

CASE STUDY

Retail Holdings Company Evolves Business Support Network While Reducing Costs with Fortinet

Nitori Holdings has consistently expanded its business, achieving 36 consecutive fiscal years of increased earnings and profits. However, as the number of stores and logistics hubs—and the use of cloud services—increased, it faced challenges such as bandwidth issues and network failures, making the organization keenly aware of the limitations of its existing network architecture. Transitioning from a conventional WAN to the FortiGate Next-Generation Firewall (NGFW) Secure SD-WAN solution enabled it to introduce a standardized security infrastructure to cope with its planned international expansion and significantly reduce operational costs—all while upholding Nitori’s principle of self-reliance in network operations.

Increased Earnings and Profits While Remaining Self-Reliant in IT

Nitori Holdings (Nitori) has seen continuous growth in Japan and throughout Asia as it expands its global business. In addition to its main furniture and interior goods business, it has also launched the Nitori EXPRESS chain of urban shops and the N+ apparel business.

Nitori’s unwavering commitment to self-reliance has supported this growth. Contrary to the selection and concentration strategy, Nitori has developed a unique business model that includes owning its factories and handling the entire supply chain in-house from product planning and manufacturing to logistics and sales. This comprehensive in-house management is what gives Nitori its strength.

The principle of self-reliance is also strictly adhered to in its IT systems. To achieve its global expansion and business growth goals, Nitori has developed IT systems over 20 years rather than relying on packaged software or external development companies. “IT is nothing more than a tool. Our strength lies in developing systems in-house to tackle challenges other companies have not yet addressed,” says Toshinori Arai, executive officer at Nitori Holdings, director of Nitori Digital Base, and general manager of the information system innovation office.

In 2022, Nitori Digital Base was established to promote digitalization across the entire group, and efforts were made to increase the number and capabilities of IT personnel. As a result of these initiatives, a system that enables new releases quickly, averaging about 7.5 per day, has been implemented. With the business world moving beyond outsourcing and offshoring, there is a growing focus on in-house production.

As Business Expands, the Strain on Network Infrastructure Becomes Apparent

Nitori has consistently adhered to a policy of self-reliance, not only for its applications but also for its infrastructure, including networks and the cloud, designing and building its systems in-house. However, new challenges have



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Toshinori Arai
Nitori Holdings Co., Ltd.

Details

Customer: Nitori Holdings Co., Ltd.

Industry: Retail

Location: Tokyo, Sapporo

Number of Secure SD-WAN

Locations: Over 800

Business Impact

- Resolved bandwidth issues with SD-WAN and internet breakout, reducing network failures’ impact on business

emerged as its business grows and expands. One is the strain on its network infrastructure. “As the number of domestic locations, including stores, logistics hubs, and sales offices, has continued to increase year-on-year, the limits of our conventional WAN-based closed network architecture have become apparent,” says Shunsuke Maruo, leader of the Nitori’s information system innovation office’s system infrastructure team (Tokyo).

COVID made the situation even worse. To avoid face-to-face meetings, many companies shifted to online videoconferencing tools, resulting in an explosive increase in traffic. “When we held general meetings with thousands of participants, the network became congested, forcing us to lower video quality, turn off cameras, or limit the number of participants to manage the situation,” says Kengo Hataya, senior leader of Nitori’s information system innovation office’s system infrastructure team (Tokyo).

Because multiple issues occurred, some that even impacted core operations, fundamental network overhaul became unavoidable. Furthermore, with its conventional setup, each new store required a connection to the closed network, prompting the need for a simpler and more scalable solution.

As the company accelerated its overseas expansion, its second challenge was establishing a common security infrastructure. At the time, Nitori was using routers from domestic vendors that could not provide adequate support overseas. As a result, it took a lot of work to create a standardized security infrastructure template.

The third challenge was improving network operations. “In the past, whenever an issue arose, we couldn’t pinpoint the exact location of the problem, and we also couldn’t identify the cause, which was quite inconvenient. At the same time, we also wanted to achieve self-reliance in our network operations,” says Mr. Maruo.

Fortinet Secure SD-WAN: Evolving Networks and Reducing Costs

Nitori looked to SD-WAN to solve these three issues. “I thought SD-WAN was a must because it serves as a foundation for realizing a zero-trust network architecture,” says Mr. Hataya. He asked several vendors for quotes, and after evaluating them from four different perspectives, he decided to adopt the Fortinet Secure SD-WAN solution.

Fortinet’s domestic and international track record and third-party evaluations were the first reason. “Based on leader’s evaluations using the Gartner Magic Quadrant and the track records of other companies both in Japan and overseas, we concluded that FortiGate was the solution that best matched our needs,” explains Mr. Hataya.

The second was cost. Even if the initial setup price was low, a licensing system in which costs increase with additional features and bandwidth is far from compelling. With FortiGate, there is no need to purchase separate licenses to use SD-WAN, so you only need to consider device installation and maintenance costs. Nitori appreciated that the cost structure was simple, straightforward, and easy to understand.

The third was the ability to control traffic on a per-application basis. Nitori uses numerous cloud services, so Fortinet’s ability to identify and control these applications was a critical factor. “We had previously implemented FortiGate at our data center in Sapporo and were using ISDB [Internet Service Database] to identify applications. We also determined that it would be ideal to use ISDB in our SD-WAN,” says Mr. Hataya.

Lastly, the ease of operation and user-friendliness of FortiGate were essential, as Nitori supports the independent management and operation of the network. Having an intuitive graphical user interface and dashboard was also crucial.

Business Impact (cont.)

- Enabled rapid identification of problems and independent network operation and management
- Enabled measures to enhance customer satisfaction and provide employees with a “ready” cloud application environment

Products

- FortiGate NGFW
- Fortinet Secure SD-WAN
- FortiManager

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However, this was not the first time Nitori had considered implementing SD-WAN. It previously explored a service-based SD-WAN offered by a telecommunications provider that had advanced to the proof-of-concept (PoC) stage. However, due to various problems, it ultimately decided not to pursue the idea.

"I was somewhat skeptical due to our past experiences, and during the PoC phase, I thought we'd have some problems," says Mr. Arai. "However, I'm pleased to say that I was wrong." The PoC concluded without any issues, leaving Nitori confident enough to go ahead. "We'd considered SD-WAN a few times in the past, but we couldn't see the point when it came to cost. We were really shocked by Fortinet's proposal because not only could we evolve our existing network, but our operational costs would be lower than before."

Employees, Customers, and Managers: Everyone Enjoys the Benefits of Secure SD-WAN

Nitori transitioned to Secure SD-WAN over about a year and a half, starting in 2021. In the first phase, it selected two pilot stores to conduct experimental operations for about a week and a half. After confirming that there were no operational issues, it moved on to the second phase, which involved the simultaneous rollout to stores and offices nationwide. "We paused the transition from March to May as that's our busy season, but after that, we transitioned about 100 stores each month," notes Mr. Hataya. In the third and final phase, locations with many users, including the Tokyo headquarters, the Sapporo head office, and the data center (Equinix), which serves as the cloud hub, were changed to SD-WAN.

Each phase required the deployment of specialized personnel and local coordination and had to be carried out while continuing daily operations. Despite various challenges, the migration to Secure SD-WAN proceeded smoothly and quickly. Technical problems were negligible thanks to the cooperation of Fortinet and its ISP, which carried out detailed preliminary testing in the lab.

One of the primary benefits Nitori observed after migrating from a traditional WAN-based closed network to Secure SD-WAN was improved communication quality. "Previously, web conferences via Teams were limited to a bitrate of 512 Kbps, resulting in poor image quality, but now we can raise it to 1 Mbps without any bandwidth issues," explains Mr. Hataya. Occasional communication disruptions that had occurred due to the limitations of the older equipment were also eliminated. Remarkably, in FY2022, Nitori had zero network outages.

Nitori also reduced overall operational expenses, including maintenance and connection fees, by about 20%. "The old network was a patchwork of various lines and equipment, resulting in high running costs on the data center side. By installing FortiGate 600Es in the data center and consolidating sites in the refresh, we were able to cut those costs," notes Mr. Hataya.

The benefits have also been evident on the ground. Alongside its Secure SD-WAN implementation, Nitori upgraded its store network lines from 100 Mbps to 1 Gbps and introduced Internet breakout. "This allowed us to shift from routing all communications through the data center to enabling direct internet, cloud connectivity from each site, creating numerous advantages," explains Tomoyuki Sano, an expert in Nitori's information system innovation office's system infrastructure team (Sapporo). "We introduced free Wi-Fi in stores, have remote customer interactions, and support digital initiatives like NitoriLIVE, all of which enhance customer satisfaction through stable communication."

The performance of cloud applications used in daily operations also improved significantly. For instance, the average connection time to AWS was reduced from 35 milliseconds to just five milliseconds by optimizing the network configuration and eliminating hairpin routing.

"Our network serves people, and those people, in turn, serve our customers. Minimizing the impact on them is a substantial benefit," says Mr. Maruo. Nitori found it also eased its operational burden. "Previously, large-scale network problems required extensive troubleshooting time, which delayed other projects. With the number of incidents now at zero, we can allocate more resources to new initiatives," notes Mr. Hataya.

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Tomoyuki Sano
Nitori Holdings Co., Ltd.

Nitori also achieved its initial goal of self-managing and controlling its network. After the transition to Secure SD-WAN, unexpected traffic spikes occurred, leading to minor disruptions, but they were quickly identified and corrected using the FortiGate monitoring features. “This ability to promptly respond and shape the network ourselves as needed is another significant advantage,” explains Mr. Sano.

Nitori manages over 20 different applications per site. If they were still reliant on vendors for management, making configuration changes would involve lengthy processes and a significant investment of time. However, Fortinet Secure SD-WAN and the FortiManager central management tool enable Nitori to “analyze any sudden issues and implement changes swiftly across 800+ devices, demonstrating a major improvement in efficiency and response capability,” adds Mr. Arai.

The ISDB feature has also proven invaluable for dynamically updating cloud service IP addresses. “Previously, we manually tracked and updated Microsoft 365 IP address ranges using RSS feeds. Now, this is all done automatically through ISDB, making life much simpler,” notes Mr. Arai.

Building Infrastructure to Actively Utilize Cloud Applications for Further Growth

Overhauling its network architecture and transitioning to a Fortinet Secure SD-WAN enabled Nitori to achieve results that surpassed its expectations, solving one or two issues and addressing six significant areas. This shift has significantly boosted network communication speed and resilience, greatly contributing to the stability of their operations. Moreover, the successful collaboration of various departments within the company earned them the Silver Prize in the President's Awards.

“Online meetings are just the beginning. We are also leveraging tools such as generative AI, data analysis, and low-code platforms to enhance our on-site IT capabilities. It's crucial that our network does not become a bottleneck that hampers IT utilization,” says Mr. Arai.

The recent overhaul has established an infrastructure that can maximize the use of cloud applications. By making these cloud applications “ready,” Nitori fosters a digital culture among their employees. “Rules, regulations, and education are fundamental, but without robust infrastructure, we can't achieve any of the things we want to do,” notes Mr. Arai.

Moving forward, Nitori plans to enhance its network infrastructure and security systems further, which are crucial for rapidly expanding into overseas markets—one of the critical factors in choosing FortiGate. For instance, through internet breakout, it aims to alleviate the increased operational burden caused by the current whitelist-based control in the data center.

“By accumulating FortiGate operational know-how in Japan, we expect to manage operations independently and handle any issues quickly as we expand overseas. We also plan to utilize the security templates tailored for Japan to achieve unified governance,” concludes Mr. Hataya.

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Shunsuke Maruo
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