EXTREME DATA PROTECTION FOR SHAREPOINT

NetApp Syncsort Integrated Backup

In any organization, collaboration is key. And for more and more government agencies, collaboration means Microsoft SharePoint. Far more than a simple document repository, SharePoint is the central location where knowledge workers meet, discuss, refine and revise corporate plans and projects, everything from seasonal catering menu changes to diagrams for a next generation fighter plane.

Like email before it, SharePoint has rapidly moved from 'interesting new idea' to 'mission-critical agency software' handling more and more data every week. Also like email before it, this rapid adoption has often outpaced data protection tools and plans.

A Unique Challenge: SharePoint Data Protection

SharePoint presents unique challenges for data protection and recovery because of the hybrid nature of the product. It has elements of a file server, storing thousands if not millions of documents. It uses one or more SQL databases containing both data and metadata. It has index files and customizations stored outside the databases. And it is commonly deployed as a server "farm" consisting of multiple physical servers performing different roles. It's really like nothing else you have to protect.

Because SharePoint is distributed, any backup needs to understand both the whole and the parts in order to successfully reassemble the complete environment in the event of a major disaster. At the same time, you want to be able to pinpoint restores to avoid having to recover entire servers or databases simply to recover a few items (many users do resort to this technique).

These unique challenges have led to the adoption of SharePoint specific backup tools, outside the realm of the standard backup environment. This adds both expense and complexity to IT operations. Other users rely on the backup tools included in SharePoint, but these are cumbersome to use, limited in functionality and performance, and again reside outside the normal backup process.

To be truly effective, a SharePoint backup solution must be easy to use, comprehensive, highly efficient and part of your normal backup environment. NetApp Syncsort Integrated Backup shows the way.

Comprehensive SharePoint Understanding

Protecting SharePoint requires understanding SharePoint. NetApp Syncsort Integrated Backup uses the concept of a "virtual node" to simplify SharePoint protection for the user. The virtual node contains all the necessary elements

KEY FEATURES

- Rapid, block level incremental backup of SharePoint data
- Rapid recovery from farm to file
- Item level search and restore
- Recover most recent version or earlier versions of items
- Reduces protection and recovery complexity
- Integrates with your other backup operations
- Supports all components of the SharePoint farm including application items and physical server attributes.

– databases, indexes, etc. distributed across multiple servers – required to protect a complete SharePoint installation or farm. Discovery of these objects is automatic.

Policies applied to the virtual node will automatically include all elements needed to restore the application. The virtual node representation acts as a single point of reference, allowing you to build coordinated backups that are consistent and reliable without worrying about the many individual parts of the environment. One physical server acts as a control node for the rest, and control nodes can fail over automatically in the event of a server failure or shutdown. This helps ensure resiliency in the environment.

All critical SharePoint resources are automatically grouped under a single "Virtual Node" (indicated by the arrow above). This simplifies data protection administration and helps ensure that all necessary SharePoint components are protected and recoverable.

Beyond Deduplication: High Efficiency Backups are Key

One thing users learn quickly about SharePoint is that it creates a lot of data. It contains not just documents, but multiple versions of documents, metadata associated with them, user profiles, analytics information, search indexes and more. It also encourages behaviors that create even more data: workflows, discussions, blogs, new site creation that commonly includes copying the contents of one site into another. SharePoint projects commonly end up creating far more data than anticipated, and it all needs to be protected.

Legacy, file-based backup models do not do well here. Since a good deal of data is stored in a database format a file-based incremental backup still requires backing up full database files every day. Data also changes quickly in SharePoint, meaning that once-a-day backups leave behind a lot of transitional information.

The sheer volume of data means any backup scheme involving periodic full backups will quickly consume significant amounts of disk storage. Data deduplication is critical for eliminating these redundancies, but it does nothing to solve the problems of getting time-consuming, high impact backups done in the first place.

NetApp Syncsort Integrated Backup uses a block-level backup technique that moves only changed data blocks, not files. This dramatically reduces the amount of data moved during the backup process, by 90% or more. Backups complete in minutes, instead of hours, allowing multiple backups to be run each day, capturing far more information yet at little extra cost in disk usage.

Rapid Recovery from Farm to File

The real complexity of SharePoint data protection is revealed during recovery operations. With multiple nodes and roles involved, recovery scenarios are complex and often require many different types of recovery methods.

Consider just a few situations.

Physical server failure. The system must be restored from the ground up, including hardware specific information and SharePoint specific metadata. If any pieces are missing after recovery, the system may not be able to rejoin the SharePoint farm.

Individual item recovery. While SharePoint does provide both user and administrator Recycle Bins, these do not capture data in all circumstances and typically do not hold it for more than a few days. Many users resort to restoring a full database on a recovery server because they have no other way of finding a file.

Site failure. If a full site is lost, the entire SharePoint farm needs to be recreated. If backup images aren't in synch across all the nodes and if SharePoint specific information is not captured, recovering the farm can be extremely time consuming, if not impossible.

NetApp Syncsort Integrated Backup is designed to handle all of these recovery scenarios using a single set of backup images. Backups use the SharePoint VSS writer to ensure consistency and integrity across nodes.

From a single backup job, NSB can restore everything from a farm to a file. NSB Bare Metal Recovery restores servers with full system integrity, even across hardware platforms. Unique Instant Virtualization technology recovers a failed system as a virtual machine in only minutes. Instant access to snapshot images lets you re-mount lost databases without the need to transfer data across the network. When recovering a database, you can optionally also create the SharePoint web application associated with it.

The NSB SharePoint Object Recovery tool can restore individual items quickly without the need to copy a full database or use a recovery server. You are even able to recover different versions of documents if you need to restore data from an earlier point in time.

SharePoint Object Recovery provides copy, search, and analysis functionality for individual items, including documents, lists, libraries, and folders. Objects can be restored directly to any SharePoint server without same-server constraints, or they can be restored to any Windows-supported file system. Search features are critical to object recovery because often the recovery administrator is given very few specifics about the lost object.

Simple, Integrated and Proven

NSB brings together everything you need for complete SharePoint protection and recovery, integrated into the same solution that protects the rest of your servers and applications. SharePoint-only products can be eliminated, providing cost savings, and intelligent "virtual node" functionality reduces operational complexity and saves valuable IT time.

Field-tested and proven backup and recovery technology is applied to the SharePoint environment to deliver the fastest, easiest to use and most resource efficient data protection solution for Microsoft SharePoint servers and farms.

About NetApp Syncsort Integrated Backup

NetApp Syncsort Integrated Backup goes beyond deduplication to resolve all critical data protection needs. NSB is the fastest, easiest to use and most resource efficient data protection solution for physical and virtual servers running in heterogeneous environments.

Support Matrix

Operating Systems	Windows 2003: x86, R2 x86, x64, and R2 x64 Windows 2008: x86, R2 x64
SharePoint Versions	Microsoft Office SharePoint Server 2007/Windows SharePoint Services 3.0 Microsoft Office SharePoint Server 2010/Microsoft SharePoint Foundation 2010 (supported Q1 2011)
SQL Server Versions	SQL Server 2008, SQL Server 2008 R2, SQL Server 2005, and SQL Server 2000. Note that SQL 2000 does not support object level recovery.

Please consult www.syncsort.com for the latest support updates.

About NetApp

NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate business breakthroughs. NetApp's passion for simplicity, innovation, and customer success helps companies around the world go further, faster. To learn more about NetApp please visit netapp.com.

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About Syncsort

Syncsort is a global software company that helps the world's most successful organizations rethink the economics of data. Syncsort provides extreme data performance and rapid time to value through easy to use data integration and data protection solutions. With over 12,000 deployments, Syncsort has transformed decision making and delivered more profitable results to thousands of customers worldwide.

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