Danbury Public Schools saves thousands of dollars with Dell SonicWALL

By optimizing on NSA E7500 firewall, district cuts admin and boosts performance

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Yevgeniy Sklyar
Infrastructure Manager

Customer profile

Company	Danbury Public Schools
Industry	K-12 Education
Country	United States
Users	12,800
Website	www.danbury.k12.ct.us

Challenge

Optimal firewall performance

Solution

- Dell SonicWALL E-Class NSA E7500
- Dell SonicWALL NSA 2400

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
- Deployable as either a Unified Threat Management firewall or Next-Generation Firewall

The Danbury Public Schools educate approximately 10,300 students at 14 elementary schools, two middle schools and one high school, distributed across the greater Danbury, Connecticut, metropolitan area. The district employs roughly 2,500 faculty, staff, and administrative members. Danbury Public Schools' computer network supports over 12,000 end users.

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>
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> *Infrastructure Manager*

The rapid growth and proliferation of computing devices has challenged the district. When the district deployed its first firewall, it had 500 endpoint computing devices on the network. Today, it has close to 4,000. Approximately 60 percent of these are Apple® devices, with high school and middle school environments being primarily Apple environments. The high school also operates a Citrix® environment. The district's administration building is primarily a Windows® environment.

The challenge: rapid growth in computing devices

Over five years ago, the district had deployed a Dell™ SonicWALL™ PRO 4060 firewall solution, but, with the district's rapid growth, it eventually reached the maximum capacity for that device. The district ultimately had to limit security services to maintain performance.

"Utilization was constantly close to 100%," said Yevgeniy Sklyar, infrastructure manager at Danbury Public Schools. "The problem was more throughput than security. We had issues with bandwidth and some users were not able to browse the Internet."

Because of these performance bandwidth limitations, Sklyar had also been unable to initiate a planned email platform migration from internally deployed Novell® GroupWise to web-based Google® Gmail, which would not only reduce overhead costs, but also enable the district to allow student access to email for the first time.

In considering an upgrade solution, Sklyar sought to provide enhanced security, such as web content filtering and application controls, while optimizing performance levels. He also wanted to ensure ease of migration while consistently maintaining compliance with regulatory mandates, such as the Children's Internet Protection Act (CIPA). In addition, he needed VPN connectivity between distributed locations.

After comprehensive evaluation, Sklyar selected a Dell SonicWALL E-Class Network Security Appliance (NSA) E7500 at the district's main data center. In addition, he chose a Dell SonicWALL NSA 2400 to provide security and VPN connectivity to a separate distributed location, both purchased through solution provider CDW.

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The solution: Dell SonicWALL E-Class NSA E7500 and NSA 2400

"Deployment was a quick, simple and self-explanatory process," said Sklyar. "We just converted the entire configuration from the previous device to our new appliance, and it worked without any problems."

The Dell SonicWALL E-Class NSA E7500 is deployable as either a Unified Threat Management (UTM) firewall or Next-Generation Firewall featuring application intelligence, control and

visualization. It is ideal for networks at large enterprises such as the Danbury Public Schools. Combining 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. Sklyar activated Dell SonicWALL Gateway Anti-Spyware and Intrusion Prevention on the NSA E7500 firewall.

Also deployable as either a UTM firewall or next-generation firewall, the NSA 2400 delivers network protection for small-to-medium sized organizations and branch offices, without compromising performance. To enable VPN connectivity between sites, Sklyar deployed the Dell SonicWALL Global VPN Client for 2,500 users.

The result: optimal firewall performance

"The NSA E7500 is working great, it's up and running all the time," said Sklyar. "During the last several months we never had a process CPU above 20 percent. We expect it to provide us the performance we need for the next several years."

With the NSA E7500, the district makes optimal use of its fiber bandwidth over the Connecticut Educational Network.

"It's a much faster appliance," said Sklyar. "With the NSA E7500, our users can now access multimedia online without running into performance bottlenecks."

In addition, the solution has reduced administrative and maintenance overhead, allowing IT technicians to work on other crucial projects.

"The cost-savings we are realizing from reduced maintenance alone is equivalent to a part-time employee," said Sklyar.

By enabling migration to Gmail, the solution not only allowed the district to provide student email access, but also saved the district thousands of dollars.

"The internal server costs up to $10,000, with annual license of another $2,000," said Sklyar, "plus the cost of the GroupWise specialist to maintain the server."

The future: Application intelligence, control and visualization

Looking ahead, Sklyar plans to define granular content filtering policy for elementary, middle and high schools, as well as staff and administrators, based upon Active Directory objects.

He is also considering extending secure wireless access for staff and guests using Dell SonicWALL SonicPoint-N Series wireless access points. SonicPoint-N Series require no pre-configuration as any Dell SonicWALL firewall appliance can centrally discover, configure and manage them.

In addition, Sklyar plans to take full advantage of Dell SonicWALL Application Intelligence, Control and Visualization, as well as Dell SonicWALL ViewPoint reporting functionality.

"We will be able to see how specific applications are using our bandwidth," said Sklyar. "It will give us a better understanding of what's going on in our network and how we can better optimize our environment."

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