

Denton Independent School District Protects Bandwidth Investment With Exinda

Denton Independent School District is one of the fastest-growing school districts in North Texas, covering 180 square miles across 17 cities and includes three comprehensive high schools, seven middle schools, 22 elementary schools, two early childhood centers, an alternative high school, and an advanced technology complex. The district has been recognized as one of the top technologically advanced school districts in the nation by the Center for Digital Education and Denton ISD staff take great pride in using technology in and out of the classroom to foster 21st century educational skills in all of their students.

With plans to open a new high school and elementary school in time for the 2016-2017 school year, Denton ISD IT staff needed a solution that could help them manage their students' growing bandwidth usage.



Prioritized
Online Testing



Protected Bandwidth
Investment



Blocked VPN Access and
Instant Messaging Apps

The Challenge

Denton Independent School District is focused on ensuring all of its students receive an enhanced educational experience through use of technology in the classroom, which means applications like Microsoft Office 365, Google Apps for Education and YouTube are used constantly throughout the district. The students also depend on online textbooks for daily course instruction, administrative staff use AppliTrack as their employee records management tool, and the district participates in annual online testing initiatives such as STAAR, TAKS and TELPAS using web-based applications like Pearson.

In total, the district's IT staff must support the online activities of over 31,000 users across 42 locations with a 2 Gbps Internet connection. As Denton ISD continues to experience rapid growth, including plans to open two new schools in the near future, the IT department was concerned that their existing network bandwidth would not be able to keep pace with the demand of their growing student population.

"The school district is growing so quickly that we were concerned the bandwidth we have would not be able to keep up with the growth we are experiencing. We were looking for a solution that could help us see what's using our bandwidth and help us control it."

— **Chris Langford**
WAN Manager,
Denton Independent School District



The Solution

When evaluating traffic management products, the IT staff's top priority was finding an easy to use tool that could provide them with deep visibility into the amount of bandwidth being consumed across the district network. After one of Denton's technology partners recommended Exinda, IT staff completed a successful demo and chose an Exinda Network Orchestrator 8000 series solution to support the district's growing needs.

Right after configuring the appliance, the IT team could see the top applications, users, and user groups consuming the most bandwidth, and were able to take action to quickly block or limit the amount of bandwidth each application or group could use. Prior to installing the Exinda appliance, IT staff had an idea that social media and streaming services were taking up a large portion of the district's bandwidth, but Exinda provided insight into exactly how much of the district's resources were being wasted on Netflix, Snapchat, Kik and online gaming. What IT staff weren't anticipating, however, was how many students were using VPNs to bypass the school's web filter to access inappropriate content.

The Results

With Exinda in place, IT staff are able to optimize the performance of educational applications, limit the amount of non-critical traffic, and block traffic outside of the school's acceptable use policy to ensure a safe learning environment for all students and save bandwidth for more important uses. During standardized testing season, IT creates custom policies to block all streaming media to ensure that students have the best and most reliable online testing experience possible, which in turn has helped reduce the amount of help desk calls from teachers complaining that learning applications are slow or not working properly.

Exinda's layer 7 classification was able to discover previously undetected VPN traffic, helping Denton's IT staff to determine that students were bypassing the school's web filter by establishing VPN connections on their cellular networks and then switching over to the district's WiFi to access prohibited content. Exinda was able to identify and discard all VPN traffic to ensure that students weren't bypassing the content filter and were provided a safe online experience. This has also helped Denton to stay compliant with the Children's Internet Protection Act and safeguard the district's eRate funding. As an added bonus, eliminating VPN traffic alone has helped the district reclaim over 10% of its bandwidth.

Lastly, Exinda has helped the school district realize substantial overall bandwidth savings and with Exinda Network Orchestrator in place, IT staff feel confident they will be able to stay with their 2 Gbps connection longer than they expected to, despite rapid growth.

"We wanted something that was easy to use and configure and doesn't require a Master's degree to operate. Exinda has the ability to see things that our web filter can't see, including instant messaging apps that are typically difficult to block like Snapchat and Kik. It's way easier to create policies now because we can see the traffic and in a matter of a few clicks it's taken care of and we don't have to worry about it anymore."

— **Chris Langford**

WAN Manager,

Denton Independent School District

"We had some VPN traffic that we didn't know was going out of our network. With Exinda we were able to identify and block that very quickly. This prevents students from bypassing our web filter to access inappropriate content, ensures our CIPA compliance, and has also helped us decrease our bandwidth utilization by over 10 percent."

— **Chris Langford**

WAN Manager,

Denton Independent School District

