

HIWAAY ENHANCES CORE RELIABILITY AND FUELS PROFESSIONAL SERVICES GROWTH IN TRANSITION TO ALL-JUNIPER SHOP



Industry: Telecommunications and Network Services

Challenges: Replace aging infrastructure to accommodate growth, ensure network reliability, and standardize on platforms that enable network and premises-based managed services to be profitable at unbeatable prices

Selection Criteria: Reliability, footprint, power consumption, and operational simplicity—including remote management of customer networks and security services—at the lowest possible cost

Network Solution: Juniper Networks M10i Multiservice Edge Routers, Juniper Networks J2300 and J4350 Services Routers, Juniper Networks SSG Series Secure Services Gateways

Results: Expanded capacity, enhanced stability to ensure reliability, plus rapid growth of network and security services powered by easily installable, centrally-managed enterprise routers and security platforms—at one-third the cost of the incumbent vendor's proposal

HiWAAY Internet Services is a full-service Internet Service Provider (ISP) providing a broad range of services to enterprises of all sizes along with dial-up and DSL access for residential customers throughout Alabama. From its start in 1995, strong growth has propelled HiWAAY to become the largest privately held ISP in the southeastern U.S. With headquarters in Huntsville, HiWAAY also operates network hubs in Birmingham, Montgomery, and Tuscaloosa.

HiWAAY's fastest-growing division provides network services to enterprise customers ranging from medical, legal, and real estate offices, all the way up to Fortune 500 companies. Access customers include major municipalities, one of the nation's largest weather service bureaus (which supplies data to most television broadcasters), plus tens of thousands of residential customers statewide. HiWAAY offers Linux hosting services that include managed ecommerce packages and a thriving co-location service that hosts several thousand Web sites. The company's network services division provides IT outsourcing and network management, including network-based and premises-based managed security services.

The Challenges

By the fall of 2005, the growth of HiWAAY's residential and business customers had outstripped the capacity of the company's aging core network. To continue providing reliable service for steadily increasing and ever-more-demanding user populations, systematic upgrades throughout the network were required. HiWAAY sought to modernize its equipment with an infrastructure that would provide the agility needed to sustain the company's expansion.

HiWAAY also wanted to preserve and enhance the flexibility to offer both network-based and premises-based services. Since HiWAAY's growing network services division charges by the task, not by the hour, network managers wanted equipment that would enable a small staff to deliver high-value services with minimum setup and ongoing maintenance costs. Senior executives sought solutions that would provide a cost structure low enough for them to be able to offer customers attractive prices to sustain rapid growth without sacrificing profitability.

Selection Criteria

John Hasty, HiWAAY's Manager of Network Services, says that since any upgrade would provide additional capacity, the most important selection criterion had to be reliability and the operational simplicity to support it. "Our customers count on us to provide continuous service, and we know that requires not only stable, highly available equipment, but also a straightforward operating environment that enables us to avoid problems and grow non-disruptively," Hasty explains. Additional purchasing considerations included power consumption, cooling, rack and floorspace requirements, and of course cost.

The company's vendor search intensified when the incumbent vendor submitted an expensive quote: "Cost may not be our primary consideration, but an unaffordable proposal is not a viable solution," Hasty recalls. "I said, 'Let's give Juniper a call—they are known for reliability—and they have to be less expensive than this!'"

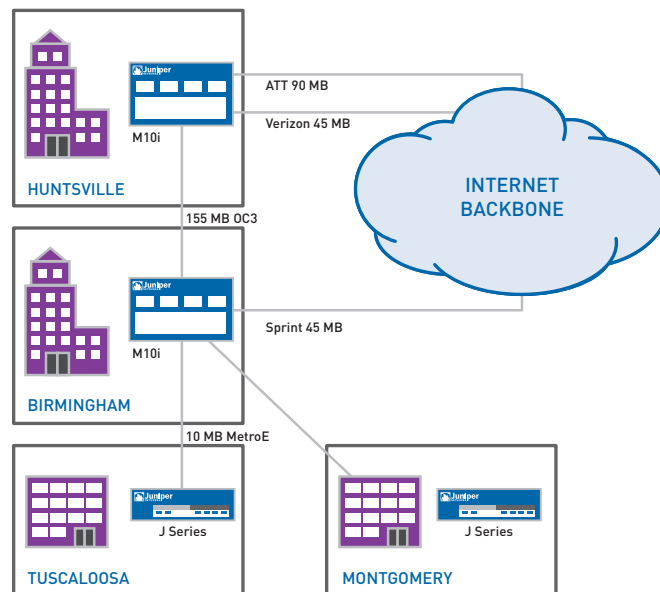
Hasty invited Juniper sales engineers to assess his company's situation and propose a solution. As his team became familiar with Juniper's architectural approach to network design, Hasty says that they determined that Juniper platforms would provide a strong foundation for HiWAAY's multiple lines of business. "As networks grow, the architecture becomes increasingly important. With a small network, skilled operators can compensate for a vendor's quirks. But that is more difficult to sustain in larger networks, and with the architecture that Juniper has developed, there is no reason for carriers to tolerate needless complexity," remarks Hasty. "Starting with the separation of the control and service plane and the separation of components within each router, up through the policy and control layer to the application level, the Juniper architecture is built to deliver scalable services."

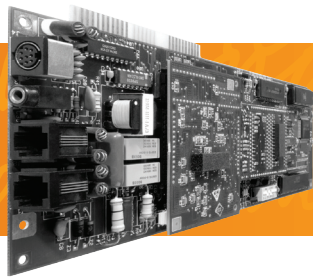
Hasty adds that despite the importance of a strong architecture, the real measure of its worth is when it is put into service. "Anytime you are contemplating upgrading your core routers for a major change, it is important to conduct a thorough testing program to make sure the equipment will meet your needs," Hasty says. "Juniper sent evaluation equipment which we tested for two and a half months. That gave us time to see for ourselves how the architecture translated to operational simplicity to deliver the predictable, stable performance that is so important to us and our customers."

Solution

HiWAAY engineers installed their first Juniper Networks M10i Multiservice Edge Router at headquarters and then quickly followed by replacing legacy equipment with Juniper core routers in Birmingham. Additional Juniper Networks J Series Services Routers installed in Montgomery and Tuscaloosa supplement the network backbone with regional WAN connectivity. The service provider also began installing Juniper Networks Secure Services Gateway products plus Juniper Networks J2300 and J4350 services routers in customer networks that HiWAAY manages. As a result, the company is transitioning to an all-Juniper network managed by a single, unified network operating system, JUNOS® Software.

Hasty says that the time he and his staff spent with the evaluation equipment enabled them to map out configurations and develop an implementation plan that would solve their immediate needs and provide a clear growth path. "Our evaluation and planning paid off when we decided to make the switch because the transition to the Juniper equipment was entirely painless."





Hasty says that an important advantage of the Juniper solution was the compact footprint and reduced power consumption compared to the equipment that the incumbent vendor proposed. “I would have had to completely rewire my entire facility for power and cooling because their plan called for entire racks of equipment. Instead, each Juniper M10i is just 5U tall and didn’t require any costly and disruptive power upgrades,” Hasty says.

Cost was also a major advantage for the Juniper solution. “The upgrades that our previous vendor was proposing would have cost us almost three-quarters of a million dollars,” Hasty recalls. “The Juniper solution was less than a quarter-million dollars.”

“Juniper support has been outstanding, both from the sales side of the house and the technical side. We know that we are important to Juniper even though we think of ourselves as a smaller customer.”

John Hasty
Manager of Network Services, HiWAAY Internet Services

The Results

Hasty and his staff performed all of the installations and migrations themselves, finding that the switch from the previous vendor’s operating environment was straightforward and uneventful. “The JUNOS platform was very easy for us to learn and use,” Hasty remarks. “We are a UNIX shop here, so having BSD on a router suits our skill sets. With our knowledge of LINUX and UNIX, we had no learning curve mastering JUNOS. And compared to the other vendor’s operating system, JUNOS is a real breath of fresh air!”

Hasty frequently hosts visits from other service providers or enterprise network managers who are considering Juniper solutions for their own companies. “We like to tell potential Juniper customers about the success we have had and the ease

of implementation as we migrated from our previous vendor’s devices. When we had the other routers, we were constantly rebooting them in the middle of the business day. With Juniper, we had our first M10i for over a year before we rebooted it.

“We also tell potential Juniper customers about the support we get from Juniper and how that differs from having to go through the other vendor’s support system. Juniper support has been outstanding, both from the sales side of the house and the technical side. We know that we are important to Juniper even though we think of ourselves as a smaller customer,” Hasty says.

One of the operational aspects of HiWAAY’s upgraded network that Hasty demonstrates for prospective customers is the scope of monitoring that his Juniper equipment supports. “The SNMP tools and MIBs that Juniper provides make it very easy for us to monitor each and every interface on our routers—every T1, Frame Relay, Ethernet connection, OSI connection and all the rest—all in real-time. Plus, we can keep an eye not only on our network, but also on the networks of our customers that we manage. By knowing immediately if they have a problem, we can correct it right away. Better monitoring also enables us to be proactive so that we can avoid trouble, not troubleshoot.”

Enterprise Routers and Secure Services Gateway Products Propel Growth of Professional Services

Since the company decided to offer knowledge-based services to enterprise customers just over one year ago, what began as a flexible menu of IT services delivered by two consulting engineers has grown to an eight-person group that is perpetually recruiting additional staff. Hasty says that installing and managing Juniper routers and security devices makes it possible to cost-effectively deliver a wide range of services that generate profitable recurring monthly service revenue.

“When organizations need their own infrastructure to support a T1, frame relay or metro Ethernet solution, we propose Juniper equipment,” Hasty says. “When we explain how the routers work, their built-in security capabilities, the close alignment with our core routers, and the low cost of entry—our closure rate is very good.”

Hasty says that HiWAAY also installs many Juniper Networks SSG Series Gateway products in customer networks. "We are having phenomenal success with the SSG Series. It is a very attractive line for us and our customers. The SSG Series devices are scalable firewall devices that can also provide the virus and spam filtering that customer networks need—at a price point that even small offices can afford. We all know that there are always people looking to take advantage of holes in people's networks, so Juniper-powered security makes good business sense for organizations of all sizes," says Hasty.

"The ease of implementation of the SSG Series and J2300 Services Routers enables us to outfit customers quickly so that we can profitably deliver a lot of value for a very good price," Hasty continues. "The SSG Series is a very simple device to configure and install, particularly compared to devices aimed at the same market from our previous vendor. It has a very clear interface that enables us to preconfigure a unit here in a few simple steps that do not involve complicated rule sets. Then, in the middle of the day, we can just plug it into the customer's network. It is not an invasive installation."

Hasty says that with the ease of preconfiguring and installing SSG Series devices, "instead of spending hours and hours of billable time implementing a firewall, we can do it for one low setup fee. Just as important, since the customer's network is not impacted for a large amount of time, the customer doesn't need to be with us for a major after-hours project. To be able to perform that kind of work without being disruptive to their business or to their network—which often is their business—that is a big advantage for us and our customers. In fact, customers who have compared our services and prices with others tell us that our Juniper solutions not only make more business sense, they are also more economical."

Next Steps and Lessons Learned

Hasty says that the transition to an all-Juniper network is an ongoing process fueled by continuing growth. HiWAAY's network services business is particularly strong and fully profitable. The Juniper enterprise products play an important role due to their low entry price and ready configurability. By minimizing installation time, the Juniper equipment frees HiWAAY personnel to perform other projects for the customer, or move on to other customers to start still more recurring revenue streams.

HiWAAY recently extended their professional services operations to their Birmingham office, and the only constraint to growth is the speed with which the company can hire additional consultants. Amid the growth and changes, Hasty says there is one constant: "Anytime we need to replace our old routers, we will replace them with a Juniper device."

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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