

Connection

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ARTICLES

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Smart Box

This article first appeared
in the January 2009 issue of
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Simplify Remote Location Management with Novell Satellite Site Appliance

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Organizations with several satellite offices often face a number of challenges in providing IT services to those sites, especially if they have limited or zero staff at those locations. Other challenges include:

- difficulty in enforcing build standards for servers and workstations
- remotely managing user accounts and hardware
- effectively administering patch management
- implementing and executing effective disaster recovery procedures
- and dealing with limited or unpredictable WAN bandwidth.

- application provisioning
- local file and print services
- encrypted management connections between the local appliance and the central IT authority
- DNS forwarder
- Web site proxy services
- asset management
- and policy enforcement.

The solution components are comprised of SUSE Linux Enterprise Server 10 SP1, Novell Open Enterprise Server Version 2 (SP1 will be available shortly), and ZENworks Configuration Management.

Satellite Site Appliance is a smart box you can customize centrally to meet the standard needs of your organization. Anyone at your remote locations can then physically build it into a low-touch server that is easily managed from your central location, regardless of bandwidth constraints.

> How Does it Work?

Key to facilitating the deployment and day-to-day management of the appliances is the central management directory, which is basically an eDirectory instance that has certain schema extensions. One of the schema extensions in the central management directory is an appliance object that can be used when you want to deploy a new appliance at a new site. The creation of the appliance object process will direct you to configure items specific to that site, such as server name, IP address, whether it's a DHCP server or not, where it should get its DNS, application license keys, and even integration with an on-site active directory server if desired. Once all of the site-specific information has been configured, simply click the *Generate Config* button and it will build an ISO file for that site appliance.

Novell created the recently released Satellite Site Appliance to address these challenges, effectively simplifying the deployment, support and management of several remote sites from a central location over low bandwidth connections.

Typical appliances are characterized as dumb boxes, but the Satellite Site Appliance is a smart box you can customize centrally to meet the standard needs of your organization. Anyone at your remote locations can then physically build it into a low-touch server that is easily managed from your central location, regardless of bandwidth constraints.

The idea for the Satellite Site Appliance grew from the need of the UK's National Health Services (NHS) to manage the IT needs of more than 1,000 remote health care locations spread across the country. Headed by Novell lead engineer David Shepherd, a Novell consulting team devised a solution for NHS remote locations that provides the following:

- streamlined appliance deployment
- centralized user provisioning

To facilitate day-to-day management and provisioning, once an appliance is built at a satellite location, it communicates at scheduled intervals back to the central management directory for updates regarding its settings, users and applications.

You can burn the ISO file, which contains an automated and unattended installation, to a DVD that a local user can simply insert into an on-site hardware box and walk away. The automated installation leverages AutoYaST and some custom scripts to install the server

software. It then sets up and configures the server services; Novell Storage Services volumes, applications, users and policies. When it finishes, the server is ready to use.

The solution's design enables you to not only centrally manage backup operations easily, but also to perform online backups to a central repository in a way that accommodates low bandwidth scenarios.

> Simplified Day-to-Day Site Management

In addition to containing the appliance object, the central management directory also contains user and application objects for the appliance. To facilitate day-to-day management and provisioning, once an appliance is built at a satellite location, it communicates at scheduled intervals back to the central management directory for updates regarding its settings, users and applications.

An important point to understand is that you don't need a persistent connection between the appliance and the central management directory. In fact, the solution has been designed specifically to accommodate environments or scenarios that don't have a constant connection or might have a low bandwidth connection. The appliance doesn't require a time synch between the central management directory. It can operate for as long as you need without a connection, allowing you to schedule update intervals to occur hourly daily, weekly, monthly or whatever time frame fits your needs. It only requires a connection when provisioning a remote device. If the connection is down, the provisioning can retry later.

As mentioned earlier, users or identities are housed in the central management directory. But the user objects can be fed from somewhere else, including an Active Directory directory. Once they're in the directory, assign them the same way you would make a user a member of a group. You can assign users to an individual appliance or an appliance group. An appliance group basically has two parts: a list of users and a list of appliances. When you assign a user to an appliance or an appliance group in the central management directory, it automatically builds a provisioning request. This provisioning request is a very small file—about 100 bytes per user, including its encrypted password. The provisioning request is placed in the central management directory's output queue where it waits for the appliance's next scheduled check-in. When the appliance checks in, it takes the provisioning request and leverages local LDAP

provisioning templates to properly add the user to its local directory.

This methodology that the Novell Satellite Site Appliance uses for provisioning users accommodates the needs of remote locations with limited or sporadic WAN connections. Also, since the appliance is not actually part of the central management directory and only has to check in periodically, the central management directory has the ability to scale to easily support thousands of appliances.

The process for deprovisioning users is similar; but because it might have longer lapses between appliance check-ins than desired, the solution also includes a user auto-expire feature. The appliance runs a task every day that checks each users' last login time. If the last login time is more than the time value you've configured, then the user is automatically disabled and moved into an expired container for that appliance. The expired user is not deleted automatically at this time, just disabled.

Policy provisioning is handled similarly to user provisioning. You can centrally configure a group policy, push it out to a specific set of appliances, and have it apply to a specific set of users; however, application provisioning is handled a bit differently than user and policy provisioning because you're typically dealing with large application packages. Because of limited or sporadic bandwidth that you might have going to your remote locations, you would typically schedule applications to be provisioned to your appliance after hours. To facilitate application provisioning in a consistent manner to both your appliance and the clients at your remote site, the solution leverages the automated software distribution and patch management capabilities inherent to ZENworks Configuration Management.

In addition to provisioning, the Novell Satellite Site Appliance also simplifies the day-to-day inventory management of your distributed remote locations. The solution leverages ZENworks Configuration Management to automatically collect inventory data on all the clients the appliance supports and then delivers that data to the central management directory each night. (See Figure 3.) Each appliance you deploy is separated into its own ZENworks Configuration Management Zone, making it easy for you to perform site by site inventory management while also giving you the ability to holistically view and report on client inventory at all your sites.

> Remote Backups Made Easy

Backing up servers at your remote sites can be a frustratingly difficult endeavor, especially when you don't have local IT personnel onsite to deal with the process. Novell Satellite Site Appliance caters specifically to the backup needs of these remote locations. The solution's design enables you to not only centrally manage backup operations easily, but also to perform online backups to a central repository in a way that accommodates low

bandwidth scenarios.

One of the major design aspects that accommodates centralized online backups is the solution's use of dynamic storage technology. (See *Dynamic Storage Technology - OES 2*.) With Dynamic Storage Technology, you create two independent partitions for your appliance data—a primary partition for your active or important data, and a secondary partition for your static, less active or noncritical data. The technology overlays these separate physical partitions so they appear as single partition to users, but allows you to manage them individually. For most organization, only about 15 percent of their data tends to be active or critical data, meaning that for backup purposes most of your backup efforts will focus on that 15 percent stored on the primary partition. This greatly facilitates backup operations over limited WAN links.

> Minimal Impact

To minimize impact at your remote sites, the Novell Satellite Site Appliance does not require the Novell client. The solution ships with SAMBA enabled in NT Domain mode. When you create your appliance object, you also have the option to have it integrate with an existing active directory domain controller that you already own. Not only does this allow your Windows Workstations to join the domain and access resources without any additional software, but it means you also have the choice to

leverage either eDirectory or Active Directory to manage and provision your users, policies and their applications.

Also, the Satellite Site Appliance will soon be able to leverage the Active Directory domain integration provided by the CIFS protocol and Domain Services for Windows that ships in Novell Open Enterprise Server 2 Service Pack 1. In terms of Domain Services for Windows, this means that when this functionality becomes available, you could even configure your appliance to serve as an Active Director domain controller if desired.

While no timetable has been set for the inclusion of this added functionality provided by service pack 1, the feeling at Novell is that the way in which the solution's open design leverages AutoYaST should make it fairly easy to add that functionality. In fact, the whole appliance has been built to easily accommodate new features and functionality based on updates to SUSE Linux Enterprise Server and Novell Open Enterprise Server.

Whether you manage multiple remote locations for health care, schools, retail operations or another vertical, Novell Satellite Site Appliance is designed to simplify the centralized provisioning and day-to-day management of your distributed enterprise. It gives you a low-touch, repeatable process to build standard servers out in the field without deploying people to those sites. It makes it easy for you to centrally manage and keep those servers current and backed up. **N**

New and Improved

Novell Storage Manager 2.5

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

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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 2006¹.

Storage growth is being driven by multiple factors including regulatory compliance, pervasive computing in a “keep-everything culture,”² 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.

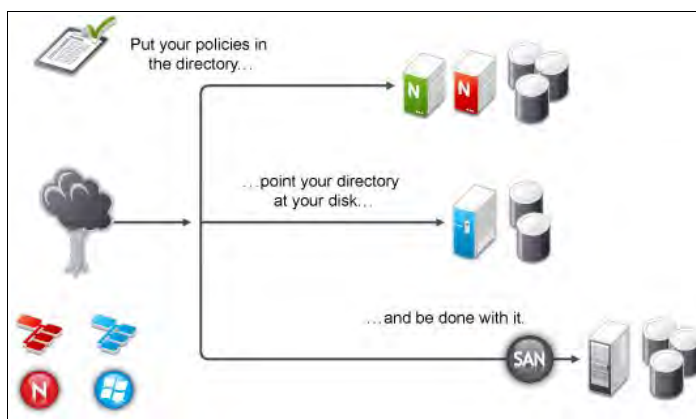
> Collaborative Storage Enhancements

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

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.*



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.*

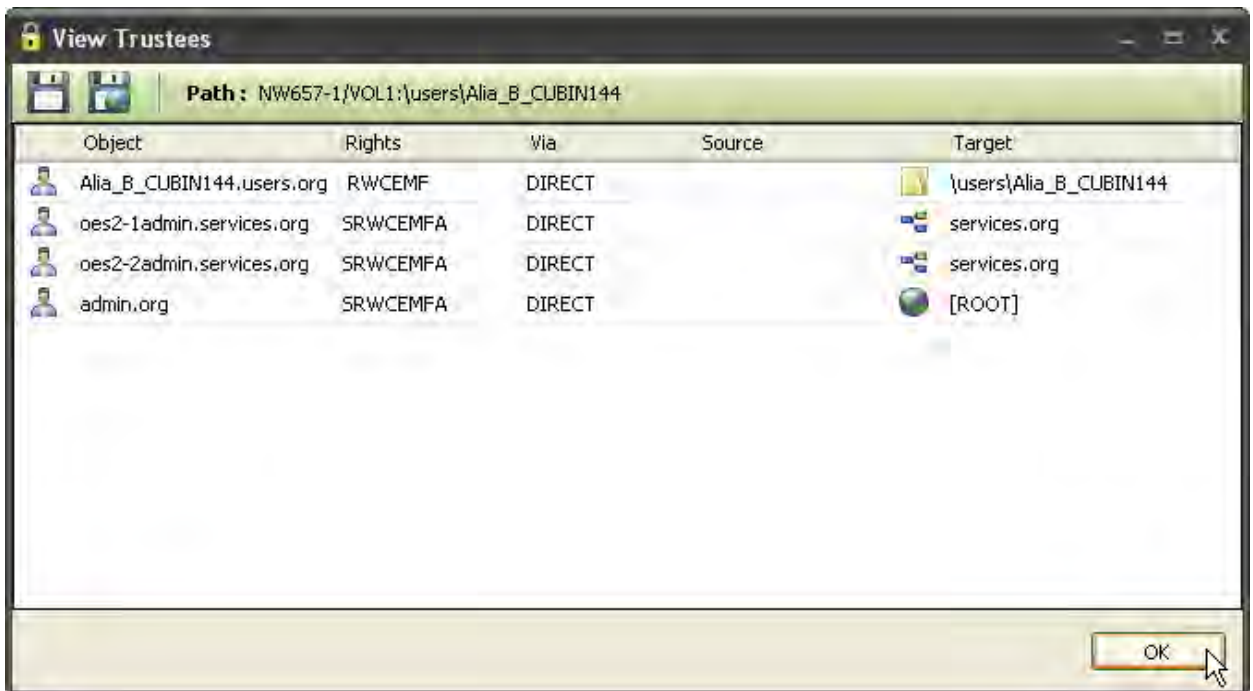
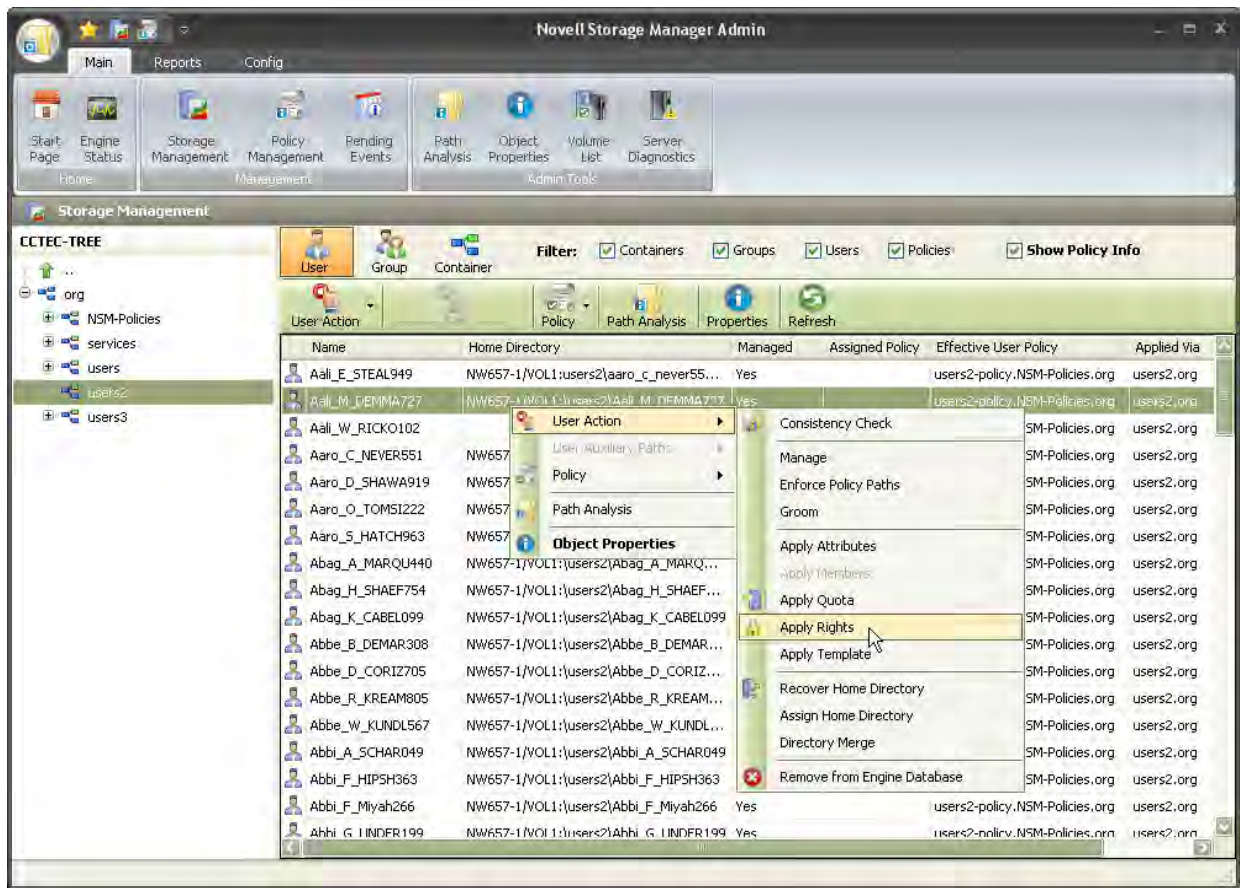


Figure 3: A completely new NWAdmin interface with page tabs, quick access icons, drop-down menus and more, make administrative tasks easier to perform.



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

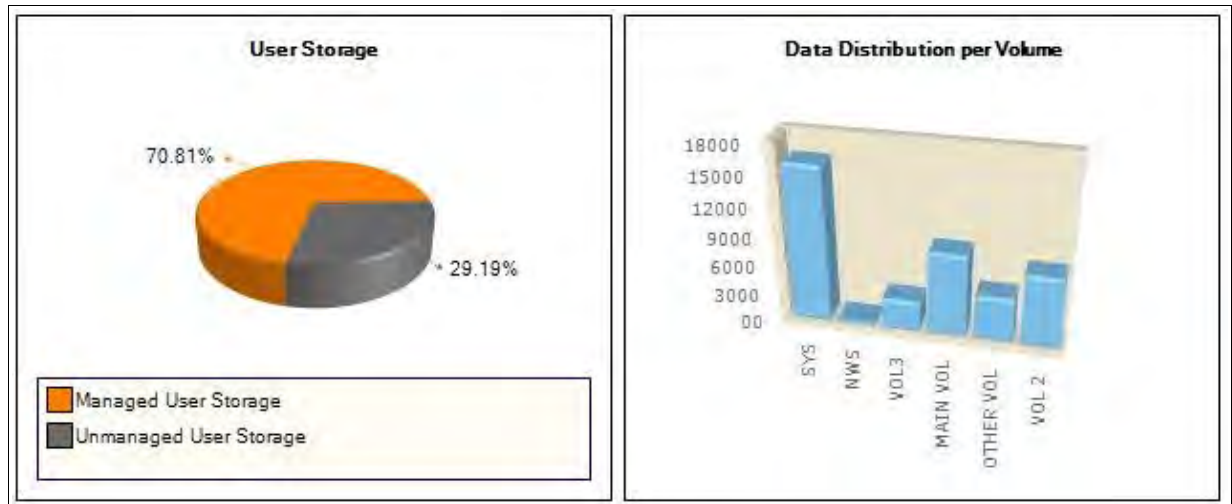
and faculty management system so each student and faculty ID can be automatically assigned a user object in Novell eDirectory. Based on identity, Novell Storage Manager can then assign the user directories, create course groups and link students and faculty to courses.

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."³

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**

¹*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
²*The Toxic Terabyte*, IBM Corporation 2006
³*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>

The Game Has Changed

Kablink: A Fresh Take on Collaboration

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

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Readers of *Novell Connection* magazine have seen several articles throughout 2007 and 2008 that discuss the team productivity benefits of Novell Teaming + Conferencing. This article focuses on Kablink, the Novell-sponsored open source project that forms the foundation for Novell Teaming + Conferencing.

Kablink and Novell Teaming + Conferencing are "game-changers" in enterprise collaboration and team productivity. Most software in this niche focuses on either building team Web pages (think SharePoint) or small pieces of the overall collaboration needs of an enterprise (think blogs, wikis, forums, etc.). Kablink recognized that each of these collaboration tools fulfilled a real need, but still fell short of a total collaboration offering that would unlock team productivity. Truly unlocking collaboration, team productivity and knowledge sharing across all types of projects in an enterprise—and not just fulfilling documentation or file sharing needs—was the goal of the Kablink project.

This goal led Novell to look for better ways to collaborate in the enterprise and to seek answers to the question, "How can collaboration add value to the bottom line of a business?" The short answer is that it doesn't, at least not in and of itself. But collaboration in the right context and under the right conditions can produce spectacular results in the form of faster customer response times, better organizational knowledge or quicker time to market. Each of these business metrics can be enhanced through the correct use of collaboration tools—but harmed if done incorrectly.

Imagine this common scenario: you thought you had

addressed your organization's collaboration infrastructure needs, but things aren't looking so good. Your IT department has provided popular tools to assist knowledge workers, such as wikis, blogs, threaded discussions, e-mail, file shares and more. But users are now burdened with having to learn multiple applications with different user interfaces, data is often isolated in one application, users report that information is hard to find and sometimes gets lost, and none of these applications reflect your core business processes. Instead, you often bend your processes to cater to the way these tools work.

> The Kablink Way

This scenario, and others like it, led the Kablink community to look for new and better ways to facilitate knowledge transfer, sharing and collaboration within the enterprise. The process began with an exploration of the way knowledge is disseminated and used in an organization, which resulted in development of the Knowledge Cycle model. (See Figure 1.)

> Publish

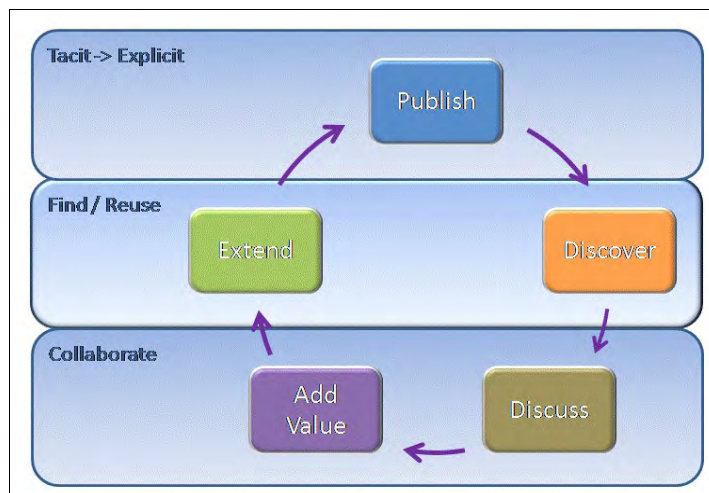
The Knowledge Cycle represents how information flows through the process as it is consumed, beginning with the Publish phase. During this phase, knowledge is converted into something explicit and consumable by others. This phase represents the transfer of one person's understanding, education and wisdom into a tangible good. The publication format can be nearly anything, such as a blog, e-mail, document or anything else that is consumable by another person.

Kablink also offers features that allow organizations to build highly relevant applications that capture knowledge that is specific to their business processes. Using Kablink custom Web forms (See Figure 2), organizations may build custom forms that knowledge workers can use to capture specific business data such as market campaign information or help desk reports. The Kablink platform also allows organizations to capture all relevant publication events into one system so users always know where to go for their information needs.

> Discover

The next phase is the "Discover" phase. During this phase the output of the publication event is "discovered" by another person via search, browsing or document sharing. This is a particularly important phase: without discovery, the publication event is useless and inefficient discovery processes can lead to lost productivity. Because search is key

Figure 1: *The Knowledge Cycle covers all stages of information creation and usage, from publishing and discovering content, to discussing and adding value, to extending information and ideas to other spheres.*



to avoiding these missteps, Kablink supports search across all types of data: attached documents, custom Web form data, blogs and wikis, all in one place. Even value-added information, such as user tags, are searchable in Kablink. These capabilities, as well as community reviews, dynamic data feeds and coming technological advancements, will support future innovations emphasizing *personal* relevance in this space.

Expert location is another important aspect of Discovery that Kablink has taken to a new level. When you perform a search in Kablink, you not only uncover documents that match your criteria, but you also reveal the experts in your organization that are driving innovation and productivity. Kablink even provides tools that allow users to monitor domain experts via Activity Feeds. (See Figure 3.) Imagine looking for information about some arcane topic. Kablink offers an expert ranking system to help you identify experts and then track those individuals so you can monitor their activities on your topic of interest, all without leaving your homepage.

> Discuss

The next area of the cycle is the Discuss phase. During this phase, the information found and consumed may not be fully understood by the consumer. Within Kablink, Discussion is a core feature that is associated with all other aspects in the cycle. You can have a discussion formed around each piece of information, whether it be a blog, a wiki article or a Microsoft Word document. You can even discuss the data captured in custom Web forms within your teams. When you use this feature in public forums that can be cataloged and searched, it facilitates the understanding that is required for information to be fully used (and reused) in your organization.

Kablink also supports real-time meetings so users can get immediate feedback on information contained within Kablink. Using Kablink Conferencing, users can identify meeting participants and start a meeting in real-time that can include voice and data. Imagine needing an explanation of some document and having the owner of the document start up OpenOffice and share their OpenOffice session while you discuss the document's content. Now that is the power of real-time. Kablink not only allows you to conduct meetings in real-time, but it also allows you to record and save those meetings so others can review the discussion and its outcome. These real-time features give you more power to conduct meetings the way you want, when you want.

Figure 2: With Kablink, organizations can build custom Web forms to capture specific business data, such as restaurant inspection information.

The screenshot shows a web form titled "Property Inspected" with a dropdown menu set to "Boston, MA". Below this is an "Inspector" section with a search box containing "Edward Gads" and a list of names: Dan Kawamoto, Daniel Shelley, and Hans Dasstrup. The main body of the form is titled "Comments on Food Handling and Preparation" and contains several sections of questions with radio button options:

- "Are food items received from approved sources, in good condition, and at proper temperatures?*" with "Yes" selected.
- "Is food stored covered or wrapped?*" with "Yes" selected.
- "Is food labeled and stored off the floor during storage?*" with "Yes" selected.
- "Are food storage rooms clean and organized?*" with "Yes" selected.
- A section with four checked items: "Refrigerator temperatures are at 41° or less*", "Perishable food is kept in refrigerator when not being used*", "Freezer temperatures are 0° or below*", and "Food products are labeled with name, date and time of preparation*".
- "The raw meat, poultry, and seafood are stored underneath prepared food and produce*" (checked).
- "Refrigerators and freezers kept clean (floors, walls, ceilings, fans, and shelving).*" (checked).
- "All refrigeration systems have thermometers.*" (checked).
- "Is food thawed properly?*" with "Usually" selected.

Below these questions is a "Picture of Food Preparation Area*" field with a "Browse..." button. Another section contains three checked items: "Probe thermometers are used to verify food temperatures?*", "Hot food is held above 140°*", and "Food is reheated rapidly (not on steamtable) to 165°*". A fourth checked item is "Beef is heated to 145°*". At the bottom, there is a checkbox for "Send mail when entry is submitted" and "OK" and "Cancel" buttons.

> Add Value

Add Value is the phase of the cycle where the information you discovered and discussed is now incorporated into your understanding of a topic. At this point in the process, the information is fully appreciated and its implications are understood. The collaboration events in this phase focus on your ability to add value to the initial publication event so others in your network can more quickly find and assimilate the same information. This involves adding public tags, reviewing content, adding ratings or annotating the publication so others can better evaluate its meaning from their perspective. This phase adds a new, contextual dimension to the original content that is extremely useful.

Kablink again provides tools that help users add their own unique value to knowledge assets. As mentioned previously, all information in Kablink can be discussed using comments and replies, but Kablink also supports other forms of value creation. Using Kablink, users can tag anything using community or personal tags. (Think

Figure 3: Kablink allows users to locate not only content related to a given topic, but people in the organization that can provide needed expertise.



del.icio.us) In addition, Kablink includes a ratings feature that lets users identify the most significant information in your organization and rate it, so others can quickly find and use the same information.

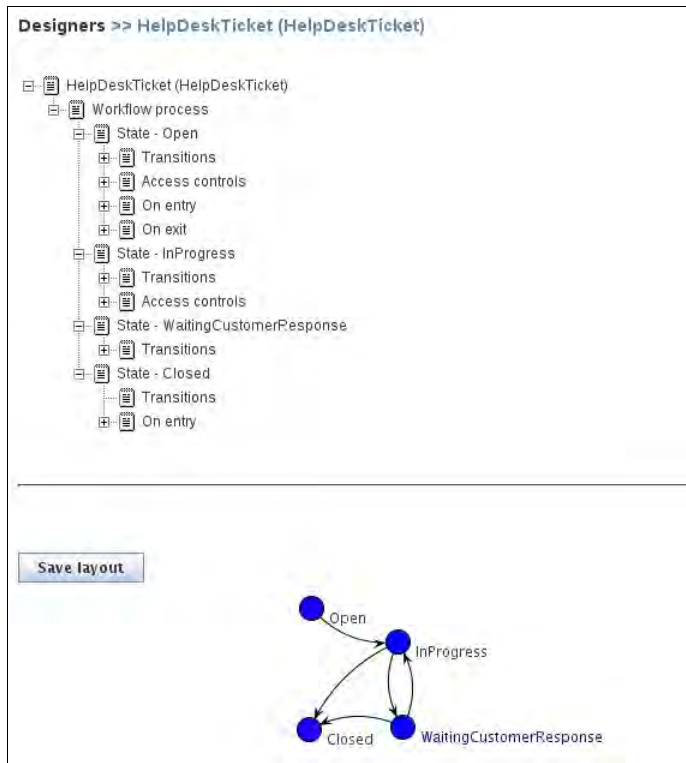
> Extend

During the Extend phase, we apply the knowledge, wisdom and education that was distilled in the original document into scenarios that we own and are a part of. Knowledge originating from someone else has been transferred and used in totally new ways. The context of the original information might only remotely apply to these new scenarios, if at all. A great example of the extension

of knowledge and process into new areas is the way principles of harmony and reuse in architecture were transferred to construction processes and, later, computer science. This example clearly demonstrates the Extend principle that allows knowledge designed for one audience and context to be discovered, discussed and transformed into another entirely different area of study.

We've already mentioned the way Kablink can be customized via Web forms, but Kablink also offers workflow capabilities that let your users capture data and process. This functionality allows the most important business rules or processes in your organization to be identified so efficiencies can be recognized and reused.

Figure 4: *Kablinc offers unique and powerful workflow capabilities to help organizations capture data and ensure consistent processes.*



Once pathways of knowledge transfer are uncovered and distilled into workflow processes, you can then extend those best practices to all the data types in Kablinc. (See Figure 4.)

> Open Collaboration

Underpinning all of these efforts and spearheading innovations in each area of the Knowledge Cycle is the Kablinc Open Collaboration project. Sponsored by Novell, kablinc.org was created to help advance the state of enterprise collaboration and team productivity in an open and communicative way. The Kablinc community is providing tools that enable partners and developers from around the world to build applications that drive productivity and knowledge reuse throughout the enterprise. By joining the Kablinc community, you can voice your opinions on team productivity. Whether you ultimately plan to use the open source version or the enterprise-class Novell product it feeds, Kablinc actively seeks ideas and contributions from our community members to help drive the next generation in collaboration and team productivity. Join kablinc.org today and help shape the future! **N**

Where's the Beef?

Johnsonville Sausage

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Johnsonville Sausage needed to improve user management across its diverse IT systems and platforms. The company automated identity management with Novell Identity Manager to reduce administration time and costs by 80 percent. Using Novell ZENworks, the company has centralized desktop management to reduce IT travel time by 90 percent.

> Overview

Wisconsin-based Johnsonville Sausage is the number-one national brand of brats, Italian sausage, smoked-cooked links and fresh breakfast sausage links. Johnsonville Sausage products are available in 27 countries including France, Canada, Mexico, Japan, China and the United States. Johnsonville employs 1,300 members and remains privately owned.

> Challenge

Johnsonville Sausage runs a variety of systems to support its core business operations, including many SAP applications. The company also needs to provide its external brokers with secure, identity-based access to many of these applications. As a result, the IT staff was spending a considerable amount of time manually managing 1800 user identities, and users were forced to remember multiple passwords.

Delivering applications and deploying updates and patches to desktops across six facilities was also problematic, requiring the IT staff to spend a significant amount of time on the road. The company wanted a centralized solution to simplify the management of its 650 desktops.

“We don’t even consider installing a new SAP system without connecting it to Novell Identity Manager up front.”

—Sherry Zittel
Network Administrator
Johnsonville Sausage

> Solution

Johnsonville Sausage evaluated a few identity management solutions before selecting Novell Identity Manager and Novell Access Manager. The company runs

its solution on Novell Open Enterprise Server running on SUSE Linux Enterprise Server.

“The SAP certification was a compelling factor in our selection of a Novell identity management solution,” said Dan Allensworth, infrastructure manager at Johnsonville Sausage. “We knew it was the right solution to integrate our diverse applications in a heterogeneous environment which includes Linux, Microsoft Windows NT and AS/400.”

Johnsonville Sausage worked with Paragon Development Systems (formerly Provident Technologies, Inc.), a Novell Platinum Partner⁵, to implement the Novell identity management solution. With Novell Identity Manager, the company now has a central user directory and the digital identities of its 1800 users are automatically synchronized across each of its systems.

“Novell is a leader in identity management,” said Angela Daniels, director, Computing & Print Architecture of Paragon Development Systems. “We evaluated other products, but found Novell offered a superior solution with the best out-of-the-box connectors.”

Using the Identity Manager Driver for SAP, the IT team has connected all of its SAP applications including HR, financials, warehouse management, materials management and supply chain.

“We don’t even consider installing a new SAP system without connecting it to Novell Identity Manager up front,” said Sherry Zittel, network administrator for Johnsonville Sausage. “We are connecting as many other systems as we can, such as Kronos, because we know the tremendous value of doing it.”

Users now have a single ID and password to access applications and no longer have to keep passwords taped to their monitors. The company can consistently enforce password policies, which helps improve security. And password self-service enables users to reset their own passwords, reducing password-related calls to the helpdesk. Novell Access Manager provides the company’s external brokers with single sign-on access to its Web-based applications, improving their ability to do business with Johnsonville Sausage.

The IT staff can now provision a new user in minutes, rather than days. When an employee leaves the company, the IT staff can immediately deprovision their account to safeguard corporate assets.

Using Novell ZENworks, Johnsonville Sausage can manage its 650 workstations without having to travel to multiple locations. The IT staff can deliver applications in days, rather than weeks, and can immediately deploy patches to keep machines updated.

“Recently, we had to deploy a Microsoft patch quickly and used Novell ZENworks Patch Management to get it

“No other vendor offers everything we get with Novell ZENworks in a single suite—and one that works with all our systems.”

—Dan Allensworth
Infrastructure Manager
Johnsonville Sausage

out to all our locations in no time,” said Allensworth. “No other vendor offers everything we get with Novell ZENworks in a single suite – and one that works with all our systems.”

The IT staff can now image a machine in 30 minutes with Novell ZENworks and uses the remote control features to troubleshoot machines from a central location. The company also uses Novell ZENworks Asset Management to manage its software licensing and hardware leasing contracts.

> Results

By automating identity management with Novell Identity Manager, Johnsonville Sausage has reduced user management time and costs by 80 percent. The IT staff can now provision and deprovision users 90 percent faster and has reduced the number of passwords users were required to remember by 85 percent. The company's external brokers now have single sign-on

access to portal applications to better manage their orders and contracts.

Novell ZENworks has reduced IT travel time and costs by 90 percent, allowing the IT staff to focus on more important projects that impact the company's bottom line.

“Our Novell solutions paid for themselves in a matter of months,” said Allensworth. “Without Novell, we would have had to hire a lot more people to do basic user and desktop management. We would also have had a lot of frustrated users.” **N**

Company at a glance:

Number-one sausage brand in the U.S.

Industry:

Manufacturing/Consumer Products

Location:

United States

Products and Services:

Novell Identity Manager
Novell Access Manager
Novell ZENworks
Novell ZENworks Patch Management
Novell ZENworks Asset Management
Novell Open Enterprise Server
SUSE Linux Enterprise Server

Results:

- Reduced user management time and costs by 80 percent
- Reduced number of passwords by 85 percent
- Reduced IT travel time and costs by 90 percent