SONICWALL™

Campus network passes test — available 24/7

University of the Sciences boosts open learning environment with secure next-generation firewalls to provide reliable access from any device at any time

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Long Le, Director of Networking and Computing Services, University of the Sciences

Customer profile

USciences
University of the Sciences

Company	University of the Sciences
Industry	Education
Country	United States
Employees	Employees 893; Students 2,807
Website	www.usciences.edu

Business need

University of the Sciences needed to design a new network system that could handle the mounting complexity and security risks as more mobile devices connect to campus resources.

Solution

The university implemented two SonicWall SuperMassive 9000 Series next-generation firewalls to get broad visibility into network traffic, and still provide students, faculty and staff with secure, 24/7 access.

Benefits

- Improved access and increased bandwidth via high availability network capabilities
- Greater visibility into diverse network traffic using Reassembly-Free Deep Packet Inspection
- Superior redundancy through implementation of two NOCs
- Automated access control settings
- Increased ROI, thanks to consolidation of equipment and other resources

Solutions at a glance

- Network Security

The University of the Sciences is one of the leading schools in health science education. Based in Philadelphia, the university offers diverse studies ranging from biochemistry and laboratory science to occupational therapy and public health. Students can pursue bachelors or post-graduate degrees, as well as enroll in pre-med, pre-dental or pre-veterinary programs.

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>
> *Long Le, Director of Networking and Computing Services, University of the Sciences*

The University of the Sciences' setting creates a complex computing environment. Students use the campus network for online courses, managing their workload, research, email and social media communications, as well as for entertainment such as watching movies. Administration and faculty need secure access to student records and university business systems. In addition, students, faculty and staff use a range of mobile devices, laptops and desktop computers to access the network remotely, creating further complexity and much higher security risks.

The university IT department is tasked with providing around-the-clock access to an open environment that facilitates learning. Because IT can't control all of the different devices connecting to the network, it needs broad and constant visibility into network traffic so that vulnerabilities can be addressed quickly while maintaining a stable computing environment.

"When it comes to network security," says Long Le, director of networking and computing services, University of the Sciences, "the number of threats and security breaches has increased tremendously. We need to be informed almost daily about anything new that comes up to remediate the situation as soon as possible."

24x7 business and academic continuity

The university implemented two network operation centers (NOCs) to provide the redundancy needed to keep the environment up and running in the event of an incident. The school's Check Point firewall solution, however, did not have the high availability capability that the school needed with this new network design. As a replacement, the university chose the SonicWall SuperMassive 9000 Series next-generation firewalls because the solution can communicate simultaneously with the two NOCs — to one in active and to the other in passive modes — providing high availability for on-going business and academic continuity.

When it was time for the university to upgrade its firewall infrastructure, Le turned to CSDNET, a long-time partner of the University of the Sciences. CSDNET helped design, implement and maintain the school's existing network, and Le trusted their advice. "CSD has always been a valued and very reliable partner for us. They bring a wealth of knowledge and we look to them when it comes to new ideas because they stay informed on cutting-edge technologies."

CSDNET demonstrated the SuperMassive to Le's team, and they were impressed with the features it brought to the table. The new network was designed using a Bastion host to boost protection against threats from untrusted networks or computers. The SuperMassive integrates well with this type of protected network environment to support high availability. No other firewall solution could do this.

Products & Services

Hardware

SonicWall SuperMassive 9200 firewalls

"When it comes to ROI, the SuperMassive 9000 Series gave us the best bang for our buck because we could consolidate six pieces of equipment into one."

Long Le, Director of Networking and Computing Services, University of the Sciences

"Having high availability was one of the key reasons we decided to go with SonicWall," Le says. "We also had to find a device that could handle two NOCs — and the SuperMassive was able to handle that situation."

In addition, Le's positive prior experience in successfully deploying Dell servers and PCs at the university gave him confidence in deploying a firewall solution. "The SuperMassive, all around, has been an improvement in security for us," Le says. "The SuperMassive has turned what used to be a complex security set up into a simplified, managed solution for our IT team and our user population."

Anytime, anywhere network access

The internet is an integral part of education today, and students rely on having a constant, reliable connection. The SuperMassive 9000 Series supports a high availability network with reliable VPN access. Students, faculty and staff can plug into the network from anywhere at any time. This ability is especially critical for the students at the university using the Blackboard Learning Management System, because it is hosted online.

Because the university's learning management system and student email is hosted offsite, connectivity and availability is paramount. With the new network designed by CSDNET and the SuperMassive, the school has achieved 'always on' status.

The new firewall also features higher throughput and increased bandwidth, enabling business continuity even when an incident occurs.

Security: visibility, redundancy, control

One of the main concerns for the university is to make sure that student records are protected. "It's critical to keep the network secure, and with the help of Dell and CSDNET, we were able to accomplish that," Le says.

With so many different devices connecting to the university's network, it is critical to have insight into all incoming and outgoing traffic to detect vulnerabilities as soon as they arise. Dell's Reassembly-Free Deep Packet Inspection technology, built into the SuperMassive 9000 series next-generation firewall, inspects all encrypted HTTPS traffic and other SSL-based traffic, blocking threats before they can enter the university network.

The IT team can keep tabs on activity using dashboard application visualization, alerting and reporting tool. "The GUI interface is more comprehensive than what we had with Check Point," Le says. "We can get a quick snapshot into our security environment, enabling us to make efficient and impactful management decisions."

In addition, the university's new network design features superior redundancy to help maintain continuity in the event of a breach or technical issue. Two network operation centers, supported by the SuperMassive 9000 series firewall, enable a higher level of redundancy with connections to two ISPs. Should one connection go down, the other can kick in without students or faculty ever knowing the difference.

Consolidation and ROI

The university was able to consolidate its current network design and reduce overall maintenance and upgrade costs. The SuperMassive 9000 allowed the university to combine its virtual private network and load balancer, enabling two ISPs to connect to the network.

"When it comes to ROI," Le says, "the SuperMassive 9000 Series gave us the best bang for our buck, because we could consolidate six pieces of equipment into one."

In addition, the university IT team has streamlined administration and management. "With Check Point,

we invested many hours each day managing the solution," Le says. "Once we implemented the SuperMassive, we gained time back in our day to provide proactive support to our user population. In a nutshell, our experience was nothing less than positive."

Le says he is relieved knowing that Dell has his team's back—and that the tedious job of monitoring network threats is covered. The SonicWall Global Response Intelligent Defense (GRID) Network is a threat intelligence network with over 1 million sensors that monitor traffic for emerging threats around the globe.

"Our business is education and providing services to our education community," Le says. "With limited staff members on hand to watch threats all day, we rely on the SuperMassive research team and its knowledge to protect us."

SuperMassive makes the grade

"We knew that the SuperMassive 9000 Series was the right fit for the University of the Sciences," says Fred Zappolo, partner and vice president of sales at CSDNET. "We worked with them for a number of years with a competing product and that product began increasing in cost and complexity. Our job is to recommend and implement solutions that address a specific need and not complicate things for the University. The SuperMassive 9000 Series was the answer."

The SuperMassive 9000 Series gives the university application control, intrusion prevention, malware protection and SSL inspection at lightning fast speeds. The high availability capability lets the university maintain business continuity at all times so that students, faculty and staff experience seamless access to the internet and academic resources.

"The SuperMassive has exceeded our expectations," Le says. "From ease of use to expandability to cost containment, the SuperMassive affords us the opportunity to secure our environment while providing the services needed at a reduced cost."

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CaseStudy-UniversitySciences-AMER-Metia-D1.pdf

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