

## CommVault Backup Keeps Education Running for Trenton Public Schools

### QUICK FACTS

**Industry/Solution:**

- Education

**Platform/File System:**

- Windows

**Applications:**

- Microsoft Exchange, SQL Server and Active Directory
- Oracle
- SASI student information system
- Edumetschool administration software

**Partner Hardware:**

- 200 Dell PowerEdge servers
- Dell storage area network (SAN)
- Dell StoreEdge tape library
- 4,000 Dell desktops

**Challenge:**

- Need for reliable backup for mission critical applications
- Need for fast restores of Microsoft Exchange email and other applications
- Support for expanded email capabilities, and an upgrade to Exchange 2003

**Competitive Challengers:**

- LiveVault
- CA ArcServe

**Solution:**

- CommVault Galaxy Backup & Recovery
- AUX Copy
- Synthetic Full Backup

**Benefits:**

- Business continuance supported by reliable backups and restores with Galaxy software
- Fast, easy, message-level restores of Microsoft Exchange email
- Automated management of email storage with planned use of DataMigrator
- Backups completed in available time and with minimum traffic across the network using Galaxy Synthetic Full Backups

**Customer Profile**

The Trenton Board of Education is a large public enterprise that needs robust, efficient information technology just as much as any private business. Trenton's public school system includes 12,000 students, 3,000 teachers and staff, and 33 school buildings. To help keep education running, the school system has an enterprise-level IT operation, and CommVault software helps protect every part of it.

**Data Management Environment**

The mission of the MIS Technology Department for the Trenton Board of Education is to make sure that the technology network is working smoothly. The MIS team is responsible for keeping servers up and running so that people have access to dozens of business and educational applications, including mission critical applications like e-mail, financial applications, and human resources applications. They maintain a data warehouse that supports many of these key applications, along with the network infrastructure of communications servers, switches, and routers, and some 200 Dell PowerEdge servers and 4,000 computers used by staff, teachers, and students in classrooms.

The primary data storage infrastructure for the system is a Dell storage area network (SAN) with a 1.7 terabyte (TB) capacity disk array. The SAN and the critical applications it supports are backed up to a Dell StoreEdge tape library using CommVault Galaxy backup and recovery software.

**Choosing CommVault**

Herb Raheming, Coordinator of Network Operations in the MIS Department, is responsible for system backups. "We were not happy with our previous backup software, LiveVault," he recalls. "They promised the software could do a number of things that did not work. The software did not do what they said it would do." Raheming heard about

CommVault at a Dell workshop, saw a demo, and was impressed. He says, "Our reaction was, if it can do what they say it can, we want it." At the same time, they needed to upgrade their storage infrastructure, including adding a more robust, higher capacity, and more expandable tape library to handle backups. Explains Raheming, "We are going to upgrade email to Exchange 2003 and let students log on. When we do that we will need more memory, and we need backup software we can depend on." The Trenton school system switched their backup software to CommVault Galaxy in the Summer of 2004, in time for the 2004-2005 school year.

**Backing Up Mission-Critical Applications**

For the Trenton school system's MIS team, providing business continuance by protecting mission critical applications is a top priority. Thirty of the school system's key application servers are backed up on the SAN. These key servers support mission critical applications - the things that keep the business of education going. For example, Edumet is an administrative software package used in many school systems for accounting and human resources applications, including payroll. Says Raheming, "If the payroll couldn't be done, we'd have a problem. That's why backups are a priority."

Having become the primary communications tool for the whole system, email is another mission critical application. "When the superintendent wants to get a message to every employee, it goes by email," says Raheming. Says Raheming, "If someone loses email, with Galaxy it takes us seconds and it's back. For us it's a savior. When email is deleted, even if it is just one message, CommVault lets us restore at that level. With our previous backup solution, we could not restore down to the email message level."

**Galaxy Backup and Recovery Builds User Confidence**

The school system uses the SASI student information system to track important data on every student, including grades, schedule, and attendance. If an administrator in a school needs to transfer a student, for example, she or he needs access to the student's records. If the records are lost, it causes delays and inconvenience for everyone involved. On one occasion, the SASI database for one school had to be restored, after someone made an error and corrupted the database. "Having CommVault to do the restore was super," says Raheming. "We just had to go back, find that date, find the server, find the file, and tell Galaxy to restore it with a right click. It was very easy with the Galaxy GUI interface. It took seconds. It was easy for us, but for the database administrators, it was a big deal, a big relief."

"Our job is to help keep education running," says Raheming. Part of the job is assuring system users that their data is safe. With CommVault software in place, the database administrators for the critical applications like Edumet and SASI can feel very confident about the safety of their data, knowing that if something happens, the MIS team can get it up and running again.

**Synthetic Full Backups Reduce Network Burden**

The backup process at the Trenton school system takes advantage of the Synthetic Full Backup capability of Galaxy. After doing one initial full backup, they do nightly incremental backups, comprised of just data that has changed since the last incremental backup, and the Galaxy software automatically constructs a full backup. With Synthetic Full backups, there is no need for full backups, and less traffic burden on the Network. They use CommVault Galaxy AUX Copy to make a copy of the backup, which they send to an off-site archive.

**DataMigrator Will Save Storage and Help Performance**

As part of an upgrade of their email system, they also plan to install CommVault DataMigrator before the start of the 2005-2006 school year. DataMigrator automatically moves email data from users' mailboxes to secondary storage, following user-established rules. DataMigrator allows users to retain email data, but takes it off their mailboxes, reducing the load on memory, while still allowing them to recover email messages. Email migrated by DataMigrator is also backed up automatically; if it stays in local storage, it may not be backed up at all, and could be lost.

**Galaxy Backup Is Doing What They Said It Would**

After a smooth installation, Raheming says, "Galaxy Backup is running very well, no problems, working super, doing what it says it would do! We are well pleased. There is no reason to consider any other backup solution. We have looked at ArcServe, but our network is like a big company's, with 33 buildings and two more being built. ArcServe does not have the enterprise-level capability we need. We know Galaxy works and it is reliable. It does layers of complex, sophisticated tasks, but the GUI console is very simple and easy to use, very user friendly. Just right click and the job is done. If there is a problem with a backup, we are alerted by email or by phone. We also like the fact that Galaxy lets us do restores to different versions of applications. If a file that must be restored was created in version 3, Galaxy restores it to version 3, even if version 4 is now in use. Those are very good features." Raheming is also looking forward to using DataMigrator. "DataMigrator will help us keep everybody's email running smoothly," he says, "and that is extremely important, especially as we extend the availability of email to students."

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