

The Organization

Cedarville University
251 North Main Street
Cedarville, OH 45314
www.cedarville.edu

The Challenge

Deliver reliable high-performance gateway firewall protection for over 3,000 university students using multiple concurrent Internet connections.

The SonicWALL Solution

SonicWALL® E-Class Network Security Appliance (NSA) E7500, featuring SonicWALL's patented high-speed Reassembly-Free Deep Packet Inspection technology (U.S. Patent 7310815) and 16-core multiprocessor platform.

The Results

- An immediate boost in network throughput
- A significant drop in unwanted P2P traffic
- Detailed packet capture and analysis

Nestled in the verdant countryside of southwestern Ohio, Cedarville University is an accredited Baptist university of arts, sciences, professional, and graduate programs. Home to 3,000 students and a staff of 500, Cedarville is committed to providing an integrated, broadly-accessible information, voice, and video communications technology infrastructure, to get information to people who need it, when they need it, and where they need it. Cedarville's Computer Services department strives to ensure a reliable network infrastructure, a dependable computing environment, essential help-desk services, and comprehensive information delivery.

The Challenge: High-speed Gateway Firewall Protection for Over 3,000 College Students

Cedarville needed a high-performance gateway solution for traffic between the campus network and the Internet. "We support one active port per pillow," said Nathan Hay, Network Engineer, "with about 2,500 PCs in dorm rooms alone. Most of the traffic is Web browsing or off-campus access to our network, like people checking e-mail from home."

Like many universities, Cedarville is challenged with the rapid pace of emerging technology, and the potential threats they pose to university resources, from viruses and other malware, to peer-to-peer software used to illegally download music and videos that consume bandwidth.

Cedarville required a solution that could provide comprehensive protection without impacting performance. Cedarville had earlier replaced a Linux box running IP tables with a SonicWALL® PRO 5060, but while satisfied with the improved security, they eventually needed to extend beyond the intended throughput capacity of that appliance.

The Solution: SonicWALL E-Class Network Security Appliance (NSA) E7500

To deliver the performance Cedarville now required, Hay sought the advice of Cerdant, a SonicWALL Gold Medallion Partner based in Dublin, Ohio, supporting over 800 customers in 20 states. "The challenges to network security for universities are often much greater than for other businesses," said Mike Johnson, President for Cerdant. "The threats most often come from within."

"An outsider might be surprised, but technology at Cedarville is truly top notch," said Johnson. "They upgrade computers for every student every three years. A student can even check a Web site from their dorm room to see if the dryer downstairs has finished their laundry."

"Cerdant's been very responsive to our needs," said Hay. "They really know what they're doing."

To meet Cedarville's demanding standards and growing needs, Cerdant recommended a managed solution implementing a pair of SonicWALL E-Class Network Security Appliance (NSA) E7500 devices, configured in high-availability mode for automatic failover.

Cedarville University

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—Nathan Hay
Network Engineer
Cedarville University

SonicWALL Benefits

- Dramatic increases in network performance
- Comprehensive Unified Threat Management
- Reliable load-balanced high availability
- Integrated site-to-site IPSec VPN secure remote access
- Enhanced systems troubleshooting



The Results: Higher Performance, Security and Reliability

"The performance difference was dramatic," said Johnson. "There were no performance issues with the E7500. It really nailed it."

Hay concurs. "We're only running at 30% or lower utilization even in full swing. That should make a big difference when we go from a 90 Mbps to a 150 Mbps internet pipe in the fall."

Cedarville's security was also enhanced. "The big thing I've noticed with the E7500 is that a lot of unwanted peer-to-peer traffic is getting dropped," said Hay.

"I know what we see in the logs," said Johnson. "Every single day, the E7500 is stopping hundreds of events from getting through, from viruses to bandwidth-clogging attachments."

The SonicWALL E-Class NSA Series features the industry's first network security appliances to perform Reassembly-Free Deep Packet Inspection™ (RFDPI) over specialized multi-core processors, delivering comprehensive state-of-the-art Unified Threat Management without sacrificing network throughput. SonicWALL's flagship E7500 is designed to be the most scalable, reliable, and highly performing multifunction threat appliance in its class, using parallel performance 16-core architecture for unprecedented ultra-high-speed threat protection, reliability and scalability.

The E7500's customizable tools add precise control and inspection of enterprise network traffic. "The packet capturing is particularly helpful," said Hay. "Our library system is managed by a third party, and when issues arise, it helps us troubleshoot problems and avoid finger pointing."

The Future: Everywhere Access Over SSL VPN

"We really liked the VPN connectivity from the E7500," said Hay. "Our Computer Services department especially uses that pretty heavily." The E7500 features IPSec VPN functionality for secure point-to-point remote access.

"The next thing we see for Cedarville is SSL VPN," said Johnson. SonicWALL Aventail® E-Class Secure Remote Access (SRA) and SonicWALL SSL VPN SRA for SMB deliver flexible, scalable solutions for secure remote access, disaster recovery, wireless networking and secure extranets, extending clientless mobile access over standard Web browsers to laptops, wireless PDAs, and smartphones with unsurpassed granular control.

"Bottom line, what Cedarville needs from their security is performance," said Johnson, "and that's what SonicWALL delivered."

SonicWALL, Inc.

1143 Borregas Avenue
Sunnyvale CA 94089-1306

T +1 408.745.9600
F +1 408.745.9300

www.sonicwall.com

