Fortinet and Teridion for Enterprise

Secure SD-WAN with Accelerated Cloud Access

Enterprises are rapidly moving to SaaS consumption models for business-critical applications, transitioning their compute workloads to the cloud, and augmenting or replacing their legacy MPLS-based WANs with broadband Internet transport. The ultimate success of each of these initiatives depends on two important concepts;

1. The ability to provide WAN Path Control, Dynamic Application Steering, and Security at the WAN Edge.

2. The ability of the public Internet to provide performant, reliable, and consistent transport.

The challenge faced by enterprises is that the Internet was not designed for performance; routing decisions are made without this in mind. The thousands of providers in this "network of networks" route through peering arrangements based on cost, not performance. BGP routing, while resilient and autonomous, does not reroute traffic to avoid congestion. In addition, congestion control mechanisms built into TCP aggressively rate limit throughput based on packet loss, so losses incurred through congestion can cause TCP to slow down significantly, making the problem worse.

Fortinet's Secure SD-WAN solution is part of the FortiGate and FortiOS platform that delivers security-driven networking in a unified solution. The Fortinet WAN Edge solution boosts application performance through instant identification and intelligent routing. Additional features increase branch network performance while simplifying security and compliance risk management workflows.

Teridion and Fortinet recently established a technology partnership to deliver superior end-to-end WAN performance, SaaS acceleration, and multicloud access to the enterprise. Welding together Fortinet's industry-leading Secure SD-WAN capabilities and Teridion's ability to provide route optimization and protocol acceleration across the Internet backbone. This joint solution delivers unsurpassed levels of WAN performance, reliability, and consistency through normal broadband connections.

Solution Description

Fortinet's Secure SD-WAN solution resides at the branch, campus, or data center WAN edge. Leveraging multi-transport connectivity, Secure SD-WAN establishes IPSec connectivity to the Teridion Edge. These secure tunnels along with FortiGate's proven WAN path control, application awareness, dynamic steering, and advanced security allow enterprise customers to safely connect to the Internet without worrying about packet loss or latency issues when trying to access their SaaS or IaaS workloads. Fortinet Secure SD-WAN integrates core SD-WAN features with proven security capabilities, delivering security-driven networking that improves branch efficiency without compromising protection.

Teridion's enterprise WAN service is built on the public cloud, and powered by Teridion Curated Routing, which fuses proven WAN acceleration techniques with real-time metric driven route optimization to eliminate the fundamental performance problems associated with Internet routing.

Solution Benefits

- Broad application awareness allows network teams to identify SaaS/IaaS across the enterprise

- Automated path intelligence prioritizes WAN path selection based on SaaS/IaaS workloads and intent-based policy, dynamically selects the best WAN link/connection for each application, and steers these flows over the optimal path to protect application performance and availability

- Delivers the lowest possible end-to-end latency, packet loss, and jitter metrics for video, UCaaS, and RDP/VDI

- Assures accelerated and consistent throughput to workloads located in any public cloud provider globally, with full multicloud and hybrid cloud support

- Maintains consistent performance for any site to site connections by maximizing throughput while minimizing loss and latency.

- Offers an economical replacement for MPLS networks with comparable SLAs for performance and reliability

Fortinet Fabric-Ready

Teridion's orchestrator ingests real time WAN performance data along with measured throughput, loss, and latency through thousands of sensors located in the backbone networks of over 25 public cloud providers. Using deep learning to process the data, Teridion identifies the best performing routes possible given the number of sites and the location and applications used at each site, and instantiates virtual routers into the cloud to use those routes.

Teridion is protocol-aware, so UDP traffic will follow the route with the lowest observed loss and latency, while TCP traffic will be accelerated, and take the route with the highest potential throughput. Teridion's network is self-optimizing: when the orchestrator finds a better route, it automatically instantiates new routers and reroutes traffic accordingly.

There is no shared backbone and no shared links between Teridion customers. Each customer network is bespoke and isolated.
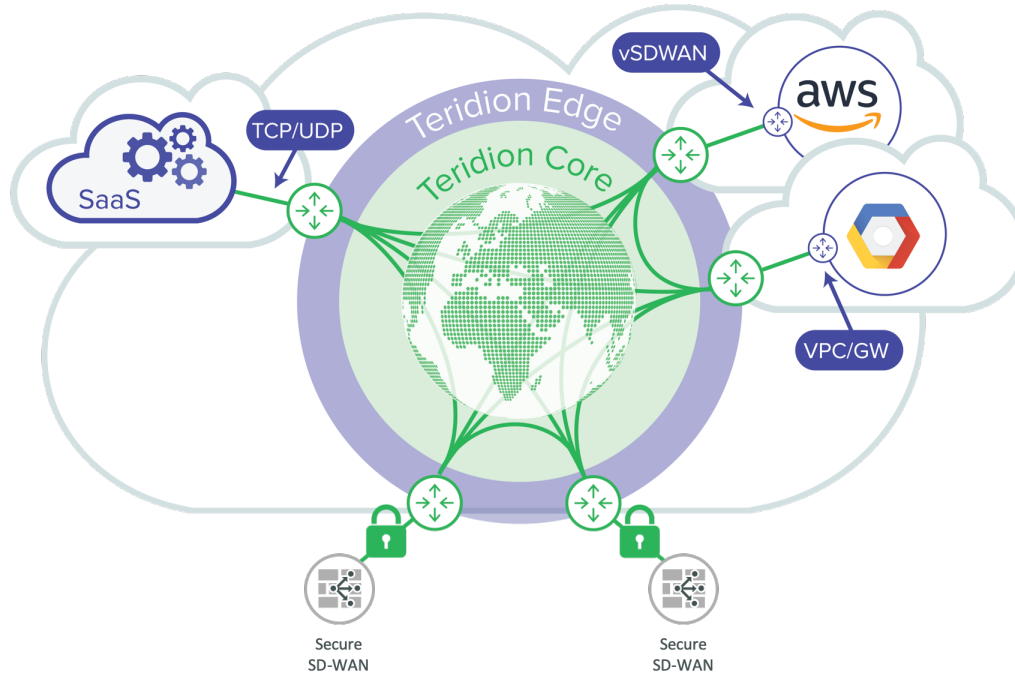

Figure 1. Diagram of Joint Solution

Teridion for Enterprise

Teridion for Enterprise is a turnkey cloud WAN service that delivers circuit-like performance, reliability, and consistency to enterprise WAN traffic routed through the Internet, backed by a carrier-grade SLA. Teridion's route optimization and protocol acceleration capabilities deliver across the board improvements for all traffic types: site-to-SaaS, site-to-cloud, and site-to-site.

Fortinet Secure SD-WAN

Fortinet FortiGate Secure SD-WAN offers business application steering, cost savings, and protection for voice, video, and SaaS application performance and availability. Secure SD-WAN includes native integration of NGFW and advanced security features, SD-WAN, and advanced routing capabilities, delivering a security-driven networking WAN edge transformation in a single comprehensive solution.

Teridion is a WAN service built on the public cloud, with fast setup, global coverage, unbounded bandwidth and horizontal scale. We deliver circuit-like WAN performance and reliability with the speed and scale of the cloud to enterprises and SaaS providers worldwide. Learn more at teridion.com/fortinet.

F⊟RTINET.

www.fortinet.com