

# Connection

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## ARTICLES

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### Features

#### // **New Team in Town**

Guess Who: Get familiar with the wide array of powerful new features and capabilities introduced in Novell Vibe OnPrem 3.

#### // **Roles for the Real World**

Lost and Found: Take a closer look at how Role Mapping Administrator lets line-of-business analysts manage resource assignments to existing business roles within established IT policies.

#### // **Simply Better**

Happy Day: Get insights into the new features and enhancements in Novell Open Enterprise Server 2 SP3 that deliver greater simplicity, manageability, reliability and performance.

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### Departments

Proof Point

#### // **Remote Control**

Trend Talk

#### // **Shine Some Light on Shadow IT**

Training Talk

#### // **Run Virtual Applications Fast and Without Conflicts**

**Novell.**

## New Team in Town

Novell Vibe™ OnPrem 3 (Formaly Novell Teaming 3) Takes Collaboration Up Another Notch

by Ken Baker

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If you've been following the recent buzz, you know that Novell Teaming has a new name: Novell Vibe. As part of Novell Vibe, this proven product delivers more value than ever before. That's because it's now part of a broader enterprise-class social collaboration platform that's available on premise and in the cloud. In fact, Novell Vibe brings together the products formerly known as Novell Teaming and Novell Pulse to make it easier for people to work together and drive better business results. Moving forward, Novell Teaming will be known as Novell Vibe OnPrem, and Novell Pulse will be known as Novell Vibe Cloud. And if you've been eagerly awaiting Novell Teaming 3, it's here—in the form of [Novell Vibe OnPrem 3](#)! What's new in this release? A user interface remodel, added branding capabilities, integrations with Novell Messenger and Novell Conferencing, and much more.

### > Polished UI

When you log in to Novell Vibe OnPrem 3, you'll notice right away that it's more polished and sports a more modern look. To achieve this new look, Novell relied on in-depth usability and human factors studies to tweak interface color schemes, font sizes and contrast. The result is a much more pleasing overall appearance.

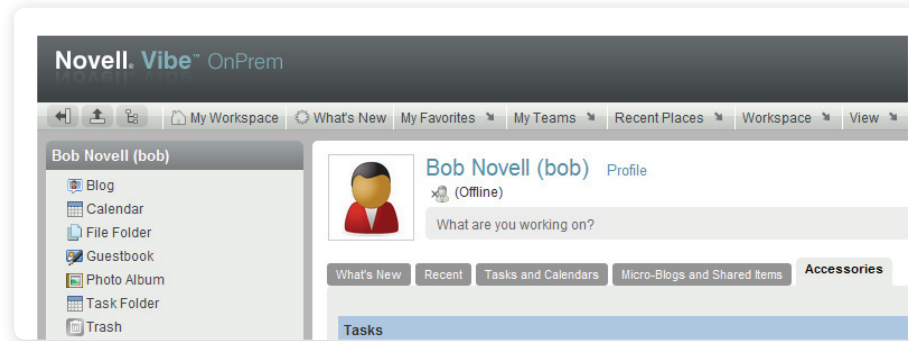
But some of the improved appearance comes from the user interface being less busy. The previous interface tried to surface too many of the product's features at one time, producing a result that wasn't as streamlined as it could be. The new interface in Novell Vibe OnPrem 3 takes a more simplistic approach that makes it more intuitive and easy to use. (See [Figure 1](#).) It also borrows from the "activity streams" element from the user interface of Novell Vibe Cloud. This means that new content from people or topics you follow in Novell Vibe OnPrem appear in a single place—just as they do in the "Biglist" of Novell Vibe Cloud. This shared interface element is only the beginning of a long-term plan to bring functionality between the two deployment options of Novell Vibe together over time.

The simplified interface is especially apparent in the left navigation bar, which no longer features the long boxy list of all the places you can go and things you can do in Novell Vibe OnPrem. In its place is a stylish, quick list of key personal folder destinations, including your *Blog*, *Calendar*, *File Folder*, *Guestbook*, *Photo Album*, *Task Folder* and *Trash*. It operates a lot like file explorer, but for all content types, not just files and folders. And if you want more real estate for the main content window, you can instantly hide the left navigation bar with a click of the *Expand/Contract Left Navigation* button located on the header menu bar.

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**When you log in to Novell Vibe OnPrem 3, you'll notice right away that it's more polished and sports a more modern look.**

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**Novell Vibe OnPrem interface**

**Figure 1:** Novell Vibe OnPrem sports a more polished and modern look.

The header has been greatly simplified as well. Instead of having five levels of menu options—*Sign Out, Favorites and My Teams, Search and My Workspace*, the breadcrumb trail, and the main menu—the header has been consolidated into two intuitive levels. The top level of the header has the Novell Vibe OnPrem logo (or your organization’s brand) on the left and a personal workspace link and four quick link icons to *Personal Preferences, Vibe Feed, Logout, and Help* on the right.

The header’s second level consists of a new menu bar with dropdowns to *My Teams, My Favorites, Workspace* (options for creating/editing workspaces and more), *Recent Places* and *View*. The menu bar also has another quick link to your personal workspace, along with *Hide* and *Reveal* toggle buttons for the left navigation bar and the header.

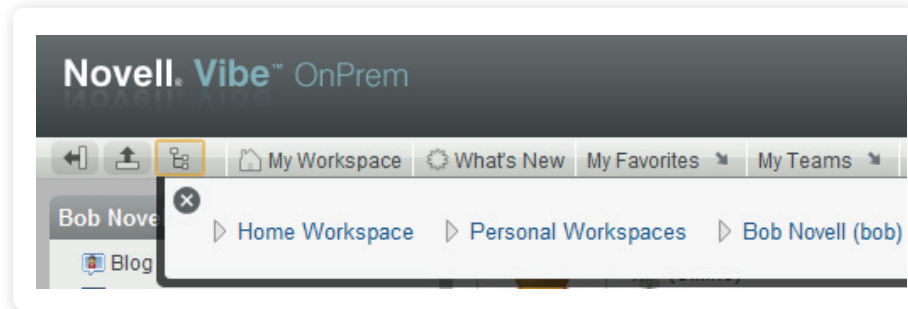
The menu bar has one more button—the *Browse Hierarchy* button—which makes a major contribution to the simple, less busy look and feel of the header. This button eliminates the constant display of the breadcrumb trail that lets you see the path to your current workspace or location. Now, instead of always displaying the trail or path, you just click the button to temporarily reveal your current path/hierarchy. (See [Figure 2.](#)) The button basically provides the same functionality as the breadcrumb trail, but it looks nicer and is more intuitive.

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MORE TO COME

In addition to enhancements in Novell Vibe OnPrem 3, we’ve provided a virtual sandbox environment where you can set up your own Novell Vibe OnPrem environment to get a feel for what it can do for you. You can access this virtual sandbox at <https://tryvibeonprem.novell.com>.

The next upcoming highlight will be a Novell Vibe OnPrem Connector for Novell Data Synchronizer that will allow you to automatically synchronize events and information among Vibe OnPrem, GroupWise and your other collaboration tools. (See [Higher Levels of Collaboration.](#)) In addition, Novell Vibe OnPrem customers will continue to enjoy the frequent product update cycle they’re accustomed to, with the added benefit of incorporating relevant features from the Novell Vibe Cloud product over time. For more details on Novell Vibe Cloud (available in beta), visit <http://novell.com/vibe-cloud>.



### **Hierarchy button**

**Figure 2:** The Browse Hierarchy button lets you temporarily see the path to your current workspace or location.

In a final move toward header simplification, some of the functionality from the old main menu has been moved into other, more intuitive locations. For example, the ability to manage your workspace settings and configure access rights is now part of the new *Workspace* options pull-down menu.

As an additional part of the UI enhancements, user profiles are also now much more robust. Instead of being limited to basic contact information, users have a more extensive list of profile options, and the administrator has the ability to expand profiles by adding additional elements. It also provides a quick profile, such that when you click another user's name, it'll show you their presence, contact information, microblog, picture, and links to their full profile, workspace and more.

### **> Simplified and Extended Branding**

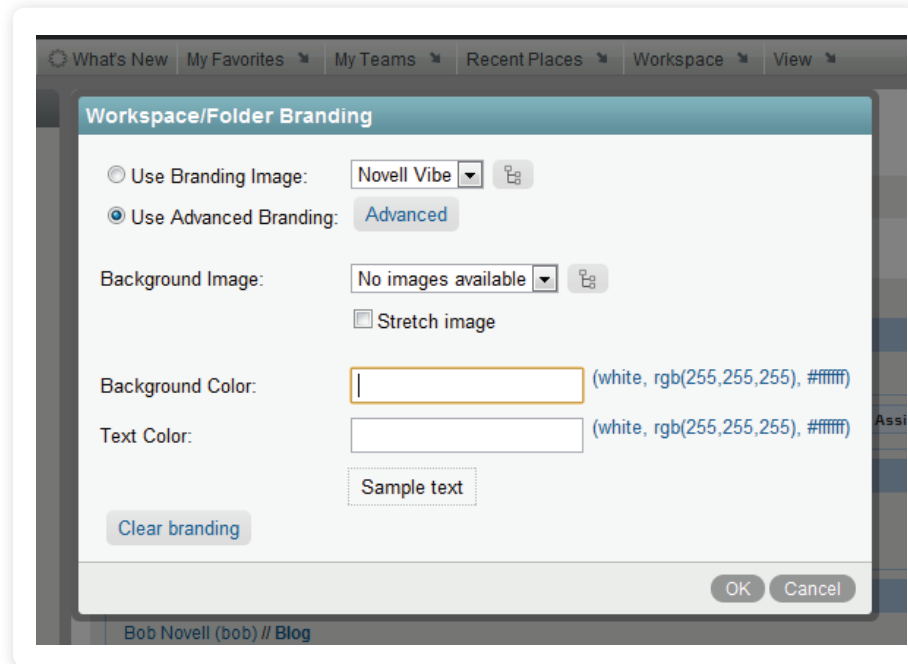
As another enhancement to the user interface, branding has been simplified and extended. Now it only takes a few minutes to brand a workspace or folder, customizing it to look and feel the way you want. Simply select *Brand Workspace...* from the Workspace options pull-down and then configure your workspace brand with images, text, font sizes and colors of your choice. (See [Figure 3](#).)

Novell Vibe OnPrem 3 also introduces the ability to brand your entire site. In fact, you can configure the product to allow site branding with no individual workspace branding, allow site branding and workspace branding to co-exist, or allow workspace branding to override site branding. To take advantage of site branding, you just log in as admin, click on the *Administration* icon, select *Site Branding* from the sidebar options, and then customize and configure your site brand. (See [Figure 4](#).)

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## **Associated with site branding in Novell Vibe OnPrem 3 is the ability for organizations to create their own site home page.**

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### Workspace branding

**Figure 3:** It only takes a few minutes to brand a workspace or folder to customize it to look and feel the way you want..

Associated with site branding in Novell Vibe OnPrem 3 is the ability for organizations to create their own site home page. This lets you have a branded landing page for your whole site—one that users will be taken to by default whenever they log in to their Novell Vibe OnPrem environment. You can customize the site home page to fit your specific needs, populating it with company news, mission statements, product information, support knowledgebases, links to company resources or blogs, and more. This capability is ideal for organizations that want to replace or augment their Internet presence using [Novell Vibe OnPrem](#).

### > Real-Time Presence

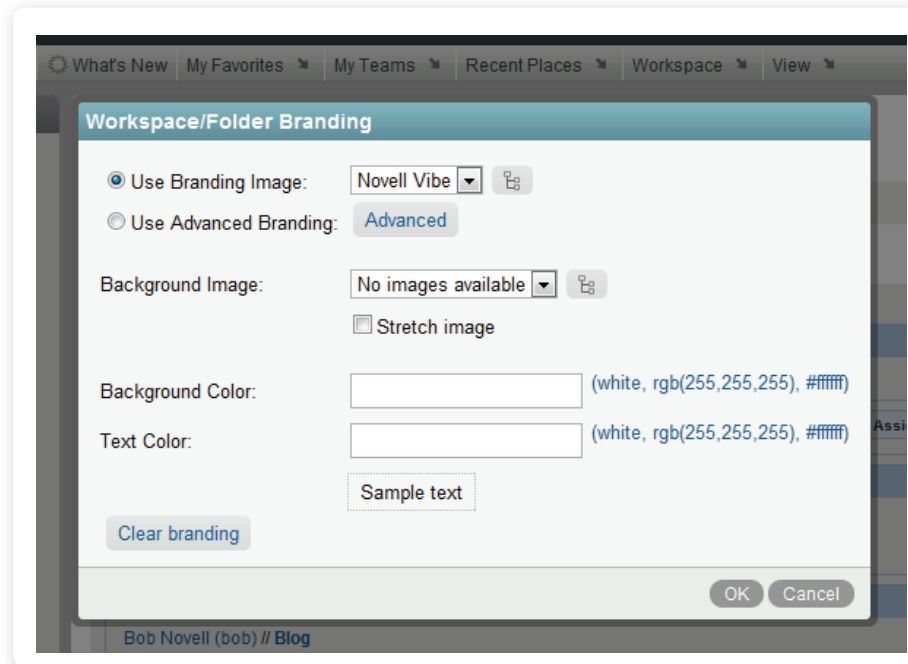
New integrations with Novell Messenger (formerly GroupWise Messenger) and Novell Conferencing have also been added to Novell Vibe OnPrem 3. In fact, Novell Vibe OnPrem 3 customers receive an entitlement for Novell Messenger 2.2. With Novell Vibe OnPrem and Novell

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### MORE RESOURCES

The Novell Vibe OnPrem Resource Library ([www.novell.com/vibe-onprem/resource-library/](http://www.novell.com/vibe-onprem/resource-library/)) continues to grow, providing you a constant flow of new resources to help you better take advantage of the product. From the library you can download sample workflows, read articles, view videos, check out demo workspaces, explore product use cases and see the latest success stories.



### Site branding

**Figure 4:** Novell Vibe OnPrem 3 introduces the ability to brand your entire site.

Messenger integration, you can add presence to profiles—and thus see when users are online with Novell Messenger. If a user is online, you just click on the users' profile presence indicator and click the IM button to begin an IM chat. (See [Figure 5](#).)

If you need a more in-depth conversation than an IM chat provides, after you click their presence indicator, simply click the *Conference* button instead and an *Add Meeting* page will be displayed. This will allow you to instantly start a full-blown Novell Conferencing Web meeting. You also have the ability to start or schedule a Web meeting in Novell Conferencing by selecting *Start Meeting* from the *Workspace* or *Folder* pull-down menu option. For the Novell Conferencing capabilities to be available to your users, the administrator has to enable the Conferencing integrations in Vibe OnPrem, and the individual users have to specify their Conferencing IDs and passwords in their Vibe OnPrem profiles.

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## With the Novell Vibe OnPrem and Novell Messenger integration, you can add presence to profiles—and thus see when users are online with Novell Messenger.

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**Presence indicator**

**Figure 5:** New integrations with Novell Messenger lets you add presence to profiles so you can see when users are online with Novell Messenger.

As a side note, Novell developed the Novell Messenger presence indicator integrations using a plug-in format. So, in the future, you'll likely see Novell expand presence integration in Novell Vibe OnPrem with other services such as Skype, Office Communication Server and others.

**> Enhanced Search**

On the back end, Novell did some significant work to improve indexing and relevancy in search capabilities. As a result, you should experience major improvements in both searches and re-indexing operations. Results will vary based on the actual operations, but engineering tests have shown five to twenty times faster searching and indexing. This marked improvement was enabled by re-engineering indexing to take better advantage of multi-threaded processing and increasing its ability to leverage a server's horsepower.

The relevancy of search results has also been improved so it's much easier to find what you're looking for. To deliver these better results, Novell Vibe OnPrem takes into account a wider array of relevancy context indicators.

**> Document Management Additions**

In the area of document management, document versioning has been improved in Novell Vibe OnPrem 3 with the addition of major and minor document versions. So, instead of just being able to move from version 1 to version 2 when you do an edit, you can now move from version 1 to version 1.1 and so on—until you decide to move to the next version level. Also, if you want to clean up your versioning clutter or save a little disk space, you can now delete previous versions of a document.

Another enhancement to document management is the automatic creation of entry histories whenever a file, wiki, blog, task or other entry type has changed. The entry history shows you when the history of that entry was created and edited, and who edited it. It also lets you do a comparison on previous entry versions so you can see exactly what was changed in the entry meta data. This capability is extremely beneficial for things like shared documents or wikis. It lets you quickly see what changes have been made and who made them. It also lets you easily revert back to a previous version if the new changes introduced errors or inaccuracies.

Finally, when you create a new version of a file, you can attach a note that describes what's in the file or what changes have been made to the file. These file notes display below the filename in the *Attachments* and *File Versions* tab, making it easier for users to identify the files they need without having to open them first.

### > **Access Flexibility**

[Novell Vibe OnPrem 3](#) also introduces access controls at the entry level, instead of just at the workspace or folder level. With the previous version of Novell Teaming, you could easily make a workspace or folder private so that only you and a select group of others could view and access it. Now, with entry-level access controls, you can have private files and other entry types within your public folders. For example, you might have a budget file that you only want your manager (or someone from Finance) to be able to see. You can store it in one of your public workspaces or folders, configure it as private, and then only you and the designated people will be able to see it. What this basically means is that you no longer have to create separate, private folders for your restricted-access documents.

### > **Better than Ever**

Aside from its key role in the new social collaboration platform from Novell, the main story behind Novell Vibe OnPrem 3 is that it continues to evolve based on customer and partner feedback. (See *More to Come*.) More than ever before, Novell Vibe OnPrem makes it easy to bring your people, projects and processes together into secure online workspaces that can boost efficiency and foster innovation. From its more intuitive interface to enhanced real-time collaboration, powerful document management and faster search capabilities, Novell Vibe OnPrem can help your people become more efficient and agile contributors.

To learn more about Novell Vibe OnPrem, visit [www.novell.com/vibe-onprem/](http://www.novell.com/vibe-onprem/) and download an evaluation version or the free 10-user starter pack to experience firsthand what it can do for you.

### **Learn More About Novell Vibe**

- Novell Vibe OnPrem (<http://www.novell.com/products/vibe-onprem/>)
- Novell Vibe Cloud (<http://www.novell.com/products/vibe-cloud/>)

## Roles for the Real World

Novell Identity Manager 4 Advanced Edition Takes a Giant Step Toward Practical Role-Based Resource Management with Role Mapping Administrator

By Bill Tobey

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**Many claims have been made in these pages regarding the beneficial impacts that role-based resource management will inevitably have on the efficiency, agility and cost of IT operations. Among these have been promises that widespread adoption of roles would lead to:**

- **Reduced administrative workloads and costs through automated resource provisioning**
- **Increased user productivity through faster access delivery**
- **Tighter security through improved provisioning accuracy and real-time re-provisioning response to changes in work assignments and employment status**
- **Simpler, less onerous, more reliable compliance.**

### > **Getting There Can Be More Than Half the Work**

At this point in time, however, the reality is that widespread adoption of roles as a resource management strategy has been held up by the real and perceived demands of practical implementation. And it's true that most roll-outs must negotiate two significant cost and manpower hurdles: the upfront development of an enterprise role model, and the subsequent definition and lifecycle maintenance of role-resource relationships.

Before roles can be used to manage entitlements they must first be created in an identity management system such as [Novell Identity Manager](#). A role is a construct that represents a group of users with a common set of functions and resource requirements, and it usually maps to an actual organizational role. Identifying the important roles that comprise an enterprise role model can be a significant front-end workload. It typically involves a combination of top-down analysis based on observation and description, and bottom-up statistical analysis to assess patterns in the existing distribution of access permissions. Tools like Role Lifecycle Manager (part of the Novell Access Governance Suite) can automate much of this analysis, but the process is inherently labor intensive and demands specialized skills that are often outsourced. Fortunately, once created, an organizational role model is relatively stable; so start-up labor and expenses are front loaded and largely non-recurring.

A second major focus of effort and expense is the process of assigning appropriate resource authorizations to each role. Because these requirements change as the organizational structure, business conditions and IT environment evolve, defining and maintaining these assignments is an ongoing process. Changes often require custom programming, and the burden of nearly continuous change management weighs on high-level personnel across the security, compliance and business operations domains. Over time, managing role-resource assignments often becomes a major drain on productivity and budgets, not to mention a real compliance headache. It's often cited as a delaying factor in the launch of new business initiatives, and as a serious competitive disadvantage.

At least that used to be the case, before the release of Novell Identity Manager 4 Advanced Edition with Role Mapping Administrator.

### > **Introducing Role Mapping Administrator**

Role Mapping Administrator is a breakthrough innovation in access management, a visual tool that lets line-of-business analysts make and modify resource assignments for existing roles quickly, easily and directly, without IT support. It can reduce the time required to provision resources for a new initiative from as much as five days to less than five minutes, with proportional increases in productivity and reductions in IT operating expense.

Role Mapping Administrator puts all the information required to manage resource access permissions on a single screen. It automatically discovers the roles that have been defined in Identity Manager, the resources assigned to those roles, and the authorizations that are available to be granted on systems and services throughout your IT environment. Creating a new role-resource association requires only a drag-and-drop gesture that replaces complex back-end coding with point and click simplicity, reducing the time, labor and cost requirements by an order of magnitude. Role Mapping Administrator provides a sustainable access compliance solution for all the IT systems and applications that integrate with Novell Identity Manager, a long list that now includes SAP and Microsoft SharePoint.

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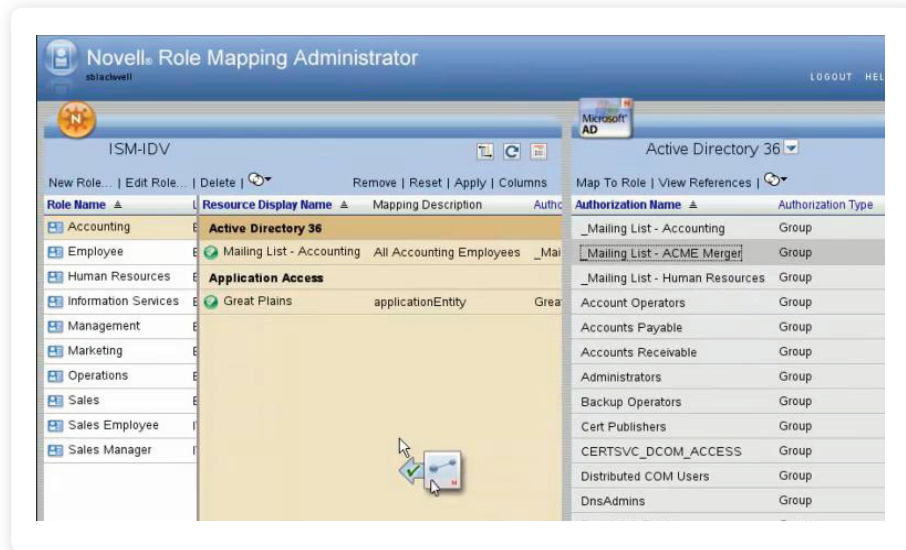
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### > **Using Role Mapping Administrator**

In the Role Mapping administrator interface, the left pane displays all the roles that have been defined for this organization in [Novell Identity Manager](#). (See [Figure 1](#).) In this view we see a resource assignment change in progress. Because the Accounting role has been selected, the center pane displays all the resources currently provisioned to this role, as well as the resources available for assignment, which are shown in the right-hand pane. In this view, the right column shows the authorizations available within an instance of Active Directory. The current user—a finance manager responsible for a new acquisition merger—has selected a workgroup mailing list for the merger team, and is dragging it onto the center pane, adding it to the resource assignments for the Accounting role.

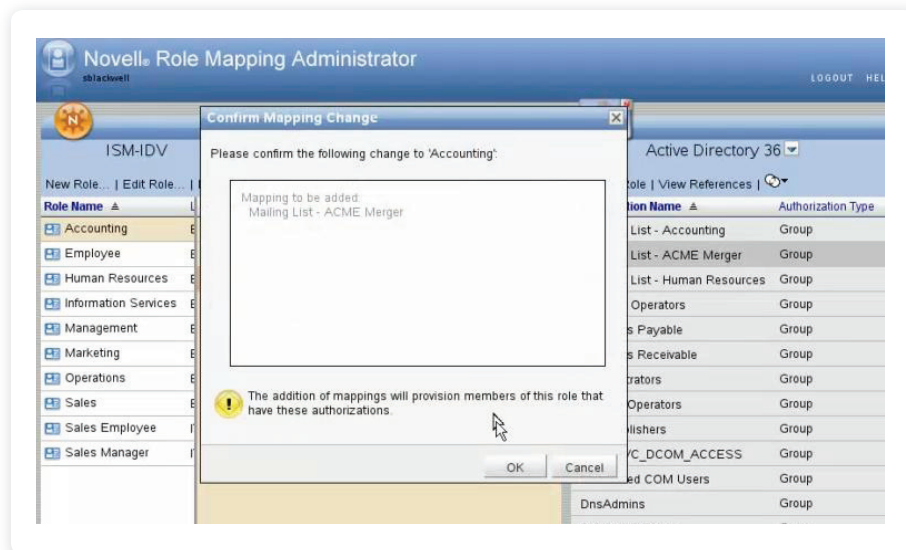
Before the change is applied, Role Mapping Administrator provides a confirmation prompt, and offers the user an opportunity to annotate the change. (See [Figure 2](#).) Once this assignment is confirmed, all members of the Accounting role will automatically be added to the mailing list.

Access to applications can be assigned just as simply. Role Mapping Administrator can call up and display the available authorizations for any IT system for which there is an Identity Manager connector. (See [Figure 3](#).)



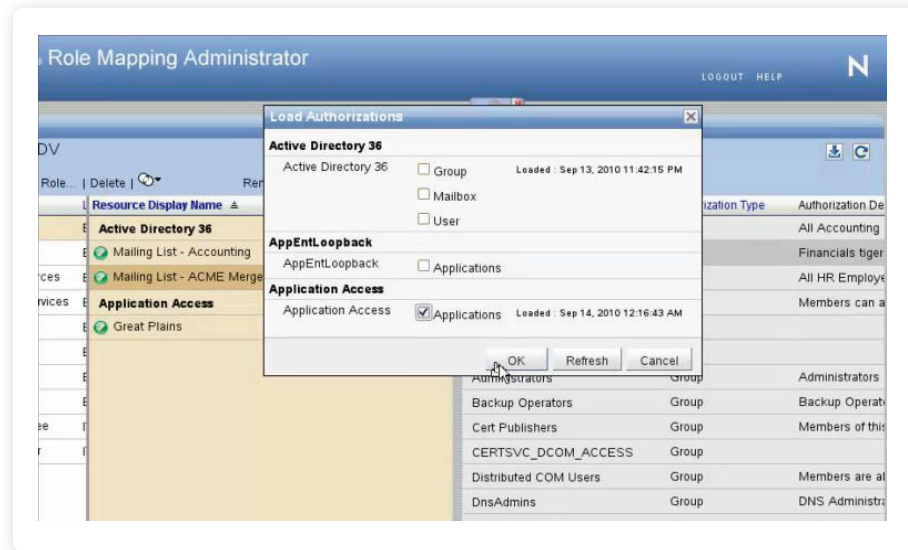
**The Role Mapping Administrator user interface**

**Figure 1:** With Role Mapping Administrator, adding a new resource authorization to an existing role becomes a simple drag-and-drop operation.



**Confirming and annotating a resource mapping change**

**Figure 2:** Before an authorization change is applied, Role Mapping Administrator provides a confirmation prompt with a space to document the purpose of the change.



**Selecting resource authorizations to load**

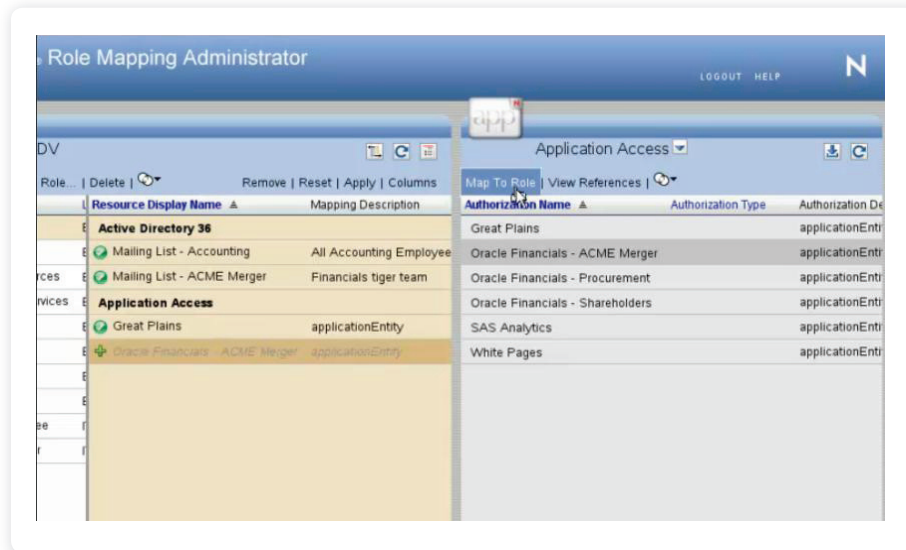
**Figure 3:** Role Mapping Administrator lets you select the resource authorizations to be loaded by source system and type.

With the available application authorizations now loaded and displayed in the right-hand column, our finance manager now selects an authorization to access the merger accounts in Oracle Financials. (See Figure 4.) She is about to map that permission to the Accounting role, and it currently appears as a pending assignment in the center pane.

When this change is confirmed, Novell Identity Manager 4 Advanced Edition will automatically create the required user accounts behind the scenes. The mailing list and the accounting application will be added to the resource set that is automatically provisioned to anyone joining the Accounting role and automatically de-provisioned from anyone transitioning out of the Accounting function.

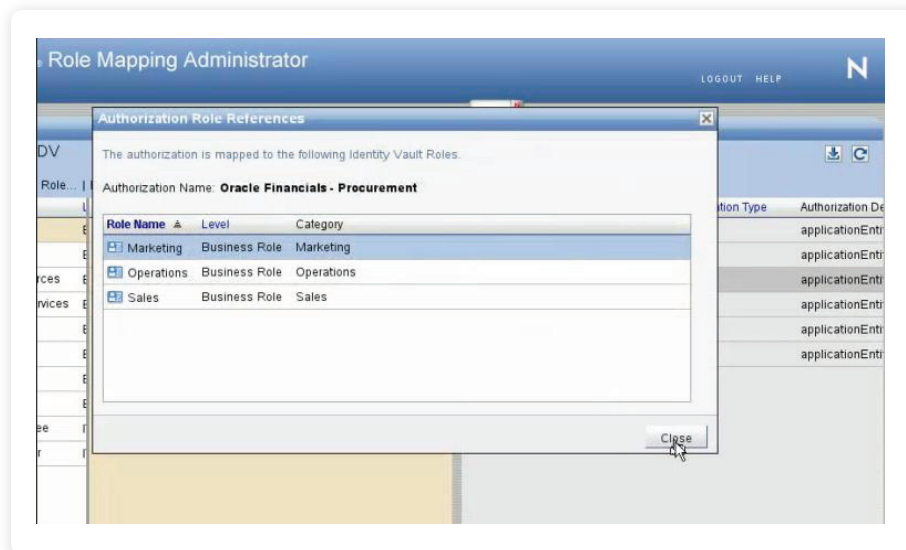
Three months from now when the merger project has been completed, removing these authorizations from the Accounting role will be just as quick and easy. The finance manager will simply sign in to Role Mapping Administrator, select the Accounting role, highlight the resources to be de-provisioned in the center column, click *Remove*, and then *Apply*. Novell Identity Manager 4 Advanced Edition will do the rest.

Role Mapping Administrator also makes it easy to track which authorizations are currently in use and by which roles. Selecting an application in the right pane and clicking *View References* in the menu above displays a list of all the roles to which that application has been provisioned. (See Figure 5.)



**Mapping an application authorization**

**Figure 4:** A new application authorization can be assigned simply by selecting it in the right-hand pane, then clicking Map To Role above.



**Reviewing authorization assignments**

**Figure 5:** The View References display makes it easy to see which roles an authorization is currently assigned to.

**> Provisioning Power to the Business People**

With most of the role-based resource management solutions in use today, changes like the ones described above still require custom code development, excessive expense and frustrating delay. The entire process of defining the necessary changes, documenting requirements, outsourcing development, then testing and validating the resulting code often delay essential new resource authorizations by days, weeks, a month or more.

With Role Mapping Administrator the entire process can be completed by a line-of-business analyst in a matter of minutes, using a simple, intuitive visual tool. It's a powerful innovation that can reduce the labor, time and cost requirements of role-based resource management by an order of magnitude. More importantly, it puts the power to quickly and efficiently provision IT resources to important new business initiatives exactly where it belongs—in the hands of business-side managers.

To learn more about Novell Identity Manager 4 Advanced Edition and Role Mapping Administrator, visit the product site at [www.novell.com/products/identitymanager/](http://www.novell.com/products/identitymanager/). You'll find a flash version of the demo above at [www.novell.com/media/content/idm4-role-mapping-administrator.html](http://www.novell.com/media/content/idm4-role-mapping-administrator.html).

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**Online Resources** // Novell Connection Magazine

**Learn More About Novell Identity Manager**

- Novell Identity Manager 4 ([www.novell.com/products/identitymanager/](http://www.novell.com/products/identitymanager/))
- RMA Flash Demo ([www.novell.com/media/content/idm4-role-mapping-administrator.html](http://www.novell.com/media/content/idm4-role-mapping-administrator.html))

# Simply Better

Insights on the Enhancements in Novell Open Enterprise Server 2 SP3

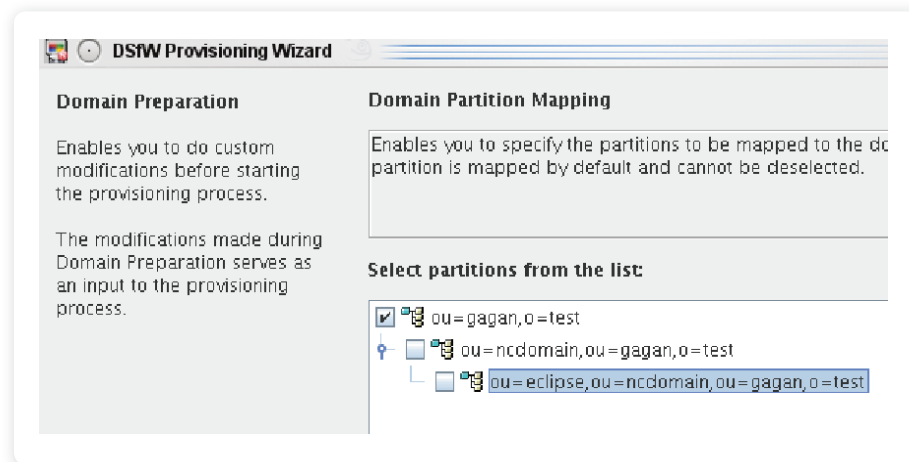
by Ken Baker

**The upcoming release of Novell Open Enterprise Server 2 SP3 is all about greater simplicity, manageability, performance and reliability. To get a behind-the-scenes perspective on how the product's new services and features deliver these benefits, Novell Connection talked with Haripriya S., a Distinguished Engineer at Novell, and Glen Davis, Novell Product Manager.**

## > Enterprise-Ready Domain Services

According to Haripriya, some of the most exciting aspects of [Novell Open Enterprise Server 2 SP3](#) come from the enhancements in Domain Services for Windows that make it more enterprise-ready and easier to roll out to existing eDirectory deployments. In the past you had to create a partition in your directory tree for each Active Directory (AD) domain. This meant that only the users within that partition could belong to that AD domain.

This configuration and management hurdle made it difficult for some mixed environments to take advantage of the benefits that Domain Services for Windows delivers. With the release of Novell Open Enterprise Server 2 SP3, that hurdle has been removed. (See [Figure 1](#).) Now the AD domains provided by Domain Services for Windows can span multiple partitions, allowing users anywhere in your eDirectory tree to use the AD authentication that it provides.



### **DsW provisioning wizard**

**Figure 1:** Active Directory domains provided by Domain Services for Windows can now span multiple partitions, allowing users anywhere in your eDirectory tree to use the AD authentication that it provides.

## The most exciting aspects of Novell Open Enterprise Server 2 SP3 come from the enhancements in Domain Services for Windows that make it more enterprise-ready and easier to roll out to existing eDirectory deployments.

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“In the past, you could not combine multiple partitions into a single domain,” Haripriya says. “SP3 lets you start a domain at any partition root in the tree and include other partitions within that tree as well. This makes it much easier for enterprises to map their Domain Services for Windows domains to a normal AD domain directory. It also makes it easier to map traditional eDirectory trees into more of a domain design, which allows you to maintain consistent domain mapping when you have sites across multiple countries or domains.”

Davis indicates that Novell Open Enterprise Server 2 SP3 also adds a number of other enhancements that makes Domain Services for Windows easier for enterprises to deploy. The first of these is the removal of the old requirement to have a master replica of the root of the tree. A second enhancement is that your AD domain name no longer needs to be the same as the name of your eDirectory container. Your domain hierarchy can also now be different from your eDirectory hierarchy. Additionally, Domain Services for Windows has the ability to add a second DNS server to your AD domain controller. This provides you with a level of fault tolerance, so if one DNS server goes down you have another one to back it up. And finally, Windows 2008 Member server support has been added to Domain Services for Windows.

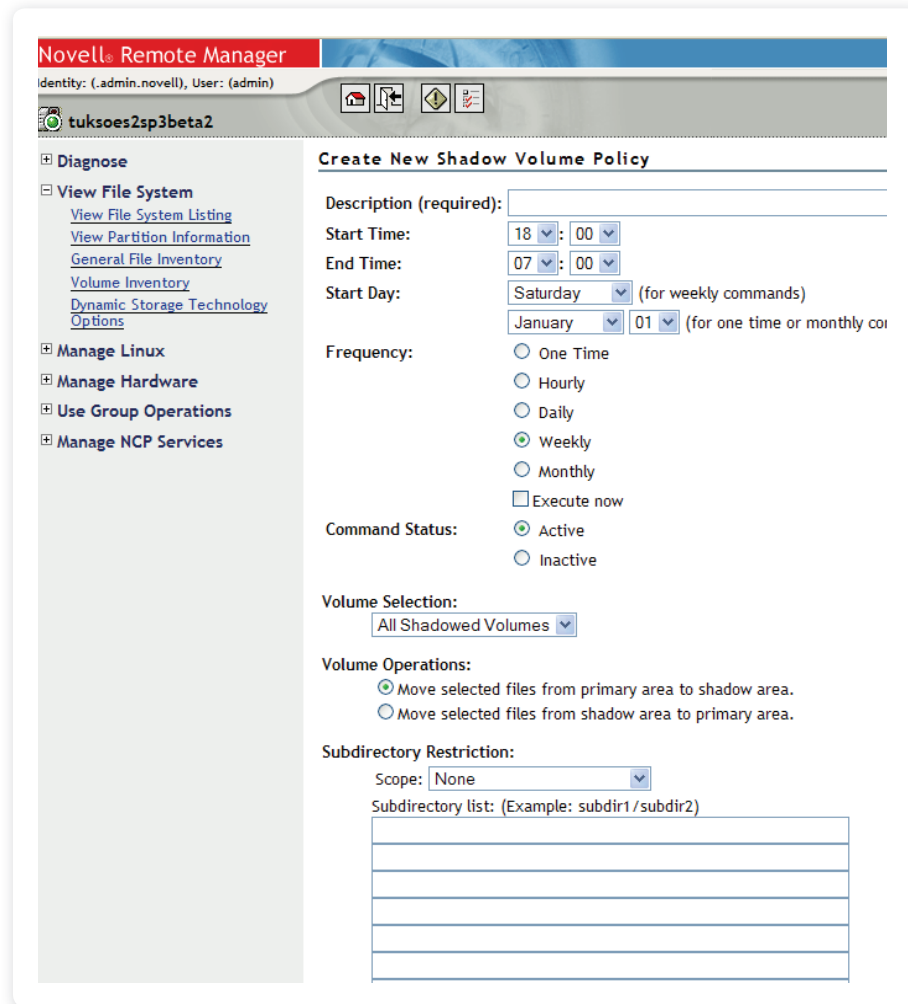
### > File Service Improvements

Novell Open Enterprise Server 2 SP3 delivers a number of new file service improvements, especially in the area of enhanced CIFS support. One of these is support for NTLM version 2 in CIFS, which gives you a more secure way to authenticate. “The NTLM 2 support simplifies administration efforts since it’s the default security mechanism for both Windows Vista and Windows 7,” Haripriya says. “Now that Novell Open Enterprise Server matches that default security, you don’t have to make any changes on your clients to let users take advantage of the native Windows access in CIFS.”

As an additional security enhancement, Novell Open Enterprise Server 2 SP3 supports Novell Modular Authentication Services (NMAS) in CIFS on the server side. So instead of retrieving a password from eDirectory to authenticate, CIFS trusts eDirectory to validate the user using NMAS in a secure fashion.

In terms of simplifying the administration of CIFS users, top-level LDAP context sub-tree search has been added to Novell Open Enterprise Server 2 SP3. This allows CIFS to search for users in the entire base context. To enable it, you first enter `novcifs -y yes` in the command line and then add the base context through the iManager CIFS plug-in.

Novell Open Enterprise Server 2 SP3 also delivers CIFS support for Windows 7 “offline folders” connecting to a Novell Open Enterprise Server file share. This shows the level of commitment Novell has to interoperate with Microsoft Desktop features.



**Novell Remote Manager**

**Figure 2:** Now users can use their native Windows CIFS client to take advantage of Dynamic Storage Technology's ability to dynamically allocate and optimize your storage resources on Novell Open Enterprise Server.

But the biggest enhancement in the CIFS area is support for Dynamic Storage Technology on Novell Storage Services (NSS) volumes. In the past you had to use the NCP client to take advantage of Dynamic Storage Technology's ability to dynamically allocate and optimize your storage resources on Novell Open Enterprise Server. (See [Figure 2](#).) Now your users can just use their native Windows CIFS client. To leverage this capability, you need to install NSS when you install your CIFS server and Dynamic Storage Technology.

In the area of other file service improvements, you can now have multiple instances of FTP running on a server. This is particularly beneficial for cluster environments where a user might have an FTP share on one cluster resource and an additional FTP share on a second cluster resource. With Open Enterprise Server 2 SP3, if one of those cluster resources happens to fail over to the other cluster resource, there won't be a problem with those different FTP instances running on the same server.

Another FTP improvement is that you have greater flexibility in configuring users' default home directories. An ftp session used to default to the user's home directory on Linux, but now you can have the home directory on a more traditional NSS home directory, a different partition or some other desired location.

### > **Easier Management, Enhanced Security**

Davis reports that one of the most popular features among beta users of [Novell Open Enterprise Server 2 SP3](#) has been the consolidation of proxy users. Previously, you had to have a different proxy user for every service you installed on your server. So, you would have a different proxy user for AFP, CIFS, DHCP, and so on. Sometimes you would end up with several of these different proxy users per tree, which could make management quite difficult. With consolidation, all of your services will authenticate through a single proxy user per server, greatly simplifying administration.

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## The biggest enhancement in the CIFS area is support for Dynamic Storage Technology on NSS volumes.

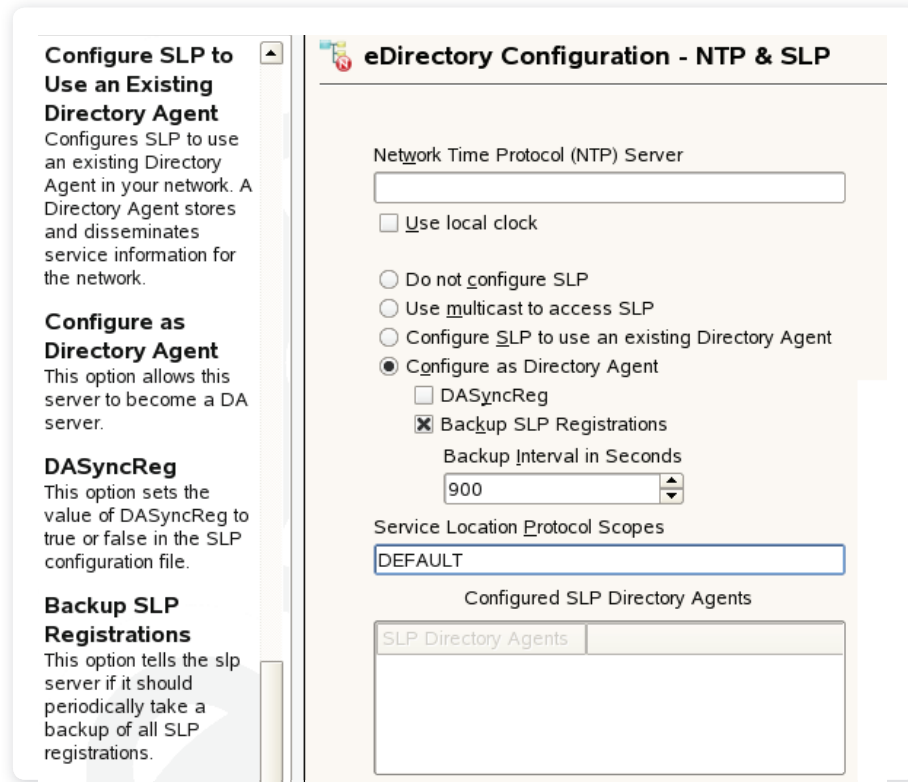
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In addition to the consolidation of the proxy service users, Novell Open Enterprise Server now automatically manages the passwords for those proxy users. This can provide significant administration relief, especially if your organization has policies that require users' passwords to change at specified intervals. According to your policies, Novell Open Enterprise Server can automatically generate new passwords for these service-level proxy users as needed, so you no longer have to worry about them.

Another management enhancement deals with the Service Location Protocol (SLP), which has been improved in this release to give you a greater level of persistence. The basis of SLP is that it allows you to easily see what services are available on your network, such as eDirectory mappings and the different servers running various services. You might have thousands of different services registered by SLP, but since that information had simply been stored in memory in the past, if your server went down all those registrations would be lost until after a potentially long process of discovery and re-registration. Until that re-registration occurred, you might encounter problems with some services not being able to perform proper service look-ups.

In addition to storing that registration information in memory, Novell Open Enterprise Server 2 SP3 stores all that service information in a backup file. As a result, if a server has to be re-started, it can simply look in the backup file to pull all that service registration information into memory, giving it greater persistence. (See [Figure 3](#).)

In addition to storing the service registration information in a backup file, SLP also now allows for directory agent synchronization. "The directory agent synchronization in SLP lets the different directory agents communicate with each other," Haripriya says. "So, on a server restart it has all the information to ensure you get a consistent view of available services, including service information that may be found across routers and WAN links."



**eDirectory configuration**

**Figure 3:** The Service Location Protocol (SLP) has been enhanced to give you a greater level of information persistence for your available services in the event that a server goes down.

To simplify administration even further, a number of other new features have been added to Novell Open Enterprise Server 2 SP3. One of these is the ability to view leases from the centralized Java Console administration tool. This release also provides a central location to find all your log files to simplify troubleshooting efforts.

Auditing enhancements on NSS volumes have been added as well. While Novell Open Enterprise Server 2 SP2 added auditing support for NSS files, this release delivers greater auditing granularity. “In addition to being able to see what users have accessed certain files, you can now see the IP addresses of the workstations from which they were accessed ,” says Haripriya. “This ability to track based on IP addresses gives you an extra layer of security.”

Another management improvement comes from new file reader updates in QuickFinder. To begin, it now supports additional Microsoft Office formats. In OpenOffice.org files, support for unknown field names has been added. In HTML files, entity reference handling has been improved, including the ability to handle entity references within metatags. Support for more ASCII encoding has been added, such as UTF8, Unicode, big-endian, and little-endian. QuickFinder can now also detect greater variations of text in PDF files in Adobe 6, 7, and 8—including a variety of unusual fonts, external CMAP files and support for compressed file.

Additionally, the ability to back up and restore encrypted and unencrypted iFolder folders has

## To make it easier to set up your cluster resources, cluster resource mutual exclusions have been added to Novell Open Enterprise Server 2 SP3.

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been added to Novell Open Enterprise Server 2 SP3, as well as the ability to upgrade a slave to a master. This capability can simplify the deployment of iFolder by enabling a pilot server to be configured as a slave server, and then once the testing is completed, allowing it to be moved to production and upgraded into a master.

### > Simplifying Clusters

To make it easier to set up your cluster resources, cluster resource mutual exclusions have been added to Novell Open Enterprise Server 2 SP3. Resource mutual exclusions let you specify that certain cluster groups can never run on the same server node. For example, if you have Novell GroupWise and Novell iFolder running in one cluster resource group and Novell iPrint in another, you can easily avoid potential service conflicts by specifying that these different groups can never end up on the same cluster node as a result of a failover.

While keeping these cluster resources separate was possible in the past, it was cumbersome and overly complicated to set up and manage. To set up a resource mutual exclusion group in Novell Open Enterprise Server 2 SP2, you simply browse in Novell iManager to the cluster object you want to manage, click *Properties*, select the *RME Groups* tab, and then mark the resources you don't want to run on the same cluster node from the list of available cluster resources.

### > Performance and Reliability

In addition to simplified management and enhanced security, Novell Open Enterprise Server 2 SP3 delivers greater performance in a number of areas. The overall performance of NSS has been improved. According to beta customers, AFP performance now rivals the performance you'd get from a Mac server. Even Linux User Management features significant performance increases, including faster eDirectory lookups, greater reliability and the avoidance of assignment conflicts with the selection of Unix Config Objects during the enablement of Linux User Management. But the new enhancements and features don't end there. To learn more about other new features and how you can take advantage of the performance, reliability, security and simplified management improvements in Novell Open Enterprise Server 2 SP3, visit [www.novell.com/documentation/oes2/oes\\_readme/data/readme.html#readme](http://www.novell.com/documentation/oes2/oes_readme/data/readme.html#readme)

### Learn More About Novell Open Enterprise Server

- Novell Open Enterprise Server 2 (<http://www.novell.com/products/openenterpriseserver/>)
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# Remote Control

Tel Aviv University

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**Tel Aviv University (TAU) used Novell Identity Manager and Novell Access Manager to create a single sign-on portal, enabling students and staff to access all of their applications and information from any location. The Novell solution keeps identity information synchronized across multiple domains and systems, and simplifies user administration by automating numerous tasks.**

## > Overview

Located in Israel's cultural, financial and industrial heartland, Tel Aviv University (TAU) is the largest university in Israel. It is a major center of teaching and research, comprising faculties of Engineering, Exact Sciences, Life Sciences, Medicine, Humanities, Law, Social Sciences, Arts and Management. Through these nine faculties, some 106 departments and 90 research institutes, TAU offers an extensive range of study programs.

## > Challenge

With thousands of students arriving and graduating each year, the IT department at TAU faces a significant user-management challenge. Using limited staff resources, the department must ensure that new students quickly gain access to all the systems and information they need for their academic courses, and that any changes are managed in an efficient and timely manner. TAU wanted to automate the provisioning of users—not only students, but also academic and management staff—and to ensure that changes made in one system would automatically propagate to related systems. The University also aimed to simplify and accelerate user access to services, by providing a single sign-on portal personalized to each user's profile.

## > Solution

To enable a single point of control for users, TAU implemented [Novell Identity Manager](#) and created a custom driver to pull data from both the student management system and the University's HR system into an Identity Vault. The thousands of user objects in the vault are automatically propagated to numerous connected systems.

**“We chose Novell Identity Manager because we consider it to be the most mature and stable product of its kind in the market,” said Chezy Gal, Systems Engineer, Tel Aviv University. “The solution enables us to keep identity information synchronized across dozens of systems and directories, including both Microsoft Active Directory and our main LDAP authentication tree in Novell eDirectory.”**

TAU worked with ProLink, a Novell Gold partner for Identity and Security solutions that provides consulting and professional services for medium and large organizations in all market segments in Israel. “ProLink's skill and knowledge of the Novell technologies played a significant part in the success of the solution,” said Gal. “In particular, Ofer Gigi, the CTO of ProLink, helped us to make the most of our investment in Novell Identity Manager.”

In the past, provisioning users or changing information about existing users were largely separate processes. Using the sophisticated workflows in Novell Identity Manager, the University automatically processes new and changed users, largely eliminating administrative effort and delays.

**“Novell Identity Manager gives us many more options for personalizing services for users,” said Gal. “For example, using the workflow engine we have created an eShop that automatically checks staff entitlements and enables them to purchase software and services. The key benefit of the Novell solution is that it gives us new possibilities to improve our service offerings.”**

TAU implemented [Novell Access Manager](#) to power a portal for students and staff, called ‘MYTAU’. Integrated with Novell Identity Manager, the portal enables users to sign in a single time and gain access to all of the applications they are authorized to use. In addition to e-mail, Web and administrative systems, these include several e-learning systems.

**“Our personalized portals have eliminated the need to remember approximately four different sets of user names and passwords, which is something that was driving users crazy in the past!” said Gal. “With Novell Access Manager, a single Web-based authentication process provides access to all applications, enabling our users to work more efficiently and from any location they choose.”**

## > Results

The introduction of [Novell Identity Manager](#) enabled the IT department at TAU to automate many elements of user provisioning and change management, reducing administrative workload and saving time.

**“Novell Identity Manager has eliminated a great deal of administration and enabled us to reflect changes in user provisioning within seconds. It has also opened up numerous possibilities for the future,” said Gal. “In fact, we probably now spend more time than before on user management, but the difference is that we are actively creating new workflows to make the user experience better rather than doing basic administration. So the solution enables us to focus on higher-value tasks.”**

As the University continues to expand its use of learning technologies, the new portal powered by [Novell Access Manager](#) helps by providing a flexible, user-friendly entry point for students.

**“Many of our courses are now available online, giving students greater flexibility about where and when they learn,” said Gal. “Novell Access Manager provides single sign-on to e-learning tools and other relevant applications, making it really easy for students to interact with the University. The portal includes various self-service tools for both students and staff, and delivers excellent availability and usability.”**

## Learn More About Novell Identity Manager and Novell Access Manager

- Novell Identity Manager (<http://www.novell.com/products/identitymanager/>)
- Novell Access Manager (<http://www.novell.com/products/accessmanager/>)

# Shine Some Light on Shadow IT

Welcome to My Secret Lair

by Richard Whitehead

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**Every superhero has to have a hidden hangout, right? Batman had the Batcave. Superman had his Fortress of Solitude. And Spiderman had his room in his Aunt May's house... Hmm, is it just me, or did Peter Parker make for one of the lamer superheroes?**

**Anyway, welcome to my little corner of Novell Connection magazine. Or, as I like to call it: WorkloadIQ Man's Secret Lair.**

## > Shadow IT

You've no doubt heard about the stealth cloud—employees “flying under the radar,” consuming IT services without the permission or support of IT. Myself, I call it Shadow IT. And whether you want to admit it or not, it's happening right now in your company.

Business users are adopting cloud computing in droves. Collaboration, social networking, project management, CRM, online backup and other valuable services are all available through the ubiquitous Web browser. And while employees are making use of these services “from the shadows,” it's IT who is left in the dark.

## > IT Must Embrace Cloud Computing

So what can you do? The short answer is to embrace it. Well, that is if you want to maintain enterprise security and compliance—and retain your customers. Recently, I read quite an interesting article on this very topic. And it included some ideas on how to address this growing challenge.

The article is one of those “the toothpaste is out of the tube” types of stories. Cloud computing is here to stay, and business users are already using it. Banning the practice outright will only drive it that much further into the shadows. IT's only viable option then is to embrace cloud computing.

The author goes on to describe an approach for evaluating and controlling cloud computing within the enterprise. He uses the mnemonic device “PASTA” for his approach:

- **Policy**—Determine what the company's policy is going to be for cloud computing. What types of applications are suitable for cloud-based use?
- **Amnesty**—Give employees a chance to “come clean” without fear of reprisal. That way, you'll know what cloud applications are actually being used.
- **Support**—Ensure that IT is prepared to support all the discovered applications. It will help motivate employees toward full disclosure.

- **Technology evaluation**—Assess the value of each and every cloud application to the business.
- **Adoption**—Build your cloud architecture. Some applications will undoubtedly survive the technology evaluation. For others, employees will have to migrate to the corporate standard. It's a good article. You should give it a read if you have a few minutes. Of course, it might just make you hungry for Italian.

### > Security or Insecurity?

So why are IT organizations still so averse to cloud computing? Most people today will tell you it all boils down to concerns over security. However, most cloud providers can probably provide better security than most enterprises can. After all, their core business depends on it for survival. So I've started to wonder if it isn't more of a case of insecurity. You see, for as long as I can remember, IT's perceived role has been one of control. Shadow IT takes away virtually all of that control and puts it squarely in the hands of business users.

From what I've seen over the years, IT people are often insecure about their jobs or abilities. If they lose control of what goes into the cloud, perhaps they fear they won't have anything to build or manage, or anyone left to control.

What IT perhaps fails to see is that when a business user goes around them and starts using an unapproved cloud-based app, they're not doing it out of malice. They're just trying to get their job done—and they view IT as too inflexible to help them. So they take matters into their own hands. Unfortunately, this Shadow IT computing opens the company up to untold risk exposure and compliance issues, which could easily drive away customers if something were to go wrong. So whether IT likes it or not, the time has come to accept cloud computing. By doing so, IT will appear far more responsive to the business and will be able to keep up with the current pace of change. Trust me, it'll make upper management and your auditors much happier.

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### CHECK OUT MY WORKLOADIQ BLOG SOMETIME

In addition to this Now-Not-So-Secret Lair, I discuss IWM issues on a weekly basis in my online blog. Come by and check it out at [www.WorkloadIQ.com](http://www.WorkloadIQ.com) whenever you get a chance. Who knows, maybe you'll catch me there hanging out with Catwoman sometime. I can dream!

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### > Novell WorkloadIQ Can Help

Intelligent workload management, infused with identity, can make the process of adopting cloud computing in the enterprise much more painless. Specifically, Novell WorkloadIQ solutions can help your IT organization discover the Shadow IT cloud applications that are being used, evaluate them and adopt the ones that make the most sense for your business.

Novell WorkloadIQ products cover virtually every aspect of the IWM lifecycle:

- **Build**—You must have an automated way to provision workloads on demand—across physical servers, virtual servers, appliances and cloud environments.
- **Secure**—Effective mechanisms for automating identity and access management and enforcing security policies internally and in public clouds must be in place.
- **Manage**—Workload management tools must be able to ensure resource availability and optimize resource use like never before. Forget about adding IT staff. These processes must be automated.
- **Measure**—Cost, performance and compliance issues are getting more complicated. You need an automated way to monitor, measure and report on your far-flung workloads.

WorkloadIQ solutions from Novell comprise a complete set of identity-aware, policy-based services and solutions that are integrated to add more intelligence to workloads as you move forward. And they mesh with IWM tools from other vendors. The ultimate goal, regardless of whose IWM solutions you choose, is to deliver business services for end users—and do it as efficiently, cost-effectively and securely as possible.

The time for IT to get past its insecurities is now. So shed some light on the Shadow IT activities taking place in your organization and move forward with confidence.

—Richard

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#### ABOUT THE AUTHOR

As Director of Intelligent Workload Management at Novell, Richard Whitehead is responsible for developing and marketing the Novell WorkloadIQ brand of IWM products. Richard has worked for Novell and other software companies in a variety of roles, including Engineering, Product Management and Marketing. In addition to Novell, Richard has more than 15 years' experience, including senior positions at Citrix, Franklin Covey and WordPerfect. He is ITIL certified and has authored several industry articles and books.

# Run Virtual Applications Fast and Without Conflicts

Predictive Streaming for Windows Applications

by Michael Astle

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**Virtual applications are the answer to many IT needs, including quick deployment of new or upgraded applications without tying up IT personnel, disrupting users, and causing the DLL conflicts that can give IT managers headaches. However, selecting the right approach to application virtualization is essential, or you could end up with applications that are easy to install but that employees find slow to use.**

Streaming is one of the most efficient methods of delivering virtual applications, but the way you stream affects how efficiently users access the applications. If you do “complete” application streaming, users must wait while entire applications are downloaded each time users open applications. “Partial” streaming or “page-call” streaming downloads are only components of applications rather than entire applications. It is generally quicker than complete application streaming, but with partial streaming, users must still wait for components to download and the system can bog down if a user’s behavior deviates from a predefined baseline.

With ZENworks Application Virtualization 8, Novell is introducing a new approach called “on-demand” or “predictive” application streaming for Windows applications. On-demand virtual applications are encapsulated and separated from the underlying operating system, thus preventing conflicts with other applications, and run without being installed. They require no set up or privileges, so they save the IT department time and headaches. This isn’t new.

What is new is that ZENworks Application Virtualization streaming uses a sophisticated profiling algorithm that models and divides applications based on user behavior. It then predicts what components of code a user will need based on how the user uses the application. When a user requests an application, just enough code and settings are streamed to start the application. The ZENworks Application Virtualization system then predicts—based on typical user profiles that you easily create when you set up the system together with actions by the user—what code the user needs next and streams it. The result is smooth application use with near-zero latency.

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**ZENworks Application Virtualization streaming uses a sophisticated profiling algorithm that models and divides applications based on user behavior.**

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### > Streaming Application Overview

To show you how easy it is to set up a virtualized streaming application and to illustrate what we mean by predictive streaming, let's go through a condensed version of the ZENworks Application Virtualization Streaming Applications training provided by [Novell Training Services](#).

### > Configure Your Web Server for Streaming

All the tools you need to set up streaming are available when you download and extract the ZENworks Application Virtualization files. They include a standalone server plugin template.zip file for streaming applications, LicenseUtil.exe that creates configuration files, SpoonPlay.exe for streaming applications from a Network Share server, XVM.exe that runs streamed applications, and a few other files needed if there is no .net Framework.

The ZENworks Application Virtualization tool is compatible with the following Windows browsers: Internet Explorer 6, 7 and 8; Firefox 3 and 3.5; and Safari 2, 3 and 4.

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**Building a streaming application is very similar to building an executable virtual application, and you can even turn existing applications into streaming applications.**

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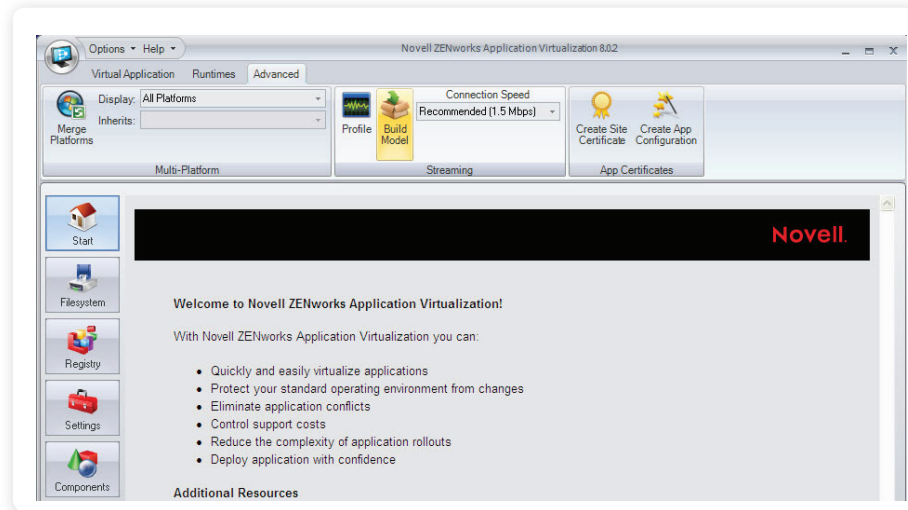
### Build the Virtual Application

Building a streaming application is very similar to building an executable virtual application, and you can even turn existing virtual applications into streaming applications. Use a template application or build your own virtual application from a third-party application. Then, click *Profile* in the ZENworks Application Virtualization tool and select the application you just created.

### Create Profiles and Models

Next, create a profile to define how users would typically use the application. Once the application is created, click *Profile* to create a profile folder. Then simply start using the application the way a typical user would use it. You should do this at least two or three times and up to 10 times for the most versatility. Each time you use the application, a separate profile is saved to the folder.

The next step is to create models. Models are the actual application divided into components based on the profiles you just created and are streamed to the target PC. To create models, click *Build Model* and *Make New Folder*, and click *OK*. (See [Figure 1](#).) The ZENworks Application Virtualization tool looks at the profiles you created and determines the best way to divide the application. The tool also creates a directory structure that you will later copy to your server.



### Virtualization model creation

**Figure 1:** When you click the *Build Model* button and create a *Models* folder, ZENworks Application Virtualization creates models based on the profiles you just created in the *Profiles* folder and places them in the new *Models* folder.

### Download Files to Your Web Server

The next step is to create a directory on your Web server and copy the application data, including the directory structure, to the Web server. We recommend the directory be under a /layers subdirectory. For example, you could create the following directory: C:\inetpub\wwwroot\layers\<app>.

ZENworks Application Virtualization works with all Web servers.

### Create the Application Configuration XML File

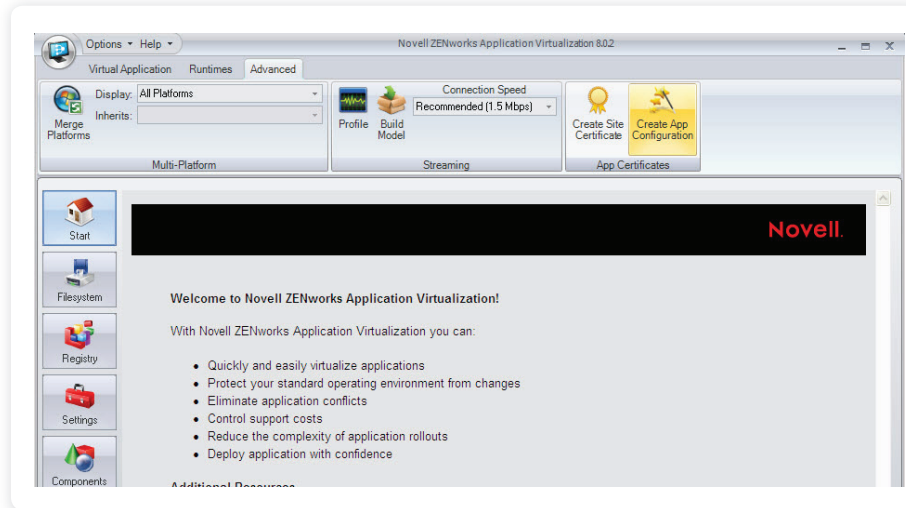
Each streaming application needs a Launch.html file that points to an XML file, and you can easily create the XML file using the graphical user interface tool in the ZENworks Application Virtualization Studio. (See [Figure 2](#).) You could also use the LicenseUtil.exe command-line tool that came packaged with the ZENworks Application Virtualization tool, but the graphical tool is much easier to use.

Assign a name for the application and a version number. The tool will give you the option of creating XM or SVM applications. Select XM to create a streamed application. (See [Figure 3](#).) SVM applications are downloaded as whole applications.

Insert the URL for the application and link it to the XVM application and XREG application by inserting those applications' URLs. These enable the ZENworks Application Virtualization tool to stream and cache the streamed application so users can access the application by clicking a document.

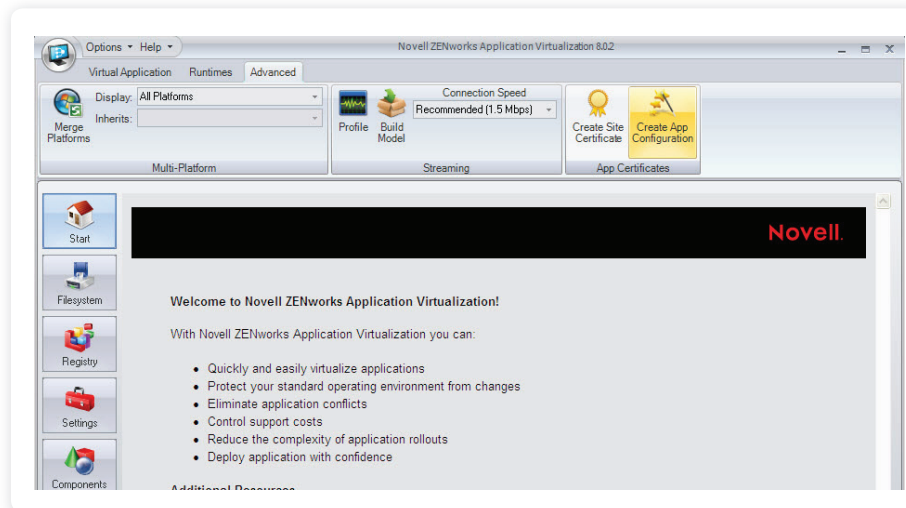
You also need to click the *Create Site Certificate* button.

Next click the *Create* button. ZENworks Application Virtualization will check the URLs and generate an XML file, which you place in the /Config folder on your Web server.



### Configuring the application

**Figure 2:** You can easily create an XML file for the virtual application using the ZENworks Application Virtualization Studio.



### Assigning a name and specifying streaming

**Figure 3:** When you name and set the version number for the virtual application, also select XM rather than SVM to create a streamed application rather than a fully downloadable application.

Each application also needs its own Launch.html file on the Web server, and you can easily create it using an included template. You just need to open the template and change the Spoon\_Config variable so it points to the XML file that you just saved to the /Config folder.

### **Launch the Application**

The application is now ready for your users to launch. You can provide them with the URL of the Launch.html file, or you can create a link on a corporate intranet site.

The startup code and settings will automatically stream to each user's PC. Based on the application functions the user accesses and the profiles you created, the ZENworks Applications Virtualization tool predicts the code the user needs and streams it. If the user deviates from the profile, the system switches to a new profile and automatically begins streaming based on the new actions.

Application streaming is the next logical step in application virtualization. It saves IT time and resources while delivering applications to users in a fast and predictable way that keeps them able to work efficiently.

To see a short application streaming configuration video, visit <http://www.novell.com/media/content/streaming-applications-with-zav.html>.

Find out how easy it is to train on ZENworks Application Virtualization and many other products and technologies through Novell Training Services. Training is flexible, affordable and always available at <http://www.novell.com/training/>.

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