COMMVAULT®

▶ 5 Strategies for Modern Data Protection

It's no secret that today's unprecedented data growth, datacenter consolidation and server virtualization are wreaking havoc with conventional approaches to backup and recovery. Here are five strategies for modern data protection that will not only help solve your current data management challenges but also ensure that you're poised to meet future demands.

ONE: ACTUALLY GET BACKUPS DONE WITHIN THEIR TIME WINDOWS

Most enterprise IT organizations today struggle to even finish backups at all. That is, often the backup jobs are not able to completely process full or even incremental file sets in the time window available. It can be shocking to learn the truth of how much critical corporate data is assumed to be backed up but is not actually.

It's clear to those on the ground what's going on. The amount of data to be backed up is growing exponentially, while resources (storage, network, servers) devoted to backup are constrained. Besides the amount of data, the locations and types of data have become more complex with applications, cloud data and virtualized servers. Even if it were possible to throw more hardware at the problem, that would not solve it. IT staff valiantly keep legacy backup systems going with manual work or scripting, which lowers their productivity - and worse, the backups are extremely hard to use for data recovery. Legacy backup tools just aren't up to the job.

New professional-grade data backup and recovery solutions, like Commvault® software, do a much better job of getting all of your data backed up in far less time and requiring far fewer resources. Modern tools should have knowledge of current enterprise applications, physical and virtual environments, and file systems to enable rapid, consistent copying of that data. Also of key importance is modern storage array snapshot technology, which creates nearly instantaneous applicationaware copies, drastically improving backup and, and even more importantly, speeding recovery time. By implementing snapshots, you can execute against ever tighter SLAs, and when the snapshot process is coordinated with backup, you can get a protection copy created apart from production servers, reducing the impact to those resources. Commvault software solved the challenge of the management of those snapshot operations, with each storage array using its own tools and processes, manual scripting and a lack of application-awareness. All of this means that backups actually get done and can actually be used for recovery which, after all, is the reason to backup in the first place.

TWO: GET SMARTER ABOUT REDUNDANT DATA

The truth is that legacy backup systems do not minimize data redundancy well at all. Data is allowed to proliferate in multiple copies because it has traditionally been seen as safer and simpler in terms of backup logistics and storage just gets cheaper.

However, this leads to excessive demands on network, storage and management resources, especially in the hyper-data growth environment you face today. Target-based deduplication appliances were seen as a

"By 2018, 50% of organizations will augment with additional products or replace their current backup application, compared to what they deployed in 2014."

GARTNER, INC., MAGIC QUADRANT FOR ENTERPRISE BACKUP/RECOVERY AND INTEGRATED APPLIANCES, JUNE 2015

way to get rid of some of the extra copies, but they don't do anything to solve the network problem. The solution in a modern implementation is to eliminate redundant data eliminate at the source and never transmit it over the network. Another area where deduplication adds value is for moving data to other locations for disaster recovery. Yes, you may have replication capabilities in legacy systems, as a costly extra. But it is resource-intensive or tied to specific hardware. But worse, there is no granularity into the data you are moving, which again leads to a lot of waste and inefficiency. By only moving the changed data to other locations you can reduce the cost, time and resources required for replicating data to meet your recovery needs. Finally, legacy deduplication was limited in scale and silo'ed, so you aren't able to address it at a global level.

A modern data protection strategy enables far more intelligent handling of redundant data. It is global, comparing different sources of data, instead of operating in silos, to eliminate redundant copies of data, and reduce storage costs. It should happen at the source, which increases network efficiency, as well as have the capability to do it at the target as well in case you need to use that method for specific uses. It also should be a part of the replication process to further maximize efficiency and not have to be rehydrated to move that copy to other disk storage, tape or the cloud. Finally, all this should ensure that restores are still able to use the data wherever it came from and wherever it is efficiently stored.

▶ ## THREE: MOVE AWAY FROM POINT BACKUP TOOLS

As the types and locations of the data we protect has grown, so has the number of backup tools proliferated in the enterprise, each designed to address one particular type of data or environment – the classic example being physical and virtual servers. These point products (or even homegrown scripts) have been cobbled together over time or deployed in silos and are usually difficult for anyone other than the person who rolled them out to operate, and are easily broken by new technology or configurations.

Modern data protection solutions provide all the features of your individual backup tools, but in one platform, which makes it much simpler to license and manage. Better still, a platform like this is designed to be ready for future demands, whether they be new technologies, demands from the business, or sources of data to secure.

- Source-side deduplication can eliminate up to 90% of the data copied over the network, and cut the time required in as much as half

- Simpana increases backup success rates to an average of 95% while reducing data protection costs as much as 50%

FOUR: AUTOMATE AND SECURE YOUR BACKUP ENVIRONMENT

IT organizations automate their backups to some extent, but are often hampered by the limited capabilities and/or lack of integration of the various point backup tools in use. Whenever a staff member has to manually configure or verify backups, or has to spend time managing or working with backups, the efficiency of the organization is diminished and the risk of incomplete backups increases.

The next important strategic imperative for modernizing your data protection is to properly automate and secure the backup environment. With modern data protection solutions, a single infrastructure and interface is provided to fully automate and centralize management of backup and recovery that is scalable, easily adaptable and can use pre-defined policies to drive operations. A modern solution also has built-in data security, like encryption, both in flight and at rest. Also important is role-based access, so protected data can only be accessed by those that are supposed to without adding more point products to manage.

FIVE: BE ABLE TO RECOVER WHEN THE TIME COMES

It's very likely that an IT organization that has trouble getting backups completed in limited time windows will probably have trouble recovering data when the time comes. Taking aside the obvious (that it was not backed up), recovery in legacy point tools is a lot like putting together a 5000 piece puzzle which is missing pieces. Slow process, only to find you can't complete the picture.

But it doesn't matter how well your backup process works if you can't recover data fast and efficiently.

Consider a modern data protection solution like Commvault software to provide the flexibility to maintain backup data on different tiers of storage to meet different retention and recovery needs. You can easily store some application-aware snapshots near the original data for quick restoration, move older backups off to less costly storage tiers, and retain some data for as long as you are required to. In addition, it can provide the flexibility of different recovery needs – do you need to roll back a whole database this time and next time granularly recover a single email or attachment without having to hunt a peck for it across multiple backup jobs? Finally, it can open this all up to end users for self-service restores for better productivity on their end and so IT doesn't have to use their valuable time on these routine tasks. All of this occurs from one content-aware indexed store with multiple, secure ways to get into it, including web portal, mobile app and native integration into applications like Outlook, VMware and Windows File Explorer.

1   Commvault.com/resource-library/1389/enhancing-application-protection-and-recovery-with-a-modern-approach-to snapshot-management-whitepaper.pdf

▶ To learn more about Commvault software, and how it will enable your modern data protection strategy, please visit commvault.com.

COMMVAULT®

▶ **PROTECT. ACCESS. COMPLY. SHARE.**

COMMVAULT.COM | 888.746.3849 | GET-INFO@COMMVAULT.COM
© 2015 COMMVAULT SYSTEMS, INC. ALL RIGHTS RESERVED.