



Versa SASE: Single-Pass Architecture

SASE is here and adoption rates are steadily increasing. 64% of companies have either adopted SASE or are thinking of adopting SASE within the next year¹. Coined by Gartner in 2019, SASE aims to combine networking and security services, delivered as a single, cloud-based offering. Current solutions typically bundle up separate network appliances and security software stacks and are positioned as 'SASE-ready'. While these offerings include networking functions and security solutions in a single platform, it's important to note that many of these SASE solutions are not built on a Single-Pass Parallel Processing architecture.

Uniquely Versa: Benefitting from a SASE Single-Pass Architecture

Versa SASE, powered by Versa Operating System (VOST™), is a SASE market disruptor delivered with a Single-Pass Parallel Architecture. With this unique architecture, enterprises deploying Versa SASE benefit from:

1. **A centralized management experience** for all network and security services
2. **Minimized processing overhead**
3. **Decreased throughput degradation and latency**
4. **Reduced security vulnerabilities**
5. **Lowered operational costs**

Customers deploying the unique Single-Pass Parallel Processing architecture delivered by VOST™ (Versa Operating System) achieve the industry's most comprehensive integration of SASE networking and security elements in a single software image. These services include SD-WAN, routing, Next Generation Firewall (NGFW), Zero-Trust Network Access (ZTNA), Secure Web Gateway (SWG), Cloud Access Security Broker (CASB), Role-Based Access Control, User and Entity Behavior Analytics, and more. As a result, Versa customers are saving up to 80 percent in costs when deploying Versa SASE compared to competitive solutions which require adding SASE services separately.

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- Global Post-COVID Workforce Survey

Driving Unmatched Value with a Single-Pass, Single Engine

Versa Single-Pass architecture drives value for organizations of all sizes by accomplishing two key functions:

1. **One-time processing per packet**
As a packet traverses the network, each packet is processed only once. This means all networking and security functions are performed only once, significantly reducing processing overhead, service inconsistency, and attack surface. As each packet is processed, networking functions, decoding, policy identification, signature matching for security threats are all performed just once.
2. **Uniform engine to detect and block threats**
Instead of using separate appliances, policy engines, and software images, Versa SASE single-pass architecture consolidates all these components into a single element, streamlining network and security operations resulting in higher performance and minimized latency.

Versa's VOST™ supports various network services and functions, including Routing, NextGen Firewall, Deep packet inspection (DPI), DOS, IPS/IDS, Carrier Grade NAT, L4 to L7 ADC, and SD-WAN VPN services.

All services are actioned through a single pass parallel processing architecture. The metadata extracted from one service (such as DPI) is passed along to other services (such as URL filtering), to provide a highly scalable service infrastructure.

Versa's VOST™ also supports chaining the services that are running on different nodes, including 3rd party service functions.

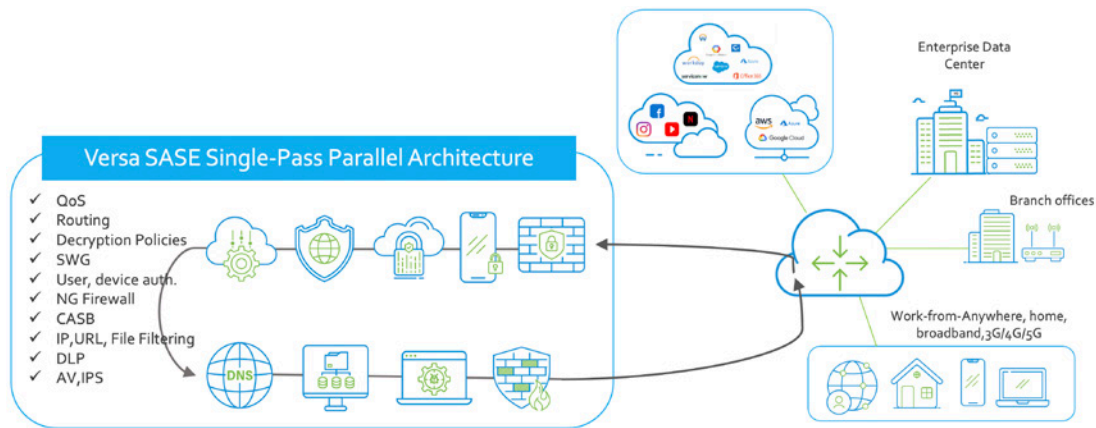


Figure 1 Versa Single Pass Architecture

Delivering a Unified Multi-Services Stack

- With Versa Operating System (VOS™), Versa delivers a unified OS for full stack security, carrier class routing, SD-WAN and service chaining across LAN, WAN, Cloud, and Mobile infrastructure.
- Versa can be consumed on any public cloud, private cloud, white-box, or X86 Intel based COTS hardware.
- Versa delivers network and security services through a cloud delivered SASE framework through a cloud-native architecture.
- VOS™ SASE architecture provides a multitude of services via a single VM instance including:

| S/Gi-Lan Services |
|---|
| Extensive CGNAT (carrier-grade NAT) for both IPv4 and IPv6 - NAT-44, DNAT-44, NAPT-44, Twice-NAT-44, Twice-NAPT-44, NAT-64, NPT-66 |
| Application Layer Gateway (ALG) |
| DHCP |
| Deep Packet Inspection (DPI): Auto-identify over 3800+ applications, 12+ million pre-defined IP reputation DB, 30000+ pre-defined IPS signatures, 83+ URL categories and billions of URLs |
| Application Delivery Controller (ADC) |
| DNS services (customizable to the subscriber) |
| Full Stack Security: Zero Trust Network Access (ZTNA), Next-gen Firewall, Unified Threat Management (UTM) , Data Loss Prevention (DLP), Secure Web Gateway (SWG), Intrusion Prevention System (IPS), URL Filtering, SSL Proxy, Cloud Access Security Broker (CASB), VPN, Malware Sandboxing, DNS Security, PPS and volumetric DDOS protection for critical infrastructure |
| Carrier Class Routing |
| Static, OSPF, BGP, MP-BGP (MPLS based L3VPN, MPLS based EVPN, VXLAN based EVPN), RIP, IGMP, PIM, VRRP, PBR (policy-based routing) |
| Comprehensive Advanced SD-WAN feature set |
| Application aware traffic steering, Forward Error Correction (FEC), Packet cloning, SaaS Optimization, TCP Optimization, and more to guarantee optimal user and application experience |
| Cloud-native and End-to-end multi-tenant architecture with granular RBAC support |

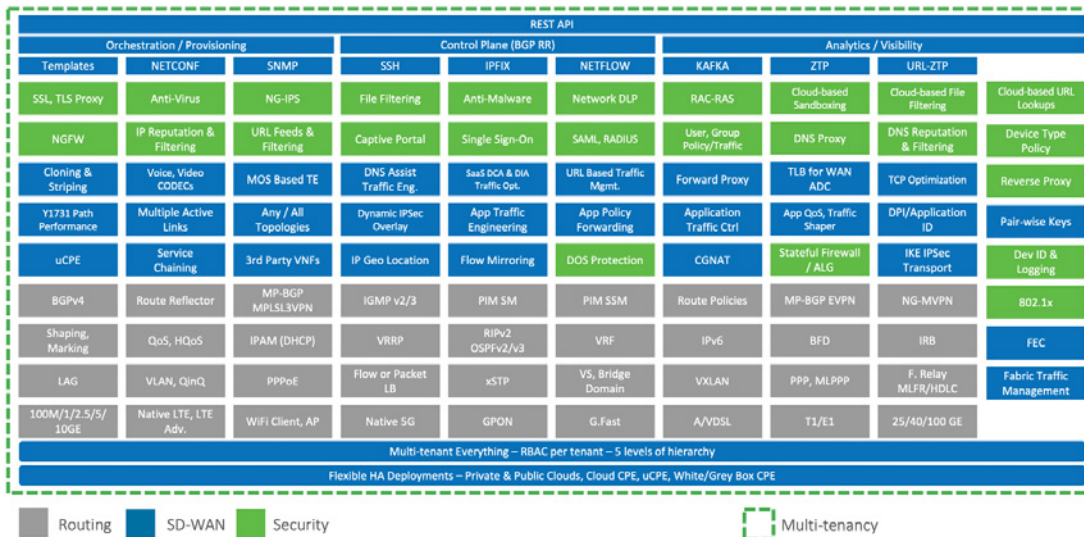


Figure 2 VOS™ Unified OS for LAN, WAN, Cloud, Mobile Infrastructure

Guiding Enterprises Through a Seamless SASE Journey

Versa SASE drives value for enterprises of all sizes and industries. Regardless of deployment scenario - whether cloud, on-premises, or a combination of both, Versa SASE integrates with an enterprise’s existing infrastructure, making it the most flexible SASE to work with. Customers deploying Versa SASE experience an easier management of enterprise network and security. With the unique Single-Pass architecture, Versa SASE consolidates network and security services into a single software, maximizes throughput, lowers latency, minimizes security vulnerabilities, and reduces operational costs, allowing enterprises to accomplish their SASE journey seamlessly.

To begin your SASE journey, reach out to us at [versa-networks.com/contact/](https://www.versa-networks.com/contact/)

About Versa Networks

Versa Networks, the leader in SASE, combines extensive security, advanced networking, full-featured SD-WAN, genuine multitenancy, and sophisticated analytics via the cloud, on-premises, or as a blended combination of both to meet SASE requirements for small to extremely large enterprises and Service Providers. Versa SASE is available on-premises, hosted through Versa-powered Service Providers, cloud-delivered, and via the simplified Versa Titan cloud service designed for Lean IT. Thousands of customers globally with hundreds of thousands of sites trust Versa with their networks, security, and clouds. 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.

For more information, visit <https://www.versa-networks.com> or follow Versa Networks on Twitter @versanetworks.

¹ Global Post-COVID Workforce Survey: Experiences and Attitudes Toward a Post-COVID Workforce