



CASE STUDY

Secure and High-Performance SD-Branch Enables Pizza Restaurants To Rise Despite the Global Pandemic



Monical's Pizza is well-known in the rural communities of Downstate Illinois for its ultra-thin-crust pizzas that it cuts into squares. Since its founding in 1959, the company has grown to include 64 restaurants in four states, an expansion driven largely by the quality of Monical's family recipes and the organization's focus on customer service. "Our motto is 'People Pleasing People,'" says Douglas Davis, Monical's Information Systems Coordinator. "We have lived by that for many years."

Through the decades, Monical's IT infrastructure has evolved to meet customer service goals. Both franchise-operated and company-owned restaurants offer Wi-Fi to customers, utilize web-based ordering and gift card management, and upgrade point-of-sale (POS) systems as needed.

The more the company relies on technology, the more critical cybersecurity becomes. "It is crucial for the payment process, in particular, to be secure," Davis says. "Our guests need to know that when they give us their credit card information, we are protecting it effectively. Everyone has heard stories about restaurants getting hacked. Monical's wants to be able to say with confidence that our resources are secure."

Security Solutions Needed an Upgrade

A few years ago, Monical's needed to modernize its security infrastructure. Specifically, a solution upgrade was necessary to increase Payment Card Industry Data Security Standard (PCI DSS) compliance. "Our legacy security systems were past end-of-life," Davis says. "We were to the point of pretty much patching them with baling wire and chewing gum."

Company headquarters was moving to a 10G fiber networking backbone, and Davis decided to upgrade security at the same time. The new infrastructure would need to protect data in the main office, in each of the 32 company-owned restaurants, and in transit between locations. Davis wanted to use secure software-defined wide area networking (SD-WAN) to connect the restaurants to headquarters because of the technology's cost, performance, and security advantages.

Another decision criterion was that each Monical's restaurant needed multiple Wi-Fi connections, with different levels of security. One link would support guest Wi-Fi; one

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Details

Customer: Monical Pizza Corporation (dba Monical's Pizza)

Partner: Converging Networks Group, Inc.

Industry: Retail

Location: Bradley, Illinois

Business Impact

- Improved security of customer information, in support of customer service mission
- Facilitated business growth during COVID, when other restaurants were shrinking

would provide secure wired and Wi-Fi networking for most internal operations; and a third network connection would establish ultra-secure connectivity for the POS system to meet PCI requirements.

“We wanted to implement SSL VPN [secure sockets layer virtual private networking] to connect the store networks to the main office,” Davis says. “This would provide connectivity for most day-to-day operations, including managers temporarily visiting the store. We also wanted a fully PCI-compliant connection for our POS system, and we wanted to be able to keep an eye out for rogue access points.”

Monical’s has three IT technicians who handle all the hardware, software, networking, and security across the headquarters and 32 geographically dispersed restaurants. “With our legacy infrastructure, routine maintenance activities required technicians to drive to each location,” Davis says. “Plus, our previous routers required frequent reboots. Techs might get a call late in the evening because the internet was down in a corporate store. They would have to travel to another town, sometimes to another state, to reboot and get the network back up.” Streamlined, centralized management of the security environment was a key factor in the upgrade decision.

Three Techs Roll Out Secure SD-WAN Across Four States

Local IT service provider Converging Networks Group, Inc. (CNG) had helped Monical’s deploy a Voice-over-IP (VoIP) phone system a couple of years prior. “CNG has been fantastic,” Davis says. “When we began looking at bolstering our firewalls, we turned to them again.”

CNG had been successfully deploying Fortinet solutions for a decade. For Monical’s, the firm proposed Fortinet Secure SD-WAN. Davis compared his options across functionality, cost, scalability, and usability. Fortinet Secure SD-WAN met all his needs, so he enlisted CNG to launch a proof of concept (POC) with one FortiGate firewall at Monical’s headquarters and one in the company’s restaurant in nearby Bourbonnais.

Davis and his team were impressed with the Secure SD-WAN deployment, ease of use, and performance. “We enabled SSL VPN capabilities,” he says. “Compared with the firewalls we used previously, the Fortinet Secure SD-WAN solution achieved much higher throughput on data moving between our locations.” For example, he says, staff at headquarters extract sales data from each restaurant once a week. “In the past, remotely extracting the weekly files might take five minutes per store. During the POC, I was able to pull the weekly files from the Bourbonnais store in 15 seconds. I knew right away this was a capability I wanted in all our locations.”

In the first quarter of 2020, Monical’s installed Fortinet Secure SD-WAN, FortiSwitch Ethernet access switches, and FortiAP access points in its Bradley, Illinois, headquarters. Then Davis’ team began rolling out a smaller-scale version of the same SD-Branch solution in each restaurant. “CNG helped us develop a complete rollout plan,” Davis says. The firm helped Davis’ team acquire the equipment, and they built out each device with the appropriate configurations so that the equipment was ready for Monical’s technicians to install.

The company started upgrading at the rate of two restaurants per week. “Then COVID-19 raised its ugly head,” Davis says. “We were limited in how many people could be in the head office at once, and for a while, our techs were not allowed to go out to the stores. So, the rollouts slowed down.” Nevertheless, by late 2020, the Monical’s team had deployed the Fortinet solutions across all corporate locations, and benefits of the transition were accruing.

Business Growth, Despite COVID

The Fortinet SD-Branch solutions enable Monical’s to provide various connections for each restaurant. Customers access the internet via the FortiAP access point; the access point provides security by filtering their Wi-Fi traffic, which doesn’t cross the local network. The FortiAP also connects staff to the local network, and the local network connects to headquarters via SSL VPNs that utilize the Fortinet Secure SD-WAN.

Business Impact (contd.)

- Accelerated WAN throughput, cutting time for weekly data draw from 5 minutes per site to 15 seconds
- Reduced staff time spent managing geographically dispersed network infrastructure
- Enabled PCI DSS compliance

Solutions

- Fortinet Secure SD-WAN
- FortiSwitch
- FortiAP

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Monical's will soon implement the FortiManager central management solution for closer oversight of the remote systems and FortiAnalyzer logging and reporting to support log analysis for higher-level PCI compliance. The company is also considering using the FortiExtender secure Long-Term Evolution (LTE) wireless WAN extender—to provide alternative connectivity in each restaurant should the SD-WAN connection go down—and protecting endpoints with FortiEDR endpoint detection and response.

Customers and employees are pleased with the acceleration in the Wi-Fi throughput, and in the overall pace of business operations. At the same time, all of Monical's network connections are more secure than they used to be. "Thanks to the security-driven networking in Fortinet Secure SD-WAN, Monical's Pizza can maintain PCI compliance faster and more efficiently," Davis says.

So far, the hardware has proven reliable and very easy to manage. "Our technicians are no longer getting calls all the time because stores are having connectivity problems," Davis says. "Equipment failure is close to zero with the Fortinet solutions." This has freed up Davis' staff to focus on more value-added activities. "The techs are spending a lot less time on maintenance and repair of the security solutions."

For all these reasons, the secure SD-Branch networking has enabled Monical's to expand despite the COVID climate. Although in-store dining has obviously dropped, the company is doing more business overall because it has seamlessly ramped up alternative ordering options for takeout and delivery, as orders flow quickly and securely to the appropriate store.

"Some restaurant chains are closed right now," Davis points out. "Others are seeing sales fall 25% to 30%. By contrast, our same-store sales numbers are strong compared with last year, and online sales for our corporate stores are about the highest they have ever been."

Davis attributes the project's success, in part, to the close partnership between CNG and Fortinet. "Monical's has a very team-oriented corporate culture," he says. "We believe in the synergy people get from working together, and we exemplify that in our restaurants. We have found the same benefits in this project. Fortinet solutions are great. Even more important is having a trusted partner that understands those solutions. That synergy is what we have achieved by leveraging the partnership between Fortinet and CNG."

