

Who is swapping your backup tapes – the Vice Principal or the Coach?

Schools have a wide range of challenges facing them, and in the grand scheme, perhaps IT isn't the greatest of them. But as part of the support system to help teachers and administrators perform their role, IT can be a strong empowerment to education. But on a limited budget, IT also has its challenges - and backup/restore is usually at the top of the list.

Protecting data is usually the most expensive aspect of IT – with up to 74% of backup costs being management and administration. In distributed remote environments, like a school district, most people correctly presume that centralized backup is not viable using traditional tape methods. So, schools usually end up either without backup or having each school back itself up. These are the same issues faced by branch banks, retail outlets, etc. but are even harder for non-profit and public service organizations to keep up with.

Microsoft® System Center Data Protection Manager 2006 (DPM) was designed to eliminate many of the costs associated with distributed backup.

What happens after the backup?

Do the tapes ever leave the building? Gartner estimates that 60% of an organization's data exists outside of the core data center. This is even more true in broadly distributed environments, like schools, where nearly all of the data is in the remote sites and not in the administrative facilities. And while responsible disaster recovery planning is important for organizations of all size, it probably isn't the highest priority for the IT of the Elementary School principal or the kindergarten teacher.

What matters most when a teacher thinks about IT are accessibility to Lesson plans, Activity sheets, and Grades ... **it's about the data.**

Teachers and school officials work hard and the idea of having to recreate something because it was accidentally erased, overwritten or lost on a failed hard disk is incomprehensible. Administrators and teachers count on their data and expect it to not only be protected but also restore-able.

According to Yankee Group, 42% of all tape restores fail. Gartner similarly quotes 71% failure, while Strategic Research claims 54%. Tape restores fail for a variety of reasons, including media errors, physical damage or loss, corrupt indexes, etc.

Add to all of this the woe of a teacher having to ask an administrator, to open a help desk ticket, so the IT person will locate and mount the tape, to do a tape restore. Ironically, 97% of all tape restores are single files or directories, not server restorations. Most restores are due to a file being accidentally overwritten or deleted. In addition, 85% of all tape restores are for data that is less than two weeks old.

Data Protection Manager (DPM) enables Rapid and Reliable Recovery from disk, instead of relying on tape. Instead of locating and mounting tape(s), DPM maintains a current copy that is hours or less old on disk. Coming from disk, restores take seconds, not hours. Because the disk is always live on the network, restores are much more reliable with no media to locate or indexes to rebuild. And perhaps most empowering, teachers, administrators and other end-users can restore their own files without burdening IT.

How does DPM work?

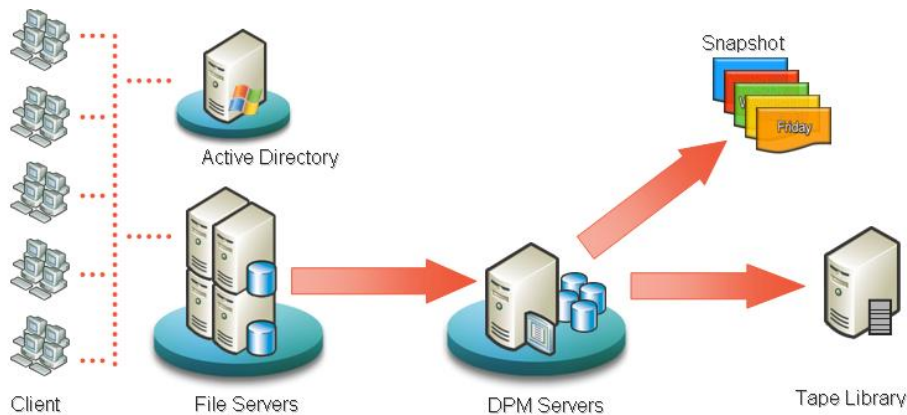
Data Protection Manager provides the D2D part of "Disk to Disk to Tape". DPM installs an agent on your production file servers which captures byte-level changes as they occur. These small file deltas are held on a journal file within each production server within each school. Every hour, by default, a DPM server at the central administration facility will synchronize itself with the schools' production machines by receiving and replaying the logs – resulting in the DPM server(s) always having a near current copy of all of the production data.

- In the worst case scenario of a production server crashing, a copy of the data, which is no more than an hour old, is still available at the central facility.
- Of course, one can use normal tape backup at the central facility to back up the synchronized copy of the data, which provides long-term archival and restoration capabilities. With the difference being that instead of a principal at each school handling tapes, cleaning cartridges and rotations – it can be handled by the IT staff at the central facility instead.
- But another capability also exists, shadow copies or snapshots of the data on the DPM server which allows users and administrators to recover their data from multiple points in time.

Imagine working on a document for class at the beginning of the day. Periodically, as time allows, and after school continuing to create content for the next day's class. And then accidentally deleting it! Or starting with a worksheet from the last course topic and unintentionally overwriting the data instead of creating a new file. We've all done it before. DPM shadow copies can provide past iterations of your data from this morning, or yesterday, or last week – all from disk and taking only seconds to retrieve.

DPM works with your existing tape backup system, but provides centralization that traditional methods cannot deliver across slow WAN connections.

Data Protection Manager (DPM) is the newest member of the Windows System Center family of management products, alongside MOM, SMS and others. DPM delivers centralized backup of branch offices and backup enhancement within the data center, by continuously protecting changed files to alternative disk which can then be backed up to tape. In addition, DPM enables fast restoration from disk and end-user initiated recovery without IT intervention. DPM ensures Microsoft customers with rapid and reliable recovery of lost data due to user error or server hardware failure. DPM provides near continuous data protection and operational simplicity.



DPM knows how to protect schools

In a time when everyone is "Doing More with Less", IT is even more strained, particularly in the public service sector. DPM saves school districts money in relieving media handling from the non-IT individuals who used to swap tapes at each school, while lessening the burden of IT by centralizing the backups while decentralizing the restores. But don't just take our word for it.

Des Moines School district

- DPM cut data protection costs by 94 percent
- DPM saved the district \$135,000 in the first year.
- The district is so pleased with DPM that it is implementing the solution in all elementary and secondary schools.
- *"When a user needs a file restored, they don't ever have to file a work order or contact the Help desk. They can restore their own file instantly."*

San Francisco School District

- School district adopted backup system to easily restore files – and is saving \$100,000.
- *"You're saving all this staff time, training time, and monitoring time to make sure that the people are doing what they're supposed to do. It really is a good solution for us."*

So, of course DPM is priced to be accessible by even the smallest of school systems. The DPM server uses industry standard hardware, on top of a Windows Server 2003 operating system, or can be purchased as a DPM Appliance based on Windows Storage Server from one of our OEM partners. The DPM software itself starts at \$424 for the DPM Server and \$142 per DPML (file server agent) with Open/Select/Education/Charity pricing. For more specifics, please contact a Microsoft Education Licensing specialist.

Where to go for more information

www.microsoft.com/DPM

Contact information

DPMinfo@microsoft.com