

Connection

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Novell.

Start Your Engines

Web Acceleration with SuperLumin on Novell Open Enterprise Server

by Ken Baker

Novell BorderManager has been around for well over a decade—giving NetWare users perimeter security with robust Internet access controls, firewall services, content filtering functions and proxy and cache services. But as NetWare customers have moved to take advantage of the advanced features in Novell Open Enterprise Server (www.novell.com/oes) on Linux, they haven't had a BorderManager equivalent. That has now changed. Novell has announced that SuperLumin Networks will be providing the preferred BorderManager replacement with its SuperLumin Nemesis Web acceleration product. In fact, Novell has entered into an agreement with SuperLumin to make SuperLumin Nemesis available on the Novell pricelist and to enable Novell to provide front-line support to its customers for the next two years.

Many customers might wonder about the rationale behind it. In essence, it comes down to a two-fold answer. Transitioning BorderManager capabilities to a trusted partner allows Novell to put more focus on its collaboration offerings, while allowing its customers to deploy a best-in-class perimeter security and proxy cache product from an expert in that field.

SuperLumin is known as an early provider of solutions for the Linux environment and an industry leader in perimeter security. It's interesting to note that much of the SuperLumin engineering team consists of previous Novell employees that worked on the advanced development group for BorderManager, as well as Novell Internet Caching System, Novell iChain and Volera proxy cache solutions. Leveraging this combined expertise in Linux, perimeter security and caching, SuperLumin developed Nemesis from the ground up to provide a BorderManager replacement built on SUSE Linux Enterprise Server (<http://www.novell.com/products/server/>) that delivers everything BorderManager customers want—and then some.

Transitioning BorderManager capabilities to a trusted partner allows Novell to put more focus on its collaboration offerings, while allowing its customers to deploy a best-in-class perimeter security and proxy cache product from an expert in that field.

At Novell BrainShare 2010 in Salt Lake City, many Novell customers had an early glimpse of the SuperLumin product. At that time the SuperLumin team also took the opportunity to gather feedback from BorderManager customers as to what features and functions they would want in the SuperLumin offering. The services at the top of the list included forward proxy, transparent proxy, reverse proxy, client trust, ACL check, VPN and firewall. In response, SuperLumin has delivered all of these services in its Nemesis product and enhanced them far beyond what had been available in BorderManager.

> Web Acceleration

Setting up SuperLumin Nemesis as an HTTP forward-proxy server is one of the most common methods for accelerating content delivery to your users' Web browsers. Once a browser has been configured to use SuperLumin as a forward-proxy server, all of the browser's requests are sent to the SuperLumin proxy server, which will grab the Web objects from the origin Web server, serve them up to the user's browser and then cache those Web objects in its local cache store. When subsequent requests for those same Web objects are received, the proxy server will then be able to deliver them from its local cache faster than if it had to access them from across the Internet. (See [Figure 1](#).)

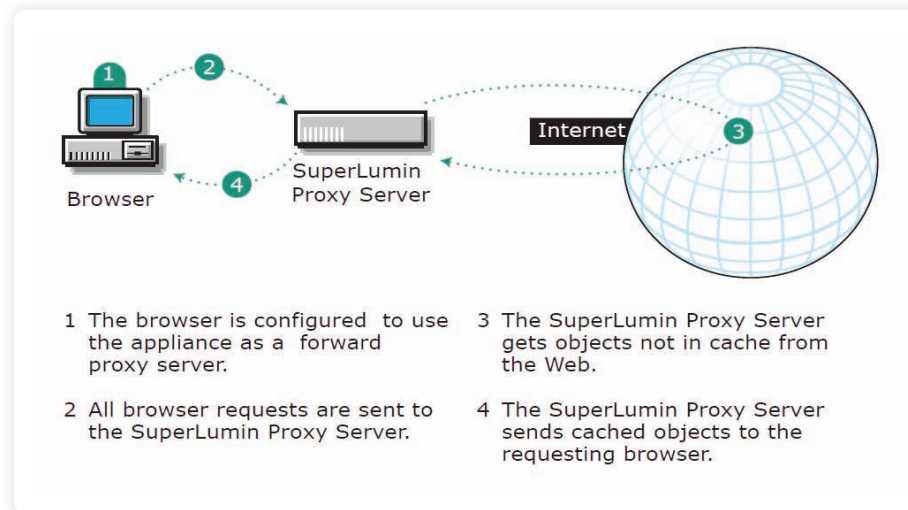


Figure 1: SuperLumin proxy services accelerates Web content delivery by locally caching frequently accessed Web objects.

Making it even easier to take advantage of its caching services, SuperLumin also provides a transparent-proxy service. The transparent proxy works much the same way as the forward proxy—the main difference being that it eliminates the hassle of having to configure each of your users' Web browser. It automatically accelerates HTTP content delivery for all of your network users by having you simply configure your network router or switch to route all HTTP traffic to the transparent-proxy service on the SuperLumin Nemesis proxy server.

Setting up SuperLumin Nemesis as an HTTP forward-proxy server is one of the most common methods for accelerating content delivery to your users' Web browsers.

One of the nice things about transparent proxy in SuperLumin Nemesis is that it provides superior stability over what had been provided by Novell BorderManager. Some customers avoided using transparent proxy in BorderManager due to a tendency to unexpectedly crash. This is not the case with SuperLumin Nemesis. As mentioned before, even though SuperLumin delivers much of the same functionality as BorderManager, it doesn't share the same code base. This means that it also doesn't inherit any flaws that might have existed in BorderManager.

In addition to forward- and transparent-proxy services, SuperLumin Nemesis (www.superlumin.com/border.php) provides a reverse-proxy service. Its reverse-proxy capability allows you to dramatically improve the performance and response time of your organization's Web server by offloading all redundant content requests to the proxy service. By handling these redundant Web requests, your Web server bandwidth can be preserved for unique content and service requests, as well as supplying dynamic, uncached and updated content to the proxy server for subsequent caching.

Also, while forward- and transparent-proxy services cache content from hundreds and thousands of Web sites, a reverse-proxy can be used to cache specific Web sites or domains. For example, you can configure the reverse proxy to cache the content of multiple sites based on a list of host or domain names, such as www.novell.com, support.novell.com, or *.superlumin.com.

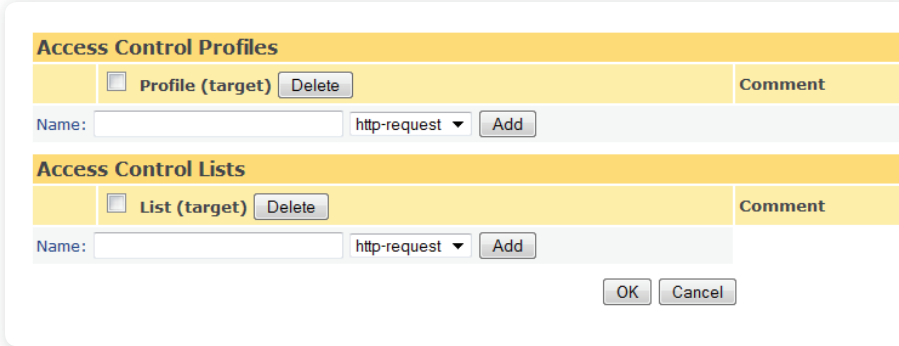
Additionally, you can place a reverse proxy in a local network to locally cache and accelerate desired content from specific sites. This allows the SuperLumin proxy server to take advantage of LAN speeds to locally deliver the cached content of these specific Web objects rather than relying on slower WAN speeds. For example, organizations that provide educational content can bring their content closer to individual schools by placing a reverse proxy at each school's local network to locally host the content of their Web sites for fast, local access.

> Authentication and Access Control

One of the features that BorderManager customers most wanted to see in SuperLumin Nemesis, and which SuperLumin delivers, is the client trust feature. Client trust essentially provides eDirectory single sign-on. If users have already authenticated to eDirectory, SuperLumin Nemesis automatically recognizes those authentications and then automatically authenticates them in the background to the proxy service so users are not bothered with authentication prompts. While this was called client trust in BorderManager, it is simply referred to as SuperLumin single sign-on in SuperLumin Nemesis.

Beyond SuperLumin single sign-on for eDirectory environments, SuperLumin Nemesis provides a variety of other authentication options that can leverage your NTLM single sign-on, LDAP or RADIUS authentication infrastructure. It also supports external authentication from third-party Web-based authentication services.

SuperLumin delivers another frequently requested BorderManager feature called ACL Check, known simply as Access Control in SuperLumin Nemesis. It provides rule-based access controls that allow you to permit or block access to specific Internet sites. Using the SuperLumin browser-based management GUI, you can customize your own access control strategy by blocking content for all users, specific groups or individual users. You can block destinations by URL, a single IP address, an IP address range or an IP subnet. You can also create broad rules using wildcards to block or grant access to certain pages on a Web site. (See [Figure 2](#).)



The screenshot shows a web-based management interface for SuperLumin Nemesis. It is divided into two main sections: "Access Control Profiles" and "Access Control Lists".

Access Control Profiles: This section has a yellow header. Below it is a table with a checkbox for "Profile (target)", a "Delete" button, and a "Comment" column. Below the table is a form with a "Name:" label, a text input field, a dropdown menu set to "http-request", and an "Add" button.

Access Control Lists: This section also has a yellow header. Below it is a table with a checkbox for "List (target)", a "Delete" button, and a "Comment" column. Below the table is a form with a "Name:" label, a text input field, a dropdown menu set to "http-request", and an "Add" button.

At the bottom right of the interface are "OK" and "Cancel" buttons.

Figure 2: SuperLumin Nemesis provides rule-based access controls that allow you to permit or block access to specific Internet sites.

In addition to blocking specific sites at a granular level with access controls, SuperLumin Nemesis has a set of APIs that provide hooks for third-party content filtering providers. Currently, ContentKeeper has an off-box and on-box content filtering solution that integrates with SuperLumin. A number of other filtering providers have plans to take advantage of this capability as well.

Beyond single sign-on and ACL controls, BorderManager customers also wanted firewall capabilities. You can use SuperLumin Nemesis as a firewall solution in much the same way that you may have used BorderManager. As with BorderManager, SuperLumin Nemesis provides stateful packet inspection and packet filtering at the port, IP and IP Range levels, but it's much easier to set up in SuperLumin. For example, adding static or dynamic network address translation (NAT) is as simple as clicking a button. (See [Figure 3](#).)

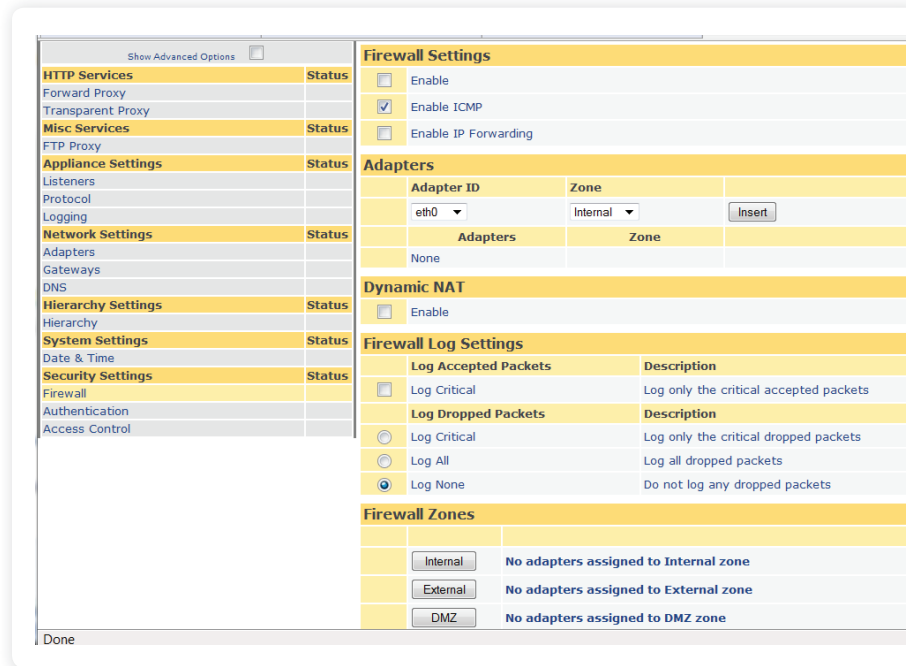


Figure 3: SuperLumin Nemesis makes it easy to configure firewall services that provide stateful packet inspection and packet filtering at the port, IP and IP Range levels.

> Social and Video Acceleration

While SuperLumin Nemesis delivers (and enhances) the services on Linux that BorderManager customers have long wanted, it also goes beyond BorderManager by delivering functionality such as social and video cache.

If you use a proxy service other than SuperLumin, you'll find that you typically don't experience any Web acceleration when you re-visit pages on social media sites such as YouTube or Facebook. This lack of acceleration occurs because most social media sites distribute their workload among multiple servers in order to handle heavy traffic volumes. When you watch a video on YouTube, your proxy server will cache the video locally with the idea that if you want to watch it again you'll be able to download and view it much faster. However, when you click to watch the video again, YouTube most likely will serve up the video from a different server—preventing your proxy server from recognizing the video as the same content and requiring a completely new download over the Web. As a result, you could end up with several copies of the same video clip eating up network bandwidth and storage space in your local cache without giving you any added performance benefit.

By contrast, the social media and video cache features in SuperLumin Nemesis can recognize that the video or other social media content that you re-visit is actually the same content even though it happens to be coming from another server. As a result, rather than downloading it again,

it will serve up the social content from its local cache. Not only does this significantly enhance the user experience, but it can free up considerable bandwidth, especially in university and college settings where it's not uncommon to find 30-50 percent of network bandwidth being consumed by students visiting social media sites. (See [Figure 4](#).)

Cache Options Edit
Name: default

Social Media Enhancements

- Optimize Caching of Facebook
- Optimize Caching of YouTube Videos
- Optimize Caching of SilverLight Videos
- Optimize Caching of Move Networks Videos

Cache Freshness

Cache For a Maximum of:	6	Hours	▼
Cache For a Minimum of:	0	Seconds	▼
Cache For a Default of:	2	Hours	▼ (If Object Has no HTTP Freshness Control)

OK Cancel

Figure 4: SuperLumin Nemesis can accelerate Web content from social media sites like YouTube and Facebook that other proxy caching solutions don't handle very well.

In terms of video caching, SuperLumin also provides “hole filling,” which allows the proxy service to cache those portions of a video that a user actually watches. For example, users often skip ahead or jump back when watching long videos. Most proxy servers don't handle this type of jumping back and forth, but SuperLumin will cache the portions of the video actually watched, allowing for better viewing performance of those video segments. This also allows for higher resolution viewing from services like Microsoft Silverlight that 1) use an adaptive protocol to determine available user bandwidth, and 2) can recognize that the video is being served up faster by the cache, resulting in a higher resolution.

The social media and video cache features in SuperLumin Nemesis can recognize that the video or other social media content you re-visit is actually the same content even though it happens to be coming from another server.

SuperLumin Nemesis also enhances the performance of live video. For example, if your organization is hosting a live Web broadcast of your CEO to all employees, instead of requiring your branch office users to fetch the live stream from your originating server, SuperLumin Nemesis can take advantage of the typical two- to five-second delay in downloading the video to fetch the data, cache it at the branch office's local proxy server and then send it locally to all the branch office users. So, instead of having 50 to 100 downloads of the same stream come across the WAN to individual users, it can come across in a single stream to the branch office, then split into multiple streams as needed when it arrives at the local proxy server.

> Wait No Longer, Look No Further

Whether you've been waiting for a BorderManager replacement before making the move from NetWare to Linux, or you have simply been on the lookout for a full-featured, best-in-class proxy and caching server, you need look no further than SuperLumin Nemesis. And from now until the end of March 2011, if you buy a three-year maintenance contract for SuperLumin Nemesis, the license for the product is free. For more information about SuperLumin Nemesis, the relationship between Novell and SuperLumin, and the promotion, visit www.superlumin.com/border.php (www.superlumin.com/border.php).

Mobilize Your Workforce with BlackBerry

Experience the Evolution of Mobility with BlackBerry Enterprise Server 5.0.1 for Novell GroupWise

by Ken Baker

Business can happen any time at anyplace; you need to be just as productive on the go as you would be in the office. Research in Motion (RIM) in collaboration with Novell further enhances mobility for GroupWise users with the recent release of BlackBerry Enterprise Server V5.0.1 (SP1) for Novell GroupWise 8 (<http://www.novell.com/products/groupwise/>).

“Our main goal is to fully, securely and efficiently mobilize GroupWise users,” says Slav Koziarski, Product Manager for Research In Motion. “Both RIM and Novell are committed to continue working closely together and provide our customers with high-quality products which address their mobility needs. Our product management and development teams have worked very hard to make this release the best to date.”

> More features for Mobile Users

Fully supporting BlackBerry smartphones running wide range of BlackBerry Handheld Operating Systems including version 5 and 6, BlackBerry Enterprise Server (BES) 5.0.1 for Novell GroupWise delivers an array of new features to help your GroupWise 8 users and administrators as well as your BlackBerry users be more productive while mobile. One of these new features allows you to synchronize multiple GroupWise address books with your BlackBerry smartphone, a feature that has been widely requested from the user community. In the past, you only had the ability to synchronize a single address book. But now if you have personal address books in addition to your business address book, you can synchronize them too, giving you convenient access to all your contacts.

Both RIM and Novell are committed to continue working closely together and provide our customers with high-quality products which address their mobility needs.

This version of BlackBerry Enterprise Server for Novell GroupWise also provides users with remote access from their BlackBerry devices to files stored on their office servers. (See [Figure 1](#).) Specifically, the “Files” feature allows you to securely retrieve, view, edit* (Requires additional editing software such as Docs To Go) and email documents stored behind your firewall on your Windows network file shares. So, if you’re running to a meeting and realize you need to look at

a certain file stored on your network, you can now access it from your BlackBerry smartphone. Or, if you are a frequent road warrior and need access to certain files while away from the office, you can leave those files on your network share and access them from your BlackBerry device as needed* (minimum device code version 5 needed).



Figure 1: BlackBerry Enterprise Server for Novell GroupWise lets you remotely access from your BlackBerry smartphones files stored behind your firewall on your Windows network file shares.

The attachment file support in this latest release of BlackBerry Enterprise Server for GroupWise has been expanded as well. It now lets you open and view any word processing document, spreadsheet or presentation that you might receive as an Open Document Format (ODF) e-mail attachment on your BlackBerry. This includes documents created with OpenOffice.org applications.

Additionally, if you have the BlackBerry Presenter peripheral, you can run a whole PowerPoint or PDF presentation directly from your BlackBerry handheld. This reduces the need to carry your laptop around to meetings just so you can give a presentation. You can leave your laptop back at the office and just bring your BlackBerry.

BlackBerry Enterprise Server 5.0.1 for GroupWise now lets you forward calendar meeting invitations including those invitations that contain file attachments, directly from your BlackBerry smartphone. (See [Figure 2](#).) It also gives you the power to create, move, browse, rename and delete your GroupWise e-mail folders from your BlackBerry just as you can from your GroupWise client. All of these new features empower your mobile users, ensuring they have the right tools to drive business on the go. After all, there is no need to always have your laptop with you.

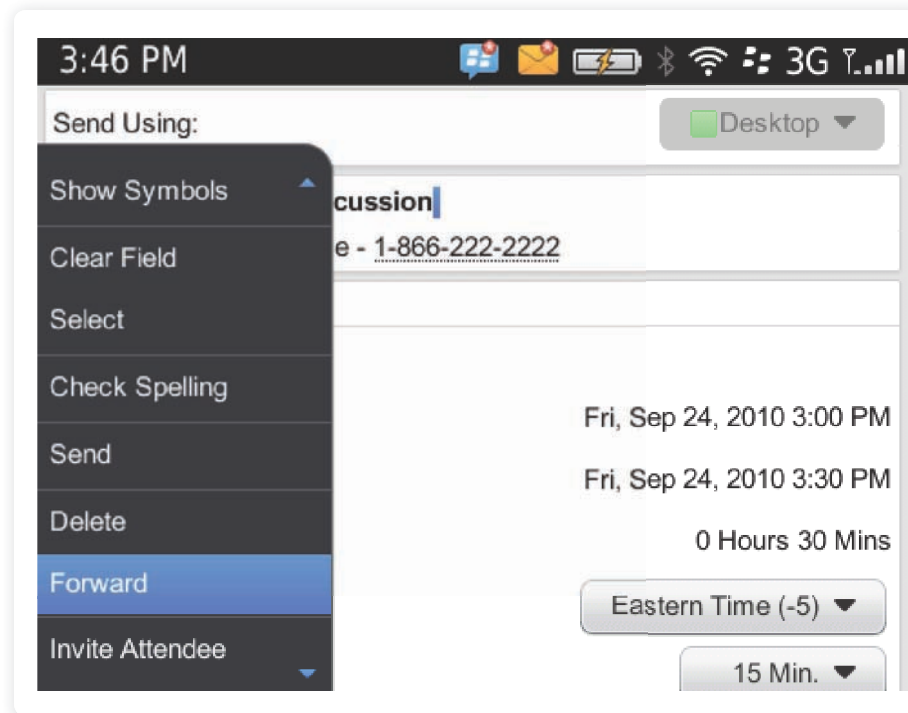


Figure 2: From your BlackBerry, you can forward calendar meeting invitations, including invitations that contain file attachments.

> Simplifying Mobile Management

The enhancements to BlackBerry Enterprise Server 5.0.1 for GroupWise not only address the wish lists of the BlackBerry and GroupWise user community, but this release also addresses several key requirements of the IT administrator community as well. As a primary example, the product is now much easier to install and manage. To help you get a feel for the ease of installation, you can take a virtual installation walkthrough by visiting this tutorial [insert this link on "tutorial" docs.blackberry.com/en/admin/deliverables/20949/index.html?name=Tutorial+-+BlackBerry+Enterprise+Server+for+Novell+GroupWise5.0.1&language=English&userType=2&category=BlackBerry+Enterprise+Server+for+Novell+GroupWise&subCategory=] provided by RIM.

In terms of ease of administration, RIM has introduced the BlackBerry Administration Service (BAS), which offers dynamic, Web-based administration. BAS provides admins with centralized management of your BlackBerry Enterprise Server, letting you manage user accounts; assign user groups, administrative roles and software configurations; and apply IT policies to user accounts from any browser on your network rather than having to go to a specific server. (See [Figure 3](#).)

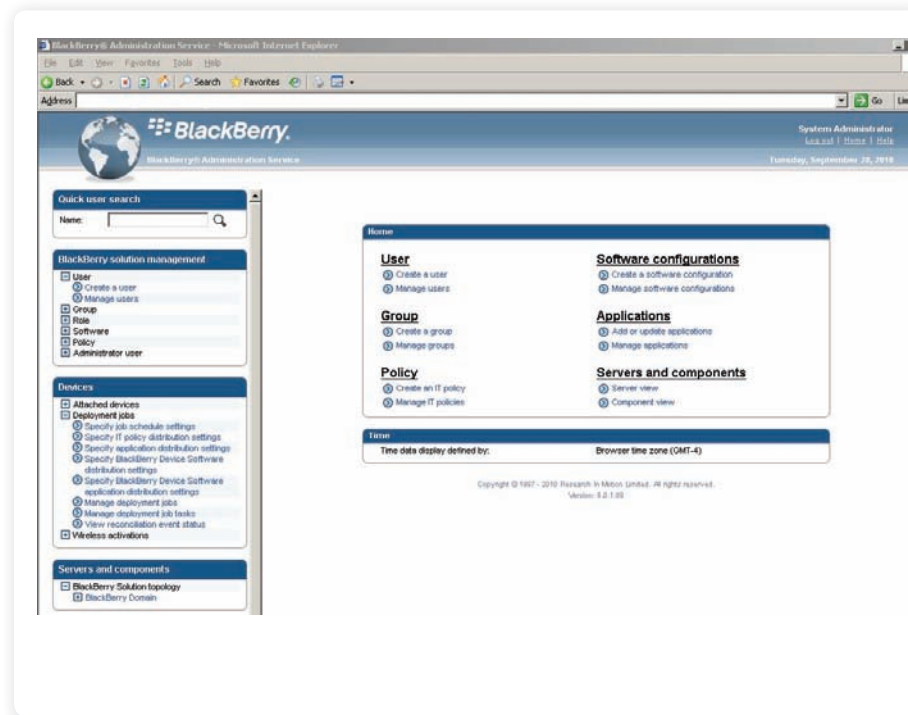


Figure 3: The BlackBerry Administration Service (BAS) simplifies management of your smartphones, user accounts and policies with centralized Web-based administration.

As a replacement for the BlackBerry Manager Console, the BlackBerry Administration Service has a new design and layout, but these changes are designed to make administration more intuitive and simple from a browser-based environment. To give you a feel for how simple it is to carry out certain administration tasks, you can visit RIM's interactive tutorial [Insert this link on "RIM's" interactive tutorial" <http://docs.blackberry.com/en/admin/deliverables/12167/index.html?name=Tutorial+-+BlackBerry+Administration+Service&language=English&userType=2&category=BlackBerry+Enterprise+Server+for+Microsoft+Exchange>] for the BlackBerry Administration Service.

RIM has also incorporated some new functions into the browser-based administration service. One of these is the addition of new IT policies that give you more control over what your users can and cannot do. For example, you can use these IT policy rules to manage security and behavior features of your BlackBerry devices in relation to encryption, user passwords and passphrases, protection of user data, and control of device resources (i.e., cameras and GPS capabilities) that are available to third-party devices. There are over 450 IT Policies in total.

The BlackBerry Administration Service also lets you create roles for your administrator accounts, allowing you to assign different levels of access and permission to different administrators. It comes with pre-defined roles that determine what tasks administrators can perform. For example, it has pre-configured roles for security managers, enterprise-wide admins, senior helpdesk engineers, junior helpdesk technicians, server admins, and even a role with limited permissions that allows individual users to manage their own devices. In addition to the pre-defined roles, you can create custom roles based on your unique needs. Roles can be assigned to individuals or groups.

To further simplify management of your BlackBerry devices, the new browser-based console also provides monitoring dashboards that give you instant visibility into performance and health metrics such as number of devices contacted recently, user statistics and the status of various BES components. In addition to at-a-glance statistics, you can drill down further into areas such as system health monitoring, which provides a unified, color-coded view of your BlackBerry environment as it relates to potential server or user issues. You can also monitor the health of your BlackBerry environment from a BlackBerry device by leveraging the new Web-based handheld dashboard.

Now if you have personal address books in addition to your business address book, you can synchronize them too, giving you convenient access to all your contacts.

But the feature that will likely simplify administration of your BlackBerry environment the most is the new BlackBerry Web Desktop Manager. This new tool lets you introduce self-service into Smartphone administration, allowing your users to address some of the most common device management tasks on their own. For example, it allows users to create activation passwords so they can activate their BlackBerry devices over the wireless network without having to contact your helpdesk. You can also give users the ability to use the Web Desktop Manager to configure how their address books and calendars are synchronized, as well backup and restore settings for data on their devices.

> **Enhancing Mobile Management**

Another enhancement that will appeal to IT administrators is that BlackBerry Enterprise Server 5.0.1 for GroupWise now fully uses the SOAP protocol to interact with Novell GroupWise servers. This fundamental architecture change results in improved stability, increased performance and better scalability. It also eliminates the need to install the GroupWise client on your BES servers. In terms of improved scalability, testing indicates that a server running BlackBerry Enterprise Server for GroupWise can accommodate up to 500 users per server under a fairly heavy load. Capacity of previous BES versions varied based on certain environment configurations and therefore may have required additional BES servers to accommodate larger deployments. Upgrading to BES 5.0.1 will allow you to do some server consolidation—saving both hardware and licensing costs. And to help with that server consolidation, RIM provides the Enterprise Transporter tool, which allows you to effortlessly move users between BES servers without having to delete the user account on the original server and then reactivate it on the new server. Not only does this save you administrative effort and time, but the consolidation is completely transparent to the end user.

With the use of the SOAP protocol, you'll need to make sure that you have turned on SOAP at all the GroupWise Post Office Agents (POAs) where you have BlackBerry users. Additionally, if you use a proxy server when configuring the SOAP port, make sure your proxy server is transparent.

The enhancements to BlackBerry Enterprise Server 5.0.1 for Novell GroupWise not only address the wish lists of the BlackBerry and GroupWise user community, but this release also addresses several key requirements of the IT administrator community as well.

BlackBerry Enterprise Server 5.0.1 for Novell GroupWise (<http://www.novell.com/products/groupwise/>) also has built-in high availability to help you reduce the risk of downtime. It lets you set up a standby BlackBerry Enterprise Server that your primary BlackBerry Enterprise Server server can fail over to if certain customizable thresholds are reached. (See [Figure 4.](#)) It also gives you the option to do load balancing between your primary and standby servers for some shared service components. Finally, you can perform a manual failover to your standby server to allow you to carry out planned maintenance tasks without affecting service to your BlackBerry smartphones.

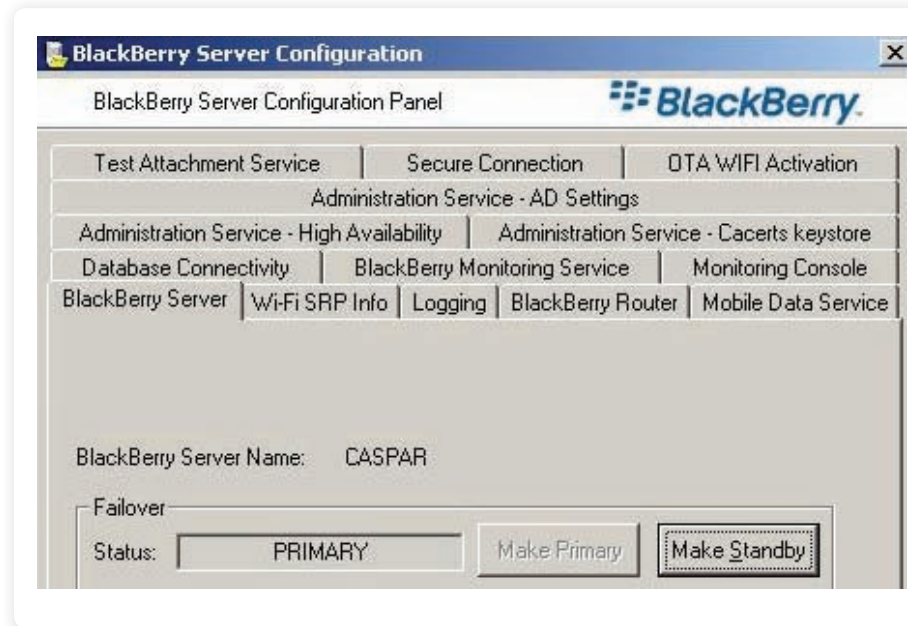


Figure 4: You can create a standby that your primary server can fail over to if certain thresholds are reached.

> Secure, Scalable and Reliable Mobile Access

The commitment between Novell and RIM to further improve GroupWise mobility has led to the release of a BlackBerry Enterprise Server for GroupWise v 5.0 SP1 product that lets you give your mobile users secure, scalable and reliable access to their critical business information. It also simplifies and enhances your administrative efforts while delivering the system-wide scalability and availability you need. To learn more about how you can mobilize your GroupWise users with BlackBerry Enterprise Server for Novell GroupWise, visit <http://na.blackberry.com/eng/services/business/server/full/>.

An Out-of-the-Box Business Case

Novell Identity Manager 4 Advanced Edition Ships with an Airtight Built-In Business Case

By Bill Tobey

As a regular Connection reader you're probably well aware that Novell Identity Manager 4 (<http://www.novell.com/products/identitymanager/launch/>) begins shipping this month. You may have seen a demo at BrainShare, or read some of the press coverage. Hopefully you're already thinking about a business case to justify the upgrade to your management.

The good news is the Identity Manager product team has done most of that work for you. The development of Identity Manager 4 was fundamentally driven and directed by the concerns and priorities of business and executive management. This release is a software love letter to C-level management, with an airtight business case baked into the initial requirements.

Why should identity management and user provisioning matter to management? Because they directly affect the organization's operational efficiency, compliance and security. Consider just a few statistics:

- New users often wait up to three weeks for full access to the systems and services they need to fulfill their work roles. That's a serious productivity hit.
- Password resets account for up to 35 percent of help desk calls, and cost up to \$40 per call. It adds up quickly.
- Up to 60 percent of all user accounts are invalid, because users aren't de-provisioned promptly. Or ever.
- Access control accounts for 30 percent of enterprise development costs.
- Compliance consumes up to 25 percent of the typical IT budget.

Let's take a look at some of the new technical features that directly address these important business issues. To be clear, we're talking primarily about Identity Manager 4 Advanced Edition, the enterprise-class member of the Identity Manager 4 product family.

> **Advanced Reporting and Metrics**

If there's anything that warms the managerial heart it's quantifiable evidence of improved performance, especially when that improvement is documented in auditable, black and white, bound and collated detail. Business-side stakeholders will swoon when they see the comprehensive suite of reporting capabilities that have been tightly integrated into the Identity Manager 4 product core.

What it is – To prime the analytical pumps, Novell is providing a variety of widely informative reports, with out-of-the-box templates that are easily customized with the included packaging tool. The new Identity Reporting Tool leverages event-driven data collection and a dedicated reporting warehouse to provide consolidated visibility into users' provisioning status changes and compliance events across physical, virtual and cloud-based resources. It effectively breaks down

the walls of security silos across the enterprise. It's also easy to import third-party reports from sources like iReport. You'll see not only current status, but also the historical trending and forensic views—who has access to what and who authorized it—that auditors are increasingly demanding. Robust automation minimizes IT support requirements and costs with features that include graphical run scheduling, policy-based data collection, completed report distribution and storage.

The user interface provides simple, intuitive access to an overview of existing reports, their current status, and the systems under management. (See Figure 1.) A scheduling interface provides a configuration menu for defining run time, frequency and other settings. (See Figure 2.) A repository displays definitions and schedules for all existing reports. (See Figure 3.) And a calendar display shows all scheduled report runs. (See Figure 4.) Completed reports document many views of user activity, resource provisioning, access and policy events, such as a per-user record of separation of duties policy violations. (See Figure 5.)

Why it's important to management – The new reporting functionality in Novell Identity Manager 4 Advanced Edition provides meaningful insight into your organization's user provisioning operations. It lets you compare actual and desired access states for individuals, groups, roles or resources. It gives you the insight to increase productivity, tighten security, measure performance and reliably document provisioning events for compliance.

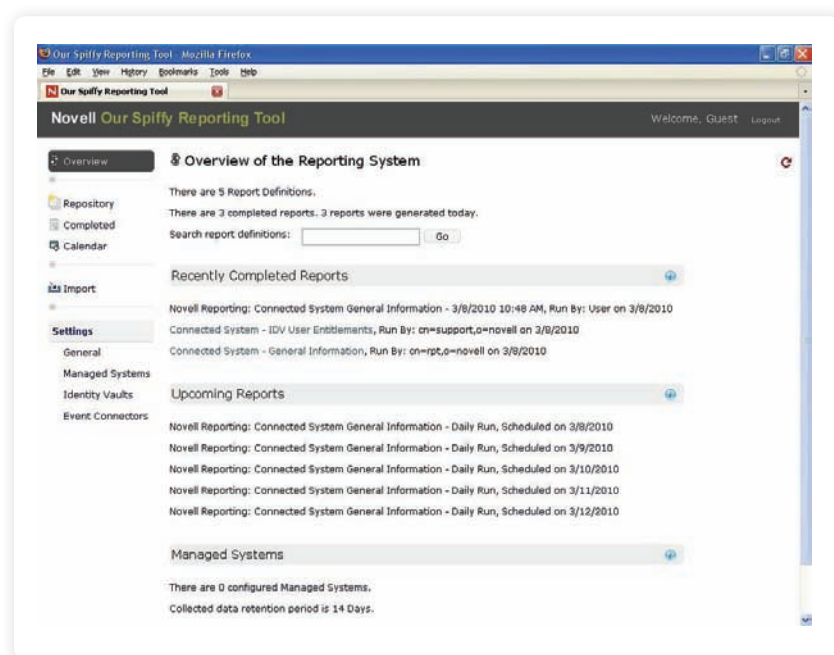


Figure 1: The Identity Reporting Tool provides an overview of existing reports, their current status and the systems under management.

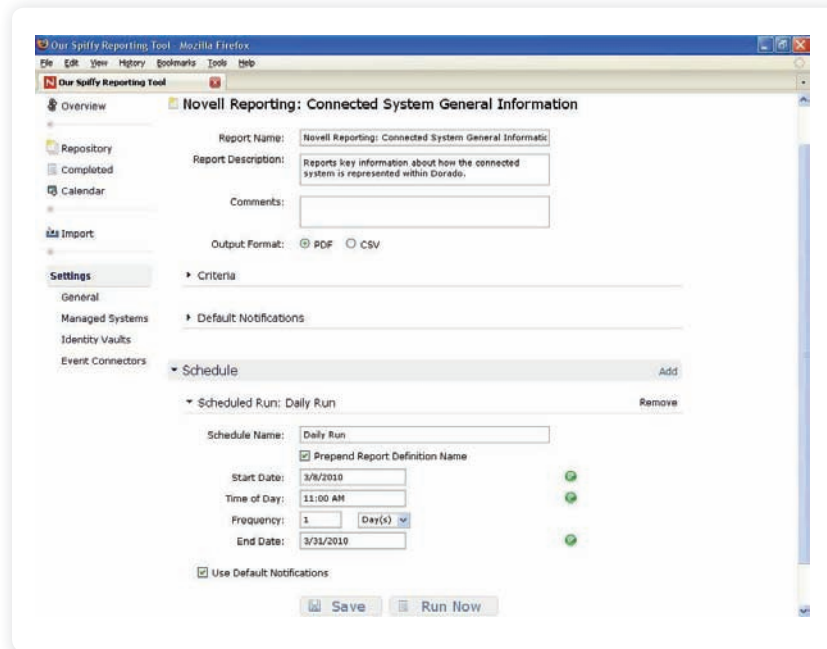


Figure 2: The Identity Reporting Tool features a scheduling interface for defining run settings.

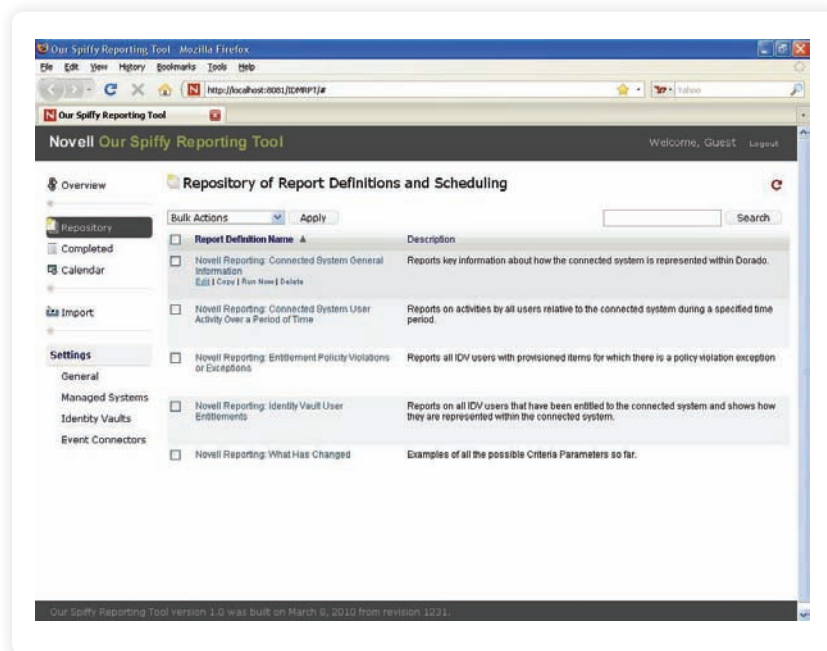


Figure 3: The Identity Reporting Tool features a repository of report definitions and schedules.

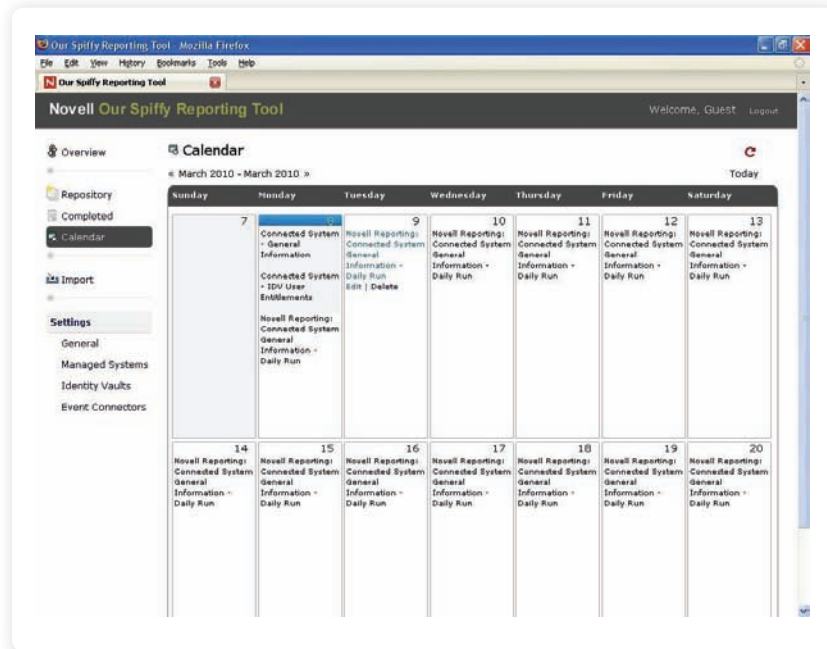


Figure 4: The Identity Reporting Tool provides a calendar display of scheduled report runs.

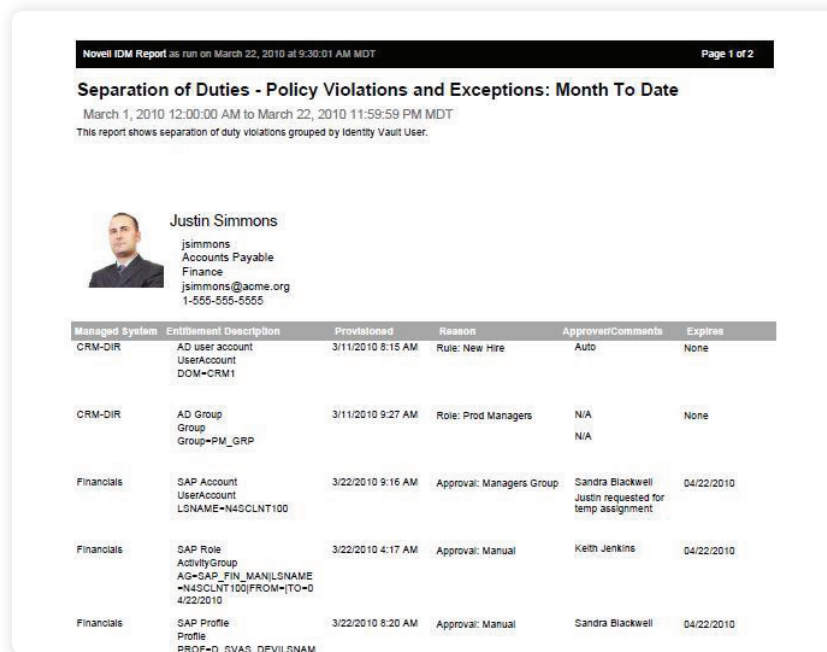


Figure 5: This sample report shows one employee's separation of duties violations for the reporting period.

> Policy Mapping and Integration

Defining a job role for role-based provisioning is a simple enough task, but finding and associating all the resources and permissions that ought to go with it is something else entirely. That piece of the provisioning automation puzzle retains more than enough complexity to require significant, ongoing support from the IT organization. But now there's Novell Identity Manager 4 with Role Mapping Administrator.

What it is – Role Mapping Administrator is a new role-and-policy integration tool that automatically discovers the authorizations that can be granted on systems and services throughout your IT environment. It provides a single-pane view of all defined roles and resource authorizations. (See Figure 6.) More importantly, it lets business users—not just IT administrators, consultants or developers—map and associate roles to entitlements through a simple drag-and-drop interface. It's a breakthrough innovation in the way identity systems are programmed, and it works across all the major IT systems that integrate with Novell Identity Manager—which now include SAP, Microsoft SharePoint and SaaS applications like Salesforce.com

Why it's important to management – Automated, role-based provisioning is a critical element in keeping people productive as their roles and responsibilities change, keeping the environment secure in the process, and controlling the costs of compliance. Role Mapping Administrator puts access control responsibility in the hands of the business managers who understand roles and resource entitlements the best. It streamlines and accelerates the provisioning process, making an order-of-magnitude reduction in administrative time, labor and cost.

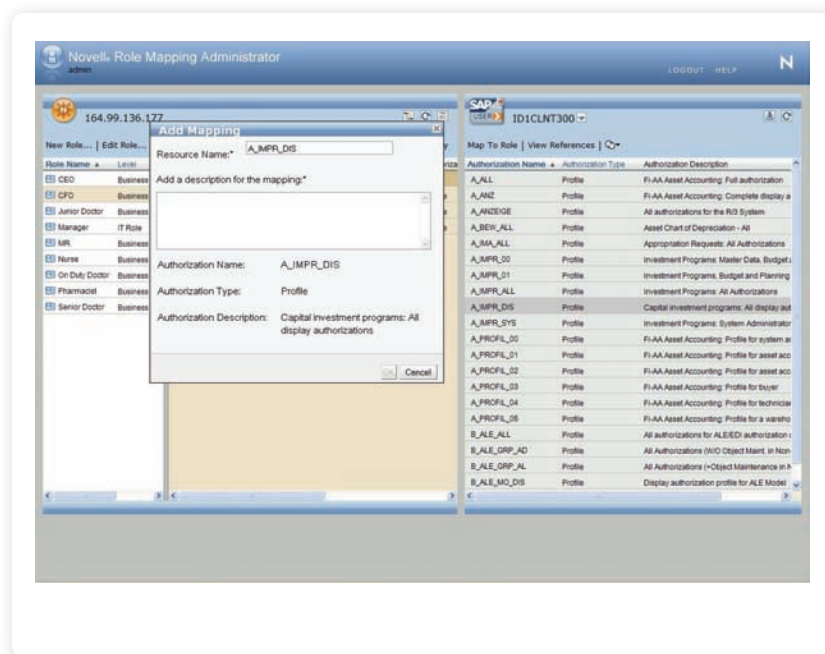


Figure 6: Role Mapping Administrator provides a single-pane view of all defined roles and resource authorizations.

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BECOME MORE INTELLIGENT, CLOUD-READY AND SECURE

Intelligent

Novell Identity Manager 4 helps enterprises gain intelligence about operations by providing unmatched visibility into user access. The Identity Manager 4 capability to extend across physical, virtual and cloud environments as well as convert identity and provisioning data into useful information through a role-relevant dashboard and reports for relevant stakeholders—empowering them to take actionable business decisions—is at the core of our intelligence driven approach.

Cloud-Ready

Novell Identity Manager 4 offers the scalability required of large-scale deployments by providing seamless, real-time user provisioning and de-provisioning, request and approval processes, password changes, identity profile updates and reporting out to common SaaS applications such as Google Apps or Salesforce.com. With Novell Identity Manager 4 enterprises can extend their enterprise policies to cloud applications with confidence.

Secure

Novell Identity Manager continues to be the only solution uniquely architected for real-time response across multiple environments which practically eliminates security holes due to delayed de-provisioning. Enhancements to Identity Manager 4 include tools to ensure that enterprise security policies are consistent across different systems, eliminating a common source of security and compliance problems. With a tightly integrated view of identity across the enterprise, Novell Identity Manager 4 provides the foundation for the sophisticated security required by today's threats.

> Policy Management for an Agile Organization

Whether anyone stops to think about it, today's business organizations inevitably own and maintain a sizable investment in access control policies. But the many different systems where that policy is created and controlled all share one unstated assumption—that the organization and its resource allocation requirements won't change significantly, or frequently. In reality, of course, large-scale change is virtually continuous, and the inflexibility of existing access controls is one of the persistent sources of friction, high cost, and slow response. Novell Identity Manager 4 (<http://www.novell.com/products/identitymanager/launch/>) Advanced Edition provides a game-changing alternative: the first systematic solution for managing distributed access control policies as high-value intellectual property.

What it is – Package Manager is a modular policy framework that contains and manages loosely connected building blocks of resource access policy, which can be developed internally or delivered as out-of-the-box content modules from Novell or other third-party providers. Package Manager makes it simple to add, modify, update or eliminate policies for any connected system. It automatically detects, notifies and resolves dependencies to eliminate unintended impacts, and tracks state changes for trouble-shooting and compliance reporting.

Why it's important to management – Modular policy management makes it vastly easier to deploy, visualize and manage resource access policy across a large and diverse organization. More importantly, it enables swift, secure and efficient adaptation to dynamic business and regulatory environments.

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IDENTITY MANAGER 4 EARLY ADOPTER

Novell is offering customers a special early adopter discount for Identity Manager 4 Advanced Edition. All you need to do to secure the discount for upgrades or new purchases is fill out a simple registration form before December 31, 2010. Once registered, customers can take advantage of the discount through October 31, 2011 (or their next renewal cycle, whichever is longer).

Don't miss out!

> Cloud-Ready Identity Management

Hosted applications and cloud-based services aren't novelties anymore; they're becoming essential extensions of the enterprise IT environment. Business operations are increasingly dependent on them, but until recently there's been an inescapable and unenviable trade off. You could have applications in the cloud that were economical and instantly scalable, or applications behind the firewall that were secure, manageable and predictable—not both. Now, however, Novell Identity Manager 4 extends identity-based security and access control equally to on-site and hosted applications.

What it is – Identity Manager 4 features a cloud-ready architecture that extends identity and access control transparently across physical and virtual resources, whether located in the data center or in the cloud. New drivers offer seamless integration with SaaS and hosted solutions such as Salesforce.com and Google Apps, enabling a full complement of identity-based services—automated provisioning and de-provisioning, request and approval workflows, password changes, profile updates and detailed reporting.

Why it's important to management – Developing the capability to securely integrate cloud-based resources into the enterprise environment isn't just an IT strategy, it's a business strategy—one that will be indispensable as organizations continue their adaptation to a business environment that is increasingly dynamic, global and competitive.

> A Role-Sensitive User Dashboard

You can't shift resource provisioning responsibility from IT to the business organization without giving business users the information they need in a format that supports swift, accurate decision making.

What it is – Novell Identity Manager 4 includes a new role-sensitive work dashboard that gives every business user a single, consolidated view of upcoming tasks, resource and role assignments, and the status of outstanding requests. (See [Figure 7](#).) It provides an easily understood view of who has access to what, and eliminates the jargon gap for non-technical users tasked with resource access decisions. Built-in single sign-on support includes out-of-the-box integration with Active Directory / Kerberos ticket systems, SAML assertions and SAP logon ticket systems, eliminating the need for an external SSO tool when accessing Identity Manager 4.

Why it's important to management – Personalized, role-sensitive work dashboards put resource access control in the hands of business users, giving them the real-time information they need to enhance productivity.

> A Business Case that Practically Writes Itself

Novell Identity Manager 4 is an IT infrastructure software product that will make your enterprise and business operations demonstrably more intelligent, secure, cost-efficient, compliant and ready for the cloud. It's a business proposition that makes bottom-line and strategic sense, straight out of the box. For more information visit www.novell.com/idm4.

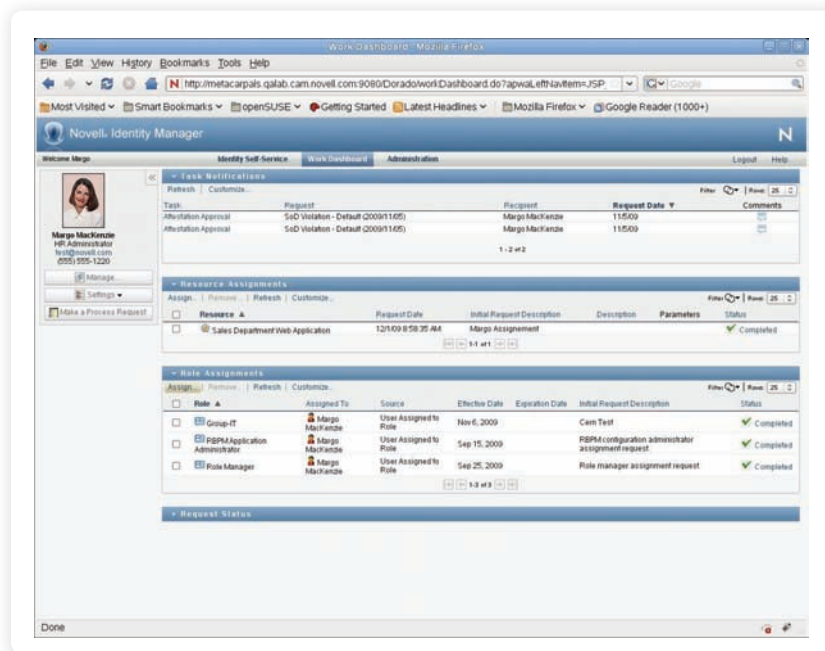


Figure 7: The new role-sensitive work dashboard gives every business user a single, consolidated view of upcoming tasks, resource and role assignments, and the status of outstanding requests.

Top Grade Highland Community College

Using Novell Identity Manager and Novell Access Manager has given Highland Community College the opportunity to improve the student experience while reducing overall support costs.

> Overview

Highland Community College is a comprehensive community college offering educational programs designed to transfer into a baccalaureate program at senior institutions, leading directly to employment or satisfaction of a special interest. Its academic divisions include business and technology, humanities and social sciences and sciences and health.

> Challenge

The IT department at Highland Community College was looking to provide a streamlined yet secure online environment for its students. Previously, students had to remember multiple user names and passwords and were presented with different screens when logging into Novell GroupWise, Novell NetStorage, Elluminate, Moodle and other applications. "This causes a great deal of consternation," said Nathan Hensal, director of ITS for Network, Desktop and AV Support for Highland Community College. "Passwords for various Web-based applications had to be reset by different departments, aggravating students and tying up internal support resources."

To alleviate these challenges, the college set out to unify the log-in process. "We needed a common set of credentials so students could access all the resources they need, regardless of whether they're in the classroom, in computer labs or at home," said Hensal. "Having a uniform, streamlined process would create a more positive experience for students, while reducing the number of help desk calls. That's important for community colleges like ours that don't have a large support staff."

Additionally, the college sought to overhaul its manual, error-prone user provisioning processes. "When account provisioning issues such as duplicate user names arose, we had to delay issuing e-mail and other accounts to those students," said Hensal. "At the start of each semester, we were spending weeks fixing broken accounts, which was a disservice to the student and could cause delays to the start of their class."

> Solution

Highland Community College engaged Paragon Development Systems, a Novell Platinum Partner, to identify, design, test and implement the appropriate solution. The company found Novell identity and security products to be ideal for the college.

"Novell Access Manager was the best choice for Highland Community College," said Tom Scott, principal architect for Paragon Development Systems. "The ability to perform Web authentication without requiring an agent on Web servers is important when using cloud-based applications such as

Moodle, our hosted learning management system. Novell Access Manager is very easy to integrate and administer in these environments.”

The college is now leveraging Novell Access Manager (www.novell.com/accessmanager) to enable Web single sign-on and authentication capabilities. “Now students log in once from a single screen to access protected resources on the Highland Web site,” said Mike Meyer, principal architect for Paragon Development Systems. “From that point on they can access all necessary resources, without having to re-authenticate.”

Paragon also implemented Novell Identity Manager to synchronize user information across Novell GroupWise, SunGard Banner and other applications. The college now manages more than 6,000 identities using Novell Identity Manager (www.novell.com/identitymanager). The software enables the automation of user provisioning by leveraging student records from SunGard Banner to set up the necessary accounts in other applications, saving the IT team a significant amount of time.

> Results

Paragon Development Systems helped the college establish a more user-friendly experience while driving down IT costs. “We wouldn’t be where we are today without Paragon Development Systems,” said Hensal. “They recognized the uniqueness of our environment and tailored the implementation around that. We’re very grateful for their time and expertise.”

“Novell Access Manager reduced the complexity of the log-in process and cut password management support issues in half,” said Hensal. “Also, the user account data we can gather through Novell Access Manager will enable us to direct customized content based on user type. For example, we can serve up targeted news pages and other information to specific groups of users for added convenience.”

Novell Identity Manager strengthened security while simplifying system administration. “We can manage all identities through a single console and gain an enterprise-wide view of all account activity,” said Hensal.

Additionally, the software helped Highland streamline the student payment process. “Novell Identity Manager enabled us to fully realize our investment in our new online bill payment system,” said Hensal. “Students need a Highland e-mail account before they can use our online payment system. Thanks to Novell Identity Manager, we can quickly create an account, enabling students to register and pay for classes during one interaction.”

In addition, Novell Access Manager (www.novell.com/accessmanager) and Novell Identity Manager (www.novell.com/identitymanager) have freed Highland’s support teams to focus on delivering more student services. “Manually deprovisioning accounts used to take our user services librarian four to five weeks to complete,” said Hensal. “Now he can spend that time helping faculty develop online courses.”

The college also plans to leverage additional capabilities of the Novell solution. “We’re poised to take advantage of the Novell Identity Manager role-based provisioning capabilities as we extend the solution to our faculty and staff,” said Hensal.

Raise Your Workload IQ

Start Making All of Your Workloads More Intelligent

by Todd Swensen

Remember when “intelligent workload management” meant postponing a conference call so you could head home early on a Friday afternoon—and “cloud computing” meant playing Solitaire on your laptop on the flight from Chicago to New York? It goes to show that enterprise computing has undergone some major shifts over the past few years, driven by the rise of virtualization and the development of new outsourced services models. And as with any rapid shift in the IT landscape, these changes have introduced some tough questions and—many would argue—the potential for a lot of new IT complexity and uncertainty.

Fortunately, data center virtualization, intelligent workload management and *aaS—which are all obviously interconnected—are beginning to come into sharper focus. As these relatively new markets mature, vendors and IT departments are working through the issues and developing practical ways to manage and apply them in ways that make sense. In other words, the industry is learning how to make trends like cloud computing look more like practical, serviceable extensions of real-world IT infrastructures and less like a replay of the dotcom boom of the late 90’s. As a result, adoption of these technologies is beginning to accelerate at a fairly impressive rate. (See [Figure 1](#).)

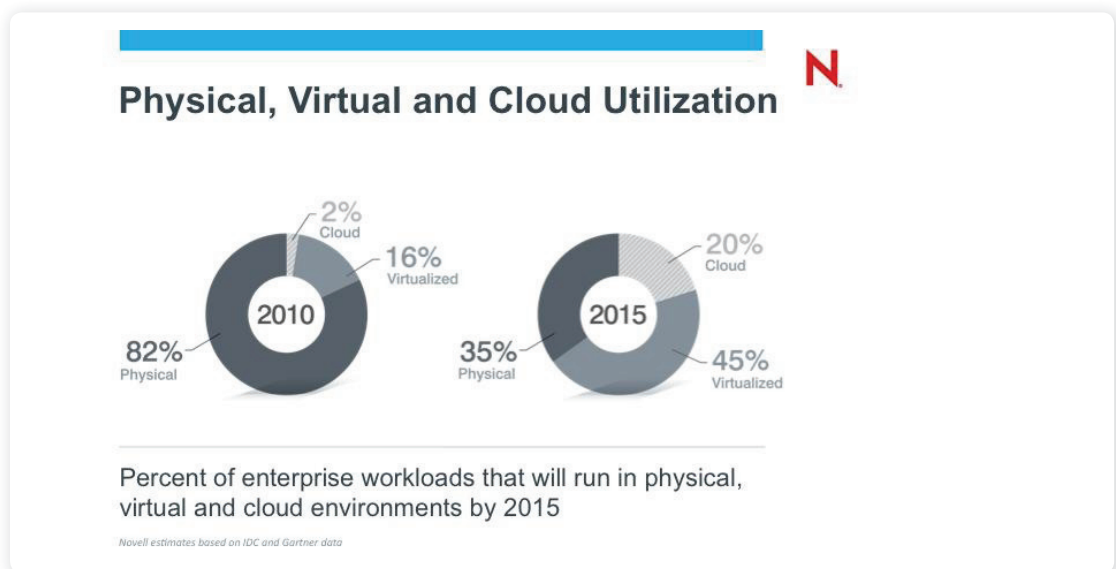


Figure 1: The rapid growth of virtual and cloud computing are making intelligent workload management an unavoidable necessity.

So what are some of the key factors that are steadily transforming intelligent workload management and cloud computing from interesting new trends into practical, mainstream enterprise solutions? There are a few key concepts and practices that most experts agree will fuel the widespread adoption of these technologies over the next few years.

> **The Evolution of the Workload**

There's certainly nothing new about the concept of a workload. We all know it's simply an integrated software stack that includes just enough operating system, middleware and some kind of application. But to work well in virtualized or cloud environments, these workloads need to evolve to become more portable and platform agnostic, so they can be combined into business services and deployed quickly into any kind of physical, virtual or cloud infrastructure. For example, you should be able to quickly deliver a business service that combines a data base workload running on physical hardware in a legacy data center, an application server running in a virtualized private cloud, and a presentation and graphics server running in a public cloud. And you should be able to move these workloads quickly and automatically across these different environments whenever it makes sense. To meet these new portability requirements, many enterprises are turning to software appliances as a fast and practical way to package, configure and deploy, or in other words build self-contained workloads into physical, virtual and cloud environments. This approach makes sense, but building more portable workloads is only part of the equation. You also have to find effective ways to manage, secure and measure those workloads as they move across these different environments.

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WHAT MAKES A WORKLOAD INTELLIGENT?

What are the biggest differences between the traditional workloads of the past and the intelligent workloads of the future? Intelligent workloads are:

- **Policy-driven**, which means they can regulate and manage themselves, recognize when they are at capacity, and automatically find additional capacity—all based on pre-defined policies.
- **Secure**, which means they include security controls and real-time monitoring and alerting that move with them between environments.
- **Compliant**, which means they understand and follow security protocols and processing requirements and provide built-in log management and compliance reporting.

> **Gaining Flexibility without Losing Control**

The ability to instantly and automatically move workloads among different physical, virtual and cloud resources depending on the situation has immense appeal and offers obvious benefits for lowering costs and improving service levels. But that flexibility simply can't come at the expense of operational control or increased risk. To take advantage of portable workloads, enterprises have to find ways to extend all of their essential operational and risk control mechanisms across all their different physical, virtual, and internal and external cloud environments.

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NOVELL WORKLOADIQ SOLUTIONS

Novell can increase your WorkloadIQ with solutions that help you build, secure, manage and measure workloads across all your physical, virtual and cloud environments:

- **Build** with SUSE Linux Enterprise Servers and the SUSE Appliance Program.
 - **Secure** with identity and access management, compliance management, and security management for intelligent workloads.
 - **Manage** with virtualization, workload, and endpoint management solutions for intelligent workloads.
 - **Measure** with complete business service management solutions for intelligent workloads.
-

This isn't easy, because in most cases physical, virtual and external cloud environments have separate and siloed governance and compliance, business service management, and IT service management mechanisms in place. Enterprises are justifiably reluctant to move workloads from their secure, compliant and meticulously managed legacy data centers to an external cloud environment where they have to trust a third-party, off-premise vendor to provide those same services. So what's the answer? In very simple terms, you have to break down the boundaries, so your workloads can access the same management, security, monitoring and compliance mechanisms across all your physical, virtual and cloud computing environments.

> **Adding Identity to Every Workload**

Of course, that's not as easy as it sounds, especially when many of those mechanisms are ultimately controlled by third-party cloud providers. In a world where workloads need to move freely and securely among physical, virtual and cloud environments, it no longer makes sense to develop complex rules engines and workflows that can work across every possible type of environment and infrastructure. Instead, the Novell approach—called WorkloadIQ (www.novell.com/workloadiq), embeds security, management, monitoring and compliance controls inside the workloads themselves. In a way, this approach does for workloads what identity has done for individual users, and it's the key component that makes workloads intelligent. By embedding identity-like attributes into workloads, you make it possible for them to act according to business policies, automatically find alternative computing capacity to optimize performance, adhere to established security controls in any environment and much more. You also embed a kind of workload RFID tag that can provide real-time tracking, monitoring and alerting for every workload—even if it's running in an off-premise cloud environment. Ultimately, this identity-based approach to workload management is the key to breaking down the silos between environments, making workloads totally portable and imbuing them with all the attributes and capabilities they need to stay compliant, safe and well managed in any environment.

> WorkloadIQ: Build, Secure, Manage, Measure

The effort by Novell to make workloads more portable and intelligent revolve around a new WorkloadIQ strategy—backed by a family of products and solutions designed specifically to build, secure, manage and measure the kinds of flexible, intelligent workloads you need to take advantage of physical, virtual and cloud computing. Together, these technologies can help you build intelligent, policy-driven, identity-aware workloads that will enable you to take full advantage of everything cloud computing and virtual technology can offer your business.

For more information on how Novell WorkloadIQ can help you build, secure, manage and measure intelligent workloads, visit www.novell.com/workloadiq or visit our blog at www.workloadiq.com.

ATT Live in Vegas

Top Five Reasons to Sign Up Now

by Sheila Mangione

In less than two months, Novell specialists from around the world will meet in Las Vegas for Novell ATT Live 2010 [<http://www.novell.com/training/attlive/>]. It's the training event of the year, and it's happening December 7-10 at the new M Resort, Spa & Casino Las Vegas [<http://www.themresort.com>].

Join us for this unique opportunity to learn from top Novell instructors, mingle with leading industry consultants, exchange ideas with your peers and even head back home with new Novell certifications to add to your resume. If you haven't signed up yet, read on and discover the top five reasons why you don't want to miss ATT Live 2010 in Las Vegas.

> 1. Exciting New Sessions

This year, ATT Live [<http://www.novell.com/training/attlive/>] offers more than 50 new sessions, with something new in every Novell solution area. Check out the session list [<http://www.novell.com/training/attlive/>] for first looks at new Novell releases as well as heads-down, hands-on training on Novell applications and in-depth discussions of the industry's hottest topics.

If senior management in your organization is talking about private cloud initiatives, you can broaden your cloud expertise with sessions such as "Introduction to Novell Cloud Manager," "Administering a Novell Cloud Manager Environment," and "Novell Cloud Manager: Install and Configure." The background, knowledge, and hands-on experience these courses provide will give you a solid foundation for managing cloud environments more effectively in your enterprise.

Recently released, Novell Identity Manager 4 has robust features that position enterprises to address today's compliance mandates and tomorrow's identity challenges. If identity management is a top priority for your senior leaders, check out our seven new sessions on Novell Identity Manager, which range from an introductory course, "What's New with Novell's Identity Manager 4," to in-depth classes on the new reporting module, the resource model, and roles-based provisioning.

For ZENworks customers, we've developed informative sessions on the soon-to-be-released ZENworks Configuration Management 11. These sessions will smooth the upgrade from version 10, give you an overview of functions in the latest release, leverage endpoint security management features, provide insight into best practices and lots more.

> 2. Perennial Favorites

The ATT Live line-up [<http://www.novell.com/training/attlive/>] this year includes dozens of popular courses, many of these which have been updated to reflect new functionality and changing IT demands. Repeats of last year's favorites include sessions on Novell Open Enterprise Server 2 migration strategies, advanced administration for ZENworks Application Virtualization, file system and virtualization sessions for SUSE Linux Enterprise Server 11 and creating hardware virtualization platform independent software appliances with SUSE Studio.

Delivered at a highly technical level, these classes give you real-world expertise you can put to immediate use. You'll leave Las Vegas with enhanced skills that enable you to deploy solutions faster and respond quickly and confidently if issues arise. The money you spend for this in-depth, instructor-led training will more than pay for itself. The knowledge you gain will help you use the Novell solutions to their fullest, so your enterprise gets maximum value from its investment.

With such a full line-up, it's impossible to attend every session that interests you. We want to make sure you don't miss out on any of the valuable information covered throughout the four days. So your ATT Live registration fee includes a CD containing all conference presentations, not just the ones you attend in person.

> 3. Top Instructors, Dynamic Speakers

ATT Live sessions are led by top Novell instructors with comprehensive knowledge of their subject matter and real-world experience in putting Novell solutions to work. These are pros who can provide a high-level overview and then delve into practical use cases that illustrate how to unleash the full potential of the Novell solution covered in the session. Novell product managers will also be on hand to give you insights into Novell product roadmaps.

Our keynote speakers are two of most dynamic speakers from Novell. Guy Lunardi, director of client preloads, is responsible for product management and business development of Linux OS offering from Novell for client computing. Jo De Baer, product manager for Novell Cloud Manager, focuses on the complete product portfolio related to our Workload IQ strategy.

> 4. Industry-leading Certification

Novell certifications [www.novell.com/training/certinfo] demonstrate that you have the skills to perform your job effectively. They give you an edge when you're vying for high-profile assignments, seeking a promotion or pay raise, or looking for a position with another company.

If you're preparing for a certification, ATT Live [<http://www.novell.com/training/attlive/>] is a great place to be. Just sign up for Session MISC01, Novell Certification Opportunity, and take the exam of your choice at no extra charge. Availability of the Practicum exams is very limited due to the complexities of configuration and connectivity, so you'll need to be among the first to register for this session to take Practicum exams.

You must register for the Novell Certification Opportunity to take advantage of this offer. Seating is limited, so sign up early [<http://register.novell.com/login/?action=prelogin&fuse=event&id=27155&lcode=enu>]. We'll contact you before the conference to discuss the exam you plan to take so we can have an appropriately configured system ready for you.

> 5.R&R

This year's conference takes place at The M Resort Spa & Casino [<http://www.themresort.com>]. This 2010 Forbes Mobil 4 STAR award winner offers spacious accommodations, fine dining and a variety of entertainment and leisure activities. It's an ideal place for a little rest and recuperation in between training sessions.

The hotel is 10 minutes from the Strip, so entertainment and shopping are near. But if the night life doesn't appeal to you, don't worry. The hotel is far enough removed that it won't be a distraction.

GWAVA is sponsoring a welcome reception from 5:00 to 7:00 pm on Monday, December 6. This is a great way to kick off the conference and connect informally with your peers as well as instructors, speakers and other Novell employees.

With so much emphasis on containing costs, we worked hard to make this conference a great value at an affordable price. The incredible extended rate of \$95.00 per night includes lots of complimentary services such as:

- Free in-room wireless Internet access — usually \$12.99 per day
- Daily access to the fitness center — usually \$14.99 per day
- Complimentary shuttle service to and from the Strip and the airport

With these extras, and with breakfast and lunch built into the conference registration fee, ATT Live is easy on your travel budget.

The hotel rates are good from December 4-13. To get this special pricing you must book your stay [<https://reservations.synxis.com/gc/rez.aspx?arrive=12%2f06%2f2010&Hotel=23146&Chain=8992&Nights=3&Promo=&Group=SNOV10>] before November 17.

> Sign Up Now and Save

ATT Live [<http://www.novell.com/training/attlive/>] combines the best of Novell Advanced Technical Training in a single, four-day event. At \$1,695.00, it's the most economical way to take advantage of real-time, in-class training by veteran Novell instructors. Sign up now and you'll save even more. Register [<http://register.novell.com/login/?action=prelogin&fuse=event&id=27155&lcode=enu>] by October 31 and take 10 percent off the price. Or register between November 1 and 30 and use the Novell Connection discount (code: ATTL90-NCMAG) to save \$100.00.

Attendance is limited to 200, so register [<http://register.novell.com/login/?action=prelogin&fuse=event&id=27155&lcode=enu>] today to secure