

EDTECH™ FOCUS ON K-12

Brought to you by:



CASE STUDIES

TACTICAL ADVICE

RESOURCES

Classroom

Infrastructure Optimization

Security

Storage

Networking

Mobile

Hardware & Software

Management

CURRENT ISSUE



Subscribe

SIGN UP FOR

EdTECH

E-NEWSLETTERS

Follow EdTech K-12



Connect With CDW

LinkedIn YouTube Spiceworks



ADVERTISEMENT

EdTech
**SHOW
AND
TELL**
Find out what's
happening in
schools around
your state.



The Skinny on Storage

Thin provisioning helps IT departments manage data more efficiently and save money on energy and equipment costs.

John Pulley

posted December 14, 2010

Like

Tweet 0

Share Spice

ADVERTISEMENT

The enthusiastic adoption of classroom technology by the Alvarado Independent School District in Texas – everything from electronic whiteboards to digital student portfolios – created an unintended data storage crisis.

Disk space was required for each application, student and faculty member. Maintaining the system and expanding storage capacity was cumbersome, costly and time-consuming. Kyle Berger, the district's executive director of technology, knew it was time for a change.

The district invested in a *Compellent storage area network* with *thin provisioning* technology. The SAN treats all attached storage devices as one virtual storage pool, and thin provisioning ensures that devices are all utilized to almost full capacity before IT managers must increase capacity.

Managing the system from one interface reduced data management time by 90 percent, says Berger, and annual spending on storage expansion and upgrades has fallen from \$100,000 to \$20,000.

The technology worked so effectively that it gave Berger an idea for how school districts could help each other at virtually no cost. Two years ago he established a consortium of school districts that link their SANs to offer mutual data backup for disaster recovery.

Thin provisioning has "been a good solution for us," Berger says. "It really allows us to focus on what we're trying to do: bringing technology to help education in the classrooms."

Turn to Thin Provisioning

As the data storage needs of K–12 school districts continue to grow, experts say more of them are turning to thin provisioning.

With traditional technology, discrete blocks of storage are set aside for every application or user who might need it. The tendency of users to overestimate storage needs frequently results in an over-allocation of storage capacity. The result is that utilization rates can be as low as 20 percent.

Mark Peters, a senior analyst at the Enterprise Strategy Group, says the inefficiency is like a bus that won't let on new riders despite being only 20 percent full because passengers are saving seats for friends and family members, including the unborn, who might want to ride in the future.

51%

The percentage of IT departments surveyed that now use thin provisioning

Source: TheInfoPro survey of 1,000 large organizations

"The old way of provisioning led to appalling levels of utilization," Peters says. "If other resources in the world were used as poorly as storage space once was, people would be laughed at."

Inefficiency was tolerable when IT constituted a small part of organizations' operations and budgets, and the cost of storage generally declined at a rate that offset increased use. Recently, however, the cost of storage hasn't fallen fast enough to compensate for surging IT use and the corresponding increase in demand for storage.

"Over the last few years there has been a massive focus on doing things not just effectively, but more efficiently in terms of using fewer resources," Peters says. "The big mantra in IT is to do more with less."

To learn how K–12 districts are managing their storage more efficiently, check out the latest [*EdTech e-newsletter*](#).

Thin provisioning delivers physical storage on demand. If a particular application experiences a rapid spike in storage needs, the system automatically dips into the shared storage pool to provide it. This lets IT managers allocate considerably more storage than the physical capacity they actually possess. Technicians can easily monitor the system, or any part of it, from a single computer screen. As the networked storage devices approach full capacity, the system alerts technicians to buy more.

Elsewhere, school districts that haven't yet acquired thin provisioning are eyeing the technology as a means to enhance storage systems.

"Our data needs are growing," says Bob Surita, technology services manager of the Milwaukee Public School District. "We're looking for technology that would make our data storage more efficient, more effective and more cost-effective."

The department already runs very lean, utilizing about three-fourths of its storage capacity, Surita says, but thin provisioning technology would be a big boon in simplifying data management. "Thin provisioning could lower our maintenance costs from a time and people perspective," he says.

Why IT Loves Thin Provisioning

Here are the leading reasons IT departments embrace thin provisioning:

- **Increased data storage capacity utilization:** Typical increases range from 25 to 80 percent.
- **Significant reduction in IT staff time for managing data storage:** A decrease of 90 percent is not uncommon.
- **Smaller data center footprint:** This results in lower electricity and cooling costs.
- **Equipment cost savings.** More effective data management reduces and delays the purchase of storage devices.

Like


Add New Comment

Login



Showing 0 comments

Sort by newest first

[Subscribe by email](#)  [RSS](#)

Trackback URL

Security

3 Strategies for Preventing Notebook Theft

Schools have a variety of options at their disposal to combat device loss, including...

A Firm Foundation: Bringing Google Apps into the Classroom

Google Apps facilitate communication and collaboration in classrooms, but the right...

...more

Storage

5 Next-Level Data Consolidation Tips

An IT expert offers five data consolidation tips.

Making the Most of Power and Cooling Management

Using equipment strategically ensures continuity of operations while also generating big...

...more

Infrastructure Optimization

5 Next-Level Data Consolidation Tips

An IT expert offers five data consolidation tips.

Modular Data Centers Let Schools Add Capacity Easily

Modular strategies let schools add capacity easily

...more

Networking

Tidy Up with logear's KVM System

logear's KVM console gives your data center a professional appearance.

Getting Ready for the BYOD Revolution

School IT leaders reveal how they're readying their networks to support the additional...

...more

Classroom

Teachers Bring Text Messaging to the Classroom

Social media and smartphone-based learning help typically shy students find their voice.

Video Conferencing Takes Education to the Next Level

How schools are using video conferencing to bolster interactive learning.

...more

Hardware & Software

Review: Adobe Premiere Elements 10

Students and teachers can create their own Hollywood movie magic with the latest version...

Review: Lenovo ThinkPad Tablet

This business-minded tablet will put a charge in students' productivity.

...more

[Classroom](#)

[Infrastructure Optimization](#)

[Security](#)

[Storage](#)

[Networking](#)

[Mobile](#)

[Hardware & Software](#)

[Management](#)

[Home](#)

[Contact Us](#)

[About the Editors](#)

[Sign up for E-Newsletters](#)

[Subscribe](#)

[Site Map](#)

[Terms and Conditions](#)

Copyright © 2012 CDW LLC | 230 N. Milwaukee Avenue, Vernon Hills, IL 60061

[cdw.com](#)

[cdwg.com](#)

[biztechmagazine.com](#)

[edtechmagazine.com](#)

[fedtechmagazine.com](#)

[statetechmagazine.com](#)