Backups Can Drive a Successful Data Management Strategy

Keeping everything forever is not a strategy, not keeping enough will get you fired!

INTRODUCTION

Gone are the days of managing backups just for recovery. Backups are valuable corporate assets that should serve many uses such as software testing, app development, compliance verification, threat detection, lost file recovery, archiving and, oh yes, disaster recovery.

IT needs to change its thinking from just administrating backups to managing a comprehensive data strategy. There needs to be an orderly process for creating, storing, replicating, relocating and finally destroying data based on corporate goals, legal requirements and government regulations. Everything that creates, houses, uses, and stores data has to be part of the process. Large enterprises have Records Managers trained in data management techniques to manage the process, but most small and mid-sized organizations (say those with fewer than 1000 employees) depend on IT to fill that role.

Data management without the right tools can become an overwhelming task. Without intelligent automation you can choke on the process. You cannot depend on old, ad hoc, manual processes as the challenge of administering larger and larger volumes of data continues to increase faster than the IT resources charged with managing it.

DATA MANAGEMENT CHALLENGES

The goal of data management can best be summed up as – Keep just the right data only the length of time it is required. While easily said this is very difficult and you can err in multiple directions:

KEEPING TOO MUCH DATA

Keeping everything forever is most people's idea of data management. However keeping everything forever can get expensive, complex and manually intensive – and it is not necessary nor legally prudent. Storage costs will rise dramatically as volumes increase and the amount of time you spend managing data will rise to the point your other initiatives will suffer.

Keeping everything forever is most people's idea of data management.

Professional Records Managers will tell you that old data can only hurt you.

If this has been your strategy then you probably have data on tapes, removable media, multiple storage devices, in the cloud and/or at remote locations. Unless you have extensive notes you will probably lose track of what files are where, making them worthless.

Most importantly professional Records Managers will tell you that old data can only hurt you. Courts understand that enterprises have data destruction processes and as long as those are followed, there is no penalty for not keeping old records that may be relevant to a law suit. However, if a file is found that exists past its destruction date it can be used as evidence against the company.

KEEPING TOO LITTLE DATA

Data is the crown jewels of any enterprise. Backups are the primary source of files that can be used for a wide variety of business processes. Without the right files you put these programs at risk:

- **Ransomware recovery** – new breeds of ransomware are taking longer and longer to infect files before making their presence known. They look for business critical files and can lie dormant for long periods of times to infect more files and increase the likelihood that you will pay a ransom. Not keeping backups prior to the infection can limit recovery from ransomware.
- **Lost file recovery** – You get a call from the CEO that he "lost" an important PowerPoint presentation he gave to the board 6 months ago. Do you want to tell him that you don't have a backup or the ability to quickly recover it?
- **Compliance Audit** – Industry groups and governments mandate that enterprises keep certain types of data for specified periods of time. Patient records, financial transactions, and customer invoices are examples of files that need special storage and security as part of a comprehensive data management program.

Delete data too early or lose track of where it is stored and you may expose your company to mandated compliance violations.

KEEPING DATA FOR TOO LONG

Different types of data have different lifecycles. A stock quote is valuable for only a minute or so as it changes quickly. A baseball score is interesting only for about 24 hours as there is another game tomorrow. Financial results are critical for over a year. Treating all files

with the same life cycle and storage strategy ensures you will drown in unnecessary data with no business use.

In many enterprises, obsolescence is a bigger problem than storage volumes. Keeping data on tapes that cannot be read by the current generation of drives puts you at the mercy of legacy drives. Data formats also change over time so old files will need to be converted to new formats for the data to be readable. Both of these issues can make old files worthless.

NOT KEEPING DATA LONG ENOUGH

The Record Retention schedule of a large pharmaceutical manufacturer lists different types of data and how long they need to be preserved. Almost one half of listed data must be held into perpetuity. Notes from meetings of the Board of Directors, records of employees exposed to hazardous materials, any information on human drug trials are mandated to be preserved forever.

While your industry may not have the same degree of critical information as a pharmaceutical manufacturer, your organization has data that needs to be kept for very long periods of time. Many of these requirements are defined in industry mandates such as HIPAA, the 2006 European Data Retention Directive, and IRS tax laws.

DON'T FORGET RECOVERY

Still your number one job is ensuring fast recovery from downtime. Moving backups to remote locations means having to move them back before a recovery can occur. Backups stored in the cloud or on tape can slow recovery. There needs to be regular and comprehensive testing programs to ensure recovery can happen within corporately mandated RTO and RPO goals.

And the data challenges are growing. New regulations are changing data protection and storage requirements, data volumes are growing at increasing rates, old media is proliferating, and corporations are still depending on IT to meet the challenge. Fortunately there are new tools designed to manage backups as part of a comprehensive data management process.

There needs to be regular, comprehensive testing programs to ensure recovery can happen within corporately mandated RTO and RPO goals.

DATA MANAGEMENT TECHNOLOGIES

The right backup appliance is the foundation of a solid data management process. New technologies in backup appliances are available that can automate backup creation, replication, storage, recovery, and destruction based on the type of data, not using a one-size fits all process.

AUTOMATION

Today's backup appliances minimize the time and efforts required to optimize a data management strategy by delivering business policy automation. Separate creation, replication and management procedures can be set based on each individual VM or server. Finance data can be managed one way, and sales data another based on corporate requirements. Once the management schedule is set it runs automatically, sending status emails to admins that reduce the need for manual oversight of the process.

A comprehensive Archiving User Interface (UI) can automate a GFS (Grandfather, Father, Son) archiving strategy. As data ages it can be set to automatically move to remote devices, locations and/or the cloud. Old data can be consolidated into monthly or yearly compilations with the oldest files automatically deleted as the data passes retention mandates.

IMMEDIATE ACCESSIBILITY

No longer should archives be housed in inaccessible cold storage. The data has value and needs to be easily accessed when required. New deduplication technologies can greatly decrease the size of files and larger drives allow keeping more files on the backup devices to speed access and maximum archive values.

Today specially designed Backup Browsers exist to make searching archive files easier. Once particular data elements are identified, files can easily be placed on hold, released from hold, replicated, and recovered as needed. Archives in cold and offline storage cannot provide this level of business value.

Smart backup tools are also able to automatically test recoveries of archive files without human intervention and without risking production environments. The criteria for when and what to include in test environments, once set, will be automatically run to ensure recovery is possible when those data elements are needed.

CENTRALIZE MANAGEMENT

It it is more effective to administer a data management strategy centrally rather than trust remote employees to follow a complex set of rules and regulations. The newest backup appliances enable a central device to manage any or all remote locations as easily as if they were on site. This ensures a consistent program covering all locations, even those where no IT resources may be located.

ANALYTICS / MACHINE LEARNING

New analytic and machine learning capabilities can enhance data utilization and ensure the backup appliances perform at peak efficiency. Today's IT resilient backup solutions actively inspect every file during every backup for ransomware infections. They look for things like too many changed files, system files changing that shouldn't change, and inappropriate rates of change. Files believed to have been corrupted are then automatically flagged so they are not used for recovery. Upon detection, the solution will automatically notify administrators through email and notices on their dashboard so recovery can begin immediately.

Any data management strategy is only as good as the hardware that manages it. Today systems use predictive analytic tools to track system performance and predict future hardware and software performance issues. Predictive analytics enables devices to understand what is inside the range of normal performance. With remote hardware monitoring, slight performance anomalies can predict future issues. Devices can now accurately predict failures so recovery tactics can be taken before users are affected.

DATA MANAGEMENT "AS-A-SERVICE"

It may be cheaper and more effective to outsource the archiving process and location. Partners are available who can follow your program and ensure files are stored and protected at remote locations or in the cloud. An archival cloud can provide safe, trustworthy and easily-recoverable storage. Look for cloud storage that provides tiered retention pricing so you don't pay for more than you need. You should be able to select the number of years that data must be retained with cloud pricing to match. Also watch out for cloud options that charge you to access and retrieve data as this can get very expensive if multiple recoveries are required. Remove the burden of retention management and operating spending as remote cloud storage may be cheaper than managing your own physical backup media.

Any data management strategy is only as good as the hardware that manages it. Today systems use predictive analytic tools to track system performance and predict future hardware and software performance issues.

CONCLUSION

As the industry shifts from just managing backups to managing data, IT has new options to assist the process. Smarter backup appliances can relieve much of the manual process and ensure business-critical data is preserved and recoverable when needed. For the greatest degree of confidence you can partner with a specialist with their own backup cloud and they can assume the primary operational responsibility for you.

READY TO MANAGE YOUR DATA?
WATCH A UNITRENDS DEMO NOW.

Unitrends increases uptime and confidence in a world in which IT professionals must do more with less. Unitrends leverages high-availability hardware and software engineering, cloud economics, enterprise power with consumer-grade design, and customer-obsessed support to natively provide all-in-one enterprise backup and continuity. The result is a comprehensive set of offerings that allow customers to focus on their business rather than backup. Learn more by visiting unitrends.com or follow us on LinkedIn and Twitter @Unitrends.

UNITRENDS