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CASE STUDY

Skilled-Nursing Company Taps Fortinet's Secure SD-Branch for Converged Networking and Security

Patients recovering from a health crisis are often in a vulnerable condition. They require a safe and caring environment for rehabilitation and therapy, so choosing the right post-acute care provider is important. Diversicare, which operates 61 skilled-nursing centers across nine Southern and Midwestern U.S. states, has developed a culture of impassioned service with the goal of providing just such an environment.

For April Marbury, the company's CIO, that translates into ensuring that core systems are highly reliable and patient information remains secure. "We have a lot of HIPAA [Health Insurance Portability and Accountability Act] data," she says. A couple of years ago, the company's complex solution landscape made IT management more difficult.

Diversicare was running networking and security solutions from several different vendors, which strained the organization's 15-person IT staff. "We are a very small team servicing 8,000 employees," Marbury says. "To stay that lean, we all need to be agile and able to pitch in wherever we are needed. We also need tools that streamline our processes. In our legacy environment, having so many different tools made management of the IT infrastructure challenging."

A problematic rollout of software-defined wide-area networking (SD-WAN) was exacerbating the challenge. "We were trying to roll out a half-baked SD-WAN solution from another company," Marbury says. "We really struggled to get it functional at all, and it never worked right." Diversicare launched a project to improve wireless network connectivity throughout its various locations. That project quickly expanded into a consolidation of the organization's diverse security and networking solutions.

Single-Pane-of-Glass Management for a Lean IT Team

The wireless network upgrade derived from both staff and patient requirements. "For the past few years, demand for internet access had been increasing among both patients and their friends and family members who come into our centers to visit loved ones," Marbury says. "We also needed to extend the strength and reach of the wireless connectivity in some buildings so that staff could easily access all the applications they need, regardless of where they are in the building." Further, Diversicare had experienced a growth in Internet-of-Medical-Things (IoMT) devices on nursing carts and needed to ensure those devices had uninterrupted connectivity.

Diversicare engaged Liquid Networx, a San Antonio, Texas–based technology service provider, to increase connectivity throughout the rooms, hallways, and patient bedsides in every building. Liquid Networx has been providing WAN, local-area networking (LAN), and endpoint solutions to companies throughout the Continental U.S. for nearly two decades. In 2021, the firm was named Fortinet's SD-WAN Partner of the Year.

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Diversicare **Comprehensive LTC Services**

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– Brian Cole, VP and IT Security Officer, Diversicare

Details

Customer: Diversicare

Fortinet Partner: Liquid Networx

Industry: Healthcare

Location: Tennessee

Number of Locations: 61

Business Impact

■ Improved security for patient information and other vital data, as next-generation firewalls (NGFWs) leverage real-time security services to prevent known and unknown threats from entering the corporate network

■ Strengthened compliance with federal regulations around patient care and data security

"The first order of business was to upgrade the wireless access points [APs] in all Diversicare locations," Marbury says. "But as we started planning the wireless upgrade, Liquid Networx presented an enterprise solution to consolidate networking and security throughout our care centers with a single technology provider."

The idea was intriguing because of the ways it would improve infrastructure management for the small Diversicare IT team. "One of the prerequisites was single-pane-of-glass management," says Brian Cole, vice president and IT security officer for Diversicare.

In addition, Marbury says, "from an administrative point of view, if there ever is a problem, having one organization to turn to eliminates the possibility that different vendors might end up pointing fingers at one another. That kind of situation can make it very hard to troubleshoot and get to the root of any problems. That is why we decided to do the 'Big Bang' and replace networking and security systems in all our centers with Fortinet solutions."

Developing—and Proving—the Consolidated Solution

Liquid Networx put together a proof of concept for a Fortinet solution that would provide SD-WAN connectivity among Diversicare's dispersed locations. In the solution, FortiGate Next-Generation Firewalls (NGFWs) leveraged FortiGuard Labs real-time security services to prevent known and unknown threats from entering the Diversicare network. The solution also included SD-Branch capabilities, securely connecting the WAN to the LAN via NGFWs integrated with secure switching, wireless APs, and network access control (NAC) capabilities.

"We were burned by the company that previously tried to roll out SD-WAN for us, so I was hesitant about entering into a relationship with another company that told me they would fix all my problems," Marbury says. "We required a proof of concept to see how easy the solutions are to roll out, how easy it is to work with the Fortinet and Liquid Networx teams, and what support would be like."

First, Liquid Networx and Fortinet helped Diversicare develop a heat map across all its buildings, showing the connectivity between and within the locations. "We wanted to understand the current strength of the wireless network in every single room," Marbury explains. "Then, if the strength was not where it needed to be, we worked with Liquid Networx to determine how many additional devices we would need to install and what devices we would need. They also helped us figure out the wiring needs for those devices and what the schedule should be for getting technicians in to do that work.

Business Impact (contd.)

- Functional and secure software-defined wide-area networking (SD-WAN) connectivity

- 40% reduction each week in staff time spent managing network and security infrastructure

- Improved ability of IT staff to fill in for one another when needed

Solutions

- Fortinet Secure SD-WAN

- FortiGate Next-Generation Firewall

- FortiSwitch

- FortiAP

- FortiNAC

- FortiManager

- FortiAnalyzer

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– April Marbury, CIO, Diversicare

"There were a lot of logistical tasks that needed to be thought through, planned, and then managed," she continues. "The project managers at Liquid Networx brought that expertise to the table and helped us with the rollout."

With the assistance of Liquid Networx, Diversicare rolled out FortiGate Next-Generation Firewalls (NGFWs), FortiSwitch enterprise switches, and FortiAP access points throughout all its locations.

The company deployed FortiNAC to control network access by staff, patients, and visitors, as well as FortiManager and FortiAnalyzer to streamline management of the new infrastructure. Fortinet Secure SD-WAN connects all the company's offices and skilled-nursing centers.

Marbury reports that the rollout was fairly smooth and that both Liquid Networx and Fortinet provided excellent service throughout the process. "Unlike some vendors we worked with in the past, the Fortinet team stayed engaged throughout the rollout of the complete solution and beyond. They showed up whenever we needed them and made it clear that they have got our backs. And Liquid Networx acted just like an extension of our team.

"We have developed a great partnership with both Liquid Networx and Fortinet," she continues. "I appreciate all the support they have provided to Diversicare since day one. We are very, very pleased."

Streamlined Management Lays a Foundation for Security-Driven Networking

Since deployment and tuning by Liquid Networx, the Fortinet solution has provided reliable and secure networking capabilities throughout Diversicare's IT infrastructure. "The Fortinet Security Fabric approach created a single, unified solution for us," Marbury explains. "We found individual products that met our specific requirements, and they integrated seamlessly. Because they are all components of the Security Fabric, we did not have to worry about having a hole somewhere or discovering integration issues during deployment."

The tight integration also reduces the amount of staff time required to manage the company's infrastructure. "I can log into FortiGate and see the APs, the switches, and the firewalls all in one place, instead of having to go to multiple dashboards from multiple vendors," Cole says. "That makes the IT team more effective and saves us time. It also enables us to empower the downstream support folks. Now, they can go to a Fortinet dashboard and answer a lot of their questions without having to escalate issues up to a higher level of IT."

Cole adds that synergies among the user interfaces of the Fortinet solutions mean staff can more easily fill in for one another without learning to use an assortment of disparate and unrelated technologies.

FortiManager further streamlines management of the security and networking solutions. "If I log into a FortiGate, it will notify me if there are updates available for our switches and access points as well," Cole says. "It is nice to get all that information in one place. And then we can use FortiManager to push out patches and updates to all our buildings from a central location. We also use FortiManager to automate configuration changes across the Security Fabric using Ansible scripts, when needed. Having that centralized management, rather than logging in and managing dozens of devices individually, is a key reason to go with Fortinet."

As Diversicare prepares to move toward a zero-trust model, Cole has begun using FortiAnalyzer to record traffic patterns. The goal is to understand how devices currently interact, he says. "We will then use that information to tighten our policies at the care center level—getting much more granular about what traffic can go where—without blocking necessary communications." These policies will provide end users with an easy onboarding experience while the Diversicare team can ensure that only trusted devices and users get access to the production network.

A Partnership That Benefits Patients

The timing of the transition to the Fortinet solution was excellent, according to Marbury. "The project was completed right before COVID-19 hit and shut down our buildings," she says. "Patients and residents could no longer visit with family members in person, so there was a comfort level in being able to meet with their family virtually. COVID certainly made it more important than ever before to have reliable and fast connectivity throughout our facilities."

The Fortinet Security Fabric makes it easier for Diversicare to add more skilled-nursing facilities without increasing IT staffing. In addition, when Diversicare was acquired in 2021, the maturity of the overall operating platform, specifically platform design that provides for rapid expansion, was attractive to the equity buyers, Marbury reports. The Fortinet solution streamlines the network platform design and has even improved the company's compliance.

"As a skilled nursing provider, we have federal surveyors coming into the buildings to evaluate the quality of care we are providing," Marbury says. "If the network were down or a system were unresponsive, that might call into question our ability to care for patients. The reliable Fortinet solution minimizes the chance that regulators will have any questions related to our technology infrastructure."

Ultimately, Marbury concludes, Fortinet and Liquid Networx have proven the value of their partnership with Diversicare. "Our patients are at the core of every decision we make, and our responsibility within the IT group is to take care of the residents of our buildings as efficiently as possible," she says. "We have vendors, and we have partners. For solutions that are critical to caring for our patients, we need a partner—and that is exactly what we have found with Liquid Networx and Fortinet."

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