The Organization

Lee's Summit R-7 School District
Stansberry Leadership Center
301 NE Tudor Road
Lee's Summit, MO 64086
www.leesummit.k12.mo.us

The Challenge

- Children's Internet Protection Act (CIPA) mandates
- Outdated firewall technology
- Overburdened bandwidth

The SonicWALL Solution

- SonicWALL E-Class NSA E7500
- Optional gateway anti-virus, anti-spyware, intrusion prevention, content filtering, and comprehensive anti-spam
- Optional Deep Packet Inspection SSL

The Results

- CIPA compliance
- Effective bandwidth management and intrusion prevention
- Extension of SSL VPN secure remote access to all staff
- Substantial cost savings through solution consolidation

Encompassing 117 square miles of the Kansas City metropolitan area, Lee's Summit R-7 School District is one of the fastest growing districts in Missouri. Recognized nationally for its high quality educational programs, the district is a winner of Missouri's 'Distinction in Performance' award, the state's highest recognition for academic achievement.

The district technology department is comprised of 54 staff members and oversees 18 elementary schools, three middle schools, three high schools, an alternative secondary school, a secondary technology academy, an early education center and a special-education day-treatment center. Its enterprise-sized network supports approximately 21,000 end-users consisting of 18,000 students and 3,000 employees. The network connects over 8,000 end-user devices and 100+ servers.

The challenge: modernizing outdated firewall technology

The district needed to replace its current firewall due to aging equipment, higher throughput needs, and enrollment growth concerns. The Cisco® PIX® 525 that they used had reached end-of-life, and their enrollment had been increasing annually by approximately 500 new students. They needed a solution that would manage these concerns along with the district's requirement to meet the Children's Internet Protection Act (CIPA) to filter all prohibited content (e.g., gambling and pornography) from access by any students within the bounds of its network.

"One of our biggest concerns was being able to control the ability of students to access proxies like Ultra Surf to circumvent our content filtering," said Dr. Don Andrews, executive director of technology at Lee's Summit R-7 School District. "We really needed to be able to lock those sites down."

Bandwidth management was another driving factor for the district.

"We maxed out our Internet pipe," said Dr. Andrews. "We want to be able to guarantee and prioritize bandwidth for our high-priority applications, such as online testing, end-of-course state assessments, Polycom® video traffic and curriculum applications."

In addition, the district was looking for the ability to combine multiple functions together and achieve cost savings through consolidation. They had a bandwidth management solution, a VPN solution, a content filter solution, and a firewall solution along with four different management interfaces to deal with.

The solution: SonicWALL E-Class NSA E7500

For assistance in selection of their solution, the district looked to SonicWALL® Gold Medallion Partner, Professional Network Solutions®.

"Professional Network Solutions was very supportive in our implementation," commented Dr. Andrews.

SONICWALL®

"Lee's Summit R-7 School District is a visionary district that thinks outside of the box. They wanted a solution that not only had a rich feature set but also allowed for a lot of manageability. They wanted something that could meet their needs of today and also for years to come," said Bill Ryan, senior consultant at Professional Network Solutions.

Engineered to meet the large enterprise needs of the district's extensive network, the E-Class NSA E7500 combines SonicWALL Reassembly-Free Deep Packet Inspection™ (RFDPI) with a multi-core platform. The E7500 is configurable to analyze and control thousands of unique applications, whether unencrypted or encrypted with SSL. As an inline solution, the NSA E7500 leverages existing infrastructure while adding an extra layer of network security and visibility. As a security gateway, it adds secure remote access and high availability.

"The other solutions we considered didn't have the combined feature set offered by SonicWALL, and often they required additional cost for ongoing support," said Dr. Andrews. "All things considered, we found SonicWALL to be the best choice for us while also being the best overall value."

The result: CIPA compliance, bandwidth management, and more
Since deploying the E7500, the district has been able to better control access to proxy servers, manage access to applications, restrict application traffic and offer SSL VPN access to its entire staff.

"We run antivirus on our desktops, but the E7500 gives us an extra layer of anti-virus and anti-spyware protection at the network edge," said Walter Woodward, network administrator at Lee's Summit R-7 School District. "The appliance helps to catch and stop viruses and spyware at the firewall, never allowing it to get any deeper into our network. I like that."

The district previously deployed and managed separate appliances for its firewall, content filtering, bandwidth management and virtual private network (VPN). The E7500 let the district consolidate these four separate solutions and control them all on one appliance. Not only did this integrated approach streamline administrative overhead, it also cut costs associated with purchasing and maintaining multiple applications and appliances.

"Moving to an integrated SonicWALL solution was very cost-advantageous for us. It also greatly reduces the management overhead since everything is now accessible from a single interface," said Walter Woodward.

With the availability of the E7500 clientless SSL VPN, the district can now easily allow more employees to have the opportunity to access district resources remotely.

The district is using the E7500 to manage bandwidth for specific applications, and to meet its CIPA compliance requirements.

"With SonicWALL, we've been able to block applications by type using Intrusion Prevention," noted Dr. Andrews, "We can now control Facebook and YouTube using Content Filtering so they don't use up all our bandwidth."

The future: critical path bandwidth prioritization
Dr. Andrews is now focusing on a "best practice" approach, leveraging the E7500 to prioritize bandwidth for the district's mission-critical applications.

"We plan to identify all of our critical path traffic, allowing us to implement a policy that will ensure available bandwidth to those applications," said Dr. Andrews.

"We wanted the ability to guarantee and prioritize bandwidth for our high-priority applications, such as online testing, end-of-course state assessments, Polycom video traffic and curriculum applications."

– Dr. Don Andrews
Executive Director of Technology
Lee's Summit R-7 School District

SonicWALL Benefits

- Application Intelligence and Control capabilities with real-time Visualization offers optimized bandwidth, security and productivity

- Optional gateway anti-virus, anti-spyware, intrusion prevention, content filtering, and comprehensive anti-spam

- Optional Deep Packet Inspection SSL

- Combination of SonicWALL Reassembly-Free Deep Packet Inspection (RFDPI) with a powerful multi-core hardware platform, for up to 5.6 Gbps stateful throughput

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SonicWALL's line-up of dynamic security solutions

NETWORK SECURITY

SECURE REMOTE ACCESS

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BACKUP AND RECOVERY

POLICY AND MANAGEMENT

SonicWALL, Inc.
2001 Logic Drive, San Jose, CA 95124
T +1 408.745.9600   F +1 408.745.9300
www.sonicwall.com

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