Midwest Retailer Meijer Secures 200 Superstores with Juniper Networks

Summary

Company:
Meijer

Industry:
Retail

Challenges:
Increase agility and simplify IT security and support at retail locations

Selection Criteria:
Innovative security management that ensures secure payment processing and compliance at hundreds of stores

Network Solution:
- SRX240, SRX650, SRX1400, and SRX3600 Services Gateways
- EX4200 and EX8208 Ethernet Switches
- M10i and M7i Multiservice Edge Routers
- Junos Space Security Director
- Junos Space Network Director
- MAG Series Junos Pulse Gateways for SSL VPN
- Unified Access Control (IC6500 Unified Access Control Appliance)

Results:
- Ensured HIPAA and PCI compliance for pharmacies and protected credit card payment processing
- Reduced CapEx and OpEx with easy to manage, advanced security
- Significantly decreased time needed to create and update security policies at 200 retail stores

Increased network performance to support Meijer's business expansion

Improved support and management of large population of firewalls in remote areas

Customers want the same great experience in every store they visit. Meijer, a retail supercenter and grocery store in the Midwest, initiated a multiphase data center refresh to ensure a positive, consistent shopping experience for customers, and to improve and streamline processes for IT. The Michigan-based, family-owned retailer opened its 200th store in May 2013, once again expanding its 60,000-plus employee team.

Challenge

A decade-old firewall infrastructure was preventing Meijer from reaching its business goals quickly. Hundreds of Meijer stores, spread across five states, support credit card transactions and have pharmacies that must meet strict Health Insurance Portability and Accountability Act (HIPAA) requirements. To meet its goals for business growth, Meijer had to open new stores quickly and remain strategically agile.

The security and network refresh would need to support Meijer's growth, protect payment processing, and ensure Payment Card Industry (PCI) and HIPAA compliance. "As the number of stores grew and our business wanted to offer more services, managing security policies efficiently got incredibly hard," says Scott Ware, network architect at Meijer. "We were having difficulties rolling out new projects, and we needed a better way to handle security and compliance requirements."

Selection Criteria

Every Meijer store has a pharmacy and accepts credit card payments. These two factors made HIPAA and PCI compliance and security top priorities. The sheer number of stores—and the corresponding number of firewalls at each store—made ease of security management a top requirement.

"We have to meet HIPAA in every store, and we process a lot of credit card data," says Tim Mannard, security engineer at Meijer. "If a new threat came up and we had to make a change, it would take an entire day to do 200 stores. It was very time-consuming."

"Security, 100-percent uptime, and management are always our goals for the network. With our new Juniper network, the improved performance in our data centers and retail stores gives IT what we need to support Meijer's short- and long-term business initiatives."

Tim Mannard, Security Engineer, Meijer

Having security management capabilities to support global group policies would keep security changes from becoming day-long projects. With advanced security management, a security administrator could apply a single security policy across all firewalls, rather than manually configuring policies on each and every firewall. Rock-solid security that protected customers' private health information and credit card data would be fast, easy and automatic.

"Our business is centered on growth and flexibility, which need easy management. Junos Space Security Director makes our jobs a lot easier."

Tim Mannard, Security Engineer, Meijer

Solution

Meijer took a hands-on approach to considering its network security options. The IT team spent considerable time investigating Juniper Networks security solutions, including proof-of-concept testing for Juniper Networks® SRX Series Services Gateways and Junos® Space Security Director. After Junos Space Security Director earned the team's respect for its ability to simplify security management, Meijer worked with Great Lakes Computer, a Michigan-based solution provider, to design a new network with Juniper Networks solutions throughout its data centers and retail stores. Meijer determined that it would get a lower total cost of ownership and stronger security with Juniper than with its incumbent security vendor.

"We had good experiences with Juniper at our corporate office, and we wanted to provide the same flexibility and performance throughout our stores and data center," says Mannard.

SRX Series Services Gateways are high-performance network security solutions that pack high port density, advanced security, and flexible connectivity into an easily managed platform. Meijer uses SRX240, and SRX1400 Services Gateways in its retail stores to protect each location and minimize security threats. The retailer also uses SRX240, SRX1400, and SRX3600 gateways in its data centers.

Junos Space Security Director lets Meijer improve the reach, ease, and accuracy of security policy administration. Security Director automates security provisioning through a centralized, web-based interface so that Meijer's IT team can manage all phases of security policy quickly and intuitively, from policy creation to remediation.

"When you have deployments at this scale, you need the types of management capabilities that come with Junos Space. Our business is centered on growth and flexibility, which need easy management. Junos Space makes our jobs a lot easier," says Mannard.

Meijer is also refreshing its two data centers with Juniper routing and switching platforms, including Juniper Networks M10i Multiservice Edge Routers, the EX8208 Ethernet Switch, and SRX3600 Services Gateways. The retailer interconnects its stores and data centers via an IP/MPLS network. The M Series Multiservice Edge Routers are compact edge routing platforms, and provide reliability, stability, security, and service richness with an advanced IP/MPLS feature set.

In addition, Meijer uses EX8208 and EX4200 Ethernet Switches to improve network performance and operational efficiency in its data centers. EX Series high-performance, highly available Ethernet switches are carrier-class solutions for data centers, campuses, and branch offices. With Juniper's Virtual Chassis technology, multiple interconnected EX Series switches can operate and be managed as a single, logical device, which reduces operational expenses and eliminates the need for Spanning Tree Protocol. "Virtual Chassis is much simpler and it's nice not having distance limitations for top-of-rack solutions," says Ware.

Meijer employees, mobile workers, contractors, and guests can count on safe, secure remote and LAN-based network access to their essential applications and data. Juniper Networks MAG Series Junos Pulse Gateways are used to enable policy-driven security enforcement with Junos Pulse Secure Access Service (SSL VPN). The MAG Series gateways integrate with corporate authentication and authorization servers and are interoperable with SRX Series gateways, EX Series switches, and any 802.1X device for dynamic security policy enforcement.

The company also uses Juniper Networks Unified Access Control—specifically, the IC6500 Unified Access Control Appliance—to deliver policy management and differentiated network access control (NAC) for third-party vendors who need access to the store network.

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Scott Ware, Network Architect, Meijer

Results

The family-owned superstore recently hit a major milestone: opening its 200th store. As the retailer continues to grow, its new network will continue to support Meijer's business expansion. "Our biggest challenge was manageability. Now we have what we need. We can update policies in five to 10 minutes where it used to take us a whole day," says Ware.

The retailer's stores are scattered throughout five Midwestern states, but getting networking and security for stores up and running is now straightforward and pain-free. Even stores in remote areas without local technical support have no problem coming online.

"Juniper makes it easy for us to deploy and build the best network for our business," says Ware. "To manage the tons of devices we have, we use the snapshot feature in Junos Space and move the image to USB sticks. To stage the SRX Series devices, we plug in the USB stick, transfer the image and ship them out. It's amazing how quickly it's completed."

For vendors that need access to the network, Meijer defines a unique policy and separates that traffic from store traffic. Meijer uses separate security zones for credit card and pharmacy transactions to maintain PCI and HIPAA compliance. This attention to detail and ease in supporting important security policies empowers Meijer with the confidence to pursue its business goals without security becoming a limitation. In addition, IT is exploring use of the IPsec VPN feature on SRX Series Services Gateways to provide back-up connectivity if the primary network connection to a store should fail.

Technical expertise from its solution partner Great Lakes Computers supports Meijer's goal to build the best network. Great Lakes has worked side-by-side with Meijer throughout the deployment. "Great Lakes is a true partner in every sense of the word," says Ware. "Their engineers are some of the best I've ever worked with."

Next Steps and Lessons Learned

"Security, 100-percent uptime, and management are always our goals for the network," says Mannard. "With our new Juniper network, the improved performance in our data centers and retail stores gives IT what we need to support Meijer's short- and long-term business initiatives."

As next steps, the IT team plans to expand its use of Junos Space Network Director to gain a single pane-of-glass view into its networks and have a full lifecycle management tool. Using Network Director will help increase operational efficiency and enable faster rollout of new services.

Meijer will continue to expand its business reach while providing excellent services to customers. The improved performance and innovative features at the network perimeter and in the core ensure that the retailer's next milestone—its 250th store—is well within reach.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

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