

# Novell in Academia

Mark McManus - [mmcmanus@novell.com](mailto:mmcmanus@novell.com)



Novell.



# Academic Landscape

## Collaboration

- Commoditization
- Resources across institutions
- New Business Models

## Students

- Anywhere, Anytime Access
- Greater demand
- Why attend your institution?

## Disruptions

- Unforeseen Disturbance
- New Technologies
- Student Behavior Shifts

## Reduce Complexity

- Easier to register
- Strengthen Offering
- Change Direction

## Regulations

- Government
- Industry
- Security

## Globalization

- Students overseas
- Expanding Markets
- Border-mania

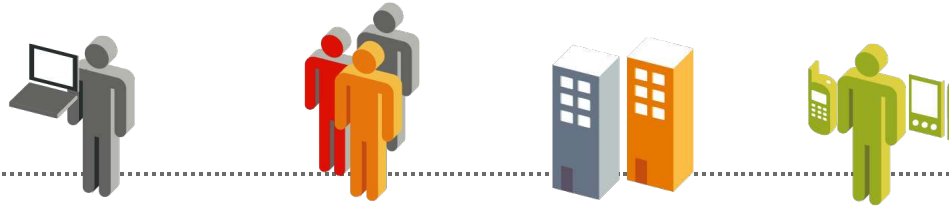




## UCISA Top Concerns - The top nine

<b>1</b>	Data network access from devices owned and / or controlled by end-users. Network access for mobile users.
<b>2</b>	Security management of network attached systems
<b>2</b>	User authentication and resource control
<b>4</b>	Ensuring that IT is being fully considered in the development and planning of our institutions.
<b>5</b>	Strategic approach to developing, maintaining and upgrading the IT infrastructure needed to deliver strategic IT-based academic and business services.
<b>5</b>	Enterprise portals, web-based services
<b>7</b>	Ongoing costs of VLE / MLE systems
<b>8</b>	Business continuity planning
<b>8</b>	Risks to services and computing service personnel from inadequate funding

# N one Net

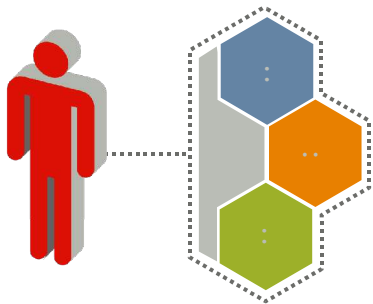
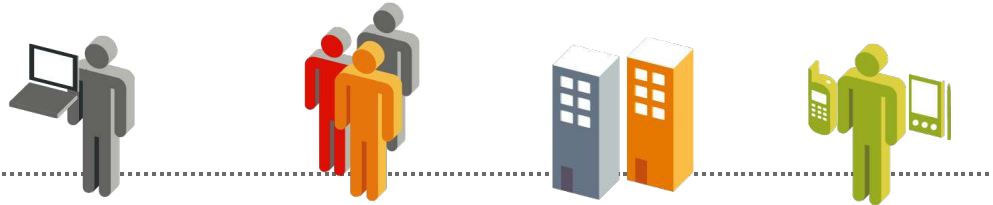






A world without information boundaries where information systems of all types work well together, connecting the right people to the right information at the right time to make the right decisions.



# N

# Solution Groups

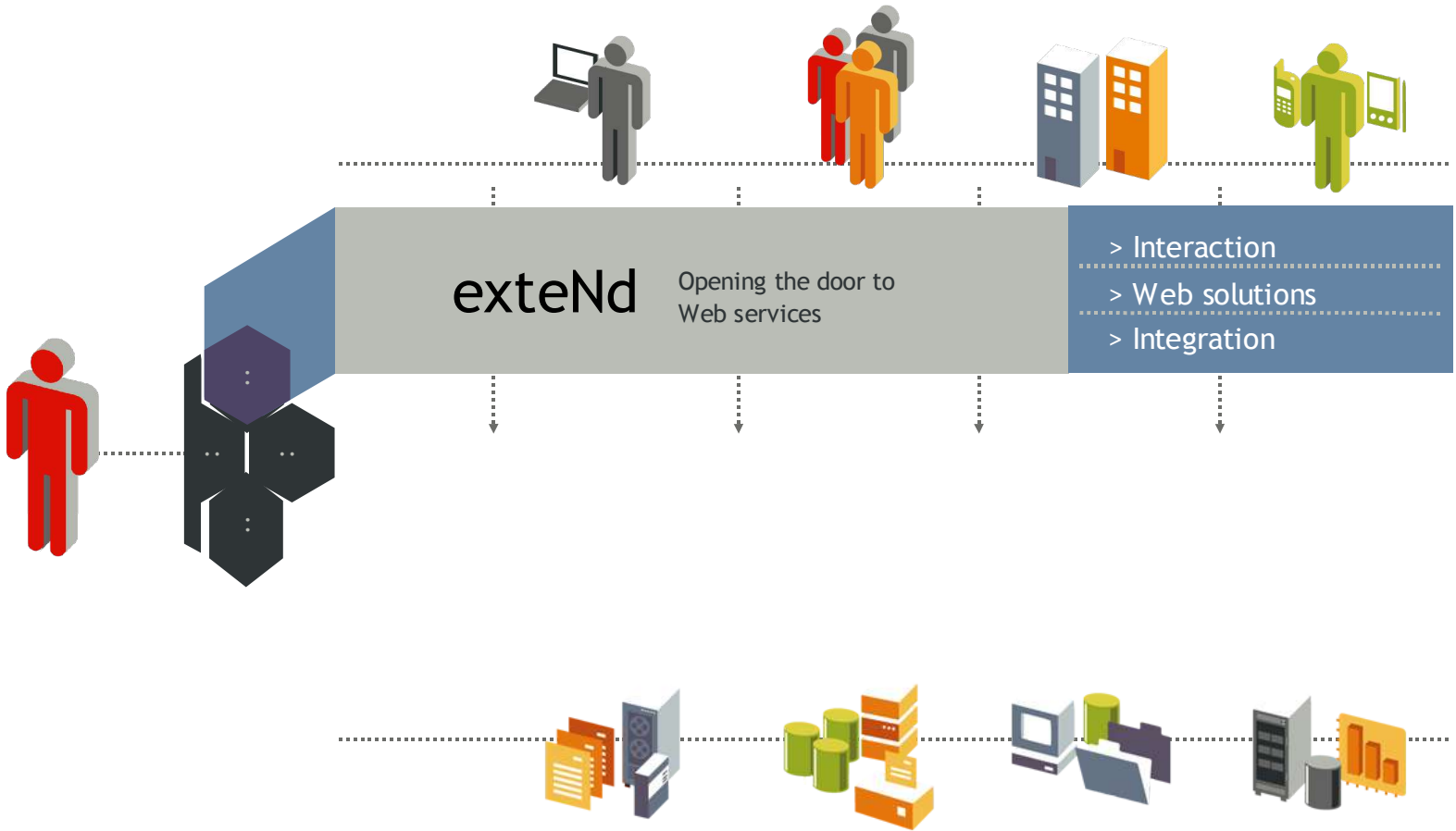


			
<b>Novell exteNd</b>	<b>Novell Nsure</b>	<b>Novell Nterprise</b>	<b>Novell Ngage</b>
Opening the door to Web Services	Securely getting the right information to the right people	The best foundation for your mixed environment	The experience to solve your business problems



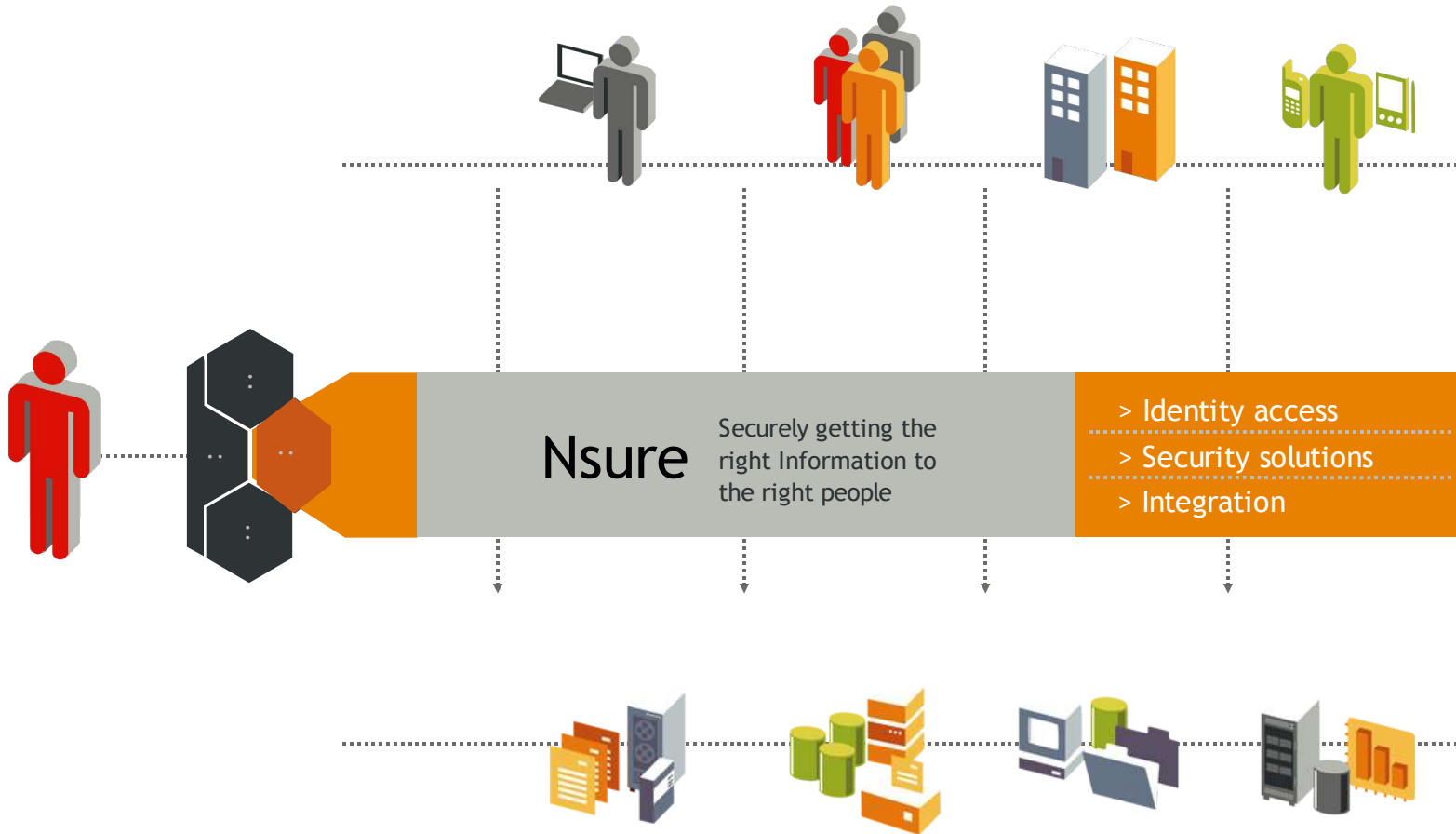


# Novell® exteNd™



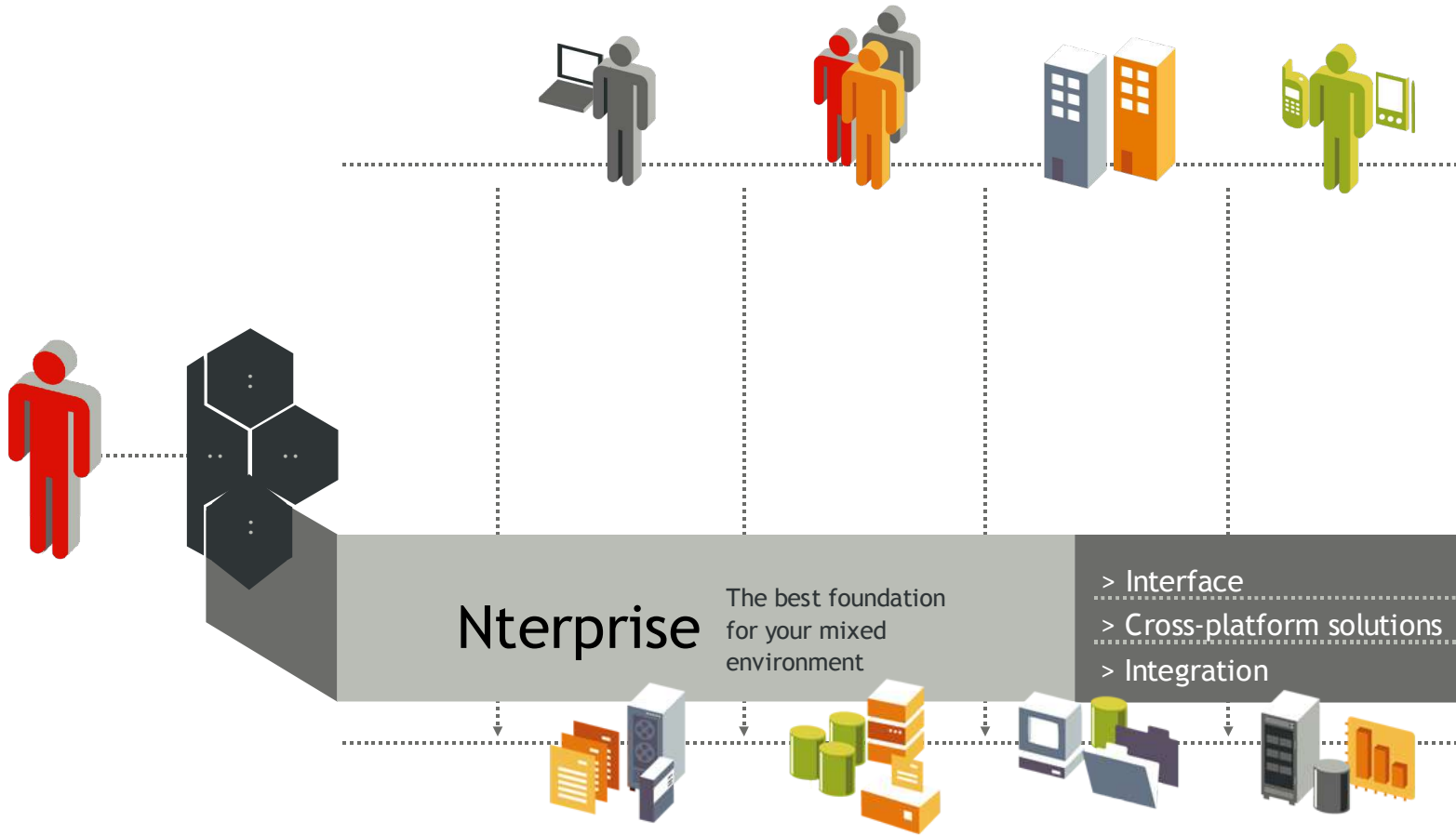


# Novell® Nsure™





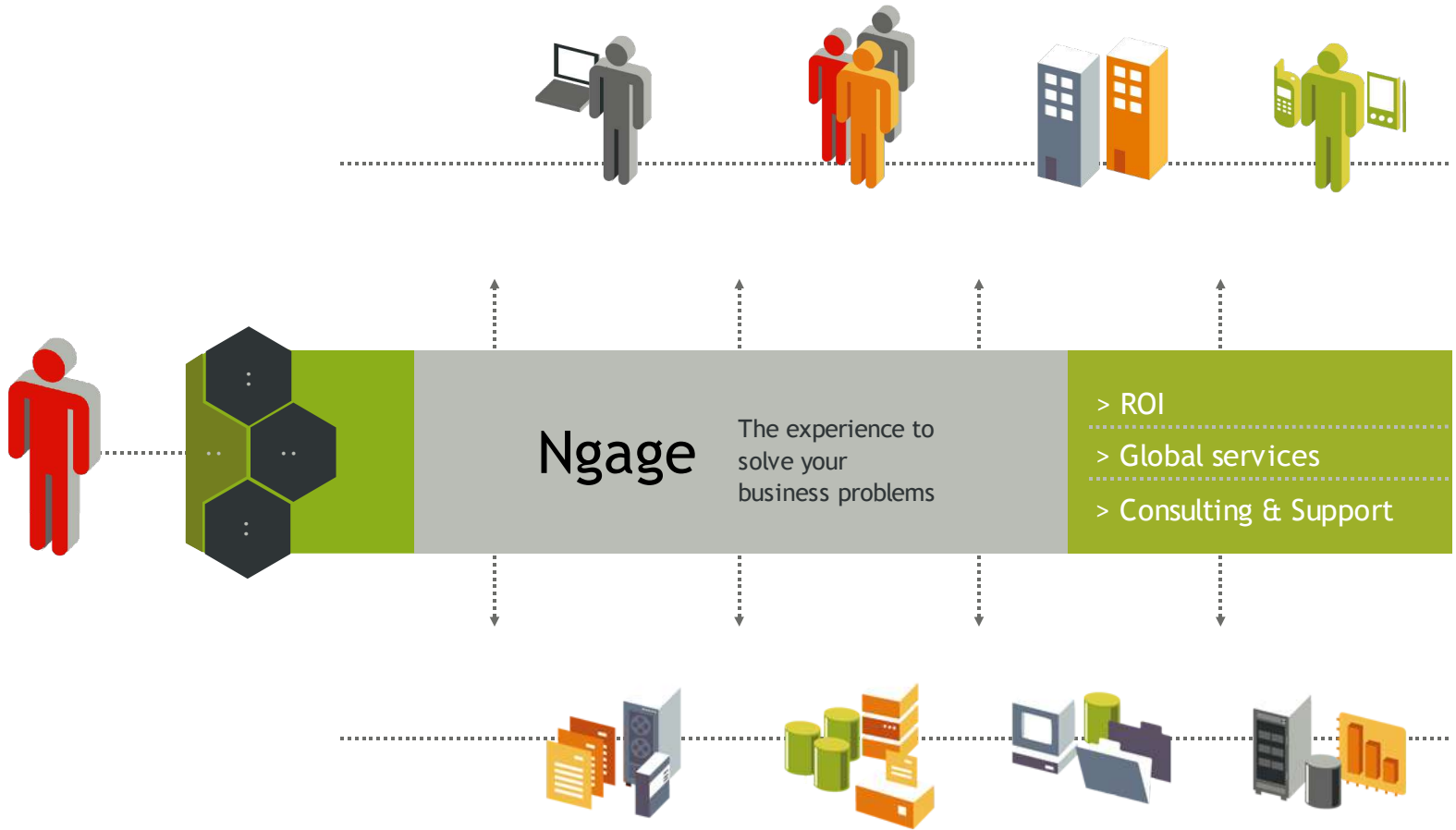
# Novell® Nterprise™

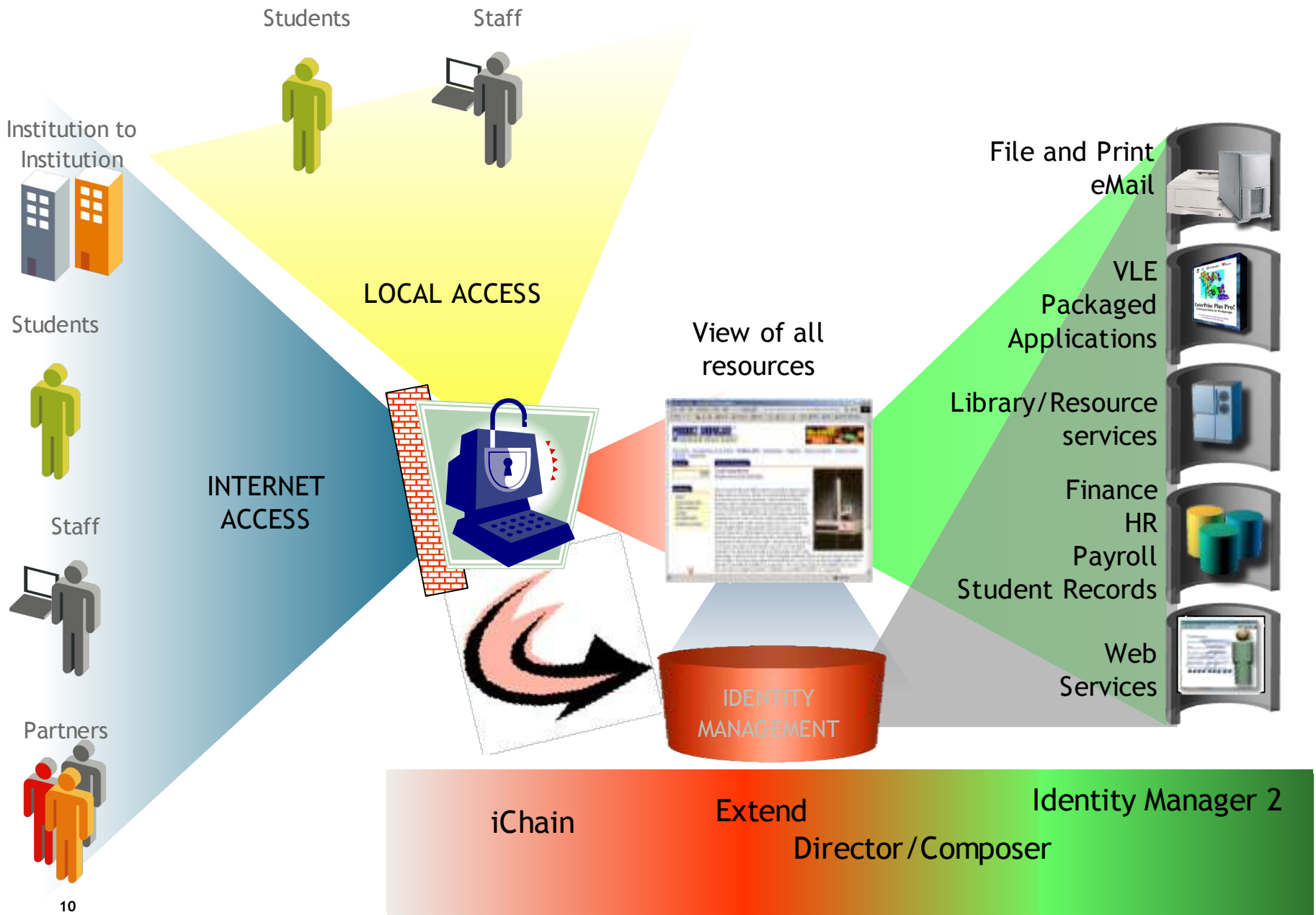


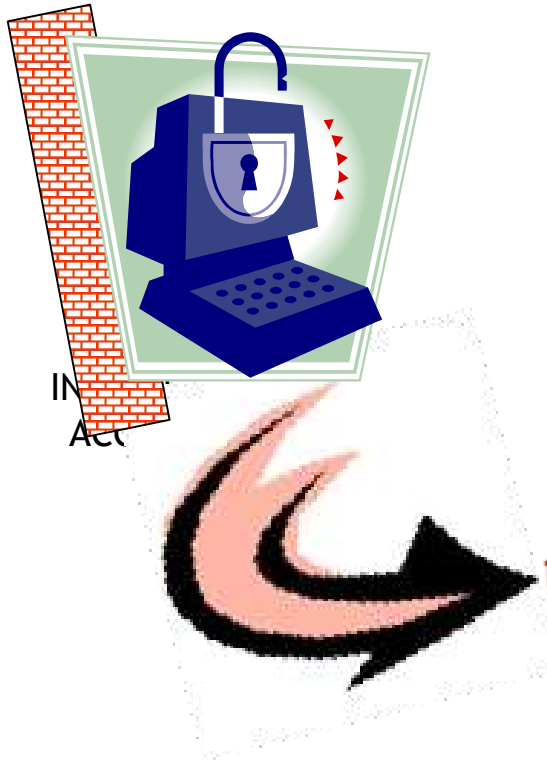




# Novell® Ngage™





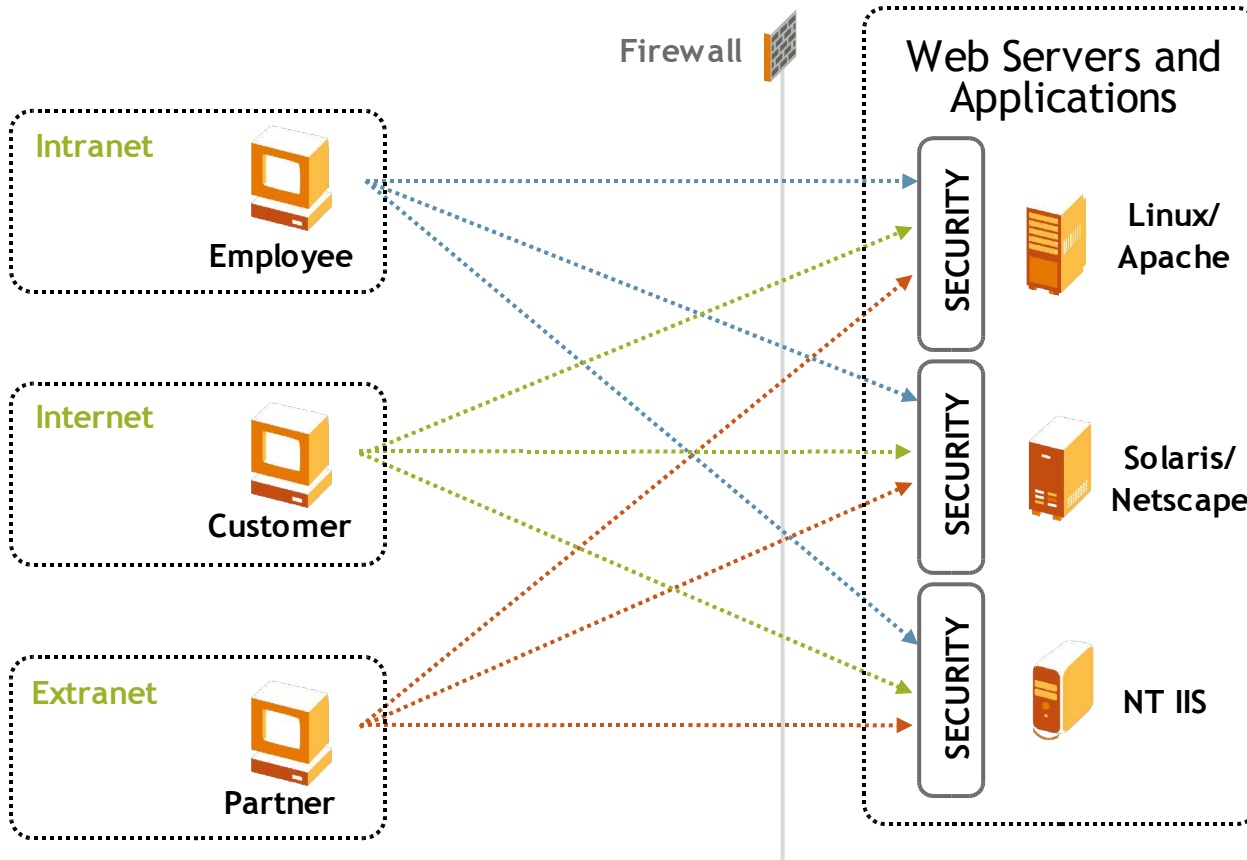


Single point of  
secure access

**iChain**

# N

## What are the Customer Problems?

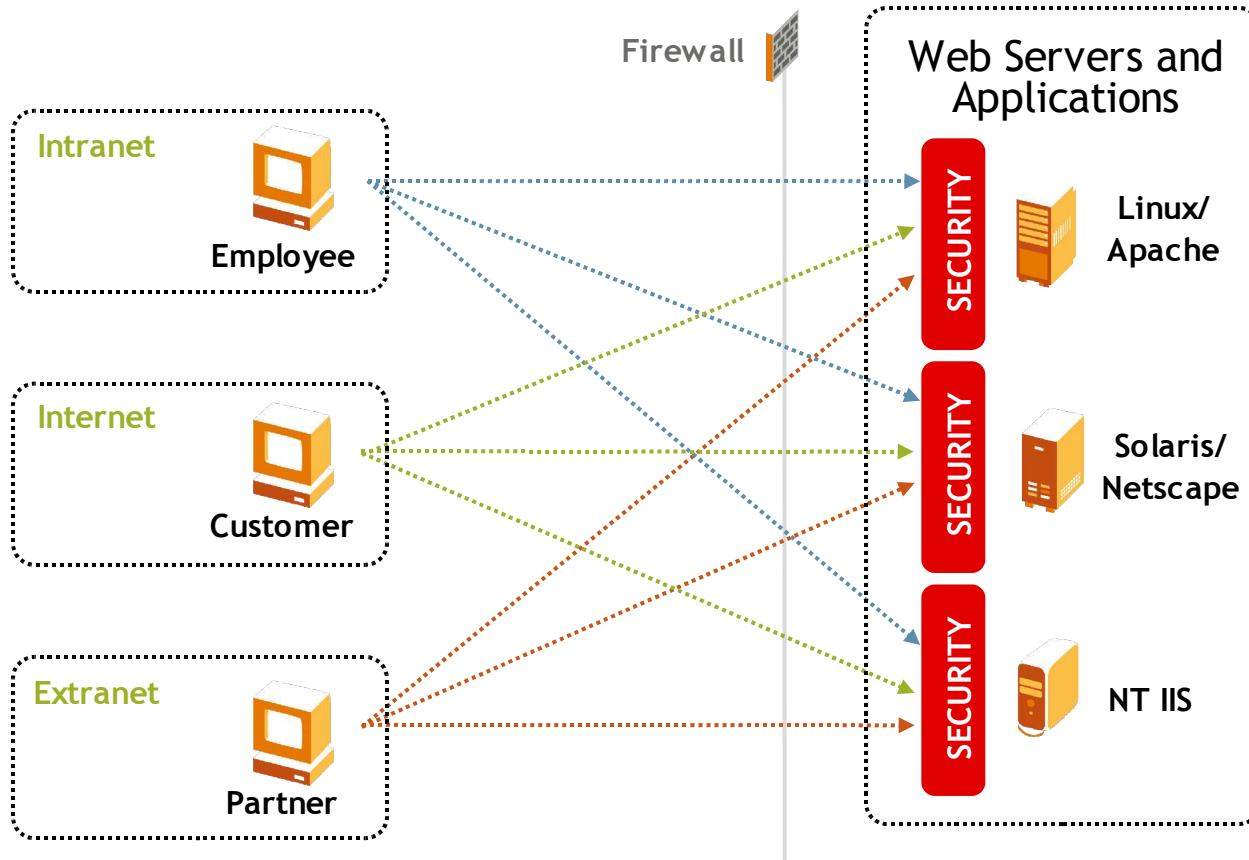


### Issues when creating a Secure Web infrastructure:

- Direct Access to Web Servers (increase possibility of hacking)
- Multiple User Identities (no single sign on)
- Need to install SSL services on each web server
- Need to change links in HTML content from HTTP to HTTPS
- Many different Web Server Technologies



# Competitors Solution



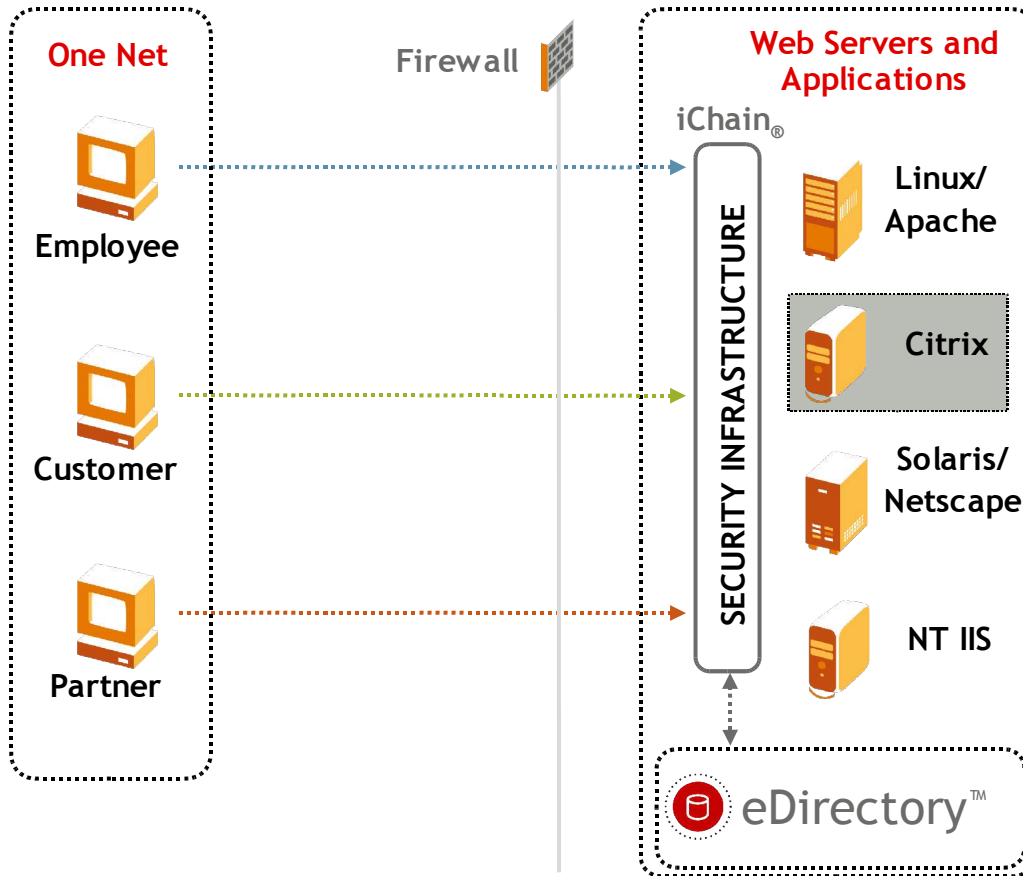
## Agent Based Solutions

- Provide Single Sign-On
- Provides Access Control
- Personalization

## Previous Issues Still Exist

- Direct Access to Web Servers (increase possibility of hacking)
- Need to install SSL services on each web server
- Often, need to change links in HTML content from HTTP to HTTPS
- Often need to modify applications authentication process
- Many different Web Server Technologies

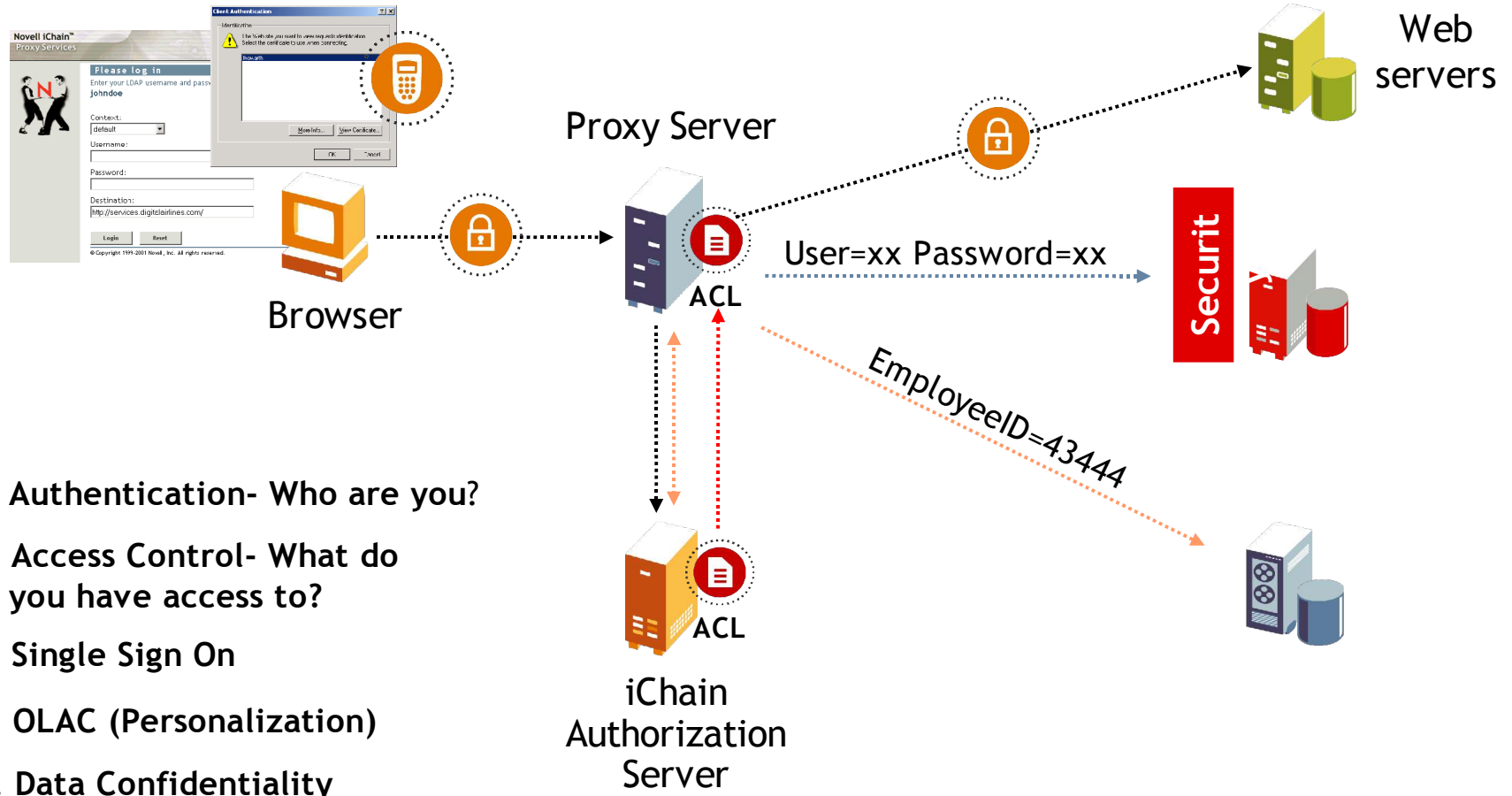
# N The Novell Solution



## Benefits of iChain:

- Single Authentication Point
- Provides Web Single Sign On (headers and Form Fill) - (can also simulate Netegrity SiteMinder)
- Sends Personalized content to applications
- Rewrites HTML data (completely hide internal DNS infrastructure)
- Dynamically encrypts content as it passes through proxy
- Single SSL Certificate can be used for all internal web sites (proxy based)
- No change to HTML content
- No change to applications authentication process
- Remove Direct Access to Web Servers
- Provides additional security to Citrix Servers

# N Novell iChain - How does it work?



1. Authentication- Who are you?
2. Access Control- What do you have access to?
3. Single Sign On
4. OLAC (Personalization)
5. Data Confidentiality



# SAML

## SAML - Security Assertions Markup Language

- XML-based security specification for exchanging authentication and authorization information
- Developed by the OASIS standards organisation
- Uses include Single Sign-On for B2B services
- Designed to address the complexities of establishing Business-to-Business communication between differing systems.

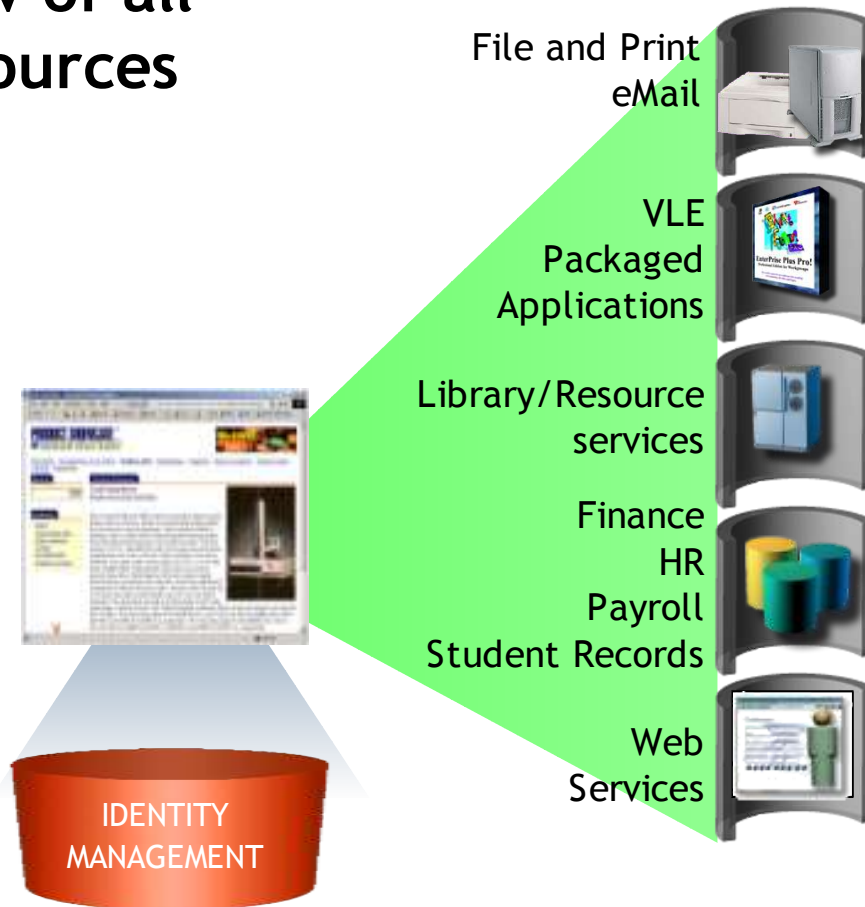
### Over 100 Members, including:

- Novell
- IBM<sup>®</sup>
- Microsoft<sup>®</sup>
- Sun<sup>®</sup>
- Netegrity<sup>®</sup>
- RSA Security<sup>®</sup>





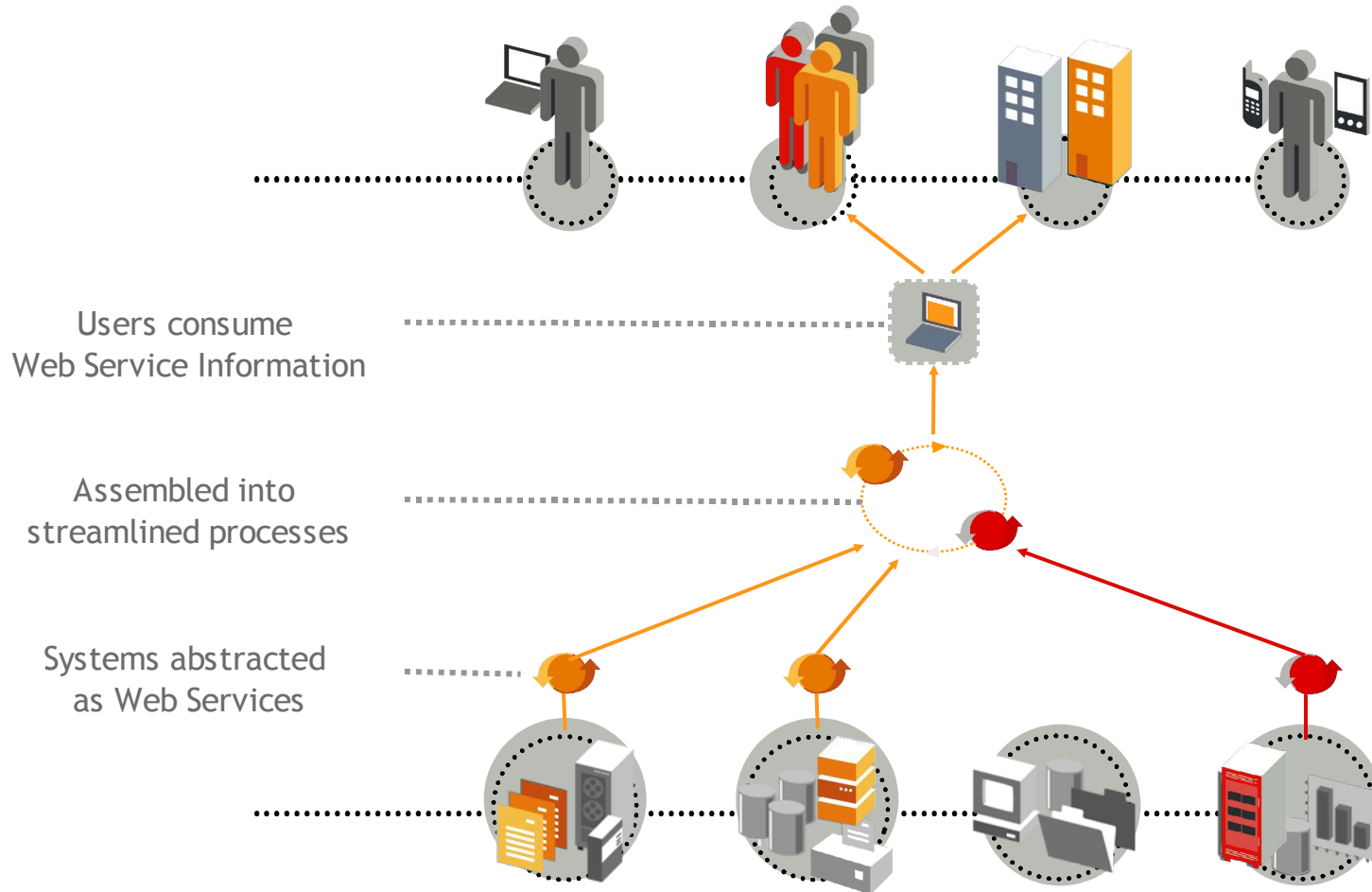
# View of all resources





# Reducing Business Complexity

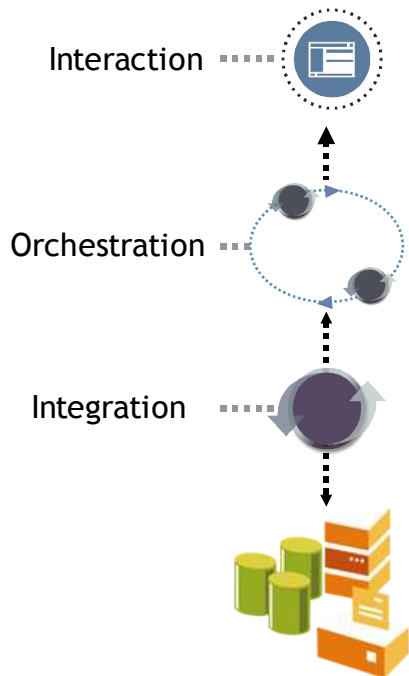
## With Service-Oriented Architectures





# Novell exteNd

## Integrated Services-Oriented Application Development

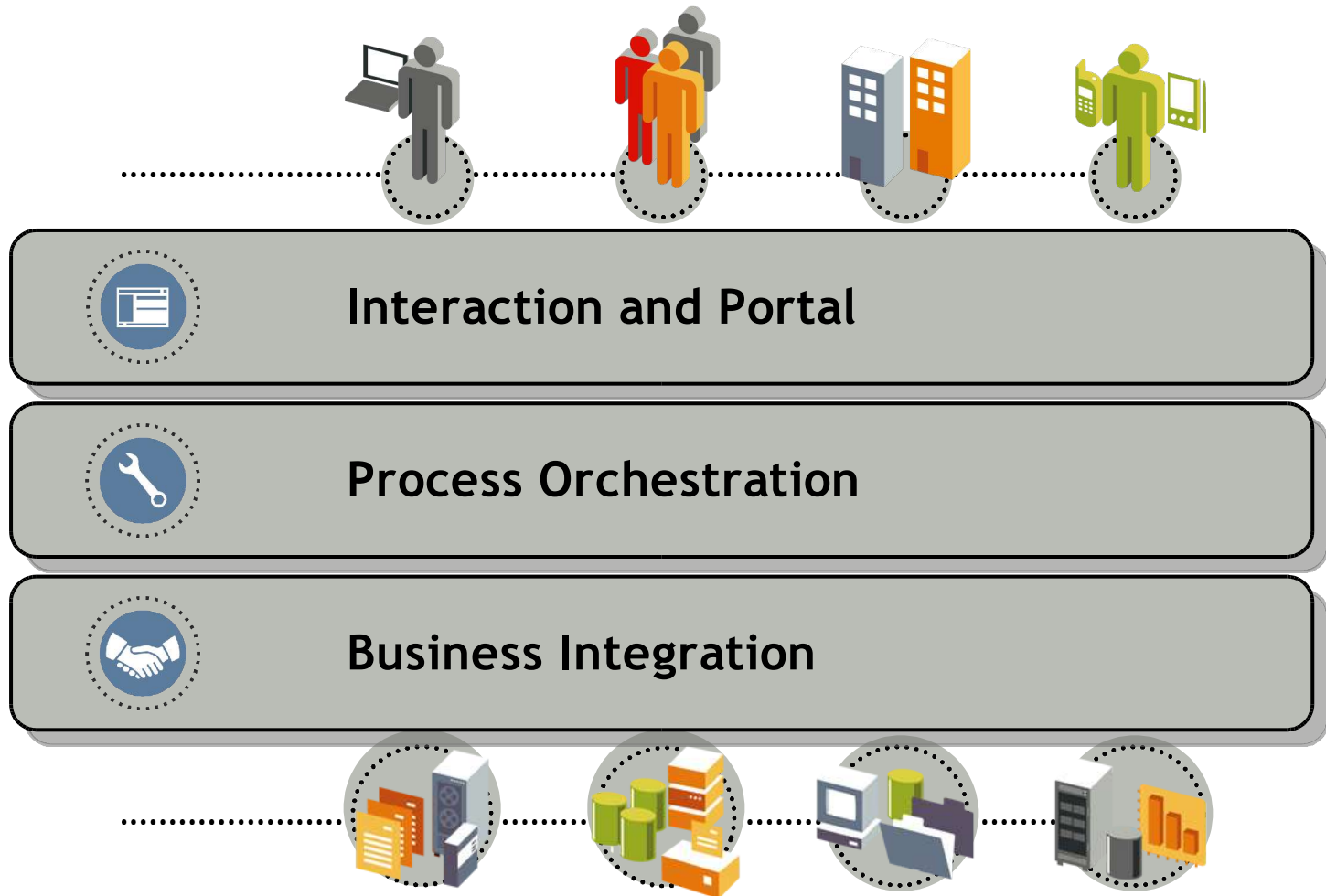


- Comprehensive SOA suite
  - Combines integration, portal and identity Services to securely deliver business information to the users that need it
- Reduced time to market with end-to-end visual tools
  - Plethora of visual tools and wizards that speed service oriented application assembly and deployment
- Standard and Open
  - Supports the latest industry standards
  - Only SOA offering that supports deployments to leading J2EE Applications Servers
- Security
  - The only SOA suite supported by industry leading Identity Management solution



# Novell exteNd

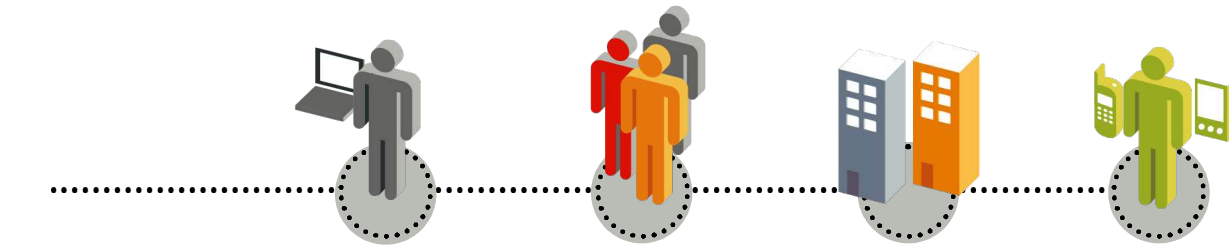
## Integrated Services-Oriented Application Development





# Novell exteNd

## Integrated Services-Oriented Application Development



### Business Integration

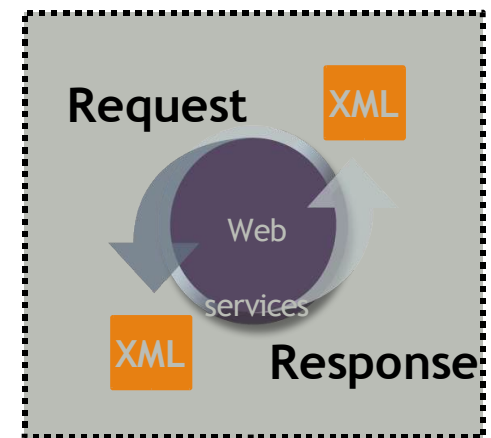




# Novell exteNd Business Integration

Abstracting existing systems into Web Services

- Broad range of non-invasive connectivity
  - Hides underlying technology
  - Uses standard protocols
- Leverages existing skills and technologies
  - Drag-and-drop data transformation
- Easy to use
  - Wizard driven connection and deployment
  - “Action-model” paradigm





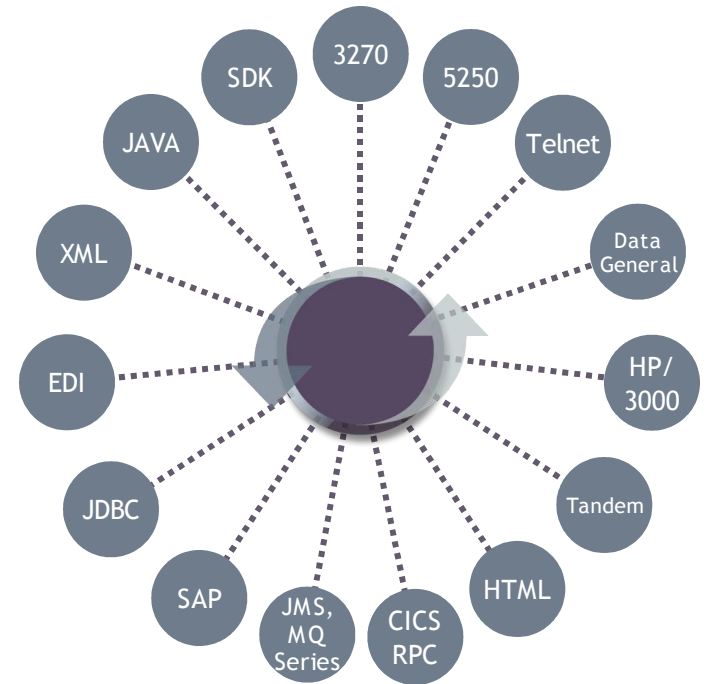
# Novell exteNd Business Integration

Abstracting existing systems into Web Services

Broad range of non-invasive connectivity

3270  
5250  
Microsoft .NET  
MS SQL Server  
CORBA  
Web/HTML  
Flat File  
SAP R/3  
ANSI  
X.12/EDIFACT  
PeopleSoft  
XML  
Data General

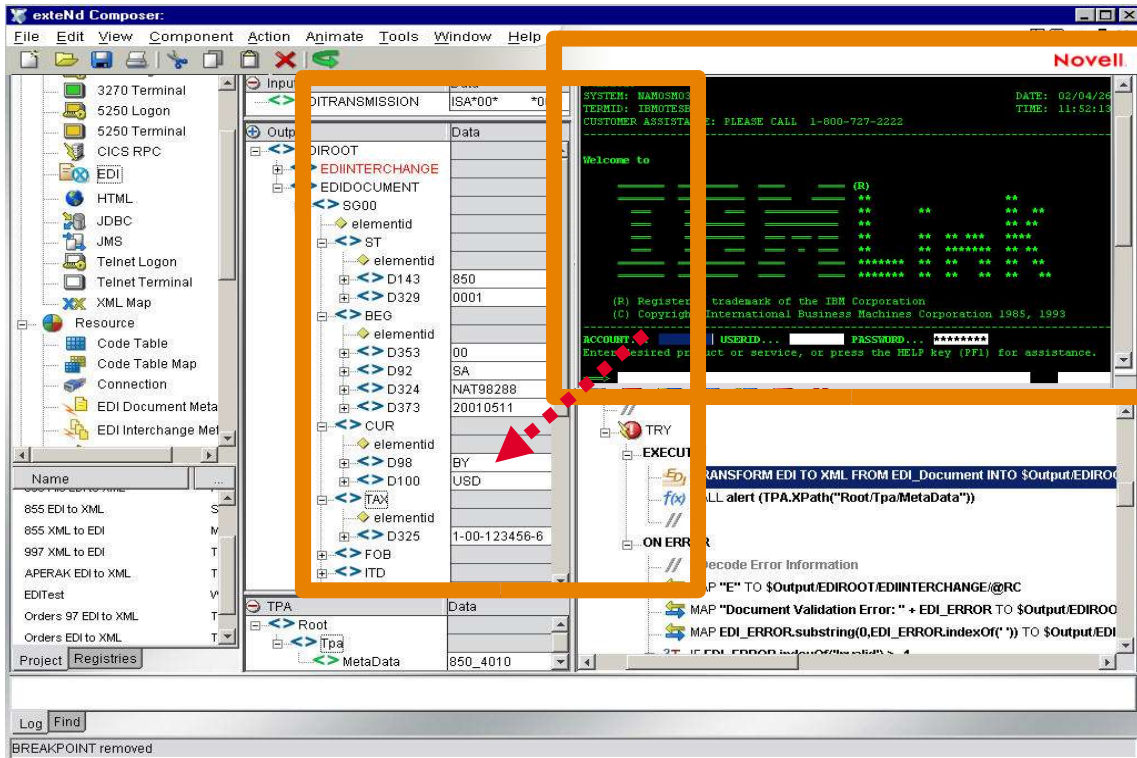
CICS  
Informix  
Java  
Email  
Siebel  
ODBC/JDBC  
Oracle  
MQ Series  
DB2  
JMS  
Sybase  
HP/3000  
Tandem





# Novell exteNd Business Integration

## Abstracting existing systems into Web Services



1. Leverage existing skills and technologies
2. Drag-and-drop data mapping and Transformation  
Specialized wizards and Controls
3. Record events using “Action Model” paradigm
4. Test with “End-to-end” animation
5. Deploy completed services





# Novell exteNd

## Integrated Services-Oriented Application Development



Interaction and Portal



Process Orchestration



Business Integration

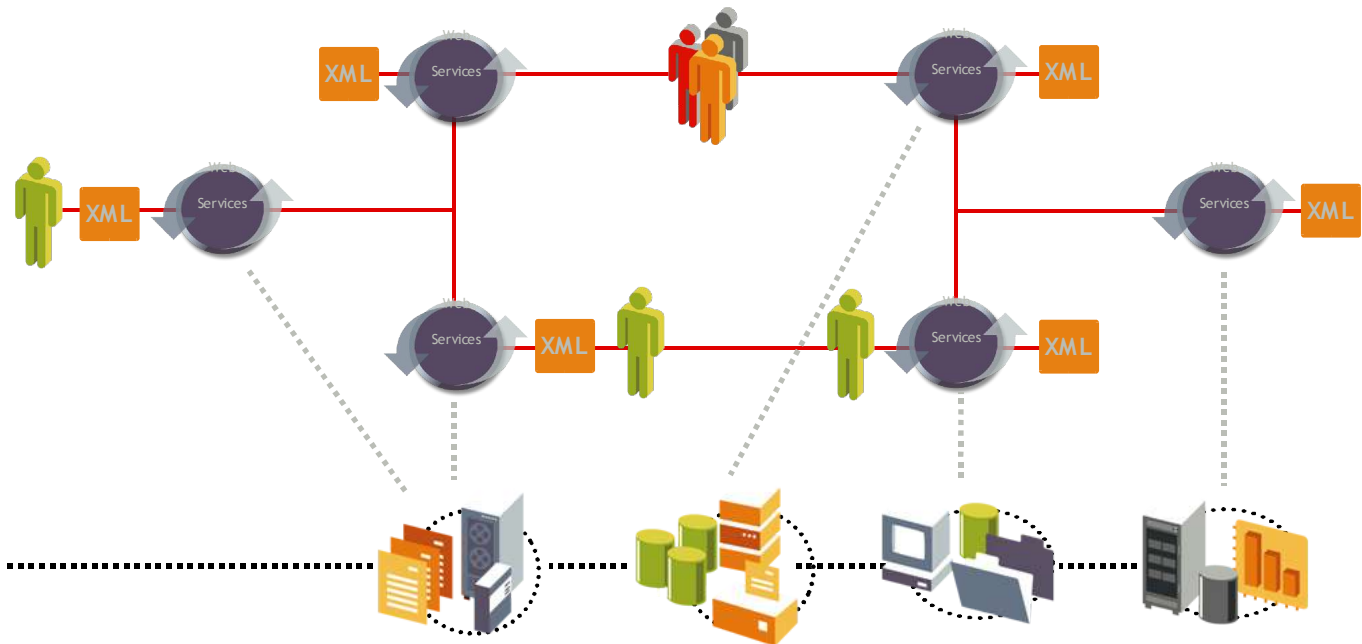


# N

# Process Orchestration

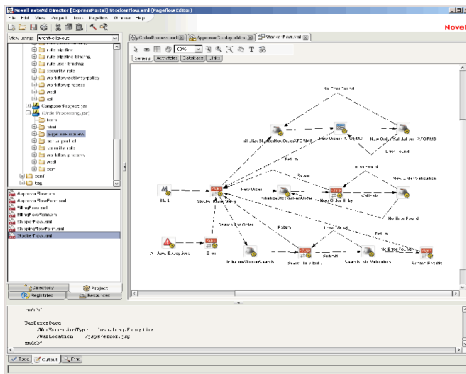
Assemble services into streamlined processes

- Automates and simplifies complex transactions
- Manages long-running business processes



# N Process Orchestration

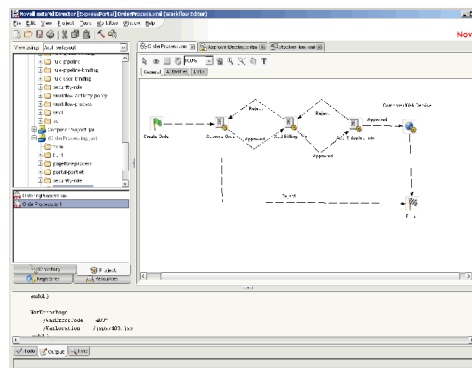
## Portlet Development



Applications

- Smart Links
- Exception Handling
- Checkpoint Activity
- Wizards generate forms that render legacy systems data

## Workflow

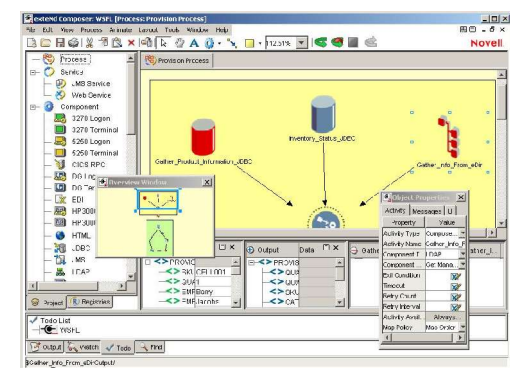


sequences i.e. document

workflow

- Route documents through complex workflows based on groups and users
- Call form sequences from within workflows

## Business Process Management



- Model long-running complex business processes
- Process Versioning
- Monitor, manage and report on business processes at every step of execution



# Novell exteNd

## Integrated Services-Oriented Application Development



Interaction and Portal



Process Orchestration

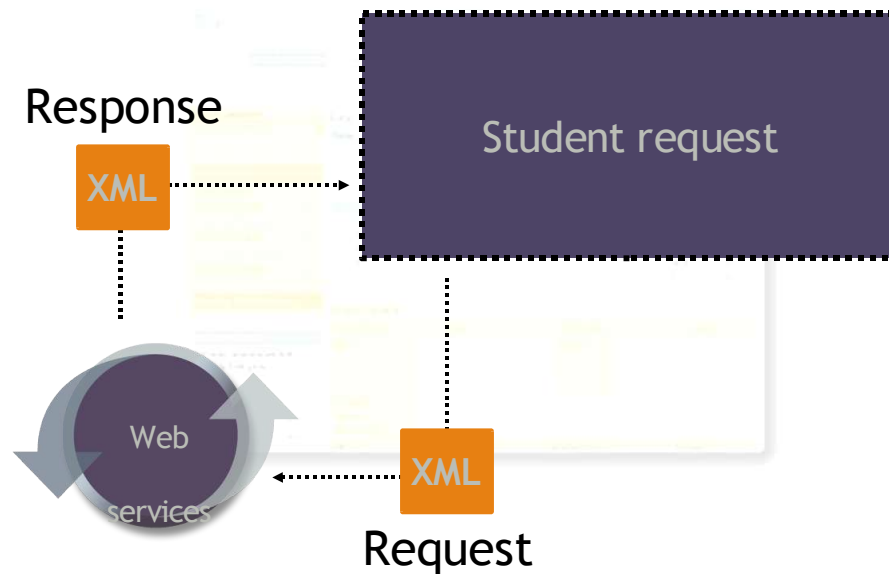


Business Integration



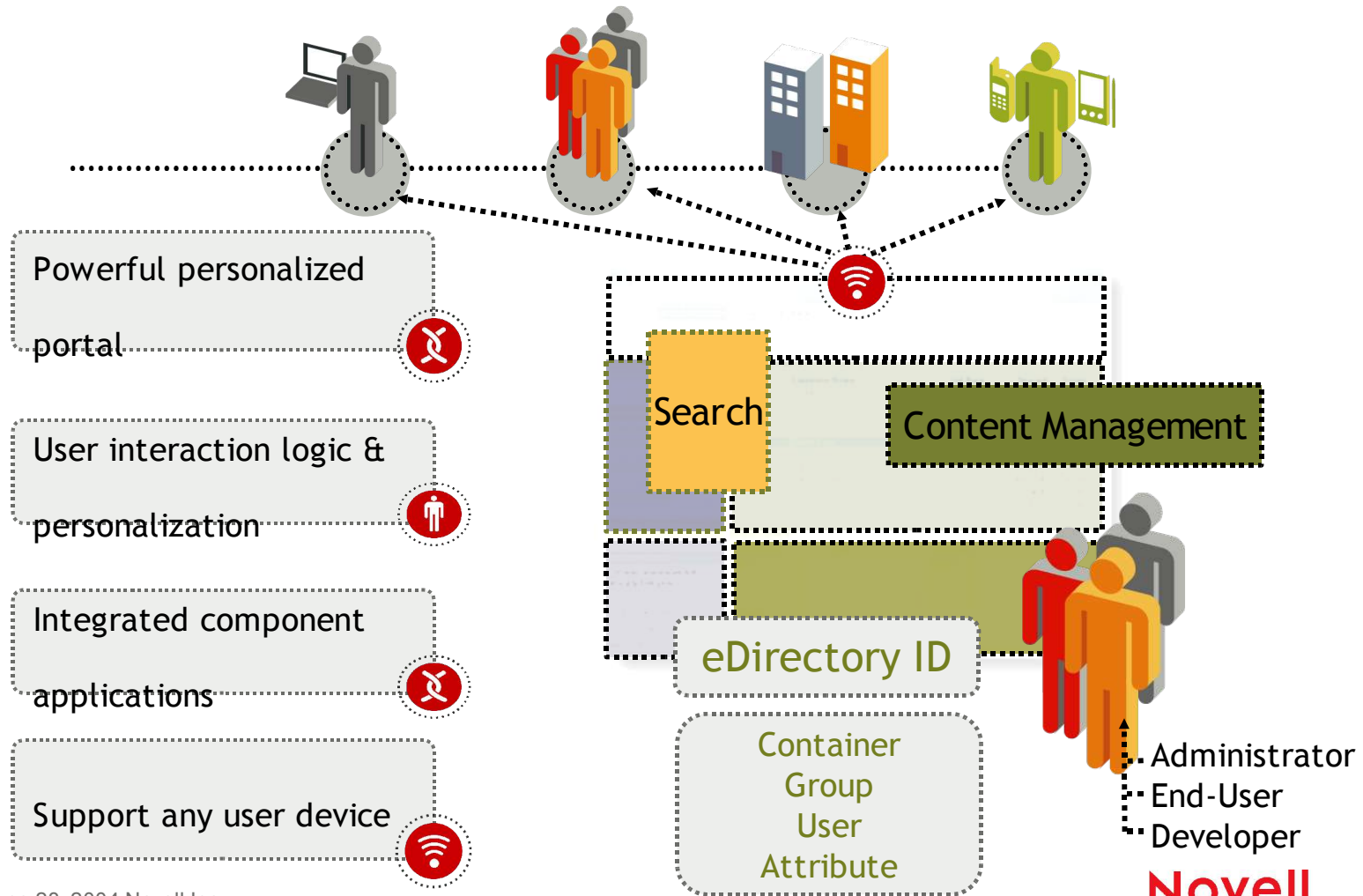


# Novell exteNd Interaction and Portal Consuming Interactive Web Services



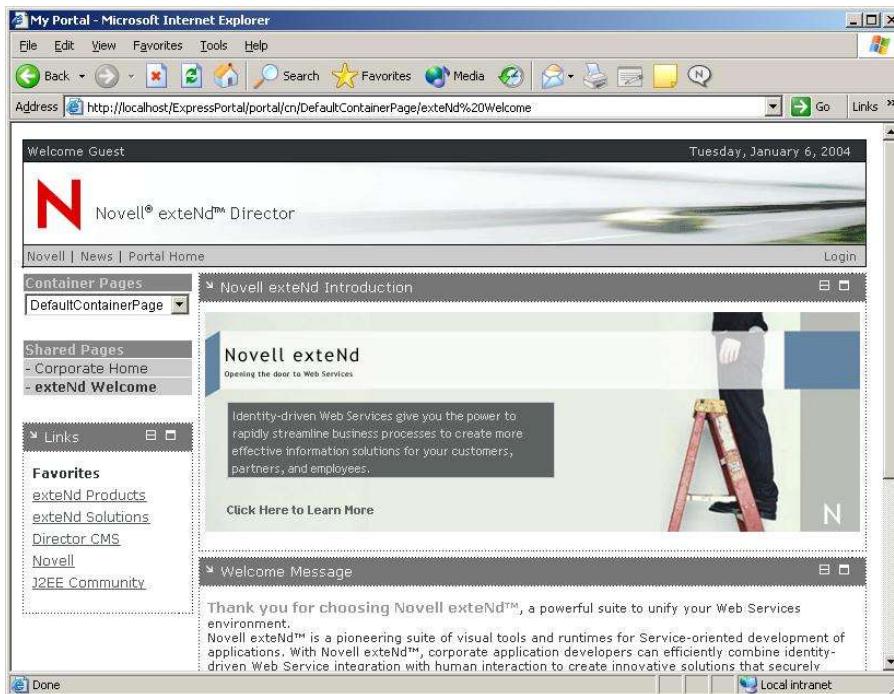


# Novell exteNd Interaction and Portal Consuming Interactive Web Services



# N

# Pre-packaged Portal - Express Portal

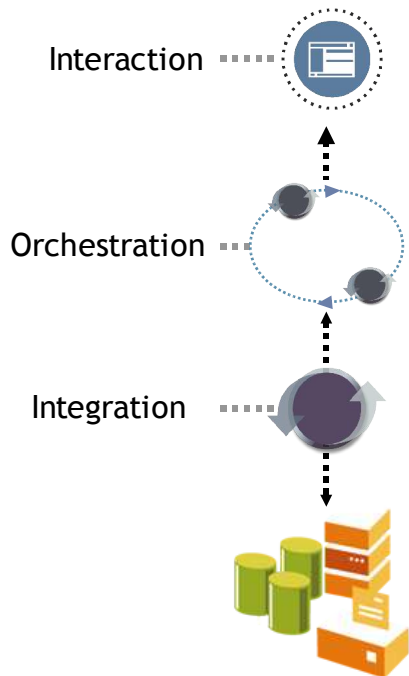


- Pre-configured and installed
- 24 ready to use portlets
- Browser based portal administration
- Multiple configuration options
  - Container pages control site wide portal look and feel
  - Shared pages control users and group look and feel
  - User pages control personal preference
- Drag-and-drop layout



# Novell exteNd Summary

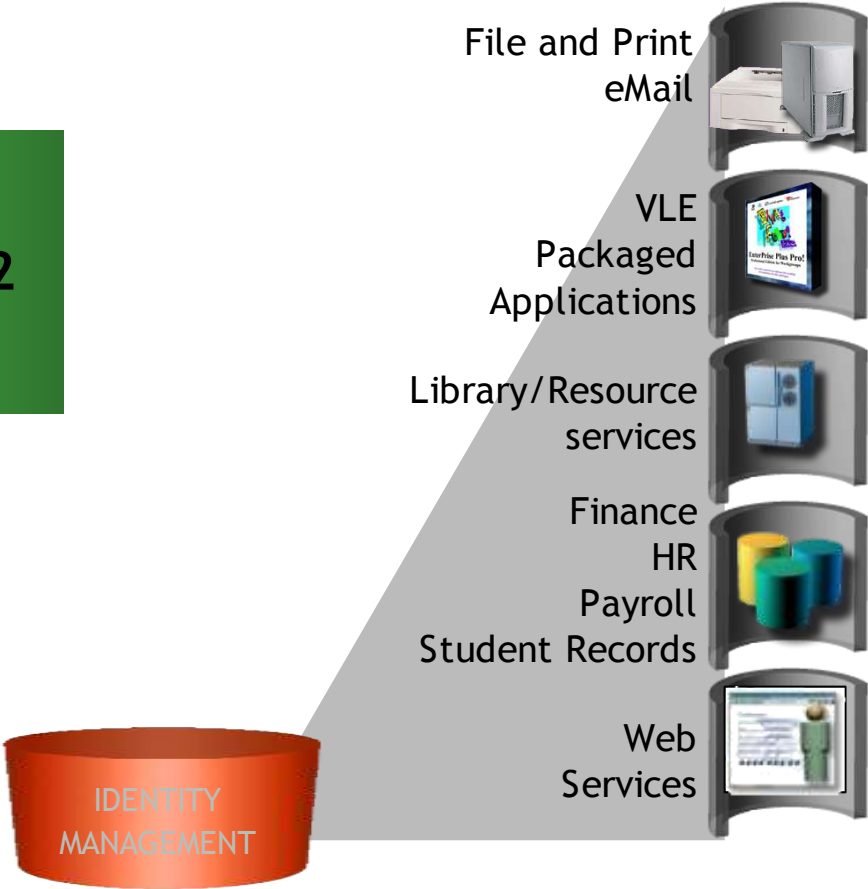
## Integrated Services-Oriented Application Development



- Comprehensive SOA suite
  - Combines integration, portal and identity Services to securely deliver business information to the users that need it
- Reduced time to market with visual end-to-end tools
  - Plethora of visual tools and wizards that speed service oriented application assembly and deployment
- Standard and Open
  - Supports the latest industry standards
  - Only SOA offering that supports deployments to leading J2EE Applications Servers
- Security
  - The only SOA suite supported by industry leading Identity Management solution



# Identity Manager 2





# Isolated Identities

---



HR



Student records



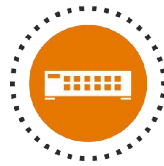
Database



Operating System



Mail



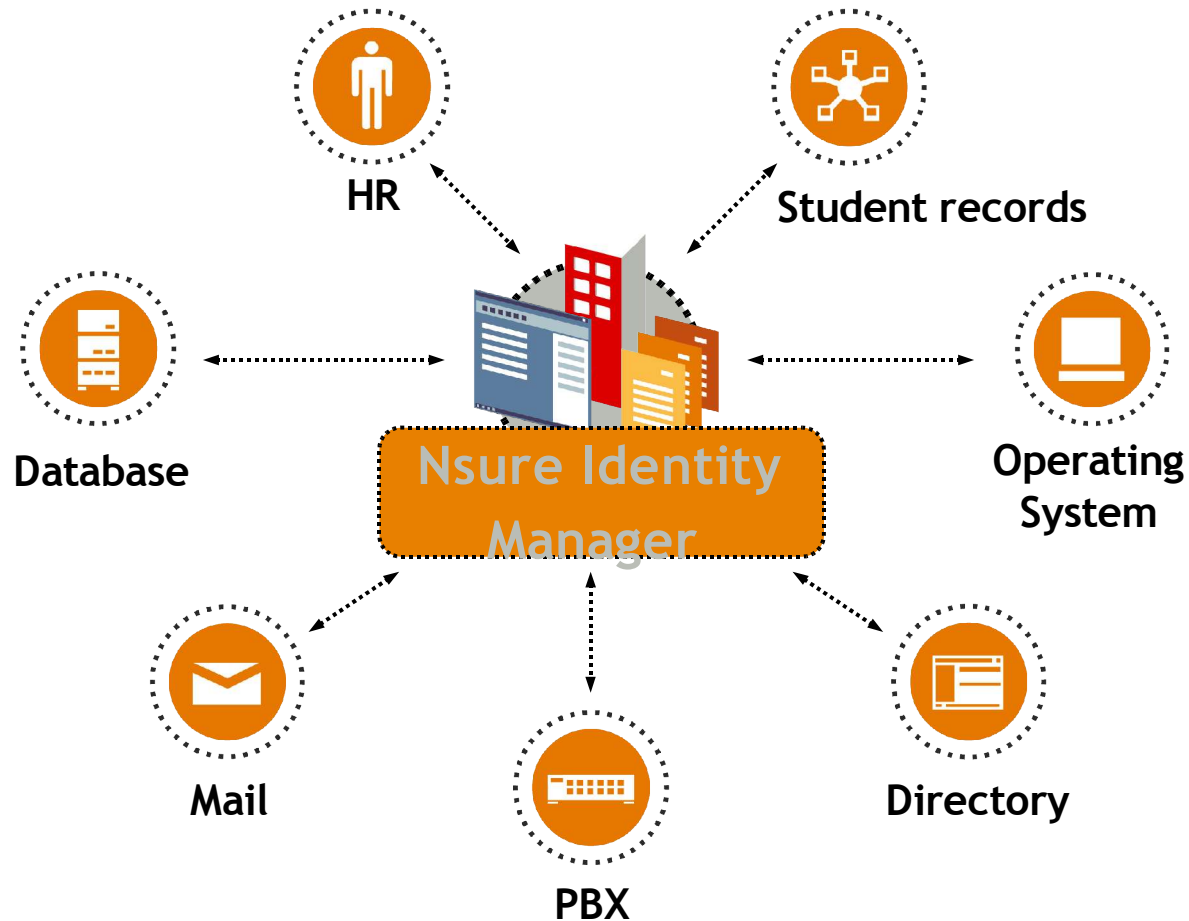
PBX



Directory



# Foundation: Integrated Identities



# N Addressing Identity Management

---

## Capabilities:

- Metadirectory - Identity Synchronization (Foundation)
- User Lifecycle Management
- Provisioning/Deprovisioning
- Password Management
- User self-service - passwords and profile information
- Role-based administration
- Corporate white pages (address book)
- Auditing and Reporting

# N

## *Password Management*

---

A suite of password-related security functions:

- System-wide password policy
  - Establish password policy that will be used for and enforced on connected systems
- Password self-service
  - Empower users to help themselves with forgotten passwords, password resets, changing passwords
- Password distribution
  - Specify connected systems that will receive the organization's common password, as defined in password policy
- Bi-directional password synchronization
  - Manage the native password management activities in connected systems, ensuring consistency



# N

# Password Management



## Password Distribution

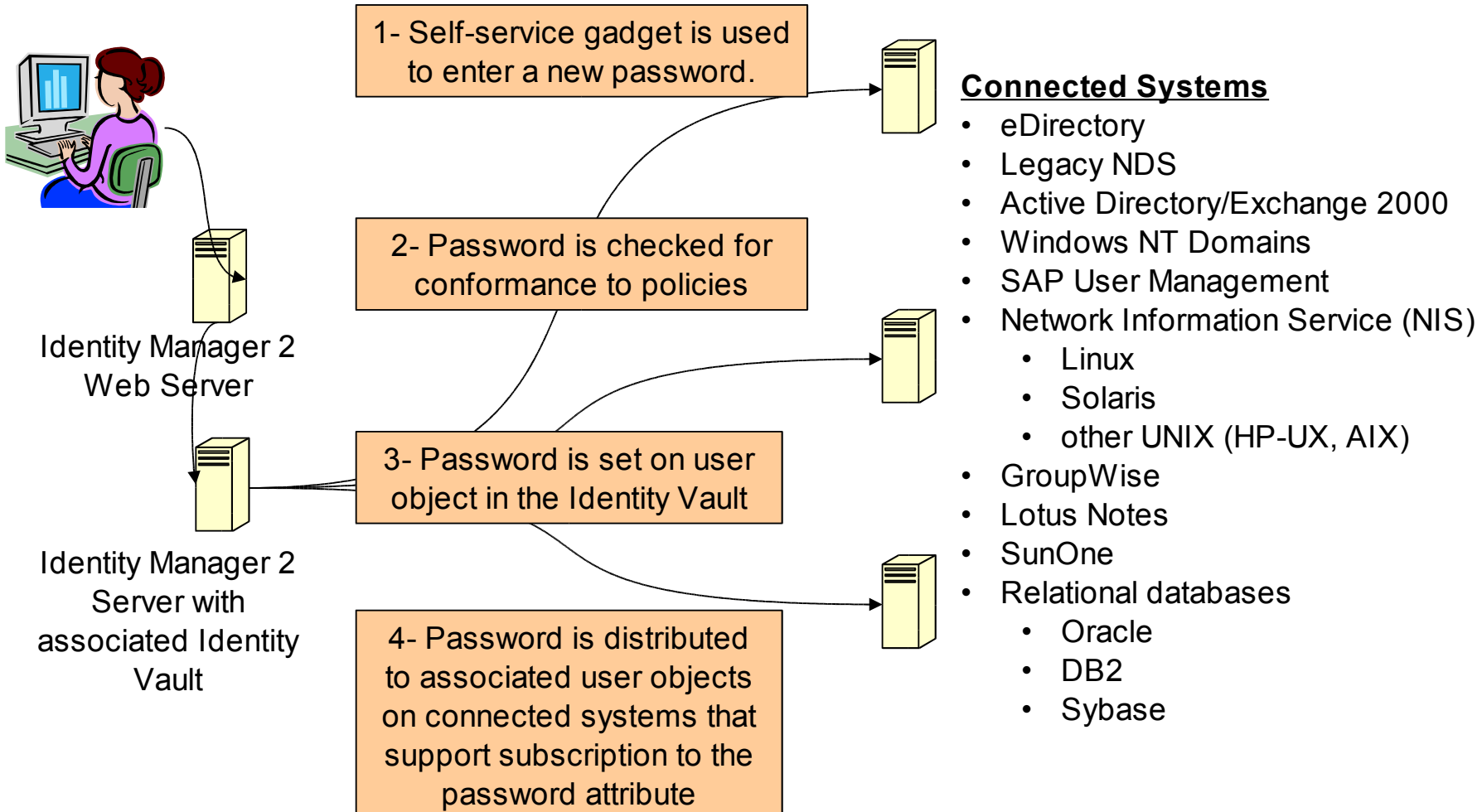
- User sets a new common password using the self-service password interface
- New password is checked against password policy
- New password is set on user object within the Nsure Identity Manager 2 identity vault
- Password is distributed to associated user objects on connected systems

### Connected Systems

- eDirectory
- Legacy NDS
- Active Directory/Exchange 2000
- Windows NT Domains
- Network Information Service (NIS)
  - Linux
  - Solaris
  - other UNIX
- GroupWise
- Lotus Notes
- SunOne
- SAP User Management
- Relational databases
  - Oracle
  - DB2
  - Sybase

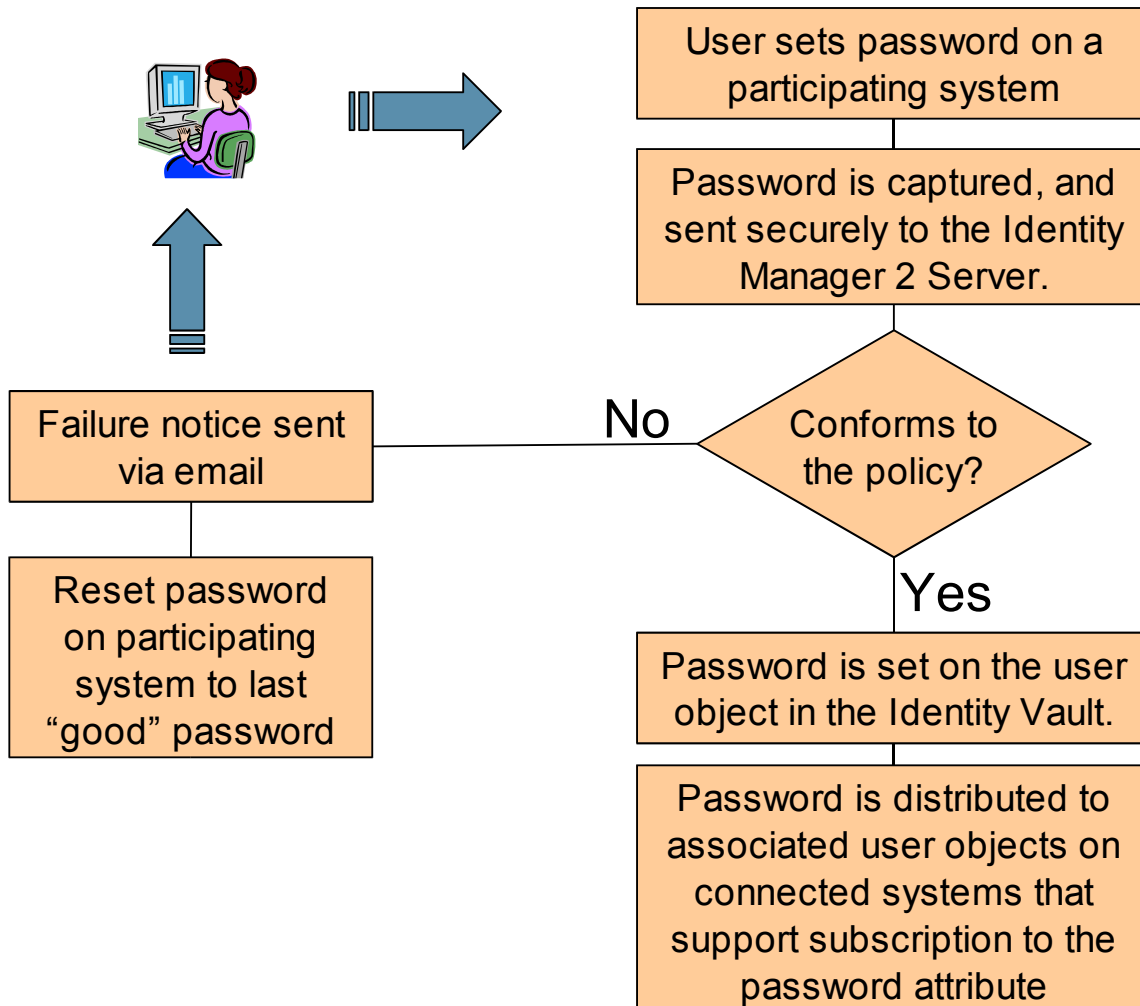


# Password Scenario: Using Self-service portal to change password



# N

## Password Scenario: Bi-directional password sync



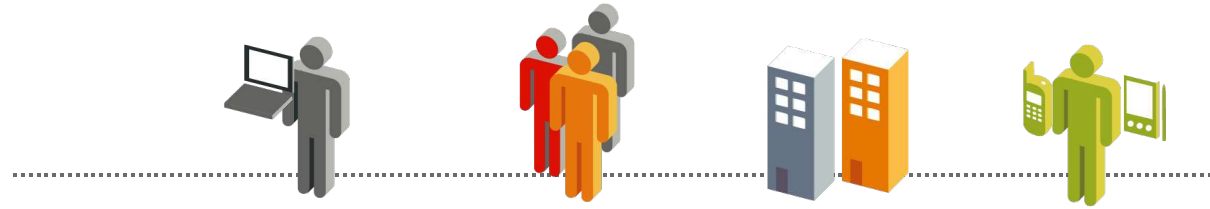
### Participating Systems

- Active Directory
- NT Domains
- NIS (Unix)
- eDirectory



# N

## Linux: a critical element of one Net



# N Committed to open source

May 2004

Novell announces that all customers with existing NetWare maintenance/

upgrade/support UK Academic Site License agreement

are able to use  
server at no

Under the above license this means that any Academic institution can deploy SUSE Linux Enterprise Server, site wide with updates and maintenance AND support so long as they have an existing NetWare agreement

Jan 04

# N

## Continuing the open source direction

---

### Novell Forge

A technology collaboration site that allows incremental involvement in the OSS development community.

<http://forge.novell.com>

### Contributions

Provide contributions to the OSS community

- Identify products or API's to open source
- Provide code and support it for and with the community (Structural Bazaar)

### Review Board

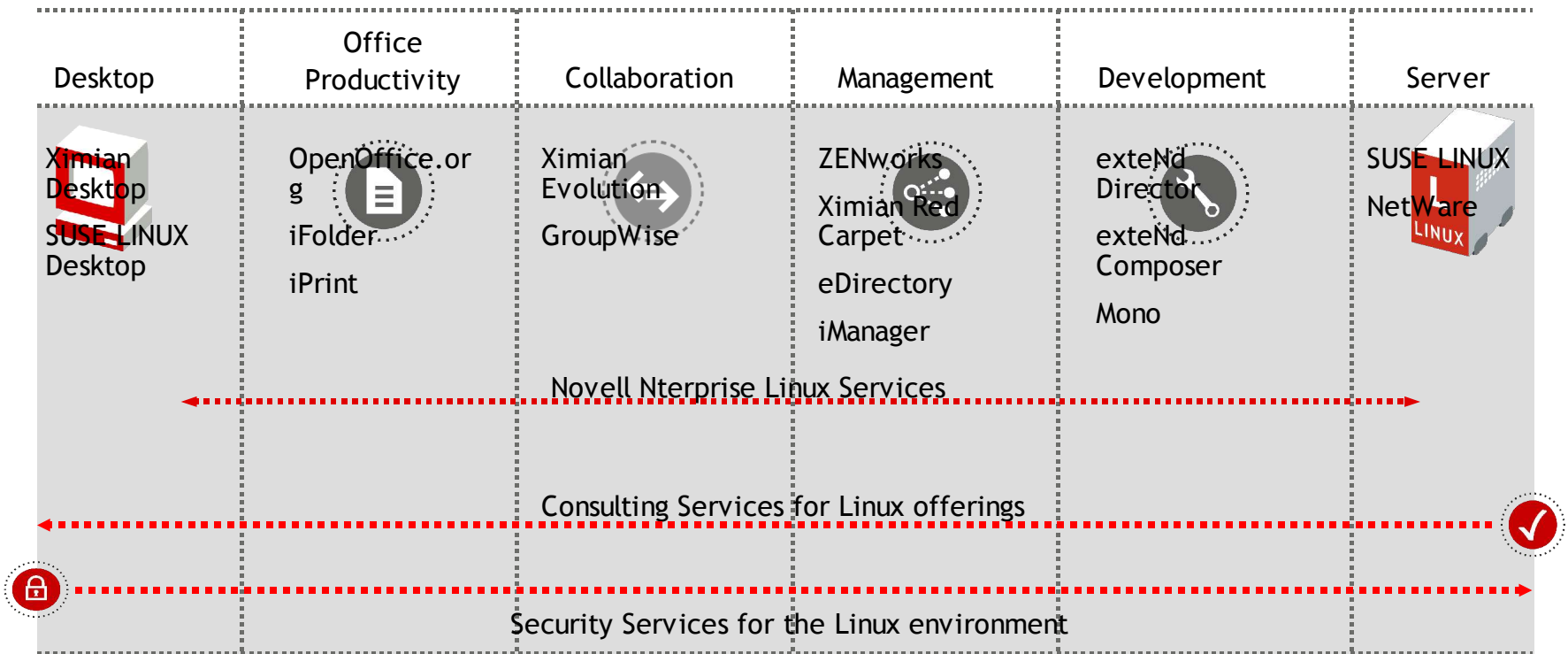
Open Source Review Board - Internal OSS education/advocacy and legal control.

### Support

Provide guidance, tools, and training to facilitate the support of Linux across Novell solution suites.

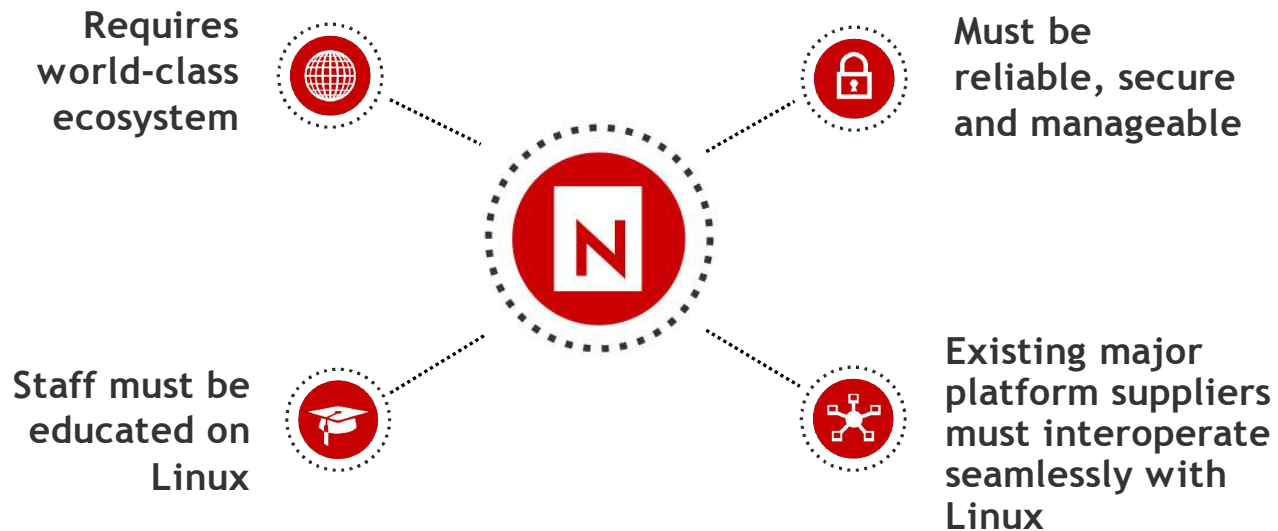
# N

# Desktop to the Server





# Why choose Novell for a Linux-based solution?





# Novell Premium Services

Customers look to Novell for...



- Proven technical expertise



- Consistent methodologies



- World wide delivery



- Strategic partnerships



- High customer satisfaction

- Stable and reliable - 24x7x365 access to Linux experts
- Safe and secure - remote monitoring services, managed services, proactive health checks, preventative maintenance service and business continuity services
- Optimized and efficient - proactive planning services establish a support plan, dedicated and onsite resources, and ongoing relationship management



# Novell delivering



## Extensive global programs

- Novell, Ximian and SUSE relationships with IBM, Dell, HP and others
- Promoting adoption of Linux around the world

## Commitment to open source

- GNOME
- MONO
- Nforge
- Ifolder

## Strong financial position

- Only \$1 billion software company with a Linux distribution and the worldwide ecosystem to support it.

Novell®