| EDUCATION | Kansas City, Missouri School District Customer Case Study |
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**The Organization**

Kansas City, Missouri
School District
www.kcmsd.k12.mo.us

**The Challenge**

Eliminate bandwidth restrictions—as well as the single point of failure—within an existing network, without incurring additional management overhead.

**The SonicWALL Solution**

SonicWALL PRO Series firewall/VPN appliances to protect the district network from hacker attacks. SonicWALL Content Filtering Service to comply with CIPA requirements. SonicWALL GMS software for centralized management of the overall solution.

**The Results**

- Eliminated traffic congestion on the T-1 lines between schools and the central site

- Yielded a 20 percent improvement in the schools' Internet response time

- Overcame the single point of failure on the district network

- Minimized network support costs by leveraging a centralized management approach

- Provided schools with a cost-effective failover solution

## SonicWALL Solution Provides Decentralized Internet Access While Maintaining CIPA Compliance and Manageability

School districts rely on the Internet to facilitate student learning and to increase administrative efficiency. But with the growing threat of Internet-based attacks, it is more important than ever before to protect the security of the network. In addition, Web content must be carefully filtered to maintain Children's Internet Protection Act (CIPA) compliance and eligibility for E-Rate federal funds.

Initially the Kansas City, Missouri School District had a centralized approach to providing secure Internet access and content filtering. Both student and administrative Internet traffic was funneled through the central site via a single T-1 line that was split between voice and data. This provided a single point of administration so that access could be maintained with minimal staffing and hardware requirements.

However, with 68 schools, four administrative buildings and more than 34,000 users, the single T-1 line had become a choking point. Particularly during periods of high Internet usage, centralized access had degraded Internet response time. This approach also left the Kansas City district with a single point of failure: if Internet access or filtering went down at the core, all of the schools were affected.

These concerns prompted the school district to look for an alternative approach. "Adding another T-1 line was cost prohibitive, so we looked for a decentralized solution with integrated firewall and filtering capabilities," explains Dennis Peterson, Technical Services Manager with Kansas City, Missouri School District. "Our old solution consisted of a CheckPoint® firewall and WebSense® filtering. This did not lend itself well to a decentralized network," notes Peterson. "Since the products were not interoperable, we had no way to enforce the filtering on our firewalls or centrally manage filtering policies and security updates. With the SonicWALL® PRO Series we found everything we wanted, at a very attractive price."

### Faster, Cost-Effective Internet Access

Peterson discovered that his school district could take advantage of free Internet connections provided by Time Warner/Comcast in the state of Missouri. The cable provider offers one free connection per school for student use only. This enabled Kansas City to deploy SonicWALL's integrated security solutions.

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*"SonicWALL provides an affordable solution that removes the pitfalls of decentralization while maintaining all the benefits. The network is configured to failover to the district-level Internet connection if a local link fails. Built-in content filters help maintain CIPA compliance, and GMS enables one individual to support the entire infrastructure with a minimal investment of time"*

*–Dennis Peterson*
*Technical Services Manager*
*Kansas City, Missouri*

## SonicWALL Benefits

**Integrated solutions**
SonicWALL's firewall/VPN appliances serve as a platform for multiple security services, saving on integration and maintenance costs.

**Network protection**
SonicWALL offers a range of firewalls to act as a school's first line of defense against Internet security attacks.

**Student protection**
Content filtering protects students from inappropriate web sites and keeps them on task by blocking access to chat rooms, instant messaging and online gaming.

**Easy management**
Centralized management provides the network with the latest updates to firewall policies, content filtering and anti-virus protection.

## SonicWALL Contacts
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Peterson chose a SonicWALL PRO Series firewall/virtual private network (VPN) appliance to protect each school's network from security attacks, and content filtering to enable CIPA compliance. This approach eliminated the additional integration and manpower costs typically associated with multi-vendor solutions. In addition, SonicWALL appliances could be configured to automatically failover to the district-level connection if a school's Internet link failed.

With the first stage of deployment complete, Kansas City schools are now experiencing much faster Internet response times.  According to Elaine Neal, a librarian at Lincoln College Preparatory Academy," The Internet is now a usable tool. Our connection was too slow before. If one student was downloading a large file, it knocked out access for everyone else. Now we have more bandwidth, continuous uptime, and with SonicWALL's built-in filters, we're confident that our students won't encounter inappropriate content."

## Premium Filtering Plus Ease of Management

Kansas City uses SonicWALL's Content Filtering Service (CFS), an integrated filtering solution that scales to run on all SonicWALL firewalls with no additional server or deployment costs. "With SonicWALL's CFS we can tailor filtering policies to suit our needs," notes Peterson. "We can even add new URLs to the filtering list and quickly push them out to all the firewalls. This enables us to keep up with the many new Web sites appearing daily that may need to be filtered. Plus, by eliminating traffic to undesirable sites, we can free up bandwidth for legitimate school activities."

Peterson chose SonicWALL Global Management System (GMS) to simplify administration and provide a central point of management for all SonicWALL appliances in the network. It enforces consistent content filtering, firewall and VPN policies across the district. "With GMS, we can easily make on-the-fly changes, quickly pushing out security policy updates across the entire district," Peterson explains. "SonicWALL enables me to manage with a small staff. I don't need to send people to every school to implement firewall and filtering updates."

With support for IPSec VPN and free VPN clients, SonicWALL firewall appliances also facilitate secure remote management. Kansas City School District has set up 50 VPN tunnels for use in the administrative core. This makes it easy and convenient for Peterson and his team to manage the network from a remote site.

## Improved Capacity and Response Time

The first phase of the SonicWALL deployment has been successfully implemented and Kansas City is pleased with the results. They have seen an 80 percent decrease in traffic going through the central site, eliminating bottlenecks and resulting in a 20 percent faster Internet response time for schools.

Ultimately Peterson aims to install a SonicWALL security appliance in every school. "We will then have 68 times the capacity for about the same cost," Peterson says. "And with the cable company providing free Internet access for students, the cost of three years of content filtering is about the same as what we were paying for one year of T-1 usage.  Overall, SonicWALL has proven to be a very cost effective solution for us."

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