

# TORONTO CATHOLIC DISTRICT SCHOOL BOARD SETS UP SECURE WEB-BASED ACCESS FOR TEACHERS AND SCHOOL ADMINISTRATORS

## Summary

Industry: Education

### Challenges:

- Provide secure online access for users logging in via home-based personal computers
- Provide a flexible way for teachers and administrators to gain online access to the school district's Web-based report card solution at any time and from anywhere, without compromising security.

### Selection Criteria:

- Required a solution that would work seamlessly with an internally-built, Web-based report card application.
- Since more than 5,500 teachers and school administrators would need to access the application from their home computers, all application and access security had to reside on the TCDSB network.

### Network Solutions:

- SA6000 SSL VPN Appliance

### Results:

- With the SA Series, the TCDSB now provides secure remote access to teachers and school administrators, enabling them to fill out report cards from school or home using a secure, Web-based application.
- SSL VPN equipment from Juniper Networks enables this secure solution to handle up to 5,000 concurrent users during periods of peak report card activity.

The Toronto Catholic District School Board (TCDSB) has 201 elementary and secondary schools with more than 90,000 students and 10,000 teachers and school administrators. In partnership with parents, parishes, and the community, TCDSB serves students from diverse cultural, linguistic, and ethnic backgrounds in Canada's largest and most dynamic city.

## Challenges

As one of the largest school boards in Canada, the TCDSB wanted to give their teachers the flexibility to complete report card information whenever they could find time in their hectic schedules. This meant giving teachers the ability to access the report card application any time from home or school. In addition, the TCDSB was looking to alleviate availability issues at peak times of the year when report cards are prepared.

"We wanted to supply teachers with the ability to complete report cards whenever it best suited their schedule, whether in the school or at home," said Keith Chung, Senior Manager of IT Security / Network Infrastructure and Services with the TCDSB. "But to allow for home access, we needed a highly secure solution."

## Selection Criteria

Since more than 5,500 teachers and school administrators were expected to access the report card application from home computers, the TCDSB needed a solution that would enable all application and access security to reside on their network. Also, since the application needed to be accessed internally (from inside the school board's network) and externally (from a home computer), and since the user base was not uniformly technically savvy, the user interface for access needed to be consistent. Finally, the TCDSB needed a highly scalable solution capable of meeting peak usage periods that occur when teachers prepare report cards near the end of each school term.

## Solution

The TCDSB invited a number of security vendors to submit solutions but only the solution from Juniper Networks met all of the school board's security, scalability, and compatibility needs.

Some vendor solutions had problems properly interfacing with the application while other solutions could not scale for more than 5,000 concurrent users.

The TCDSB now uses two SA Series appliances for SSL VPN access.

**“We needed to make sure it worked from a business perspective and was scalable and flexible as well. On all fronts, it is.”**

Keith Chung,  
Senior Manager of IT Security/Network Infrastructure  
and Services for the TCDSB

## The Results

With Secure Access appliances from Juniper Networks, the TCDSB provides secure remote access for teachers and school administrators, enabling teachers to fill out report cards from school or home at times that are most convenient for them. This secure solution is capable of handling up to 5,000 concurrent users during the periods of peak report card activity that occur three times a year, and works seamlessly with the school board’s internally-built, Web-based report card application. Juniper Networks products provide the TCDSB with the best security, scalability, and redundancy—all with operational simplicity.

“We needed to make sure it worked from a business perspective and was scalable and flexible as well,” said Chung. “On all fronts, it is.”

The Juniper Networks SA6000 SSL VPN Appliance is designed for medium to large enterprises and features best-in-class performance, scalability, and redundancy for organizations with high-volume secure access and authorization requirements. Key features include: performance, scalability, and robust availability designed for large numbers of users and complex application needs; end-to-end security through access-privilege management that enables powerful authentication and authorization policies with no additional software deployments; and central management options for unified administration.

Besides the hardened security provided by the SA Series, Chung said that the biggest benefit of deploying Juniper Networks security solutions is the scalability they offer.

“We have a unique situation where we will have little or no action for weeks at a time and then potentially have almost the entire teaching and administrative staff accessing the system, all at once,” said Chung.

The TCDSB performed a series of trial runs with users during the summer of 2006, and the system had its first full-scale run in real time during the November report card season. The system performed without problems, and when the spring 2007 report card season came around, Chung and his team were ready. “Overall the learning curve was minimal for the end users,” Chung said.

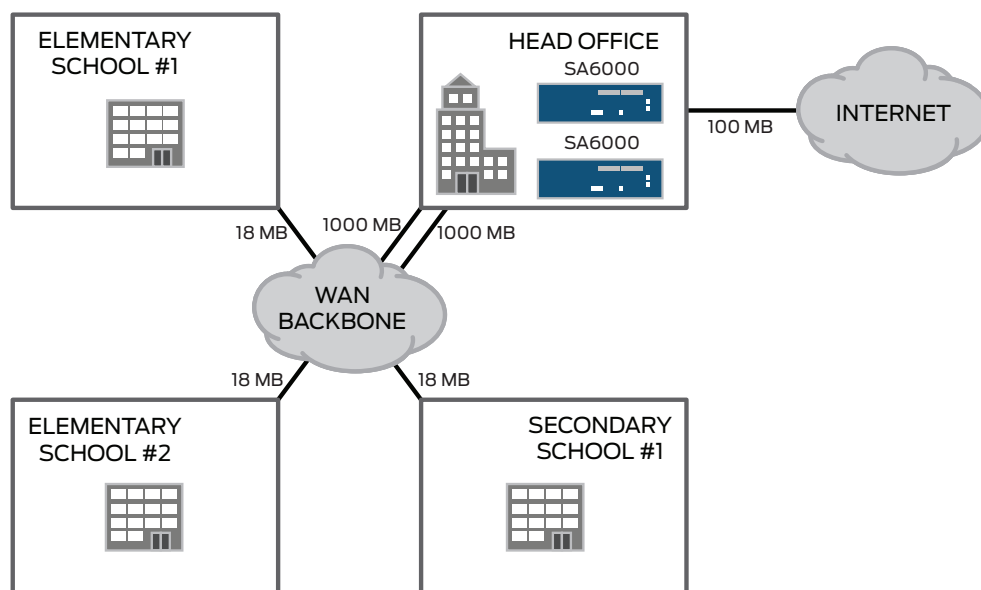
Chung said an additional benefit of the Juniper Networks SA6000 is the ability to monitor and scan home machines for system compliance with updated operating system patching and antivirus signatures prior to accessing TCDSB resources. This allows Chung’s team to add an additional layer of protection.

## Next Steps and Lessons Learned

The new remote access solution has been a hit with teachers at the TCDSB, who are “really happy to have that access from home,” said Chung. With teachers now able to complete report cards from home, school-based machines no longer have availability issues at peak times of year when report cards are being prepared. A key lesson learned was interface consistency (whether accessing internally or externally) and making access similar in look and feel to online banking, which was something most of the staff were acquainted with.

## For More Information

To find out more about Juniper Networks products and solutions, visit [www.juniper.net](http://www.juniper.net).



## About Juniper Networks

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at [www.juniper.net](http://www.juniper.net).

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