyLink WiFi back-up. Cisco IWAN on roadmap.	Utilizes application-specific performance metrics and reachability into path selection logic; Deployed globally on 6 continents. Cloud based controller, highly scalable. Allows access to the underlying networks making integration and migrations easier and more robust.	Supports up to 25 WAN connections. Three upgrade options.	Fully managed service with support if the customer uses the Aryaka edge device (ANAP). Last mile management and procurement.	Customer can use existing Cisco routers, if compatible. No all-encompassing central orchestrator Only ISR 4300 and ISR 4400 routers support full IWAN capabilities. Manual config. required, central management is not as robust as competitors.	Can be deployed in Edge or Overlay mode. Optimizes HDX traffic at the source code level. Delivering best possible XenApp and XenDesktop experience. Three options - Standard, WANOP, and Enterprise			Tunnel bonding technology pools connectivity from multiple sources to create a single, logical connection. Go and Pro options available - Pro is ideal for complex environments; Go is ideal for hybrid or internet access-only deployments.		Management and aggregation of all circuits by MetTel; one of the first VeloCloud partners.	Customer can use existing Cisco routers, if compatible. No all-encompassing central orchestrator.	Leverages existing Meraki orchestrator. Does NOT include application optimization.		IPV6 Support Flexible deployment - Appliance, Bare metal, Virtual, Cloud. Very robust firewall feature set includes malware protection, DoS prevention, IPS, AV, DNS security, and URL filtering	Gartner Magic Quadrant leader 4 years running	Customer can use existing Cisco routers, if compatible. No all-encompassing central orchestrator. Only ISR 4300 and ISR 4400 routers support full IWAN capabilities. Manual config. required, central management is not as robust as competitors. 26 points of presence.		IPV6 Support Flexible deployment - Appliance, Bare metal, Virtual, Cloud. Very robust firewall feature set includes Malware protection, DoS prevention, IPS, AV, DNS security, and URL filtering.	Currently only supports up to two WAN circuits per appliance.	Unique expertise in retail vertical.			