

# New and Improved

Novell Storage Manager 2.5

This article first appeared in the January 2009 issue of *Novell Connection* magazine.

Anyone reading a storage-related article in the last few years has probably come across research citing “exponential storage growth.” Organizations today are requiring an increase in network storage capacity at a constantly growing rate.

Much of this growth comes from unstructured file-based data, including network-stored word-processing documents, presentations, spreadsheets, JPEG and GIF files, music and video files, and so on. According to IDC’s Enterprise Disk Storage Consumption Model, the annual capacity growth rate for unstructured data in traditional enterprises is projected to grow by 62.2 percent in 2009 compared to a 54.4 percent growth rate in 2006<sup>1</sup>.

Storage growth is being driven by multiple factors including regulatory compliance, pervasive computing in a “keep-everything culture,”<sup>2</sup> and lower cost storage hardware; the latter being the principal method of organizations addressing their storage growth needs.

But what is the value of an organizational policy of storing data on cheap storage when the data are not being managed? Without a storage management system in place, information can become lost, duplicated, harder to retrieve, more costly to manage manually, and cumbersome to the network where the storage resides. More serious risks might come in the form of litigation or negative audit findings.

This exponential growth in storage and the corresponding management dilemma it exposes is what makes the release of Novell Storage Manager 2.5 compelling.

Novell Storage Manager provides identity-based life cycle management of user and group network storage resources. It helps minimize the risks outlined above

through automated policy management, ensuring compliance with organizational, industry and government regulations for secure data storage management. (See Figure 1.)

As storage offerings, capabilities and practices have changed, so has Novell Storage Manager. This month, Novell introduced its updated Novell Storage Manager 2.5. This new version includes some remarkable product enhancements designed to address the changing role and needs of storage. Some of the more notable enhancements are summarized below.

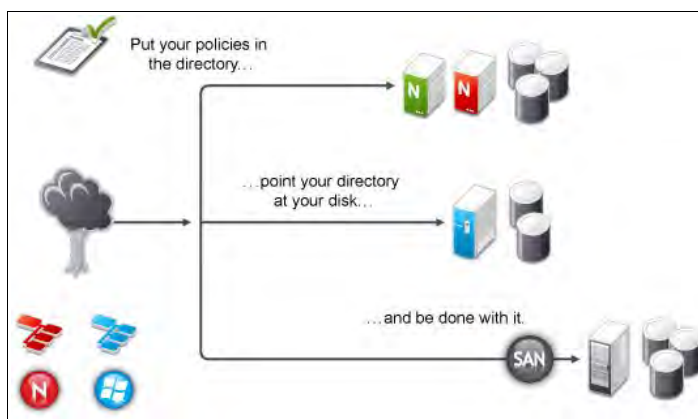
## > Novell Linux Support

As Novell-networked organizations expand their environments to include SUSE Linux Enterprise Server or Novell Open Enterprise Server running SUSE Linux Enterprise Server, Novell Storage Manager 2.5 addresses this expansion with Event Monitors that can be hosted on servers running either Novell Linux offering. Agents (known previously as “Sentinels”) can now be hosted on Novell Open Enterprise Server running SUSE Linux Enterprise Server. New supported file types include OES 2, ext2/3 and Reiser if you have the NCP extension.

## > Auxiliary User Storage

Auxiliary user storage is a new enhancement that was also added at the request of many enterprise customers. This allows administrators to create a policy in eDirectory that creates auxiliary storage folders when a new user is created. There is no limit to the number of auxiliary folders that can be created. Auxiliary folders can be created in volumes that differ from those at the user’s home directory location.

**Figure 1:** *The simplicity of Novell Storage Manager has always been in creating directory-stored policies once and then letting it manage storage automatically, according to the stipulations of the policies.*



## > Collaborative Storage Enhancements

An administrator can now create collaborative storage based on an OU object itself without having to first create a Group object. Once a policy has been created for the OU, a user added to the OU will have rights to the collaborative storage area where he or she can work with others.

Novell Storage Manager 2.5 also extends its powerful file vaulting and grooming capabilities to collaborative storage. Now, you only need to set collaborative storage vaulting policies for aged files and unallowable file types. And just like user file vaulting, these files will be moved to a vault location on less expensive hardware or they may be deleted altogether.

Finally, many network administrators that are in the process of consolidating servers will appreciate the ability Novell Storage Manager 2.5 has to

migrate collaborative storage. By simply changing the storage location path within the collaborative storage policy, the collaborative storage can be migrated automatically to a new storage hardware device.

**> Action Objects**

Novell Storage Manager 2.5 includes new “Action Objects” APIs to enable the automation of very distinct storage actions outside of what is practical with Novell Storage Manager policies. Action Objects enable specific actions in coordination with other applications that manage through Novell eDirectory or LDAP—for example, Novell Identity Manager.

**> Enhanced Cataloging**

What is the value of archiving a file for years if it is difficult to locate and retrieve? Faced with this challenge, Novell Storage Manager 2.5 extended the scope of its cataloging to include time-based data recording. This means that whenever you move data managed by Novell Storage Manager 2.5, the managed data path is recorded and maintained in the catalog. No matter how many times you move the file, you can find it through a catalog search where you can then recover it.

**> Path Analysis**

The new Path Analysis feature helps ensure compliance by allowing administrators to browse down a file path from any server and volume to a particular folder and perform an analysis of both access rights through either direct assignment or inherited rights through both the file

system and directory services. Path Analysis can also report file types that are being stored in a folder and all subfolders based on file extension. For example, by selecting a home folder you can easily see the number of .MP3, .MOV, .JPG, and other various files the user is storing on the network. (See Figure 2.)

**> New User Interface**

Novell Storage Manager 2.5 features a fresh new NSMAdmin interface. Icons, dialogs, storage statistics, etc., all have an updated look. Additionally, the interface has a more easy-to-use design. For example, in the past, performing certain tasks required multiple steps in NSMAdmin; many of these steps can now be addressed through a single form. (See Figures 3 & 4.)

**> Making an Immediate Impact**

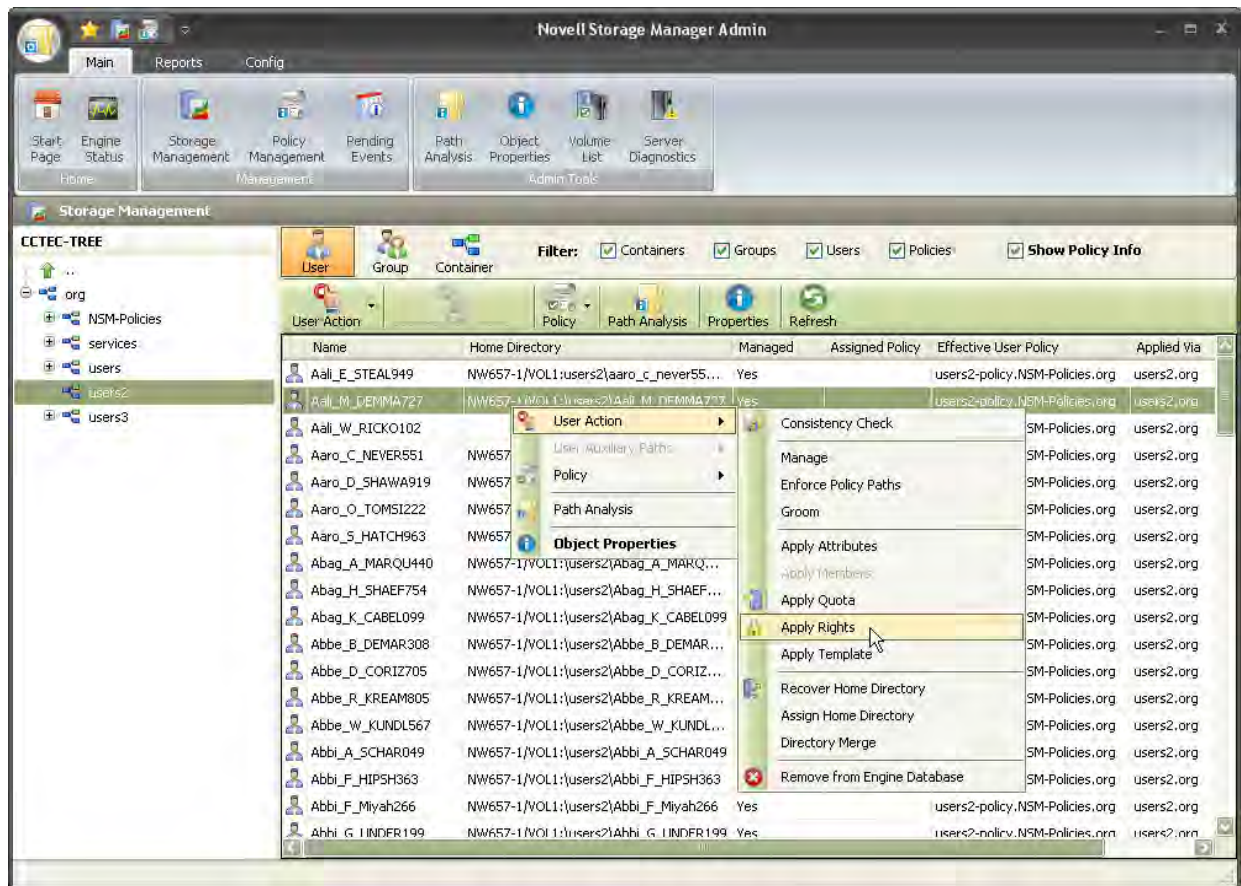
The wealth of enterprise-tested product features from previous versions, coupled with the product enhancements described above, make Novell Storage Manager 2.5 the ideal solution for assuring full lifecycle management of user and group network storage resources that comply with the most rigid of standards.

If your enterprise has been fighting the aforementioned exponential growth of enterprise data by simply adding more storage capacity through the purchase of SANs and large servers, you'll certainly want to see what sort of return you're getting for these expensive IT investments. Novell Storage Manager can easily show you how much a SAN is being used in

**Figure 2:** *Path Analysis can quickly and easily show who has access rights to a particular directory.*



**Figure 3:** A completely new NWAdmin interface with page tabs, quick access icons, drop-down menus and more, make administrative tasks easier to perform.



### Novell Storage Manager in Education

Since its first introduction as “Novell File System Factory” in 2003, Novell Storage Manager has become a standard in Novell networked academic institutions.

With regular student turnover, the ability of Novell Storage Manager to automate the creation, provisioning, archiving and deletion of student and teacher home directories and group directories was an instant hit with IT departments obliged with doing these tasks manually. But the capabilities in academic organizations don't end there. Using Novell Storage Manager, IT departments can provide teachers and students with the ability to distribute and hand in assignments, respectively, through folders that can be created automatically as well, creating a virtual classroom.

For example, home directories can be provisioned with classroom materials on Day 1, including course syllabi, course materials needed, teacher grading policies, etc.

In some cases, academic organizations utilize Novell Identity Manager to tie into the school's existing student

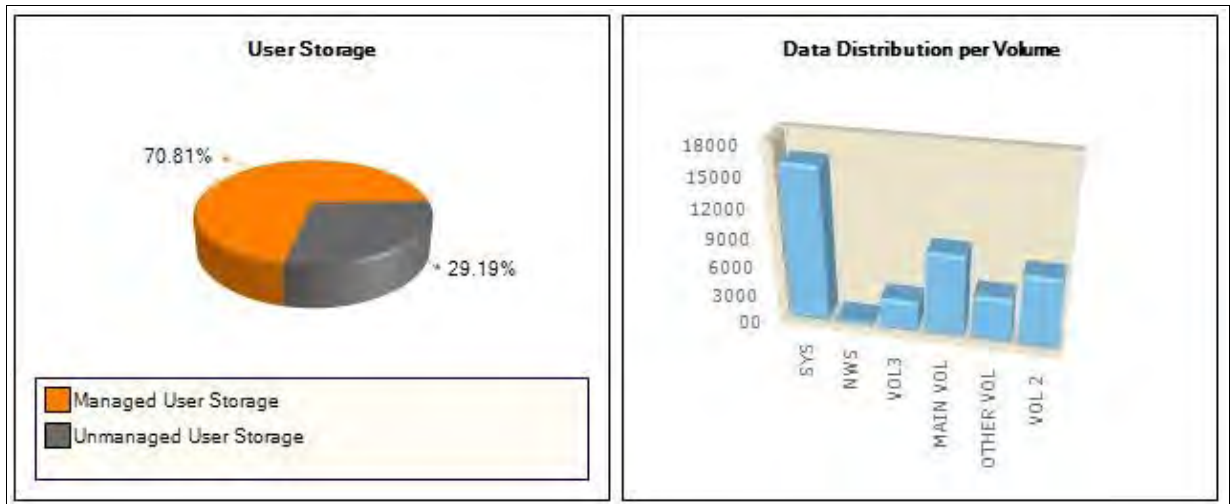
and faculty management system so each student and faculty ID can be automatically assigned a user object in Novell eDirectory. Based on identity, Novell Storage Manager can then assign the user directories, create course groups and link students and faculty to courses.

Troy Moreland, CTO of Identity Automation who managed the virtual classroom deployment at the Spring Independent School District in Houston, said that more than 4,000 hours annually was a conservative guess as to how much time Novell Storage Manager and Novell Identity Manager saves them from manually performing these tasks.

comparison to other storage devices, the percentage of users with enforced storage quotas versus no limits, Novell Storage Manager-managed user and collaborative storage versus unmanaged storage, and more.

Universities, K-12 schools and other academic organizations that experience periodic high user turnover will want to continue to use Novell Storage Manager to automate the creation, provisioning, vaulting and deletion of user and collaborative folders. With expanded support

Figure 4: Graphical analytics in the new interface can provide a detailed analysis of storage managed through Novell Storage Manager 2.5.



for Novell Linux in v2.5, these organizations should look to manage these accounts on Novell Linux servers.

City, state and federal government accounts with document storage compliance mandates will want to continue their reliance on Novell Storage Manager for document access, security and long-term retention. Storage statistics, expanded support for Novell Linux, auxiliary storage and new collaborative storage options are all enhancements that will provide further assistance in meeting these compliance mandates.

#### > **Summing it All Up**

Multiple factors, including regulatory compliance, advancements in computing devices that store an increasing amount of data, lower cost storage hardware and a propensity for users to keep every file they've ever saved are contributing to exponential data growth. Compliance issues alone are assuring that data storage in many industries will only continue to grow. According to *ComputerWeekly.com*, there are "well over 10,000

regulations that affect data storage, backup and protection across a large range of industries."<sup>3</sup>

Taking this storage from a disordered to an ordered state is imperative. Novell Storage Manager 2.5 provides you with the data you need to know about your storage. It lets you create policies in Novell eDirectory that take actions when directory events occur, and provides you the automation to assure that the actions specified within these policies actually take place. **N**

<sup>1</sup>*IDC's Enterprise Disk Storage Consumption Model: Analytics and Content Depots Provide A New Perspective on the Future of Storage Solutions*, Aug 2008 Doc #214066 Industry Development and Models  
<sup>2</sup>*The Toxic Terabyte*, IBM Corporation 2006  
<sup>3</sup>*Data storage compliance's impact on storage product choices*, Stephen J. Bigelow, <http://www.computerweekly.com/Articles/2006/09/12/218445/data-storage-compliances-impact-on-storage-product.htm>