

MANAGED SERVICE PROVIDER LAYS A STRONG FOUNDATION FOR AGGRESSIVE GROWTH WITH OPEN, FLEXIBLE JUNIPER PLATFORM

Summary

Industry: Service Provider

Challenges: Build a carrier-class network that offers scalability and virtualization support as well as an open, flexible platform architecture that evades technology lock-in.

Selection Criteria: High availability, openness, modular architecture, scalability and ease of administration.

Network Solution:

- M Series Multiservice Edge Routers
- J Series Routers
- IDP Series
- SRX Series Gateway Routers
- SSG Series Multiservice Security
- EX Series Ethernet switches
- SA Series SSL VPN
- NSM Central Management

Results:

- 142 percent growth in the last three years
- 98.5 percent customer retention
- Competitive advantage in offering custom co-management attributes
- High availability resulting in 9+ years with no core network outages
- 60 percent reduction in capital expenditures
- 33 percent reduction in power utilization
- Developed an extensive offering of white label services

CentraComm was established in 2001 as an Internet service provider (ISP) focused on value-added services on top of the pipe. Its executive leadership quickly recognized the huge opportunity in providing managed security and network services to mid-market and enterprise customers. Building on its success of providing premise-based security solutions, CentraComm remains at the forefront of its industry by offering an array of cloud-based security offerings. Today, the Ohio-based company is a national leader in cloud-based security, networking and managed services. It operates two fully redundant network operation centers (NOCs) that have been strategically chosen with physical reinforcement, climate and geographic independence in mind.

Challenges

As CentraComm embarked on the transformation from ISP to cloud services provider, its executives agreed that getting the foundation of its IT infrastructure just right was a top priority. In fact, CentraComm was determined to invest both time and resources to establish the best possible data center network—one that could scale with the business as it pursued rapid growth and that offered flexibility and openness so that there would be no limitations on the services it could offer customers.

“As a cloud provider, the performance and security of our data centers is critical to our ongoing success,” said CentraComm President and CEO Daniel Bemis. “Additionally, we have a Tier 1 Internet backbone, so high availability is essential.”

In addition to performance, availability and flexibility, CentraComm wanted to be sure that whatever vendor they chose for routing and switching could support the aggressive adoption of virtualization. The company knew that virtualization in the data center would help them achieve more performance in less space and save on power consumption.

With these factors in mind, CentraComm abandoned their legacy infrastructure and replaced it with an end-to-end routing, switching and security infrastructure from Juniper Networks.

Selection Criteria

Having compiled a long list of stringent requirements—openness, flexibility, high availability, performance and virtualization support—it didn’t take CentraComm’s business and technology executives long to realize that one vendor stood alone in the marketplace as an entity that could deliver everything they needed: Juniper Networks.

CentraComm had used Juniper security products since 2004. Its satisfaction with Juniper’s customer-centric service combined with the tremendous value of Juniper’s open, flexible architecture and modular solution design made the choice a clear fit with its own value proposition.

“Our strategy is to be a best-of-breed provider and create a best-of-breed solution,” said Bemis. “We needed an open, flexible platform that would integrate with whatever other technologies required to create the perfect solution for our customers. Juniper provides that for us.”

As it turned out, Juniper technology came with additional benefits—most notably, a lower cost of administration and management, thanks to Juniper Networks Junos®, a reliable, high-performance network operating system for routing, switching and security.

“Junos provides us with a high level of operational efficiency,” said CentraComm Chief Information Officer Patrick Foxhoven. “With Junos, we don’t have to train our IT staff on multiple operating systems for routing, switching and security. We need to be highly efficient, because our staff manages more than 500 devices globally, operates two data centers, an ISP network, and provides numerous white label offerings for other providers.”

But Juniper wasn’t just a technology fit. Juniper, executives felt, perfectly complemented CentraComm’s strong commitment to customer satisfaction and high engagement with customers.

“Part of the reason that Juniper is such a great fit for our company is that our cultures match,” said Bemis. “We are both focused on delivering a high level of customer satisfaction.”

Solution

CentraComm uses a wide range of Juniper routing, switching and security solutions in its two carrier-class data centers, which support more than 200 customers in twelve countries on four continents. Juniper’s product portfolio means that CentraComm is supported with a range of devices to fit every need and to scale quickly when needed to match its fast pace of growth.

CentraComm uses Juniper M Series Multiservice Edge Routers to provide reliability, stability, scalability and service richness, combined with IP/MPLS capabilities. With the M Series, CentraComm can deliver cutting-edge services while consolidating multiple networks on IP/MPLS. CentraComm also uses J Series routers to provide high-performance, secure connectivity to its customers’ offices. The J Series run Juniper’s Junos network operating system with MPLS, IPv4/v6, quality of service, firewall, multicast and IPSec VPN. Thanks to Juniper’s Intrusion Detection and Prevention (IDP) appliance, CentraComm’s network operations centers are protected against application-level attacks before they cause damage, which minimizes the cost associated with maintaining a secure network.

“Juniper continues to be the right choice for us moving forward because it allows us, and more importantly our customers, to be on the leading edge of the industry.”

Daniel Bemis
CEO, CentraComm

CentraComm uses both the SRX and SSG series to protect its infrastructure as well as its customers. The SRX Series Services Gateways scale integrates security and networking capabilities simultaneously. They are the industry’s highest performing security portfolio. The SSG series are high-performance security platforms that are ideal for stopping internal and external attacks, preventing unauthorized access, and achieving regulatory compliance. “CentraComm has exceptionally bright engineers,” stated Foxhoven, “and Juniper provides us the platform to take advantage of that intelligence and creativity.”

The high-performance EX Series Ethernet switches are designed to meet the needs of today’s data center networks. The EX4200 line of Ethernet Switches with Virtual Chassis combines the availability and reliability of modular systems with the economics and flexibility of stackable switches.

CentraComm uses the SA Series to give remote and mobile employees anywhere, anytime access to corporate resources and applications from any standard Web browser.

NSM Central Manager provides a single point of control for deploying global security policies across all domains.

Results

Despite the flagging economy, CentraComm has grown 142 percent in the last three years. It has been included on the Inc. 5000 for four years running and on CRN magazine’s list of the fastest growing service providers for five years. Bemis said CentraComm’s Juniper infrastructure has enabled that growth.

“With Juniper, we don’t worry about whether the foundation architecture needs to be updated or revamped,” said Bemis. “We made a great selection early on and built on top of that, allowing us to focus on growing the business. We have the scalability and core foundation so we don’t have to worry about whether our network can support new service offerings.”

CentraComm relies on Juniper’s platform strengths to help them provide customized solutions that help them stand out against competitors.

“We’re one of the very few premier managed service providers that offer custom co-management attributes,” said Bemis. “In other words, we tailor the solution to match customer needs. And this flexibility is a direct result of the openness of the Juniper platform.”

CentraComm replaced core switching in its data centers with Virtual Chassis technology, a unique feature of Juniper switches. This change alone reaped a 60 percent savings on capital expenditures over CentraComm’s previous Cisco-based switching architecture.

Network virtualization also saves significantly on power costs. "By switching to EX switches with Virtual Chassis technology, we reduced the physical footprint by at least half and we are using a fraction of the power we once did," said Foxhoven.

Internally, satisfaction with the Juniper solution runs high among CentraComm staff. Junos, in particular, has earned the loyalty of the engineering team by increasing productivity.

"Every one of our engineers who has learned Junos has liked it better than Cisco," said Foxhoven. "Once they use Junos, they begin to wonder why Cisco doesn't include features like commit scripts and the ability to roll back changes. Once an engineer learns Junos, they don't want to work with anything else. The niceties of Junos are why we can effectively manage so much equipment in 21 states, 12 countries and on four continents from our offices in Ohio."

The advantages of using Junos go well beyond IT staff productivity. Whether they know it or not, Bemis explained, CentraComm customers get a higher quality service at a lower cost, thanks to the efficiency of Junos.

"With Junos we're able to manage a lot of gear globally and in a diversified environment and keep the ratio of engineering staff very low," Bemis said. "For example, when a customer calls, they talk to a Tier 2 engineer. The intelligence in the network automatically deals with the Tier 1 issues. It's an advantage on the cost side. It allows us to provide a higher level of service with a lower total cost of ownership for our customers." These kinds of cost savings are critical to CentraComm's recent success and have helped the company achieve a customer retention rate of 98.5 percent.

CentraComm has had more than 9 years of 24x7 operations without a core network outage.

Next Steps and Lessons Learned

With a reliable, flexible network infrastructure built out, CentraComm can now focus on building value into its portfolio

of security and cloud services. Its customers are actively researching the possibilities of cloud computing, and many inquiries involve concern over security and architecture choices. CentraComm's confidence in the competitive strength and flexibility of its Juniper infrastructure makes it easy to allay these fears and close more business.

"We believe that our knowledge as an ISP and cloud provider, combined with our open Juniper platform, makes it easy to take advantage of the next wave of cloud-based and security services," said Bemis. "Juniper continues to be the right choice for us moving forward because it allows us to be on the leading edge of the industry."

For example, CentraComm plans to roll out a cloud-based security information management (SIEM) service that relies heavily on the openness of the Juniper platform. "We can offer solutions that others can't and Juniper is a big part of that," said Bemis.

Most importantly, CentraComm is happy to be working with a vendor that provides them with the same level of customer service that they would expect from themselves.

"We found a consistently high level of expertise with Juniper engineers," said Bemis. "It's never hit or miss with Juniper and that's not always the case with other vendors."

For More Information

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

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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