

# Helping schools secure their networks



## Challenges and opportunities

The challenges facing grade school educators are greater than ever before. The standards for academic achievement and the expectations of students' families continue to climb. At the same time, education budgets are tighter. Schools' technology infrastructures are caught in the middle, requiring K-12 IT administrators to literally do more with less.

Networked resources have addressed some qualitative issues. Online instruction materials and classroom management services supplement teachers' capabilities and free them from administrative chores. In addition, self-service portals and email communications increase the efficiency and effectiveness of administrative staff.

This reliance on the Internet brings new challenges. As the user population

grows to include on- and off-campus students, faculty, administrators, contractors and parents, so do the threats to the network's security. This is further compounded by the ever-changing threat landscape. What K-12 IT administrators need is a network and information security solution that is effective, high-performing, flexible, and easy to manage. These are the types of solutions that only Dell™ SonicWALL™ delivers.

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Helping schools secure their networks  
while saving their budgets

### Leveraging your connections

The use of networks to deliver instructional content cuts materials costs and improves the uniform availability of top-tier curricula. But many of these programs—like those utilizing video content—require unimpeded high-speed connections. When those connections are slowed by extraneous use, some of that value is lost. Increasing bandwidth just shifts the costs and sets the stage for more problems down the road.

Online administrative tools simplify implementation of district-wide programs and policies. They enable anytime/anywhere access to resources and communications for faculty, administrators and students. But the proliferation of mobile endpoints and the management of access levels can quickly turn into a nightmare. Since so much of this functionality is browser- and Internet-based, the traffic can seem like one giant stream. But blocking ports to address threats can seriously impact productive use of the systems. Wireless access has become a lifeline to faculty members and their students. But wireless connections—intended to allow quick and easy access to the network—are vulnerable to intrusion and, because access points are physically distributed, management can be difficult.

### The letters of the law

Overlaid on the security concerns of K-12 IT administrators is an extensive regime of regulations. Central to this is the Children's Internet Protection Act (CIPA), designed to protect minors from inappropriate content. Many states further regulate Internet access and the types of content available for students. The private sector weighs in with liability issues regarding the transfer of copyrighted content.

<sup>1</sup> U.S. Patents 7,310,815; 7,600,257; 7,738,380; 7,835,361; 7,991,723

Districts must take all reasonable steps to satisfy these regulations. More importantly, they must be able to demonstrate their compliance. This requires management tools that allow for deep visibility into network activity and detailed record-keeping.

### The budget handcuffs

For all the importance associated with K-12 IT security, districts do not have the financial resources to make it their first priority. This is not just a matter of buying new equipment or services. Any new equipment requires deployment and ongoing management.

## Dell SonicWALL solutions for K-12 education

### Smarter security appliances protect networks and budgets

Dell SonicWALL Next-Generation Firewalls (NGFWs) with patented<sup>1</sup> Reassembly-Free Deep Packet Inspection® deliver superior malware

protection, intrusion prevention and application control. Dell SonicWALL NGFWs scan every byte of every packet for the deepest level of protection. These award-winning security appliances can also be deployed as a NGFW combining content filtering, anti-virus, anti-spyware, intrusion prevention, anti-spam, application control and real-time visualization.

Dell SonicWALL firewalls scan all flows, across all protocols and ports without file size limitations, meaning all inbound and outbound traffic is scanned every time. This is essential for modern attacks that can hide threats in the application layer. And Dell SonicWALL NGFWs achieve this with industry-leading throughput for uncompromised network performance. Dell SonicWALL's performance advantage assures schools get full value from their new, faster broadband connections that would be lost to a legacy firewall even just a few years old.



### **More refined content filtering for easier compliance**

Content filtering can be integrated into every Dell SonicWALL firewall, eliminating the need to buy and maintain stand-alone products. Unlike less sophisticated content filtering solutions, Dell SonicWALL deep packet application layer filtering distinguishes good traffic from bad using a variety of industry-leading methods. Dell SonicWALL Content Filtering Service (CFS) integrates “proxy avoidance” countermeasures to prevent students from circumventing associated controls or engaging in unlawful activities. Dell SonicWALL’s enhanced reporting capabilities enable forensic analysis to simplify the regulatory audits. Dell SonicWALL enables utilization of YouTube for Schools, offering students structured access to YouTube’s educational content while blocking recreational access and content. As a contributor to the federal government’s National Institute of Standards and Technology (NIST), Dell SonicWALL is uniquely qualified to meet the requirements of CIPA and other relevant regulations.

### **Easy-to-manage remote access extends resource availability**

Dell SonicWALL Secure Remote Access (SRA) solutions speed and simplify connections between campuses, district headquarters, and home-based users. Dell SonicWALL Clean VPN™ enables secure home study and 24/7 faculty and administrator access to school resources by encrypting all session traffic and stopping malware from entering the network. Dell SonicWALL Smart Tunneling™ technology enables the segmentation of networks, prioritization of traffic, and layering of security managed by centrally-administered policies. The ease of configuration reduces the time and

expense of implementations, while the browser-based management simplifies administration.

Dell SonicWALL SRA provides secure access from every possible endpoint, regardless of OS, including mobile devices such as smartphones and tablets. SonicWALL Mobile Connect™, a single unified client app for iOS, provides Apple® iPad®, iPhone®, and iPod touch® users full network-level access to resources over encrypted SSL VPN connections, while Mobile Connect for Android does the same for devices using that OS.

### **Clean wireless frees your network**

Dell SonicWALL SonicPoint™ secure wireless access points allow you to deploy seamless 802.11a/b/g/n wireless networks, protected by Dell SonicWALL Clean Wireless™ technology and Dell SonicWALL Application Intelligence and Control. SonicPoints are automatically provisioned and updated by the firewall for ease of management and configuration. Dell SonicWALL Clean Wireless defeats wireless intrusions, and decontaminates traffic of malware at the access point, enabling students to safely access school resources. Dell SonicWALL Virtual Access Points (VAPs) create secure segmentation between trusted and untrusted wireless users, so student traffic never bleeds into administrative sessions.

### **Central management simplifies administration**

Dell SonicWALL Global Management System (GMS®) provides a centralized policy-enforcement console enabling administrators to quickly, precisely and thoroughly create security policies, even accounting for contextual variables such as user and device identity, type of content involved, and time of day, week or month. Dell SonicWALL

**“Dell SonicWALL has saved us up to 50 percent in costs. Our savings have been two-fold, both in consolidating appliance costs and in reducing overhead of network administration.”**

*C. J. Daab  
Technology Support Coordinator  
Hall County Schools*

Application Intelligence, Control and Visualization gives IT administrators granular control over network activity from a single point. This is essential for targeted policy enforcement and network resource management that will not impact productive activities and flows. Automatic updates of signatures for threats and applications are pushed to Dell SonicWALL appliances to relieve school IT staff of that routine maintenance function.

Dell SonicWALL Analyzer reporting delivers real-time analysis of network utilization to immediately identify and isolate performance issues. This level of detail is irreplaceable during operational and budget reviews. The browser-based dashboard simplifies help desk tasks and mitigates the impact they have on IT administrators’ other responsibilities.



## Dell SonicWALL delivers integrated, cost-effective network security solutions

Dell SonicWALL's family of Next-Generation Firewalls combines robust security services with high-speed deep packet inspection to provide small, mid-size and large academic environments with the best protection possible. Dell SonicWALL appliances reduce cost, risk and complexity by integrating automated and dynamic security capabilities for comprehensive protection and maximum performance while enabling ease of deployment and management.

### Dell SonicWALL SuperMassive E10000 Series

The flagship of Dell SonicWALL's Next-Generation Firewall platform, the Dell SonicWALL SuperMassive™ E10000 Series is designed for large networks to deliver scalability, reliability, deep security and application control at multi-gigabit speeds.

### Dell SonicWALL E-Class Network Security Appliance (NSA) Series

Utilizing a high performance, multi-core architecture, the Dell SonicWALL E-Class Network Security Appliance (NSA) Series provides Next-Generation Firewall protection and advanced application control and visualization for the most demanding networks.

### Dell SonicWALL NSA Series

With advanced routing, stateful high availability and high-speed VPN technology, the NSA Series provides security, reliability, functionality and productivity for geographically distributed campuses, central offices and large distributed environments, while minimizing cost and complexity.

### Dell SonicWALL TZ Series

Dell SonicWALL TZ Series firewalls integrate gateway anti-virus, anti-spyware, intrusion prevention, content filtering, anti-spam and application control, offering high performance multi-layered network protection at a tremendous value for small organizations and branch offices.

### Clean Wireless Series

Dell SonicWALL Clean Wireless solutions combine high-performance 802.11n technology with our award-winning line of firewall appliances to deliver unparalleled wireless security and performance while drastically simplifying network set-up and management.

### Dell SonicWALL Content Filtering Service

Dell SonicWALL Content Filtering Service (CFS) is ideal for school districts seeking a cost-effective, integrated filtering solution. This subscription-based service runs on all Dell SonicWALL firewall appliances and leverages a dynamic database of millions of web sites, URLs and IP addresses.

## Scalable integrated solutions for comprehensive protection

Dell SonicWALL complements its network security appliance line with a fully-scalable range of secure remote access, email security, and backup and recovery solutions.

### Dell SonicWALL Aventail E-Class Secure Remote Access Series and SRA Series for SMB platforms

A variety of customizable features in Dell SonicWALL's SSL VPN technology platforms ensure that both appliance series deliver the consistent, reliable



access experience remote users want, and the control and ease of use administrators require. The robust E-Class SRA platform offers secure remote access to mission-critical applications and resources, an in-office remote access experience for end users, and unsurpassed levels of granular access control.

### Dell SonicWALL Email Security

Dell SonicWALL Email Security solutions all deliver powerful protection against inbound spam, phishing, viruses, Denial-of-Service, Directory Harvest and Zombie attacks, while preventing outbound leaks of confidential information and violations of laws or regulations. Easy to use and manage, the self-running and self-updating email security solution is ideal for any size academic environment.

For more information on Dell SonicWALL's solutions for education, please visit our web site at [www.sonicwall.com](http://www.sonicwall.com).