

Versa Secure SD-WAN

Introduction

Businesses are going through digital transformation. Digital transformation is impacting the way enterprises interact with network:

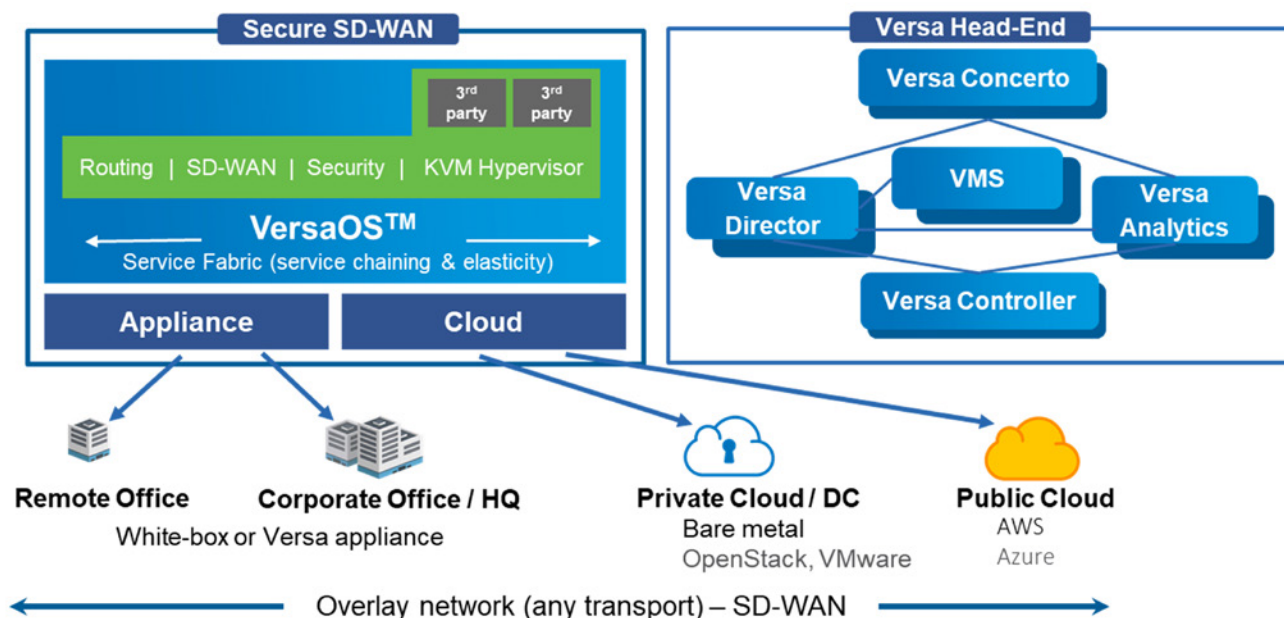
- Enterprises subscribe to SaaS based applications and more systems are being digitized every day.
- Network usage is increasing exponentially as applications hosted in private data centers of enterprises are moved to the cloud and WAN provides a pivotal role on connectivity to cloud and between enterprise branches.
- Application experience is directly impacting the customer experience, hence the bottom line of the business. Enterprise users expect the network to understand user experience of an application and cater for that.
- Remote work and hybrid work has increased the use of unified communications, further increasing expectations from the network.
- As with everything else is going through software defined transformations, enterprise's wide area network is expected to go through the same transformation.

These factors dictate the expectations from the WAN transformation projects. The new WAN network needs to provide:

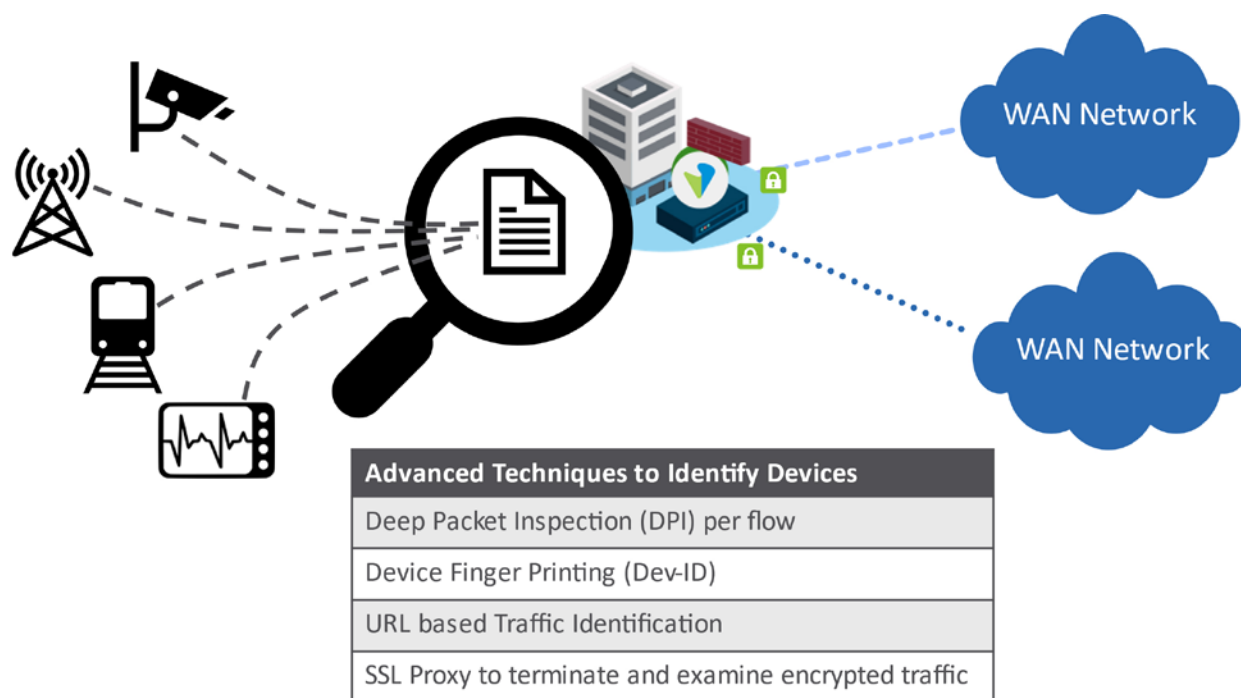
- Agile and robust resilient networking with focus on (layer 7) application experience
- Visibility of application and user experience and ease of troubleshooting for mission critical applications
- Ease of deployment, configuration, via centralized management and detailed visibility of present and past activities, network, and application performance
- Integrated security to protect enterprise branch, campus, and data center locations to ensure applications, data and users will not be compromised.
- Operational efficiency and scale with ability to manage and maintain large network that spans globally with ability to automate tasks freeing up the team for more complex changes.
- Seamless integration into existing infrastructure to minimize the disruption to existing infrastructure and applications.

Versa Secure SD-WAN

Versa Secure SDWAN is an integrated SDWAN and Security solution which simplifies how you connect and protect users, devices, and sites to applications anywhere, anytime. Versa Secure SDWAN solution provides single pane of management and visibility to securely connect users and devices in enterprise branches to applications hosted in branch locations, private data centers, public cloud or subscribed as SaaS.



AI powered App Aware Resilient networking

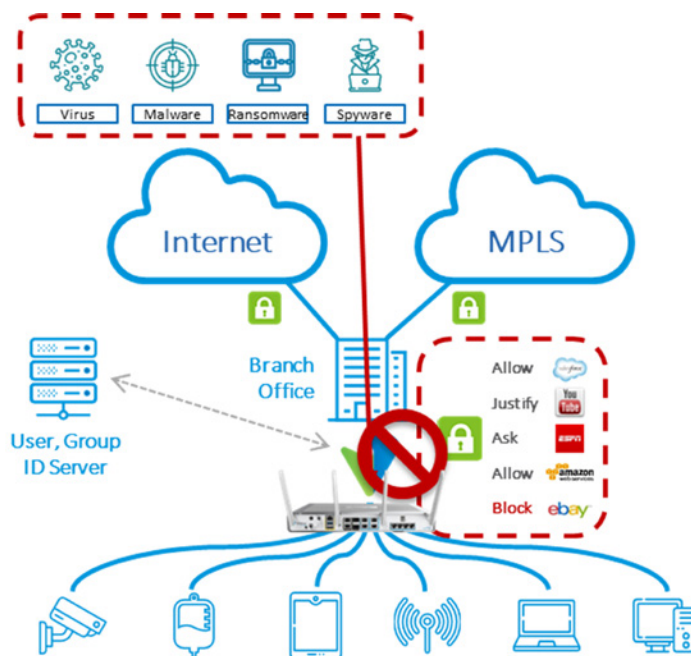


Not all applications traversing the enterprise network are equal. Versa Secure SDWAN solution improves application experience for users in enterprise network by prioritizing business critical applications. Versa Secure SDWAN includes Deep Packet Inspection and first packet-based application identification capabilities in order to identify applications and apply appropriate QoS policies. SLA backed SDWAN overlays honor application SLAs ensuring optimal user experience aligned with business priorities.

Versa Secure SD-WAN improves application uptime and achieve higher user satisfaction and business outcomes. With Versa Secure SDWAN, you can leverage dynamic policy-based path selection to meet application SLA across a broad spectrum of WAN types including MPLS, Internet, 4G/5G, LEO/MEO/GEO satellite. Additionally, Versa supports advanced traffic conditioning algorithms like forward error correction, packet striping, packet replication and TCP Optimization to improve application experience over links with long round trip times (Satellite, Inter-continental links) or links which are under-performing.

Integrated Security

Versa delivers security and networking on the same software stack – seamlessly integrated as part of single OS. Versa's fully integrated Next Generation Firewall (NGFW) and Unified Threat Management (UTM) solution will allow you to securely enable local breakout of Internet bound traffic from each of the branches reducing the need for backhauling all the traffic to central data center.

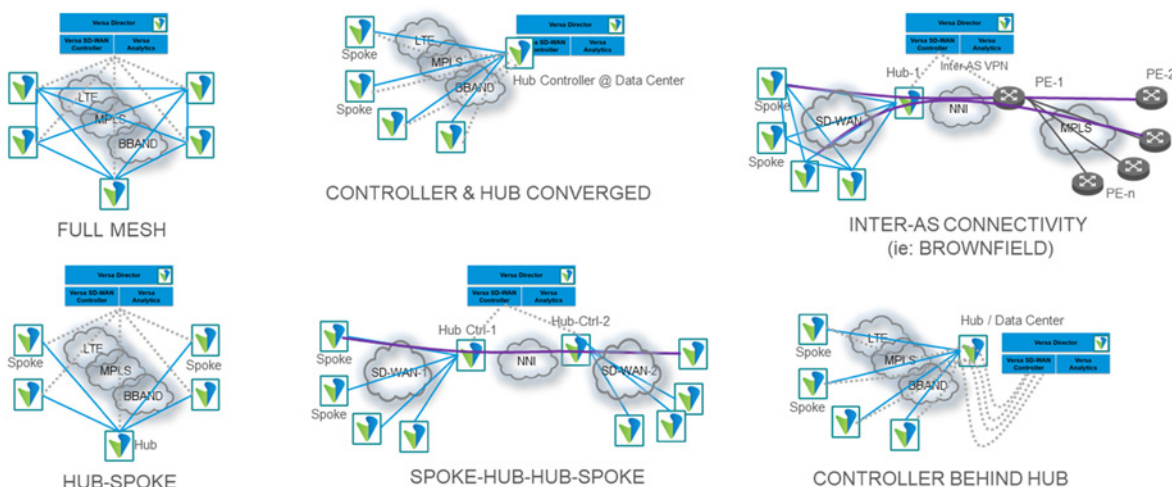


Versa solution supports SSL Proxy (including TLS v1.3) to decrypt the user traffic which enables Versa Secure SDWAN to scan the data traffic for malicious code and exploit attempts. Versa supports URL Reputation and Filtering, IP Reputation and Filtering, DNS security, Intrusion Prevention, Anti-malware, Advanced Threat Prevention, and File Filtering solution to protect your users and applications. Versa also supports data protection using built-in inline DLP and CASB capabilities.

Seamless Integration into Brownfield deployments

Versa uses standards-based technologies as building block for SDWAN solutions. This allows Versa solution to be seamlessly integrated into existing networks. Versa supports rich set of routing protocols such as OSPF v2/3, RIPv2, MP-BGP, MPLS L3VPN, MPLS EVPN, VXLAN, BFD, VRRP, VRFs, VLANs and more to seamlessly tie into an existing Enterprise network and to do intelligent routing decisions.

For instance, MP-BGP route reflector can be used to create advanced topologies like partial mesh, Spoke-Hub-Hub-Spoke. Versa Secure SD-WAN solution supports templates and automation to create the topologies and seamlessly integrate into existing environment.



Integrated Big Data based Analytics and Visibility

Versa Secure SDWAN solution comes with Versa Analytics which is a near real-time big-data based solution providing visibility and control, baselining, correlation, prediction and feedback loop into Versa solutions. It provides near real-time and historical search, reports on usage metrics, performance metrics, trends, security events, and alerts.

Versa supports integration with 3rd party SIEM and monitoring platforms using standards-based log formats like syslog and IPFIX.

Scalable Architecture

Versa Secure SD-WAN provides a single, scalable architecture that makes it simple and fast to deploy tens to thousands of locations, providing consistent policies across all locations. Say goodbye to limited visibility, manual configuration, troubleshooting and unmanageable alerts as Versa delivers unprecedented visibility, transforming your management experience.

Key Capabilities of Versa Secure SD-WAN:

- **Multi-tenancy** for consolidating multiple networks while preserving separate, data, control, and management planes.
- **Unified network management**, deployment, and policy configuration.
- **Templates and workflows** for fast, error-free and consistent configuration & change management.
- **Zero-touch provisioning** for rapid and scalable deployment.
- **AI/ML powered:** a self-managing, self-healing, and predictive solution.

Components of Versa Secure SD-WAN Solution



Versa Operating System (VOS)

VOS is a cloud-native, multi-tenant, multi-service software stack providing full set of L2, L3, L4-L7 routing and networking services and security services which powers Versa Secure SD-WAN, Secure SD-LAN, SSE solution. VOS can be deployed in branch offices, campus, hubs, data centers and public cloud environments. VOS capabilities are managed and monitored centrally using Versa Director and Concerto.

Versa Director

Versa Director is a scalable multi-tenanted network management and orchestration platform which provides essential management, monitoring, and orchestration capabilities for Secure SDWAN network. Versa Director simplifies the network deployment with workflows, templates, and automation capabilities.

Versa Controller

Versa Controller provides scalable resilient control plane for Versa Secure SDWAN. Versa Controller provides Route-reflector function to provide route-reachability for the VOS devices.

Versa Analytics

Versa Analytics is purpose-built for Versa Secure Cloud IP Platform for use-case focused analytics covering SASE, SD-WAN, SD-Routing, SD-Security, and SD-Branch. It is a rich near real-time big data solution that provides visibility and control, baselining, correlation, prediction, and feedback loop into Versa solutions. It provides near real-time and historical search, reports on usage metrics, performance metrics, trends, security events, and alerts.

Versa Concerto

Versa Concerto runs on top of Versa Director, Versa Analytics, and Versa Controller elements, providing an easy to use single-pane-of-glass based management for Secure SD-WAN, Secure SD-LAN and SSE services. Versa Concerto is based on a microservices architecture and is designed to run on public or private clouds, making horizontally scaling both easy and flexible for our customers.

Versa Messaging System (VMS)

Versa Messaging System (VMS) provides a scalable information exchange solution which powers Identity Engine, Zero-Trust-Everywhere, IOT Security and other services.

Features

Versa Secure SDWAN	
SD-WAN Overlay Network	Multiple Wired and Wireless WAN and LAN connectivity, Zero touch Provisioning, Hierarchical QoS, Deployment Form Factors like appliance, cloud, virtual, 3rd party VM hosting
Software based Layer 2	VXLAN based EVPN , Virtual Switch, Bridge Domain, xSTP, Passive Loop detection
Carrier Grade Routing and Security	BGP, OSPF, RIP, Route Reflector, Multi-cast, DHCP, Carrier Grade NAT, IKE/IPSec, Stateful Firewall, DOS Protection
Carrier Grade SDWAN	Deep Packet Inspection, First Packet based App detection, User identification, User based Policy, App based QoS, APP and User aware Policy based forwarding, SLA measurement, Tunnel-Less SDWAN
Next Gen Firewall	DNS Proxy and Security, L7/Application Firewall, URL and IP Filtering
Application Acceleration and Optimization	Forward Error Correction, Packet Cloning, DIA/DCA SaaS application optimization, TCP Optimization
Unified Threat Management	SSL Proxy, NG-IPS, Anti-Virus/Anti-Malware, IOT Security, Data Loss Prevention, Inline-CASB, Advanced Threat Prevention