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## How to Reduce Your Data Before Buying More Storage, Think About Reducing Data



In many ways, it's simple math: The less data a company has, the less need it will have for storage. The reality, of course, is a bit more complicated.

Companies create scads of data every day, from presentations loaded with images and video to applications developed in-house that handle customer requests, account processing, and numerous other functions that keep a company running.

Reducing data isn't as easy as filling up a digital trash can and throwing it out every few months, but there are methods for cutting down on the amount that needs to be stored.

### ■ Recognizing The Need

Unlike putting in more blade servers or implementing a higher-level security system, storage is fairly cheap, experts note. Thanks to a very competitive market, there are services, appliances, software, and devices that won't take a chunk out of budget money, but it's in the hidden costs that a company might get burned.

The largest concern is power and cooling because implementation of more storage often requires yet another piece of equipment in the data center. If a company is using a storage service, rates go up. And with both approaches, there's need for more management strategies to handle the increasing amount of storage.

For example, companies may find they have to run more fire drills to make sure that data can be accessed after a loss, and those drills can take time and resources away from everyday tasks.

Also, even with the affordability of smaller appliances, some IT departments have had

their budgets frozen in anticipation of tough economic times ahead, says Jon Ash, vice president of sales for Storwize (800/670-0281; [www.storewiz.com](http://www.storewiz.com)). "I've heard from customers who have the CIO say not to spend any more money, but they'd never tell the employees to stop creating data," he notes. "To be green and reduce power costs, though, you have to reduce data."

### ■ Tiered Storage Management

There are several choices when it comes to data reduction, and one that's gotten plenty of buzz lately is tiered storage, in which each piece of information is given a priority level and is stored accordingly.

For example, company tax returns would be stored in a way that recognizes the data is vital and may need to be accessed frequently. However, memos about upcoming meetings will likely not need to be seen too often, so could go on disks or tapes that are put into long-term storage.

This type of approach also dictates more input from other departments, which can take time initially but could give employees and executives a more realistic view of how storage is done. Rather than thinking of storage as a bottomless well from which they can pull up whatever they need, employees could see it more as a closet that can only hold so much before it bursts.

"Information retention strategies are unique to each enterprise and should be determined by the people creating that information, not determined by what kind of equipment you have already," says Paul Clifford, founder of technology consultancy DavenportGroup ([www.davenportgroup.com](http://www.davenportgroup.com)). "This should prompt discussions from IT with other managers about what they really need and how long they have to keep it and to set priorities for intelligent archiving."

### ■ Compression

Unlike physical files, data can be compressed with applications created just for the purpose. Many storage companies offer compression capability in their applications so that more data can take up less space.

"By using compression, you can better utilize what you've already got," says Ash. "That's important for saving money that would otherwise go toward powering racks of small disk drives."

The only type of data that doesn't work well for this strategy are image files such as JPEGs and MPEGs that are already compressed, he says. Also, to be used or reviewed, data has to be decompressed, which could take extra time. But in general, most compression applications are simple to use and are usually already present in a storage system, and SMEs just need to tap into their power more often.

### ■ Deduplication

Unlike compression, which tackles file size, deduplication targets repetition. This is especially crucial as data gets created and then emailed to several employees.

For instance, a PowerPoint presentation that's already a bear in terms of size could be sent out to 200 employees in preparation for an upcoming meeting. Some employees might unwittingly reply without deleting the presentation, making even more copies of the same file. When the emails get archived, there could be up to 300 copies of the exact same presentation.

If this type of scenario happened once, it might be no big deal for a storage strategy, but consider that it could be occurring a few times a week, clogging up a system with unnecessary files.

Forrester Research analyst Stephanie Balaouras notes that deduplication tools are widely available and should be far more used than they are currently. She states that these tools are often part of storage systems that already have efficiency controls in place, such as reducing backup windows.

## ■ Comprehensive Strategies

Another important aspect to data duplication isn't about adding new technology but, rather,

getting rid of the old stuff, according to Chris Cummings, senior director of data protection solutions at NetApp ([www.netapp.com](http://www.netapp.com)). At many companies, a surprising amount of retired equipment is still running, drawing power away from necessary machines, and may be hooked into automatic backup systems.

"We see some customers who retain information for a month and others that want everything for 100 years," he says. "There's a reason why they've made those determinations,

so length of storage time is important in determining data reduction."

The benefit of using data reduction technologies is that they frequently play well together, and this can be part of any comprehensive strategy.

For example, data can be deduped and compressed before being put in a tiered storage system. "It can be very synergistic," says Ash. "It all works together nicely, so you can do data reduction at every step and save storage costs along the way."

by Elizabeth Millard