

FIRST INDUSTRIAL REALTY TRUST LOCKS IN SUPERIOR CUSTOMER SERVICE WITH HIGH-PERFORMANCE SECURE NETWORK



Industry: Real Estate

Challenges:

- Require a high-performance routing and security infrastructure to keep pace with MPLS WAN
- Provide secure infrastructure at more than 30 branch offices
- Give employees on the road and outside contractors secure access to appropriate applications
- Improve application and file-sharing performance at regional and branch offices

Selection Criteria: The purchase of Juniper Networks firewall/IPSec VPN platforms more than six years ago led to the deployment of a broad portfolio of Juniper Networks solutions, including routing, security, remote access and application acceleration. For each product purchase, First Industrial conducted a thorough competitive evaluation and chose Juniper for superior performance, industry-leading capabilities and ease of operations.

Network Solution:

- Juniper Networks J Series Services Routers' Juniper Networks 6530 Services Router and Juniper Networks 2300 Services Router
- Juniper Networks SSG140 Secure Services Gateway, Juniper Networks SSG20 Secure Services Gateway, NetScreen-208, NetScreen-50 and NetScreen-5GT firewall/IPSec VPN platforms
- Juniper Networks SA2000 SSL VPN Appliance with Secure Meeting option
- Juniper Networks WXC Application Acceleration Platforms: WXC590 and WXC250

First Industrial Realty Trust, Inc. provides industrial real estate solutions for every stage of a customer's supply chain, no matter how large or complex. Across more than 30 markets in the United States, Canada, The Netherlands and Belgium, the Company's local market experts buy, (re)develop, lease, manage and sell industrial properties, including all of the major facility types – R&D/flex, light industrial, manufacturing, and regional and bulk distribution centers. First Industrial has received leading customer service scores from Kingsley Associates, an independent research firm, for the past seven years, and in total, owns, manages and has under development more than 100 million square feet of industrial space

Challenge

First Industrial Realty needed a reliable, high-performance network to support its growing operations. When the company migrated from a Frame Relay network to a state-of-the-art MPLS network, it needed a new routing and firewall infrastructure that could keep up with the performance requirements and new applications.

Selection Criteria

First Industrial was already familiar with Juniper Networks. "We got started with Juniper on the firewall side," says Nick Colakovic, director of IT at First Industrial Realty Trust. "Based on that experience, we chose J Series Services Routers for the domestic MPLS network."

That decision ultimately led to the use of Juniper Networks SA Series SSL VPN Appliances and WX Series Application Acceleration Platforms as well as Juniper Networks routers and firewalls.

Colakovic is a strong believer in best-of-breed IT solutions. "That's the reality of technology," he says. "We base our purchase decisions on real, competitive evaluations. When we evaluated routers in the marketplace, we determined that Juniper gave us more bang for our buck. When we evaluated application acceleration, we compared three vendors and chose Juniper's WX Series platform. The firewall/IPSec VPN decision was based on the same philosophy."

First Industrial thrives on efficiency. "In our business, it's not an option to buy a solution that we have to replace in a year and a half," says Colakovic. "We need to get a return on our investment when purchasing equipment. We look for high-performance products so we have room to grow. We know Juniper can deliver that."

Solution

High-performance routing infrastructure – First Industrial uses J6350 routers in its primary data center and disaster recovery site to provide predictable high performance and deliver secure, reliable network connectivity to branch and regional offices. J Series deliver high levels of security, uptime and performance at reduced operational costs. The routers run modular Juniper Networks JUNOS® Software—which offers advanced services including MPLS, quality of service (QoS) and multicast, as well as security, including stateful firewall and IPSec VPN.

Customer service and maintenance issues are handled in local offices. The larger offices use J2300 Services Routers for a secure, high-performance IP VPN connection to the MPLS cloud, and very small offices use Juniper Networks NetScreen-5 or NetScreen-5GT devices for integrated security and connectivity.

The high performance of the J Series was a critical decision factor, since performance headroom means that the routers would deliver longstanding value. “The throughput on Juniper gear is much higher than other routers,” says Colakovic. “The J Series Services Routers solved all of our routing needs in one box, which clinched the deal for us. If we need to provide integrated IPSec VPN, firewalling and routing for a branch office, the J Series has horsepower to do all of that.”

Operational issues on more than 30 J Series Services Routers are few and far between. Tim Barragan, network engineer at First Industrial, speaks highly of the Juniper Networks routers’ reliability. “We get months of uptime compared to our previous routers,” he says.

“We have had very few problems with JUNOS. Our previous routing software posed some challenges. Each router looked the same on the outside, but we knew that each box had a slightly different operating system on the inside depending on when we bought it,” says Colakovic. “Our previous routers required constant firmware upgrades to deal with security vulnerabilities. Plus, it was very difficult to make changes because of the product’s legacy nature.”

Router configuration and maintenance is straightforward. Consistency in JUNOS across multiple products also translates into ease of use and lower costs on training. “Provisioning the Juniper Networks routers is half the workload of our old routing vendor,” says Barragan. “JUNOS makes it easy to deploy a new router. We change IP address in the template, deploy the router, and we’re done with it. Once you’ve configured one Juniper Networks router, you’ve configured them all.”

Barragan likes the configuration rollback feature on the Juniper Networks routers. “The configuration rollback has been a lifesaver,” he says. “Rollback is not easy to do with other routers.”

Best-in-class firewall/VPN protection – First Industrial uses SSG140 and NetScreen-208 firewall/IPSec VPNs at its data center and disaster recovery site. SSG140 firewalls are purpose-built, high-performance security appliances that feature network segmentation, dynamic routing and multiple deployment modes. NetScreen-208 is a high-performance security appliance that performs stateful firewall functions at wire-speed.

First Industrial takes advantage of the dynamic routing in the Juniper Networks firewall/VPNs. “Of all the different IPSec VPN/firewalls, the routing capability in ScreenOS is much better. The fully dynamic OSPF routing works very well,” says Barragan.

“We view our network as delivering a competitive advantage, and with Juniper, we have a high-performance network that aligns to our business goals as they change. Having a high-performance, secure network allows our employees to deliver the high levels of customer service that is central to our company’s business.”

Nick Colakovic,
Director of IT, First Industrial Realty Trust

First Industrial also uses SSG20, NetScreen-5GT and NetScreen-50 firewall/VPNs in its regional and branch offices. SSG20 is a purpose-built security platform designed for branch and regional offices that melds comprehensive, high performance security with integrated routing and LAN and WAN connectivity. NetScreen-50 is designed to provide perimeter security at branch offices with multiple DMZs.

Easy-to-use, secure remote access – First Industrial uses SA2000 to provide employees with Web-based access to their applications, particularly email, when on the road. Employees can access their applications anywhere, anytime through a standard Web browser.

“Our goal was to secure the environment to make sure that people could remotely access their key applications without hassling with security,” says Colakovic. “SSL makes a VPN deployable. Using an IPSec client is not deployable in the real world.”

The SA2000 is designed for medium-sized businesses and provides secure LAN, intranet and extranet access. First Industrial has one SA2000 for employee and contractor use, a second for IT use, and a third for testing and as a spare.

The SA2000 uses SSL, the security protocol found in all standard Web browsers, as a secure transport mechanism. The use of SSL eliminates the need for client-side software deployment, changes to internal security and costly ongoing client maintenance. With SA Series SSL VPN Appliances, IT can easily provide controlled



access to differentiated users and groups with no infrastructure changes, no DMZ deployments and no software agents.

Contractors, consultants and other outside parties also need secure access to information resources at First Industrial. For example, roofing contractors need access to a Web-based application that is used to manage warranties on roofing materials, which is a major capital expense for the company. IT contractors also need access to First Industrial applications for their consulting projects. "With the SSL VPN, we can allow consultants to get in and access only the applications they need without allowing them to go anywhere else in the network," says Colakovic.

First Industrial also uses Juniper Networks' Secure Meeting option to instantly and securely provision online meetings and user-to-user collaboration. Secure Meeting is a cost-effective, easy-to-use, point-and-click Web conferencing tool that requires no software to be deployed and enables communication between virtual teams.

Accelerate application performance for a competitive edge – First Industrial uses the WX Series Application Acceleration Platforms to improve application response time and optimize WAN efficiency, by accelerating the delivery and performance of applications. When IT first centralized applications more than five years ago, employees in the field complained that their email and other applications performed too slowly. IT doesn't hear those complaints anymore. First Industrial deployed a WXC590 application acceleration platform at its data center and WXC250 platforms in 16 branch offices.

"We expect that in the next year, most of our offices will use the Juniper Networks application acceleration solution because it works so well. It eliminates most of the performance problems in the field," says Colakovic.

"We view the WX Series as preventative so sites don't have to upgrade to faster WAN connections," he continues. "We had a field office that had severe performance problems and they wanted to buy a faster WAN pipe, which we couldn't get installed overnight. We used a WX device to solve the problem right away."

The WX Series appliances, along with the Juniper Networks WX Central Management System, help IT managers like Colakovic meet their critical business initiatives through the WX framework. The WX framework integrates several interdependent technologies, including: next-generation compression; sequence caching; TCP-, application- and protocol-specific acceleration; bandwidth management; path optimization;

and management and visibility. When these functions work in concert, rather than as part of discrete point products, IT can achieve the greatest success in using applications to accelerate a competitive business advantage.

At First Industrial, most application traffic is from documents, presentations, spreadsheets and email. With the WX framework, First Industrial has seen up to a 4X performance improvement for Microsoft file sharing. "We usually get double or triple performance for a site that has a T1 connection. We've seen at least a 10 percent performance increase for Microsoft Outlook, primarily because people don't have to wait as long to get attachments," says Barragan. File replication and backup performance have also incrementally improved, thanks to caching and acceleration.

Barragan lauds the WX CMS software, which he uses to configure and manage multiple WX devices from a central location. "With the WX CMS, we can deploy a WX device to the field in minutes," says Barragan. He compliments the tools for configuring and monitoring system features, which deliver a unified view of applications and WAN link performance, including statistics on compression, application acceleration, WAN utilization, QoS and bandwidth allocation.

This unified view of application and WAN performance gives IT incontrovertible proof of the value of application acceleration. "Ultimately, our field offices pay for the equipment from their budgets. We can point to the performance improvement because of the WX device at the other sites, which makes it easier to sell," says Barragan.

Results

First Industrial relies on Juniper for high-performance routing, security, remote access and application acceleration. "We view our network as delivering a competitive advantage, and with Juniper, we have a high-performance network that aligns to our business goals as they change," says Colakovic. "Having a high-performance, secure network allows our employees to deliver the high levels of customer service that is central to our company's business."

Colakovic likes Juniper's approach of integrating functionality into a single, high-performance platform. "We see more and more networking and security functionality integrated into one product, which is better," he says. "We like the simplicity of having one box to deploy and manage, and Juniper's legacy of high-performance solutions makes that possible."

"The advantage is that I have a single line of support for all products," says Colakovic. First Industrial has worked with its reseller Synapse Networking for a decade and with Juniper for more than six years. "The experience has been great," says Colakovic. "We've gotten assistance from Juniper when we needed it."

Next Steps and Lessons Learned

First Industrial is beginning a rollout of voice over IP (VoIP), which makes the native QoS capabilities in the J Series critical to provide end-to-end QoS. "The killer advantage of JUNOS and J Series is that we do not need to buy an expensive QoS appliance when JUNOS can do it for us," says Colakovic.

IT continues to replace older firewalls with SSG520M and SSG140 devices in the field and data center. It plans to deploy more WX Series as the word spreads to other offices.

About Juniper Networks

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at www.juniper.net.

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