

Gain Control of Identity—

a Critical Step Towards the Agile Enterprise

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A NOVELL® NSURE™ SOLUTIONS BUSINESS WHITE PAPER

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Setting the Stage for Agility and Business Success

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“...we gave Novell our Editor’s Choice. The robustness and flexibility in its supported target systems, password and account management make this suite, which comprises DirXML, eDirectory™, Nsure Audit and iChain, a perfect fit with the many custom applications.”

—Network Computing, Secure Enterprise Magazine, November 2003

Why do some companies thrive despite the constant change that characterizes the business environment while others stumble and many fail? Highly successful enterprises are the ones that are able to respond swiftly to changing business conditions. Two key characteristics separate these enterprises from the rest of the pack and make them leaders in their respective industries: adaptability and agility.

These *agile enterprises* not only accommodate change, they embrace it. They figure out how changing conditions affect their basic business strategies. Once they settle on strategic refinements, they leverage technology to support and drive new or adapted strategies. While many enterprises struggle with highly complex information technology (IT) environments that isolate data and resources from the people who need them, agile enterprises have created an environment in which people communicate and collaborate easily—both internally and externally—and always have the tools and information required to work effectively.

Increasingly, agility itself is becoming a strategic imperative. Enterprises that are developing strategies to increase agility and adaptability are discovering that identity management is crucial. Identity management enables enterprises to put technology to work for the people who power the business. And *identity integration*—that is, getting control of identity—is a strategic entry point into secure identity management and an important step in becoming an agile enterprise.

Novell® Nsure™ identity integration solutions, key offerings under the Novell Nsure solutions family, enable enterprises to tackle the identity challenge while leveraging existing investments and business processes. They unify identity across

resource and location barriers, giving enterprises the foundation to securely deliver the right resources to the right people—anytime, anywhere.

This paper offers a definition of the agile enterprise and describes some of the obstacles that prevent many organizations from achieving the desired levels of flexibility and adaptability. It examines the role of identity integration in eliminating these obstacles. It also presents additional solutions that build on and leverage identity integration to deliver additional return on investment (ROI). Finally, it describes how Novell Nsure identity integration solutions can help an enterprise get control of identity, enabling it to achieve greater agility and adaptability.

THE AGILE ENTERPRISE

In today's dynamic business environment, enterprises have to be agile and adaptive to survive. Agility is the ability to respond to change *appropriately*, adapting business strategies in response to external drivers and executing those strategies effectively. The agile enterprise has positioned itself from a business process and technological perspective to:

- Act quickly when customer demands and expectations shift—or perhaps even anticipate changing requirements and lead the way with new products and services.
- Respond promptly yet judiciously to competitive actions such as the introduction of new products or price cuts.
- Comply easily with new and evolving government mandates.
- Weather economic downturns and ensure it is poised to take immediate advantage when the economy turns around.
- Integrate business processes and operations smoothly across companies after a merger or acquisition.

The agile enterprise has become a successful industry leader in part because of its ability to leverage the latest innovative changes in technology. Some of these enterprises use improved technology to create innovative new services or products, others to improve operational efficiency. Still others use new technology to get closer to their customers.

Innovatively applying technology helps the enterprise achieve important business goals,

including improving customer service, achieving greater agility to adapt to changing business conditions and ensuring strong IT security. In a study by CFO Research Services, more than 70 percent of the finance executives surveyed named these as the top three key goals driving future IT investments.¹

The agile enterprise is supported by an agile technology foundation that:

- Enhances system security.
- Provides better, more global access to data held in business applications.
- Improves productivity and service levels.
- Reduces management and service costs.
- Enables the enterprise to integrate and benefit from emerging and advanced technologies.

This foundation leverages previous IT investments and enables the enterprise to meet current requirements while setting the stage to support evolving business needs. It does so by providing the right connections among information resources to allow rapid dissemination of information regarding business decisions—for example, a price change—throughout the enterprise. It also provides full visibility into aggregate information on key performance indicators for decision-making as well as for monitoring and continuous improvement.

COMPLEXITY: A MAJOR OBSTACLE TO AGILITY

The evolutionary nature of business and technology has burdened the typical global 2000 enterprise with disparate processes, many employees in different locations and a hugely complex, siloed IT

¹ *The New IT Value Proposition: Focus on Business Process Optimization, Not Cost Cutting,* CFO Research Services, November 2003, page 1.

environment. This complexity inhibits an enterprise's efforts to act swiftly and adapt readily. Simplifying this environment is crucial to becoming an agile enterprise.

From a business perspective, the typical global 2000 enterprise has dozens to hundreds of offices and thousands of employees worldwide. Conducting business across national boundaries requires supporting different currencies, formats and legislation. Expansion and diversification have resulted in multiple divisions and product lines that don't always work well together. Mergers and acquisitions have introduced different—often incompatible—cultures, processes and business systems. A steady stream of new legislation—the European Union Data Protection Directive, Government Information Security Reform Act, Sarbanes-Oxley, Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley and others—put constant pressure on enterprises to control operations and report on activities.

From an IT perspective, these enterprises struggle with siloed IT environments that comprise dozens of disparate applications and data sources running across multiple operating platforms. This complexity developed as a result of numerous disconnected IT initiatives aimed at solving specific business problems—gaining a Web presence to get a jump on the competition, providing wireless capabilities to mobile employees, complying with the latest government mandate and so forth.

This disconnected approach exacerbated the problem of siloed technology, locking business-

critical information more tightly than ever into isolated systems. Ripping and replacing these systems and starting over, though, is not an option. They are proven, reliable systems that keep the business running. The challenge is one of making the data that resides in these systems available to a diverse and rapidly expanding user community:

- Salespeople, contact center personnel and field technicians who need all relevant customer information at their fingertips so they can address customer needs efficiently.
- Customers who want to place orders, report problems and perform other transactions through multiple channels—telephone, e-mail and the Web.
- Mobile employees who need to be productive from anywhere.
- Managers who need understandable information to help them monitor performance, spot problems and improve forecast accuracy.
- Senior executives who need a high-level snapshot of the business across product lines, business units and geographic boundaries.
- Suppliers who need to get into inventory and other systems to tighten the supply chain and contain costs.
- Partners who need to share project information for stronger relationships and faster time to market on joint projects.

So how do enterprises tame IT complexity and give these constituents what they need?

Data integration across the myriad systems in the IT environment is, of course, a key step because it

enables the presentation of data in a consolidated way to improve decision making. Managing identities securely and efficiently is also crucial because identity underlies all decisions related to delivering the right resources—and the right data—to the right people. And to establish secure identity management, enterprises must first get control of identity through identity integration.

IDENTITY INTEGRATION— AN IMPORTANT STEP IN CREATING AN AGILE FOUNDATION

Identity is the information that defines who a person is in relationship to the enterprise. For example, what is the person's name and where is he or she located. Is the person an employee, customer, partner or supplier? If an employee, where does he or she fit into the organizational structure and to whom does that person report? Based on the person's relationship and role, which IT resources should he or she be allowed to use:

- Which systems are required for job performance or doing business?
- What information is appropriate?
- Can this person simply view information or change it as well?
- What proves that the person is who he or she claims to be—a password, fingerprint, voice recognition?

While these aspects of identity apply to people, identities can also be created for virtually all corporate IT assets—devices, applications, data and processes.

The Problem with Manual Identity Management

Right now, the typical global 2000 enterprise has thousands of identities scattered across dozens of business systems. It isn't uncommon for identities to be maintained in more than 100 locations. When the enterprise hires a new employee or extends its systems to a new customer, partner or supplier, the IT staff enters the identity into all the appropriate resources. That process may take days, or even weeks, and the corresponding productivity loss can be substantial. Errors during the entry of identity information introduce additional delays.

On an ongoing basis, every time an element of an identity changes—for example, name, location, job title—the IT staff must update all systems. Failure to make the change in one or more places will inhibit access to essential systems. Likewise, when a relationship is terminated, IT must remove all instances of that identity to terminate all access privileges.

This cumbersome and error-prone manual maintenance of identities drives up management costs, consumes valuable IT staff time and keeps people waiting for access to what they need. Moreover, failing to remove identity information in one or more systems when a relationship is terminated results in lingering access to corporate assets. This poses significant security risks and can cost money if people continue to use cell phones, phone cards, home Internet connections and other corporate resources.

“We considered many vendors, but were most impressed with the maturity of the Novell solution and its ability to work in our cross-platform environment. Novell demonstrated what secure identity management could do for our environment and outlined a vision of how it will support our future growth.”

—Stephen Phillpott,
Director of IT Architecture
and Security,
Gateway, Inc.

“Our Novell solution is a foundational project in many ways. It met our immediate needs of rolling out online benefits, but is really the foundation for a secure identity management solution throughout all our stores.”

—Ron Cook,
Vice President of Strategy
and Technical Operations,
RadioShack

How Identity Integration Solves the Problem

Identity integration eliminates costly manual processes and creates an environment in which an identity is entered and maintained in a single *authoritative system*. Common identity information resides in many different sources with specific *authoritative sources* designated as the one entry point for managing a given aspect of identity. An employee’s personal information is managed through the human resources (HR) system while the e-mail account is controlled from the mail system; customer contact information might originate from a customer database while customer order data is managed from the order processing system.

Identity integration unifies digital identities across all business systems in the enterprise so that when an identity is created or changed in the *authoritative system*, the new information is automatically propagated to all appropriate systems. The benefits are compelling: higher productivity, cost savings and reduced security risks.

Identity integration also enables what is often referred to as *account provisioning*, that is, giving people access to business resources or delivering services and content based on who they are—their business relationship to and role within the enterprise. This capability starts with knowing who the users are and applying that knowledge across all systems. From there, the enterprise can securely connect people to the tools they need to work productively or conduct business with the enterprise efficiently and cost-effectively. This is an important step in becoming an agile enterprise.

GOING BEYOND IDENTITY INTEGRATION

Identity integration on its own delivers a rapid and quantifiable return on investment by automating manual processes and reducing costs. More importantly, it lays the foundation for additional solutions that support the transformation to an agile enterprise.

- **Stronger Security.** Getting control of identity lays the foundation for strengthening security. It enables the implementation of authentication and authorization mechanisms that ensure people are who they claim to be. It allows the enterprise to implement the appropriate level of security for every system, from passwords and smart cards to biometrics. And it enables the enterprise to consistently apply security policies, entering information once and knowing that policies will be carried out automatically—eliminating the risk of human error.
- **Easy, Secure Access with Single Sign-On.** With an identity integration foundation, enterprises can simplify access across the network by letting people get into all systems with the most appropriate mechanism—whether it’s entering a single ID and password, swiping an ID card or providing a fingerprint. Often called single sign-on, this capability boosts user productivity and eliminates most password-related calls to the help desk staff. Consequently, it reduces support costs. It also reduces the security risks that arise when people can’t remember the different passwords they need for all the systems they use, and

they feel compelled to write passwords on sticky notes for quick reference.

- **User Self-Service through Portals.** Enterprises can build on the identity integration foundation to provide user self-service through the Web. By creating employee, customer, partner and supplier portals, enterprises can empower people to obtain information and perform many tasks and transactions on their own. These portals leverage identity information to deliver the right content to each user. Self-service reduces call volumes to contact centers, help desks, HR departments, sales centers and other functional areas, reducing the cost of handling these inquiries, requests and transactions.
- **Executive Portals.** Enterprises can leverage identity to create executive portals (or dashboards) that provide the right key performance indicators to the right managers in real time. These dashboards aggregate data across product lines, business units and geographies and present it in a clear, concise format that facilitates decision-making. They can even supply information as part of a regulatory compliance effort—enabling executives to disclose information in near real-time.
- **Automated Workflow.** Enterprises are also poised to replace manual processes with automated workflows that leverage identity and relationship information to boost productivity and speed the completion of important tasks. For example, when a customer

logs in to place an order online, the system recognizes that customer and knows which salesperson handles the account. The system can trigger automated workflows that notify the salesperson that an order has been placed, send an order acknowledgement to the customer and continue to keep the customer informed of the status of the order through e-mail. And, if the customer is assigned to a new salesperson, that information is changed in the authoritative source and all subsequent orders are routed to the new sales contact.

- **Web Services.** Finally, identity integration is essential for enterprises that want to move to *Web services*, a major breakthrough in software capabilities. Applications built with Web services in mind dynamically combine information or software capabilities that reside in disparate systems already in place in the enterprise toward the end of providing more intelligent information and more useful services. Identity is the key to enabling different information, processes, devices and applications to work together and deliver a Web service to a user. Every user and component must have a managed identity with corresponding access rules so that systems can determine what information can be combined with what and delivered to whom. Forward-looking, agile enterprises are expanding the scope of their secure identity management solutions to include processes, devices, data and applications so they can accelerate the transition to a Web services model.

*Figure 1. Novell Nsure
Identity Integration
Solutions Components.*

NOVELL NSURE IDENTITY INTEGRATION SOLUTIONS

Identity Integration solutions from Novell combine technologies and professional services that address each customer's unique requirements. Components include:

Novell® Nsure™ Identity Manager

Novell® eDirectory™

Novell® Nsure™ Audit

Novell® Account Management

Novell® exteNd™ Composer

Professional services including consulting, support and education

Enterprises are grappling with the challenge of how to get control of identity. Many of them have turned to Novell, the recognized leader in secure identity management, to help them tackle this challenge. Examples include Allianz Suisse, Ameren, Chinese International School, Coop, Gateway, Lufthansa, Packaging Corporation of America, RadioShack and TRW. Novell Nsure identity integration solutions are helping these and other enterprises unify identity across resource and location barriers, providing the foundation for securely delivering the right resources to the right people—anytime, anywhere.

Identity integration solutions are part of the Novell Nsure solutions family, which enables enterprises to cost-effectively deliver business resources and services in real-time to distributed workers, partners and customers from any location—wired or wireless—yet keep their systems safe.

With Novell Nsure solutions, enterprises can extend their business reach, enhance security and streamline business operations to reduce costs and boost productivity.

An Agile Foundation

Novell Nsure identity integration solutions provide an agile foundation for the agile enterprise by linking all instances of a person's identity across the enterprise's dozens of systems, directories, databases and applications. It intelligently propagates additions, changes and deletions to identity data enterprise-wide based on established rules. When a new employee is entered in the HR system, for example, the mail system can automatically create an e-mail account and provide the e-mail address to the appropriate systems. Accounts in all other applications can also be created automatically. This streamlined,

automated approach reduces manpower requirements for administrative tasks, puts a lid on rising IT costs and frees up people to work on strategic projects.

Novell Nsure identity integration solutions help protect systems and physical resources from people who no longer have an active relationship with the enterprise. This also eliminates expenses incurred when former employees have lingering access to cell phones, phone cards, Internet connections and other services. A change in one authoritative system shuts off access to everything.

The solutions support efforts toward compliance with organizational policy and government mandates by allowing the enterprise to put business rules into action regarding who can access resources. They include the auditing component of Novell Nsure, which provides secure logging and auditing to help reduce liability and risk by aiding compliance with governmental regulations and business-driven security policies.

Finally, Novell Nsure identity integration solutions enable synchronization of identity information across all systems without requiring modification to those systems. Consequently, the enterprise can leverage the systems it already has in place, increasing return on IT investments and eliminating the need for disruptive rip and replace.

With Novell identity integration solutions, enterprises can create and manage identities for customers, partners and suppliers as easily as they create and manage employee identities. Once they gain control of identities for these external constituents, enterprises can:

- Deliver services to customers easily and securely over the Web, meeting today's demand for online transactions, opening channels for new revenues and reducing the cost of providing products and services.
- Strengthen relationships with partners by facilitating collaboration and speeding time to market on joint initiatives.
- Enable electronic interactions with suppliers such as monitoring inventory levels and exchanging purchase orders, shipping documents and invoices to make interactions more efficient and reduce transaction costs.

Building on the Foundation

An identity integration solution from Novell is the starting point for addressing a broad range of IT projects that will deliver additional ROI:

- Developing a corporate white pages directory to facilitate employee communication and collaboration.
- Extending resources cost-effectively to remote employees through the Web.
- Providing real-time information on key performance indicators to all levels of management to improve decision-making.
- Strengthening security around critical business data and physical resources.
- Giving customers easy Web access to content and services relevant to their role and the context of the interaction. This helps enhance customer satisfaction and drive new business.
- Connecting better with partners and suppliers to make it simple and more cost-effective to do business together.

"The Novell solution allows us to integrate our applications—as well as internal and external user identities—in an intelligent way that is relevant to the business."

—Dr. Wolfgang Seiler,
Director of Technology,
Allianz Suisse

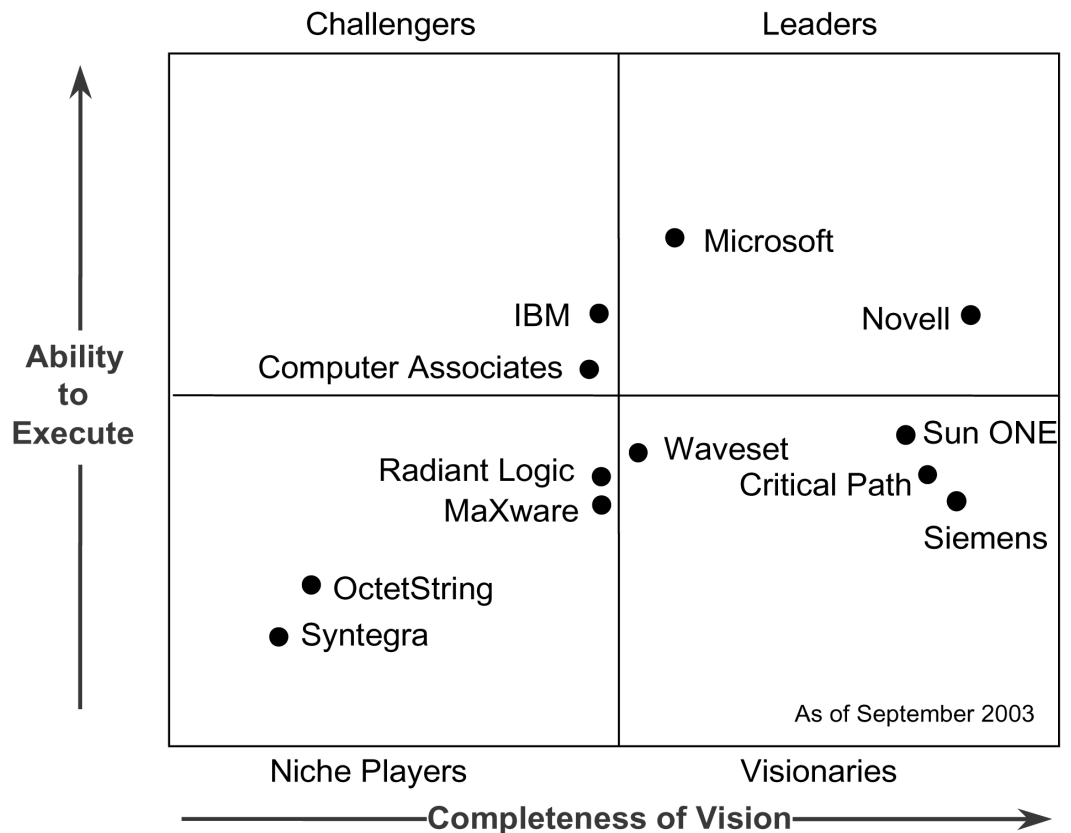
- Taking advantage of the cost-effectiveness and the agility that the Web services development approach offers.
- Replacing manual processes with automated workflows that boost productivity and speed the completion of important tasks.

BACKED BY NOVELL

Novell Nsure identity integration solutions are supported by strategic consulting, technical support and educational services—not only from Novell Ngage™ Professional Services but also through Novell partnerships with systems integrators and global professional services firms. Novell helps customers realize the value of their information securely and economically.

Novell is the leader in secure identity management with the Novell Nsure family. Novell received the 2003 Editor’s Choice award from *Network Computing, Secure Enterprise Magazine*.² In addition, the company was ranked as the market leader in the full-suite identity management category by the Radicati Group in its “Market Numbers Summary” for the fourth quarter of 2003.³ Moreover, as Figure 2 shows, Gartner Inc. placed Novell in the Leader’s Quadrant in its “Magic Quadrant for Metadirectory Products.”⁴ The Novell metadirectory offering provides the best underlying technology to support identity integration and secure identity management.

Figure 2. Gartner Magic Quadrant for Metadirectory Products.



Source: Gartner Research (September 2003)

² Network Computing, Secure Enterprise Magazine, November 2003, page 28.

³ “Market Numbers Summary, Q4 2003,” The Radicati Group, Inc., page 61.

⁴ “Magic Quadrant for Metadirectory Products,” Gartner Research, September 30, 2003

CONCLUSION

Identity management is the starting point for becoming an agile enterprise, and identity integration is the entry point into secure identity management. Whether the plan is to develop a corporate white pages directory, extend resources to remote employees, connect better with customers, partners and suppliers or provide stronger security around critical business information, putting an integrated identity foundation in place is essential.

Novell Nsure identity integration solutions are helping enterprises take this strategic step—

enabling them to get control of identity while leveraging their previous investments and the proven business processes they have developed over the years. These innovative solutions unify identity across resource and location barriers, providing the foundation to securely deliver the right content and information to the people who power the business. What's more, they provide the agile technology foundation that is key to becoming an agile enterprise.

To find out more contact your Novell Sales representative today or visit www.novell.com/nsure.

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