Tuskegee University boosts WAN performance and ROI with Dell SonicWALL

Using Mobile Connect, Tuskegee extends network to mobile tablet users

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Fred Judkins
CIO

Customer profile

TUSKEGEE
UNIVERSITY

Company	Tuskegee University
Industry	Higher Education
Country	United States
Users	3,200 students; 1,100 faculty and staff
Website	www.tuskegee.edu

Challenge
- A million attacks per year
- Performance bottlenecks
- Mobile device propagation
- Cumbersome administration

Solution
- Dell SonicWALL E-Class NSA E7500
- Dell SonicWALL Mobile Connect for iOS

Benefits
- Combines Dell SonicWALL Reassembly-Free Deep Packet Inspection with a powerful multi-core hardware platform, for up to 5.6 Gbps stateful throughput
- Granular application intelligence, control and visualization
- Gateway anti-virus, anti-spyware, intrusion prevention, anti-spam and content filtering
- Deep Packet Inspection of encrypted SSL traffic
- Mobile Connect provides Clean VPN for mobile tablets and smartphones when deployed on or with Dell SonicWALL Next-Generation Firewalls

Founded in 1881, Tuskegee University has approximately 3,200 students and 1,100 faculty and support personnel. Located 40 miles east of Montgomery, Alabama, the physical facilities of the campus include more than 100 major buildings and structures. The university maintains separate student and administrative networks. Recently, Tuskegee University implemented a Dell™ SonicWALL™ E-Class Network Security Appliance (NSA) solution to cost-effectively increase security, enable cross-platform mobility, streamline management and boost network performance and productivity.

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>
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> *CIO*

The challenge: balancing protection with performance
Previously, the university ran Check Point® firewall software on a 3Com Crossbeam® system. Tuskegee's network repels up to a million malware and phishing attacks a week, which overwhelmed its firewall's capabilities.

"It brought our network to a crawl," said Fred Judkins, chief information officer at Tuskegee University. "The firewall could not handle the threats and volume of traffic."

The hit on performance affected both faculty and students.

"Educators could not download class materials because the firewall would take too long," said Judkins.

The problem was compounded by weekly software updates to 1,100 lab computers, as well as the increasing propagation of personal mobile devices among students.

"Each of our 3,200 students might typically use a laptop, desktop, tablet, smartphone and gaming console, with each device running multiple connections to the Internet," said Judkins. "If students cannot get the throughput to do what they want, they consider applying to other colleges where they can."

The old firewall was also difficult for the university to support and maintain.

"It would take 10 minutes to push out one simple change to an IP address," said Judkins. "We cannot wait that long. If we have a zero-day attack, we need to update instantaneously. Plus, it was a nightmare installing SSL VPN licenses with Check Point."

Working with CDW-G, Judkins considered replacement solutions from Barracuda®, Fortinet®, and Check Point before finally selecting Dell SonicWALL.

"Barracuda was just not there yet on next-generation firewall capabilities. And Fortinet was unrealistically expensive. We expected Check Point to have a high-performance next-generation firewall, but Dell SonicWALL beat them hands down. On the same peak-time connection tests, throughput with Check Point was only 7 MB, while with Dell SonicWALL it was up to 90 MB. It just rocked," said Judkins.

Service was another selling point for Judkins.

"Dell SonicWALL technicians were very fast and professional," said Judkins. "We decided to add Dell SonicWALL Platinum support, which was very economical compared to what we were paying for with Check Point support."

DELL SonicWALL

The solution: Dell SonicWALL E-Class NSA E7500 with Mobile Connect

The university deployed dual Dell SonicWALL E-Class NSA E7500 Next-Generation Firewalls paired in High Availability (HA) mode.

"We activated a number of features, including anti-malware, anti-spam, application intelligence and control, as well as SSL VPN," said Judkins.

The NSA E7500 combines Dell SonicWALL Reassembly-Free Deep Packet Inspection® (RFDPI) technology with a multi-core platform. It is configurable to analyze and control thousands of unique applications, whether unencrypted or encrypted with SSL.

"Dell SonicWALL lets our users easily connect from their iPads over SSL VPN," said Judkins. "Our executive staff uses it. One member said it was like sitting at his desk. Instructors can post grades and access the resources they need. It works great. We can get Android devices connected as well."

The Dell SonicWALL Mobile Connect™ unified client app for iOS provides iPad, iPhone®, and iPod touch® users full access to network resources over encrypted SSL VPN connections to ensure confidentiality and data integrity for users outside the network perimeter. Deployed on or with a Dell SonicWALL Next-Generation Firewall, Mobile Connect enables Clean VPN to remove malware from communications relayed through iOS devices.

The results: easy, high-performance security with greater ROI

Dell SonicWALL saves us up to $100,000 per year by consolidating network and mail filtering on the firewall," said Judkins. "We did not have to upgrade multiple outdated and expensive point solutions. Because it is all in one package, it centralizes management of most of our security services in one place."

Judkins appreciates the solution's ease of use.

"We have the ability to remotely and granularly designate what firewalls users can get to, what rules they can change and what they can see," said Judkins. "Our university president can view network traffic in real time. We can set up automatic reports to be sent via email. If we lose our primary connectivity, it rolls over to a cellular connection. It is unbelievably fast and simple."

The NSA E7500 delivers the performance the university requires.

"Firewall services never exceed 10 percent, even at peak," said Judkins. "We can have 10 classrooms teleconferenced in high definition for distance learning, which was impossible with the old firewall."

Next year, the university plans to upgrade to gigabyte connectivity.

"The E7500 will take it just fine. We can prioritize traffic allocation on the fly," said Judkins. "It even has the intelligence to differentiate whether a data packet is part of a music video or educational video. And it is graphical, so it is very easy to use."

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