



Case Study

Fortinet SD-WAN

ABOUT THE CUSTOMER

The company referenced in this case study is a leader in automotive and industrial coatings. It provides products to the automotive, RV, Military, and industrial markets and has multiple locations across the US.

CHALLENGES

The company has been using T1 technology (1.5Mbps) at several locations to connect to a MPLS (Multiprotocol Label Switching) cloud and has recently added local Internet connections to offload local Internet traffic. The company had been looking for a mechanism to leverage these new connections along with the ability to offload Internet traffic and VPN backup. Because the company's primary business application is a Client to Server model application, it is sensitive to connection drops.

OBJECTIVE

The company wanted to maintain the existing MPLS (Multiprotocol Label Switching) connections for their critical business applications while leveraging the newer internet connection/VPN at each site. They also required the VPN connections to be leveraged for select traffic as desired as opposed to being just a backup solution. Further, the company was also looking for a seamless backup transition from the MPLS to the VPN while mitigating application issues.

The company had two objectives: First, it wanted to implement a second internet connection and deploy SD-WAN to load balance internet traffic to ensure business continuity at the headquarter location. Second, at remote sites, it wanted to leverage both the MPLS and VPN connections. The company also wanted to steer applications and maintain a seamless transition should an outage occur either on the MPLS or the internet.

TECHNICAL OVERVIEW

The Company has deployed Fortinet firewalls (FortiGate) to all locations to increase bandwidth & offload Internet traffic locally.

- ✔ SD-WAN uses internet bandwidth instead of dedicated MPLS lines that require legacy WANs.
- ✔ Fortinet Next-Generation Firewall, FortiGate provides secure SD-WAN capabilities.
- ✔ SD-WAN has been set-up to send all local Internet traffic out to the locally attached Internet connection.
- ✔ SD-WAN comprises both static and dynamic routing using ECMP.

SOLUTION

After reviewing the requirements, the team at ISSQUARED® proposed leveraging the SD-WAN feature already built into the FortiGate firewalls. The SD-WAN's base components comprises of both static and dynamic routing using ECMP (equal-cost multipath), policy-based routing, and SLA's (Service Level Agreements). To expand on these components, Fortinet also provides the capability to set SD-WAN policy based on both application categories or individual applications.

At the corporate site, ISSQUARED® implemented a secondary internet connection and deployed the Fortinet SD-WAN. At remote locations, ISSQUARED® worked closely with the IT team of the company to develop a robust strategy to divert the corporate directed traffic over the MPLS with the VPN as a backup. The team also created an SLA measuring the packet loss and latency. In the event the MPLS becomes degraded, the traffic would seamlessly move to the VPN.

For the internet traffic at each location, ISSQUARED® established Fortinet SD-WAN to divert all local internet traffic to the locally attached internet connection with a backup path over the MPLS if the internet becomes degraded or unavailable.

KEY BENEFITS

With Fortinet Secure SD-WAN, the company achieved significant benefits when compared with its traditional WAN. It enabled a natively integrated and efficient network security. The company also reported significant network savings and reduced malware instances, and noticeable increases in business agility that enabled growth and new opportunities. Additional benefits are listed below:



Improved cost savings: FortiGate is relatively less costly compared to earlier WAN or SD-WAN technologies. It substantially reduces operating and capital expenses while maintaining service levels that far exceeds previous levels.

Web filtering: Fortinet Secure SD-WAN's web filtering feature mitigates malware by blocking access to hacked, malicious, and inappropriate websites. It also prevents risk to end-users and their devices and maintains business continuity.

Next-generation firewall (NGFW): FortiGate provides a secure software-defined wide-area network that maintains enterprise-level security. Fortinet is the only SD-WAN solution provider, recommended by NSS Labs for next-generation firewall (NGFW).

Greater business agility: Fortinet Secure SD-WAN provides the ability to quickly implement, modify, and support network operations. With these abilities, SD-WAN is workable and compatible with legacy WAN.

SSL inspection: Fortinet provides multi-levels of SSL inspection and examine encrypted packets, unlock encrypted sessions, and mitigate and block cyber threats. It significantly reduces malware attacks and eliminates the cost of anti-malware solutions.

Lower risk: FortiGate is a security-first product that allows for growth without the security risks that come with piecemeal networks.



ISSQUARED®

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ISSQUARED® is headquartered in Westlake Village, California, US. It offers global delivery capabilities with its presence across the UK, Ireland, the Middle East, India, Singapore and other parts of the US too.



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