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Novell Delivers a New Way of Intelligently Managing Organizations' File-Based Information

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IDC OPINION

The storage industry has been so focused on block-based storage that the growing management problems associated with file-based storage continue to elude notice. Information residing in file format represents the fastest growing type of information. Not only are users creating more files, they are sharing these within the organization with external partners and customers. Intellectual property of many organizations resides in file-based format, but unlike blocks that are usually managed by an application like a database, files are viewed as unstructured. Unstructured translates into organizations not really knowing what information they have and where it resides. Delivering a solution that addresses all of the following wants is a challenge. Novell is one who has taken on this challenge and has delivered a story file-based storage managers would be curious to hear. What business owners want is to:

- Be able to identify pertinent information quickly and retrieve it if necessary
- Store information in the most appropriate location and manage it based on predefined policies that reflect the value this information represents to the organization
- Be certain that information is properly protected and is available in case of a disaster, deletion, or corruption
- Manage the infrastructure without impacting the end-user experience or having to retrain users

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Filing Information: January 2009, IDC #216013, Volume: 1
Storage Software: Technology Assessment

IN THIS STUDY

This study takes an overview of Novell Storage Manager (NSM) and Dynamic Storage Technology (DST), which together offer a way to intelligently manage file-based information assets.

SITUATION OVERVIEW

Annual capacity growth rates for unstructured data in traditional enterprise is expected to grow at 62.2% compared with 54.4% growth rate in 2006, according to IDC's enterprise disk storage consumption model. Unstructured data is expected to represent the majority of the data being stored in the enterprise, and a significant portion of it consists of files created by employees and business units, stored on network drives and home directories. Managing users' storage has become a time consuming, manual task that has productivity implications. Organizations are continuously seeking new ways to introduce efficiencies into the process of provisioning, managing, migrating, and deprovisioning storage.

Novell, in 2004, introduced its Novell Storage Manager designed to address these challenges in a new, more sophisticated manner. NSM was designed from the user perspective, starting with their identity. Integrating with Active Directory (AD) and eDirectory (ED), NSM manages storage with the user in mind. Once an account has been created, identity-based storage policies can be applied to the users and are executed automatically. Arvest Bank, with 230 regional branch offices and 5,000 users, used to take up to five days to set up storage for a new employee. After deploying NSM, the setting up of an employee was automated and was completed in less then one day. Though turnover at the company is insignificant, the number of people moving around, changing location, and changing roles justifies the investment. NSM was able to simplify migration of users' data and storage through policy-driven actions associated with user's identity.

Though Arvest had not conducted a specific calculation on cost savings, a large school district in Texas did. With students changing grades and often even schools every year, with students entering the school district and graduating, and with movement of staff and faculty, the district ascertained that they were spending $5 to set up a new user and $2 per each change applied to the system. After deploying NSM, the cost of setting up a new user and making changes to existing users dropped below $1. If the number of changes occurring each year is taken into consideration, the school district was able to realize cost savings in the thousands.

NSM addresses primarily the need to manage file-based storage more efficiently. Its vault function allows for static content to be moved to a different tier of storage without affecting file path or user experience with the file. The vault function can also be used to retain files even after the user leaves the organization or changes roles. It allows the organization to search for files based on roles in the organization and enforce retention policies in accordance with company governance. Areas where policies can be enforced include:

- Quota management of capacity
- Placement and load balancing
- File grooming, controlling what types of files can be stored and where
- Transferring network storage when a user transfers to another department or site
- Retain permissions associated with data during and after data migration

NSM on its own is a powerful tool, but when deployed with Dynamic Storage Technology, it becomes a way to manage information and storage resources. DST is volume-based technology that complements NSM by virtualizing underlying storage resources. It facilitates scalability, seamless migration, and flexibility by enabling a single share to span multiple file servers. The user is unaware that files have been moved within the file system to tiered storage, based on policies. Currently, DST is available through Novell Open Enterprise Server 2, the storage-and-print system that is the Linux-based version of NetWare.

FUTURE OUTLOOK

Unstructured, file-based data is growing at an ever-faster rate. Whether files are created by individuals or applications, they are all being retained for longer periods of time. Managers will continue seeking new ways to simplify management of file-based storage systems and file-based information. Tools that can facilitate more efficient use of storage, simplify use and management of data and storage, and automate functions will be adopted. Novell's Storage Manager and Dynamic Storage Technology are well positioned to address emerging challenges.

ESSENTIAL GUIDANCE

Novell is in a challenging position not having put much effort into marketing this technology. To realize the potential of NSM and DST, Novell needs to take the following steps:

- NSM and DST must be more closely integrated as a single solution, seamlessly delivering all the functionality that makes management of files easier.
- Novell needs to partner with other offerings in the market. Potential partners include SRM vendors and file system vendors. Additional technology partnerships that could add value include indexing and classification and capacity optimization technologies.
- The world must know about this technology and a good way to achieve this is to expand the channel that resells these products. The channel (integrators and VAR) could expand the footprint of customers and develop services to simplify management, migration, and support of file and print services within any organization.

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Related Research

- *File Systems Define the Future of Managing Storage* (IDC #215463, December 2008)
- *Fujitsu Siemens Unveils CentricStor FS, a Scalable Solution for File Services* (IDC #213310, July 2008)
- *Next-Generation File Services* (IDC #211859, April 2008)

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