Atlantech Online Delivers Secure, High-Quality VoIP Services with SRX Series Cluster

Summary

Company:

Atlantech Online

Industry:

Service Provider

Challenges:

Deliver high-quality VoIP services to customers, including protection from growing security threats and distributed denial-of-service attacks

Selection Criteria:

Performance and security at scale with operational efficiency

Network Solution:

· SRX3600 Services Gateway

· MX960 and MX240 3D Universal Edge Routers

· EX4200, EX3200, and EX2200 Ethernet Switches

Results:

· Deliver on customer promise for high-quality, secure, and reliable communications

· Protect voice, hosting, e-mail, and other services from security threats

· Scale bandwidth, subscribers, and services to meet demands

In the fiercely competitive service provider market, Atlantech Online stands out by putting the customer first and delivering high-quality, secure, and reliable communications services. The privately held company has seen steady growth since it started serving business and public sector customers in 1995. Based in Silver Spring, Md., Atlantech Online provides IP phone service, high-speed Internet and data connectivity, website hosting, server hosting, and colocation.

Challenge

Atlantech Online has seen great success with its VoIP services and offers a fully managed, hosted voice service as well as an on-premises solution. Customers like the cost savings of IP voice, and Atlantech Online promises to deliver sound quality that is the same or better than with legacy PBXs. But to deliver on that brand promise, Atlantech Online must ensure that its network is high performance, highly reliable and, of course, secure.

It's no secret that security threats are on the rise, but distributed denial-of-service (DDoS) attacks can be an especially ferocious problem. A DDoS attack on a service provider's voice infrastructure can have ramifications from service outages to lost business. Atlantech Online's partner in delivering managed voice services was seeing increasingly severe Session Initiation Protocol (SIP) DDoS attacks, and Atlantech Online knew it needed to boost its security before customers were impacted.

"Security is a hindrance to my job, but I know we have to have it. I enjoy working with the SRX Series, because it makes security easier. The security principles and syntax of Junos OS make sense."

Eric Van Tol, Operations Manager, Atlantech Online

Selection Criteria

Atlantech Online was a longtime customer of Juniper for routing and switching gear in its operational and corporate networks, but had relied on a different vendor for security. Eric Van Tol, operations manager at Atlantech Online, is a big fan of Juniper Networks® Junos operating system. "I fell in love with Junos OS from the first time I used it," says Van Tol. "I had never used SRX Series firewalls before, and I wanted to try them out."

Van Tol picked up a Junos Security1 book and started experimenting with Juniper Networks SRX Series Services Gateways. He liked what he saw. "The SRX Series makes security principles and basics seem much more intelligent," he says. "Junos OS is easier to understand and configure than our previous firewall."

Solution

Atlantech Online deployed SRX3600 Services Gateway in a high availability cluster to protect its voice services, including its Class 4 softswitch, session border controllers, and voice media servers. It also uses SRX Series gateways to protect its hosting, Domain Name System (DNS), and e-mail services.

SRX Series gateways are high-performance network security solutions that pack high port density, advanced security, and flexible connectivity into an easily managed platform. The SRX3600 gateway delivers market-leading performance, scalability, and service integration that's ideal for hosted or colocated data centers and medium to large enterprise data centers.

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Atlantech Online has used Juniper Networks MX Series 3D Universal Edge Routers in its core and edge network infrastructure since 2001. MX Series routers provide network operators the optimization, high performance, reliability, and scale that a rapidly evolving market requires. Atlantech Online uses MX960 and MX240 3D Universal Edge Routers in the network core and distribution layers, with MX80 3D Universal Edge Routers on the customer edge. With the exploding use of video and the popularity of IP voice services, Atlantech Online takes full advantage of the MPLS, logical routing, and quality-of-service (QoS) capabilities on the MX Series routers to ensure that customers' voice and other business-critical traffic is given priority from end to end across the network.

Atlantech Online also employs Juniper Networks EX Series Ethernet Switches in its two state-of-the-art data centers. It uses compact, fixed-configuration EX4200 switches with Virtual Chassis technology, which allows up to 10 interconnected EX4200 switches to be operated and managed as a single, logical device.

"Virtual Chassis is a huge benefit, because we can administer the EX Series switches using one IP address," says Van Tol. He compares Virtual Chassis to the legacy approach, where each switch is individually configured, which is labor-intensive and makes it harder and slower to provision a new customer. "With EX Series switches, I have two connections—one into each switch—and we can use the VLAN that's configured on the Virtual Chassis," he says. It's simple.

Atlantech Online uses the EX2200 line of Ethernet switches for connectivity in its critical infrastructure networks. EX2200 switches are low power, low acoustic, 1 U devices designed for wiring closets and open offices.

The provider uses EX3200 switches in its corporate headquarters and branch office networks, where they have been running flawlessly for four years without so much as a reboot.

Results

"Our voice infrastructure is much more protected with the SRX Series gateways than before," says Van Tol. Atlantech Online can protect its voice services from growing threats, including SIP DDoS attacks, without compromising network performance or voice quality.

"I hate firewalls. Security is a hindrance to my job, but I know we have to have it," says Van Tol. "That said, I enjoy working with the SRX Series, because it makes security easier.

Using SRX Series gateways has given the operations staff greater visibility into potential problems and allowed them to mitigate potential risks. Troubleshooting is easier, too. "When a customer has an issue, I can do a packet capture directly on the SRX Series gateway and I don't have to set up a complex network for port mirroring to debug the problem," he says.

Atlantech Online's Juniper routing, switching, and security infrastructure has been rock-solid reliable. "We've had much better uptime and availability since we began deploying Juniper" says Van Tol.

Van Tol appreciates the reliability and consistency of the relationship with Juniper. "Our relationship with Juniper is strong," he says. "Our Juniper SEs are knowledgeable and responsive. Our account manager is very responsive. We can trust that Juniper is going to be there when we have questions."

Next Steps and Lessons Learned

Atlantech Online prides itself on providing high-quality products and services to its customers, and has engineered its network to ensure that it always has enough capacity, strong security, and plenty of redundancy to keep its customers up and running around the clock. Using Juniper's network and security solutions is integral to helping this provider build the best network for its customers—and to keep its customers coming back for more in the highly competitive market for voice and data services.

For More Information

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

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