The Catholic District School Board of Eastern Ontario
School District Saves $30,000, Improves Disaster Recovery with Hybrid Cloud Storage

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CASE STUDY

Business Challenges

The Catholic District School Board of Eastern Ontario (CDSBEO) administers Catholic education for children up to grade 12 in eastern Ontario, Canada. It oversees 40 elementary and 10 secondary schools that serve 15,000 students.

Due to organic growth and new applications that required significant storage space, CDSBEO was running out of room in its 24-terabyte storage area network (SAN). Adding another 8 terabytes of storage would cost around US$30,000—a lot of money for not much gain. CDSBEO had moved some IT assets, such as its website, to Windows Azure, the Microsoft cloud services development, hosting, and management environment, and wanted to take advantage of "cloud economics" for storage, too—although it still required local access to active data. The district also thought cloud storage could help it reduce storage management work; its 16-person IT staff supports 5,000 workstations and 200 servers, with no one dedicated to storage management.
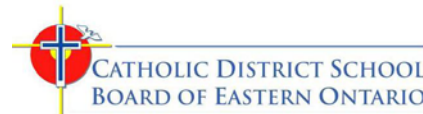
"We can't afford to have key applications run out of storage," says James Proulx, Manager of Information and Communications Technology at Catholic District School Board of Eastern Ontario. This happened with the district's email application and resulted in a two-day email outage. Insufficient storage also affected application and web server performance. On report card days and other high-traffic periods, the district's web servers would slow to several seconds per page-load, which caused complaints from teachers, parents, and students.

Softchoice Solution

At a Windows Azure event, David Kozera, Computer Systems Analyst at Catholic District School Board of Eastern Ontario, learned about StorSimple from Microsoft. The StorSimple family of cloud-integrated storage systems is an on-premises enterprise SAN that interoperates with Windows Azure to provide a hybrid cloud storage solution for primary, backup, archive, and disaster recovery. "With StorSimple, we could expand our primary data storage on the fly, without the need to order and provision hardware," Kozera says. "It was the only device that could connect in this fashion to Windows Azure; it was a perfect fit for us."

The StorSimple solution has a three-tiered architecture: it comes with solid-state drives, serial-attached SCSI (SAS) drives, and the cloud tier. StorSimple determines where to store data by how frequently it is used. Data that is accessed regularly goes on the solid-state drives, so performance is very high. Data that is used less frequently is put on the midrange SAS drives, and data that is almost never used is moved to the cloud. "The three-tier architecture is really cool," Kozera says. "We thought we'd have to manage this tiered scheme, but StorSimple takes care of it automatically."

CDSBEO can use the StorSimple cloud snapshot capability to automatically copy data to the cloud at regularly scheduled increments. In the event of a disaster, a second StorSimple system in a backup data center uses the cloud snapshot to intelligently pull only the needed data from the cloud and restore it, resulting in much faster disaster recovery than is possible with tape backups.

Case Study Snapshot:
To cost-effectively expand its storage and gain better disaster recovery, the Catholic District School Board of Eastern Ontario (CDSBEO) deployed a Microsoft hybrid cloud solution that combines StorSimple cloud-integrated storage with Windows Azure. CDSBEO has reduced storage costs by US$30,000, gained cost-effective and seamless scalability, and complete disaster recovery capability, and doubled storage performance.

Client Profile:
The Catholic District School Board of Eastern Ontario runs 50 primary and secondary schools in eastern Ontario, Canada.

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CASE STUDY

Business Outcomes

By adopting StorSimple and the hybrid cloud storage solution from Microsoft, the Catholic District School Board of Eastern Ontario immediately saved $30,000, gained unlimited storage scalability, achieved better disaster recovery, and improved storage performance.

Cost-Effective Scalability, Cost Avoidance of $30,000

CDSBEO avoided the cost of extending its SAN, a $30,000 expense, and got 30 times the storage scalability—200 terabytes with StorSimple/Windows Azure versus 8 terabytes for a SAN extension. "With the Microsoft hybrid cloud storage solution, we have unlimited storage capacity through Windows Azure," says Proulx. "StorSimple is the most impactful piece of hardware I've purchased in my 25 years in IT."

The district also reduces storage management time—a time savings equal to a half-time position. "Managing StorSimple storage is far less complex than managing a traditional SAN," Proulx says. "Within days we can accomplish tasks that took weeks before. Also, we can manage everything ourselves without the need to bring in consultants; I estimate that we'll realize a cost avoidance of $18,000 to $20,000 a year."

The fact that Proulx and his staff can manage storage more easily also lets them be more responsive to district staff. "We're understaffed, so the more efficiencies we have, the better service we can provide to our users," Proulx says. "We can do things we never would have done from an IT management perspective, such as restore an entire email virtual machine for faster problem resolution."

Faster, More Complete Disaster Recovery

The StorSimple solution gives the district integrated backup and disaster recovery capabilities, which eliminates the need to buy and manage separate solutions. "We're now able to do a full disaster recovery in days instead of months," Kozera says. "Plus, we're geo-replicating our data across Windows Azure data centers, so our data is far better protected than it was when we were replicating to a facility 100 kilometers away."

Routine data restores are also much faster. The first time that Kozera performed a logical unit number (LUN) restore with the StorSimple system, he launched the 6-terabyte job and was shocked to see it complete in just four seconds. "I thought that something must be wrong," he says. "But I checked and all the data was there. It was pretty amazing, especially considering that StorSimple was pulling data from different places. Previously, this task would have taken days."

Storage Performance Doubled

CDSBEO also enjoys much faster storage performance with StorSimple. Webpages that used to take three seconds to load now load in half that time. "We had our data stored on StorSimple for the last report card cycle, and it was the first where we had zero complaints from teachers," Proulx says. "Anything that helps us serve our constituents better is wonderful."

Applicable Business Verticals:
+ Education

Geography:
+ Eastern Canada

Technologies involved:
+ Cloud
+ Windows Azure

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James Proulx
Manager, Information and Communications Technology,
Catholic District School Board of Eastern Ontario