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CASE STUDY

Fortinet Delivers Exceptional Value to a Large, Dispersed Convenience Store Chain

A United States–based gas station chain is revolutionizing convenience stores. The chain's 300 locations go beyond just snacks and fuel; its services include a hot food bar, propane, and money orders. The company is growing rapidly. "We have been opening 20 to 25 stores every year," the company spokesperson says. "As soon as my team turns around, another store is opening, and we have lots more growth on the horizon." However, this rapid expansion presents unique challenges for the IT infrastructure manager.

"In the convenience store industry, as in retail writ large, the multiplier effect is insane," he explains. "We have to deal with all the networking issues of one location, multiplied by 300. From cost to policy to compliance, my biggest challenge is managing that multiplier effect. For example, if we want to add another layer of security to our data center and it costs $100, that is generally no problem. But for us, making that same adjustment would cost $100 times 300 stores. It makes a huge difference."

"On top of that, our locations are very spread out," he adds. "We work with a managed service provider, but some of our stores are 10 hours away from the nearest field technician. Managing networking and security across the geographical spread of our network, when combined with the multiplier effect, is truly a headache."

Reliability, Feature Set, and Price Make FortiGates a "Natural Fit"

When the company modernized its network infrastructure, ease of deployment and management were crucial decision criteria. Previously, each store had one FortiGate Next-Generation Firewall (NGFW) and two unmanaged switches from another vendor. The IT team wanted to minimize the chance of a point-of-sale outage by shifting to an architecture in which each component has high availability (HA), SD-WAN automatic failover between a site's internet connections, and remote management for every device from a central location.

"However difficult one store is to manage, 300 stores are over 300 times more difficult if network and security management does not scale," he explains. "Like most retail organizations, we have an uncomplicated network, but we have to make sure security for each store is as robust as possible within the limits of our budget. And each time we make a store easier to manage, we bring a benefit to the company overall."

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"The Fortinet solutions are significantly reducing our total cost of ownership compared with other products. The facts that the devices work, the feature set is complete for our use case, and we can afford this modern infrastructure are huge."

IT Infrastructure Manager

Details

Industry: Retail

Number of Secure SD-WAN Locations: 300

Business Impact

- Lower total cost of ownership with Fortinet vs. competitors

- High availability leads to highly reliable WAN, minimizing downtime for point-of-sale systems

The company considered several options. Its IT infrastructure manager says the current crop of FortiGate NGFWs have more functionality than the company needs, but they offer high availability and centralized management. In addition, Fortinet Secure SD-WAN comes built into the firewalls, enabling policy-based routing of certain types of traffic without requiring an additional device.

"The FortiGates have always been reliable for us," he says. "The best thing anybody can say about network infrastructure is what I have to say about Fortinet: Most of the time, I do not even think about it. Plus, our network and security managed service provider [MSP] was already familiar with FortiGates, and the cost was not prohibitive. So, it was a natural fit for us to expand our Fortinet environment."

Highly Available and High-Performing WAN

Over the past five months, the company has rolled out an HA pair of FortiGate NGFWs and a pair of FortiSwitch secure Ethernet switches in each store. Every FortiGate is equipped with the FortiGuard AI-Powered Security Services UTP Bundle, and the company uses Fortinet Secure SD-WAN to enact policy-based routing of traffic flows through each store's multiple circuits. The company uses FortiAP secure wireless access points in its warehouse and plans to "flesh out" a FortiClient deployment on endpoints to enable corporate users to work remotely, according to the company spokesperson.

The company's MSP uses the FortiManager central network management platform to monitor and manage firewalls and switches throughout the geographically dispersed network. "Centralized management was a requirement for our infrastructure because of the character of our network," he says. "The Fortinet management platform is working well: Our MSP is using FortiManager for orchestration and automation and doing so to great success."

Moreover, although the IT team does not handle day-to-day management tasks, they use FortiManager for monitoring purposes. It provides them with much clearer visibility into their network and security environment than they had previously. "Internally, we use FortiManager primarily to track network and security issues. We use FortiManager on the regular base to track whether stores are online and whether they are using their primary or backup internet circuit. We also check firmware versions and that type of thing."

The newly revamped infrastructure is meeting expectations for high availability, and the team believes increased visibility into incidents enables them and their MSP to respond more quickly when network or security problems arise. The company has not yet experienced a firmware update on the new hardware, but "In theory, our new highly available stack will enable us to run updates without downtime. I am looking forward to seeing that in action," he says.

So far, the performance of the Fortinet solutions has exceeded expectations. The company uses Scale Computing HyperCore as its hypervisor. "HyperCore uses a network backplane to manage striped RAID storage across the network," the spokesperson explains. "That is a big lift for the WAN because it is continually talking, so we were concerned about performance when we were changing our network architecture. But we have not seen any issues; the performance of the Fortinet network has been great."

Business Impact (contin.)

- Ease of management enables corporate growth of 20–25 new stores per year, despite small IT team with no network engineers
- Faster response should a network or security issue occur
- Great performance of the WAN, despite WAN-intensive use model

Solutions

- FortiGate Next-Generation Firewall
- Fortinet Secure SD-WAN
- FortiSwitch
- FortiAP
- FortiClient
- FortiManager

Services

- FortiGuard AI-Powered Security Services Unified Threat Protection (UTP) Bundle

"The Fortinet automation and build process enables us to send hands into the field who are not network engineers. During the migration, as long as they plugged everything in where it was supposed to be plugged in, the transition would go off without a hitch."

IT Infrastructure Manager

Fortinet's "Truly Killer Feature": The Solutions' Value Proposition

Moreover, the ease of deployment and use means that the company can continue to grow at a pace of multiple new stores each month without employing any network engineers. "The Fortinet automation and build process enables us to send hands into the field who are not network engineers," he explains. "During the migration, we were updating 20 stores a week to the new firewalls and switches. The folks in the field would take out the old firewall, put the new stack in, and run zero-touch provisioning. As long as they plugged everything in where it was supposed to be plugged in, the transition would go off without a hitch."

He adds that this ease of deployment differs from other technologies he has used in the past. "In my experience with other vendors, switches usually need a lot of configuration, which involves a skilled technician plugging in a serial cable and pushing a configuration to the switch. That is tough to accomplish in convenience stores, and Fortinet helps us to avoid that. I love that about Fortinet."

"Every time I ask the Fortinet team if the firewalls and switches can do something additional, they always can. It is really important for me, as the infrastructure manager, to make sure our security and networking solutions meet all our current needs, and Fortinet's products do."

IT Infrastructure Manager

The spokesperson concludes that the company was able to deploy a more reliable, secure network than it had previously and at a lower total cost of ownership. "When we have to do a refresh in several years, we will be buying more than 600 firewalls," he says. "If each one is even a little less expensive than the alternatives, we could save a lot of money, and the more stores we open every year, the more those savings matter."

"The Fortinet solutions are significantly reducing our total cost of ownership compared with other products," he continues. "Every time I ask the Fortinet team if they can do something additional, they always can. It is really important for me, as the infrastructure manager, to make sure our security and networking solutions meet all our current needs, and Fortinet's products do. Plus, the truly killer feature of the Fortinet solutions is their value proposition. Together, the facts that the devices work, the feature set is complete for our use case, and we can afford this modern infrastructure are huge."

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