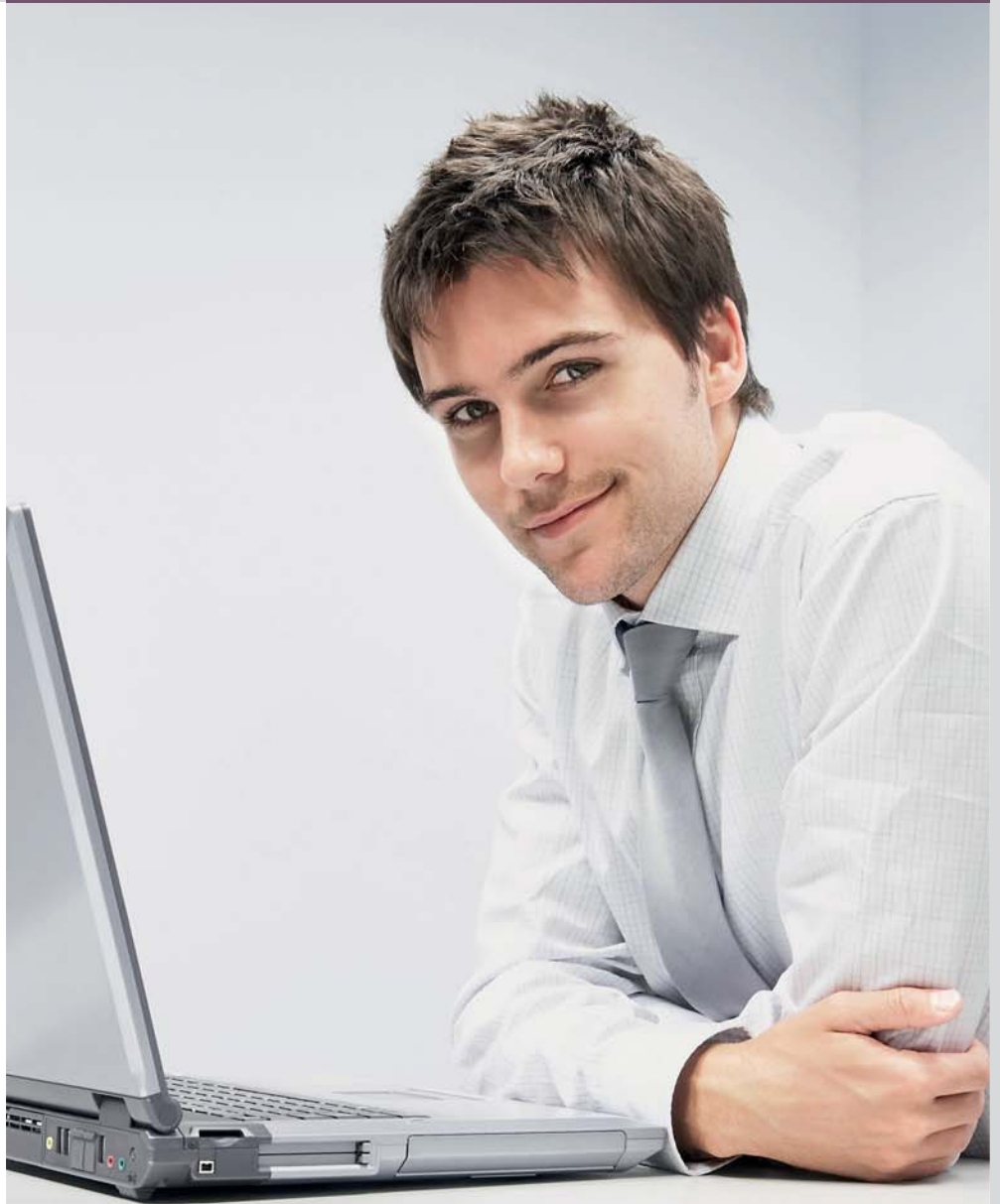


BUSINESS-DRIVEN, COMPLIANT IDENTITY MANAGEMENT

USING SAP NetWeaver® IDENTITY MANAGEMENT

Identity management today presents organizations with a host of challenges. System landscapes have more applications than ever, and user roles are constantly evolving to take on new tasks and responsibilities, which in turn require new permissions. This complexity is then compounded by regulatory requirements that mandate that organizations can state, authoritatively, who had access to which applications at what time. The SAP NetWeaver® Identity Management component is uniquely positioned to help you meet these challenges and better align identity management with your organization's business processes.



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BUSINESS CHALLENGES

MANAGING COSTS, PROCESS CHANGE, AND COMPLIANCE

Identity management solutions address several key business challenges.

High operational costs – Complex system landscapes require that your IT department maintain multiple sources of identity data, entering data for each user as well as assigning permissions in multiple systems. Having to provision users in multiple systems translates into delays in making new employees productive. It also presents risks when employees who have changed roles or have left the organization continue to have access longer than they should. Paper-based approval processes further complicate this process, and users are dependent on help-desk staff for password resets and changes in access or permissions.

Changing business processes – In today's complex business environment, organizations are increasingly interconnected. Business processes are extended across corporate boundaries with participants from multiple organizations, including partners and customers. As new business processes are introduced in this context in response to competitive pressures, managing access to the applications by participants from within as well as across enterprise boundaries becomes a challenge.

Increasing compliance requirements – One of the key factors that has been driving the adoption of identity management solutions in the past few years is compliance requirements. Laws such as the Sarbanes-Oxley Act, Gramm-

Leach-Bliley Act (for financial institutions), and Health Insurance Portability and Accountability Act (HIPAA) require that your organization be able to state with certainty who had access to what system resources and when. Identity management solutions help you achieve compliance, provide needed audit trails, and prevent unauthorized access.

Identity Management for the User Life Cycle

When a new employee is hired, onboarding procedures are cost and labor intensive. To illustrate, consider what happens when you hire an order-entry clerk. An order-entry clerk needs access to multiple applications, such as these:

- Customer relationship management system, to enter orders
- Supply chain management application, to check on product availability
- Enterprise resource planning application, to handle logistics
- Scheduling application, to schedule a dispatch of the product installer
- Microsoft Windows account (an entry in Microsoft Active Directory) and an e-mail account
- Human capital management application, to access employee information

If you don't have an identity management solution, the work required to provision and manage user access in a compliant and auditable way is labor intensive, repetitious, and error prone.

This problem is compounded when you consider the typical user life cycle within an organization. When an employee is hired, your organization gives him or



her certain permissions in a variety of systems. Later, the employee may receive a promotion or change roles and so receive new, additional permissions. Furthermore, for some year-end activity or while an employee is covering for a colleague on vacation, you may need to grant other temporary privileges. Thus, an employee typically tends to accrue privileges over time and often continues to have access that may have been granted previously but is not required for the current role. Finally, when the employee leaves your company, the access that this user has may still not be revoked, perhaps even years later, which presents obvious and ongoing security risks to your organization.

At each stage, you need to give the user access to the right set of applications according to his or her **current role**. The SAP NetWeaver® Identity Management component helps you manage this process centrally, across SAP® applications as well as heterogeneous, non-SAP applications.

THE SOLUTION

HOW SAP NetWeaver IDENTITY MANAGEMENT CAN HELP

SAP NetWeaver Identity Management can help your organization grant and manage user access to heterogeneous applications securely and efficiently while meeting audit and compliance requirements.

The component provides a central mechanism for provisioning users in accordance with their business roles and supports related processes such as password management, self-service, and approvals workflow.

SAP NetWeaver Identity Management takes the pain out of user provisioning, offering:

- One central place to manage users in all applications
- Synchronization of data between data stores (For example, changing a phone number or e-mail address automatically updates all relevant systems.)
- Password-reset and lost-password-management functionality for end users, alleviating help-desk workload and reducing operational costs
- Centralized reporting, mapping of one user to identities in all systems, and fully auditable user access across the entire IT landscape

SAP NetWeaver Identity Management helps enable you to do the following:

- Support heterogeneous environments including SAP and non-SAP applications
- Provide business-driven identity management
- Address the pressing need for compliance and auditability
- Use identity services to extend functionalities in a service-oriented architecture (SOA) landscape

Supporting a Heterogeneous Landscape

SAP NetWeaver Identity Management enables you to streamline provisioning of users into all applications – SAP and third-party applications – as well as operating systems, file systems, and databases via a certifiable connector framework. Using this connector framework, SAP NetWeaver Identity Management supports lightweight directory access protocol (LDAP) directories and Java Database Connectivity (JDBC) databases. It also supports applications such as Microsoft Active Directory, Microsoft Exchange, and IBM Lotus Notes.

Providing Business-Driven Identity Management

Identity management solutions evolved from the need for IT organizations to efficiently manage users across multiple applications. These solutions were essentially IT efficiency tools that streamlined the process of user management by providing a central mechanism to enable these processes.

As organizations achieve these efficiencies and realize the value of these solutions, it is becoming apparent that you can accrue greater benefits. You can gain these benefits by aligning the user management functionalities more closely with the business processes that these users access.

SAP NetWeaver Identity Management is integrated with several applications of the SAP Business Suite software to provide end-to-end support for user provisioning. This comprehensive support for user provisioning is driven by the business processes implemented by the various applications of SAP Business Suite. For example, the integration with the SAP ERP Human Capital Management (SAP ERP HCM) solution automates identity management processes on the basis of user creation and status change events triggered by HR business processes.

SAP NetWeaver Identity Management also offers role-based access control (RBAC), based on the NIST RBAC standards. You assign users business roles that are defined as part of a business process. These business roles

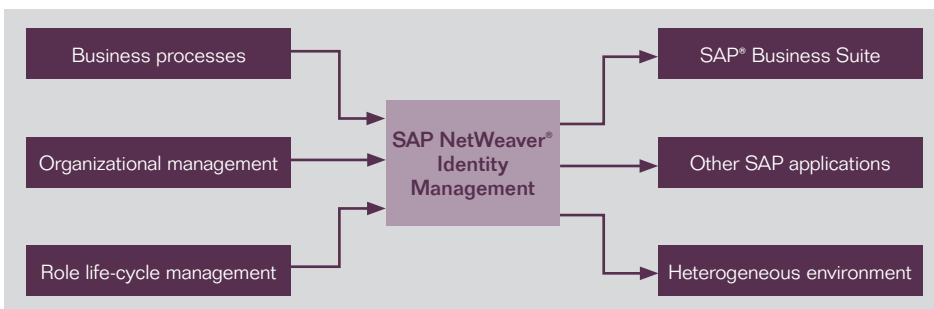


Figure 1: Support for Heterogeneous Landscapes in SAP NetWeaver® Identity Management

consist of one or more technical roles, which are system specific and which represent access information or technical authorizations. These include authorization roles such as those for SAP software systems that are based on the ABAP™ programming language or groups for Active Directory. By focusing on business processes and business roles, SAP NetWeaver Identity Management lets you start with business requirements and encapsulate the complexity of managing technical roles and access. When you assign a business role to a user, all technical roles for that business role and any role below that business role in the hierarchy are assigned to the user. In addition, workflow and provisioning is automatically triggered.

Business-driven identity management also includes the incorporation of user provisioning and approvals right into the business processes themselves, streamlining user access.

Addressing Compliant Identity Management

Compliance is a key driver for the adoption of identity management solutions. SAP NetWeaver Identity Management offers compliant user provisioning and full reporting and audit functionalities. By integrating SAP NetWeaver Identity Management with SAP BusinessObjects™ governance, risk, and compliance (GRC) solutions, you can prevent segregation of duties

violations and put in place mitigating controls. By implementing SAP NetWeaver Identity Management with SAP BusinessObjects GRC solutions, including the SAP BusinessObjects

An employee typically tends to accrue privileges over time and often continues to have access that may have been granted previously but is not required for the current role. When the employee leaves your company, the access that this user has may still not be revoked, perhaps even years later, which presents obvious and ongoing security risks to your organization.

Access Control application, you can gain compliance benefits. Your organization can get clean, stay clean, and stay in control of access to all applications in the system landscape, from SAP Business Suite applications to third-party applications. The integration of these solutions addresses the CIO's need for reduced total cost of ownership (TCO) and security, as well as the pressing need of the CFO for compliance and auditability.

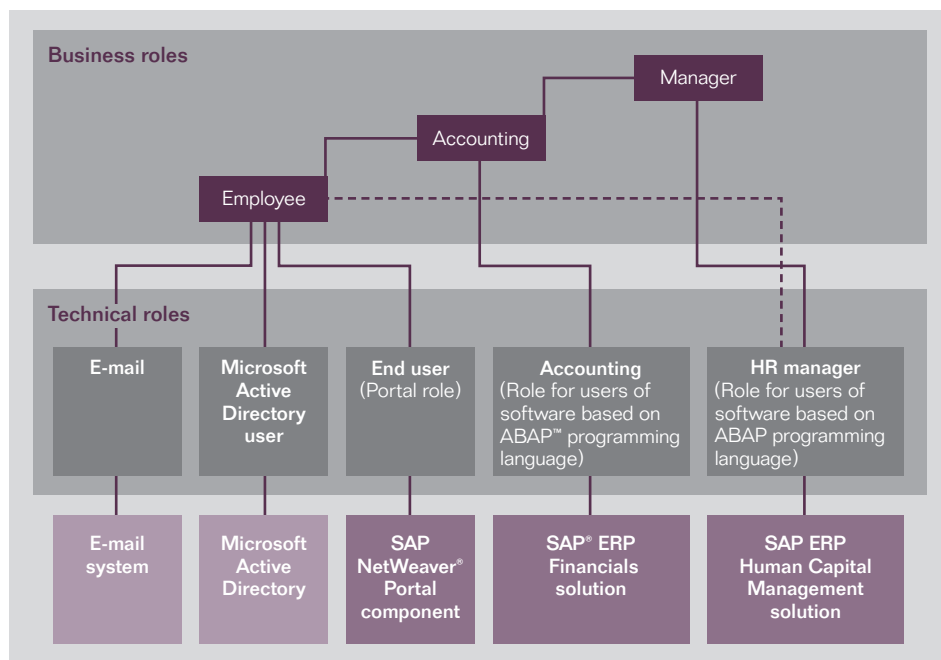


Figure 2: Business Roles and Technical Roles

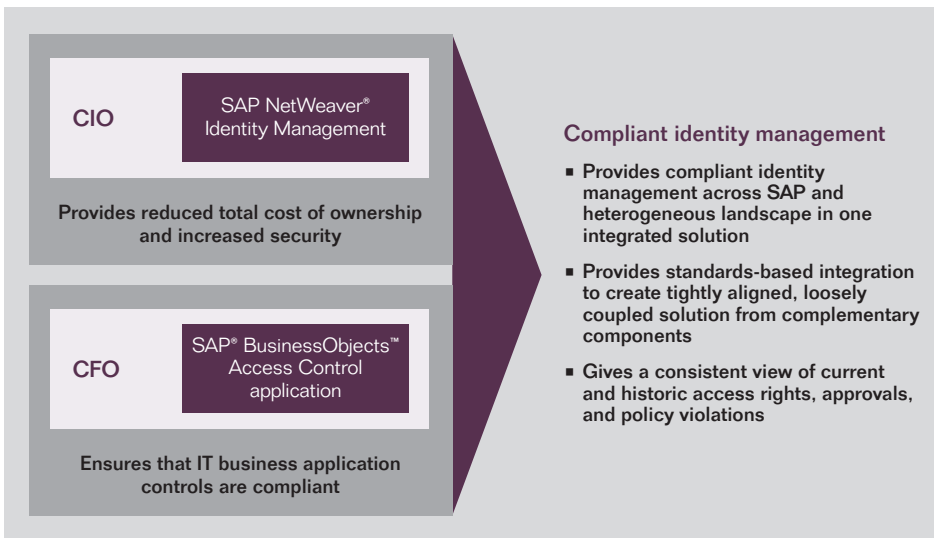


Figure 3: How Business-Driven Compliant Identity Management Works

Using Identity Services to Support Process Transformation

Connecting securely and flexibly across system landscapes and to customers and partners is essential to support today's business networks. SAP NetWeaver Identity Management offers advanced identity management functionalities in the form of identity services, based on Web services standards.

Identity services enable **a standards-based, single access point for querying and managing identity information.** Identity services provide a standard way to integrate systems across the entire system landscape, integrating SAP Business Suite with heterogeneous applications, utilities, and services.

Identity services support **flexible integration.** System landscapes and applications are constantly evolving, incor-

porating new applications and users. The tightly aligned, loosely coupled integration offered by identity services provides flexible integration of both SAP and heterogeneous applications based on industry standards.

Identity services provide **an enterprise identity platform in support of a broader SOA approach.** Identity information is the gatekeeper to controlled access to functionality. Business network transformation means that companies are interrelated in complicated ways with business partners, including suppliers and customers. Thus, companies need access to each other's back-end systems, both for user connectivity and for application-to-application integration across organizations. Identity information may be held in a variety of directories and identity management systems. SAP NetWeaver Identity Management exposes identity services using Web services standards such as services

provisioning markup language (SPML) to allow you to use a variety of systems to interact with identity management functions.

In short, through identity services, SAP NetWeaver Identity Management offers:

- Support for your SOA infrastructure
- The ability to provision users and create, update, delete, and search identity information using Web services
- Standards-based integration with third-party identity management solutions
- Support for key standards such as SPML, directory service markup language (DSML), and LDAP

SAP NetWeaver Identity Management can help your organization grant and manage user access to heterogeneous applications securely and efficiently while meeting audit and compliance requirements. The component provides a central mechanism for provisioning users in accordance with their business roles and supports related processes such as password management, self-service, and approvals workflow.

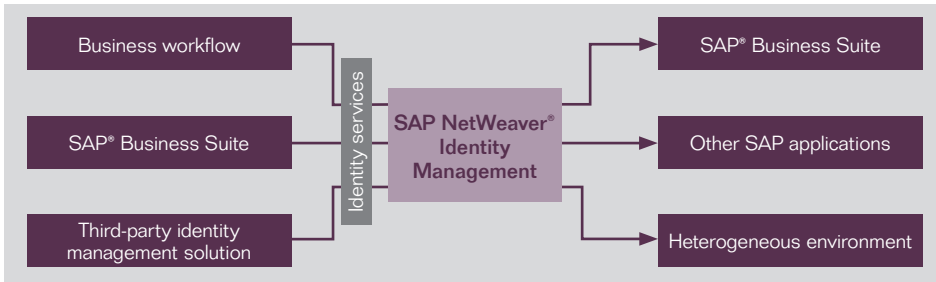


Figure 4: Identity Services

Approaches to Business-Driven Identity Management

Optimizing business processes results in greater operational efficiency and cost savings. Rather than executing siloed, uncoordinated processes, you can allow business processes to drive

user provisioning. This can provide substantial gains.

Integration of HR Processes with Identity Management
Any HR event – whether it’s a hire, a transfer, a leave of absence, or a termination – typically requires that you

grant, revoke, or modify access to applications and systems. You can configure such events in the HR system to raise an alert that triggers a workflow to gain needed approvals. Then you can perform the needed tasks to modify the individual’s identity information and system access in a way that is appropriate to the employee’s new or changing business role.

Self-Service for Employees, Customers, and Partners
Self-service password-reset functionality provided by SAP NetWeaver Identity Management gives you increased operational efficiency for employees. The integrated workflow functionality allows you to handle related identity management life-cycle events and approvals processes.

Self-service can also extend to partners and customers. When a customer or partner self-registers, this can kick off a workflow that manages the approvals and the provisioning of the partner or customer in the required systems. Thus, you can provide efficient and secure access to systems for critical business partners. In this situation, you can deploy identity services to provide a robust, standards-based integration with customer or partner systems.

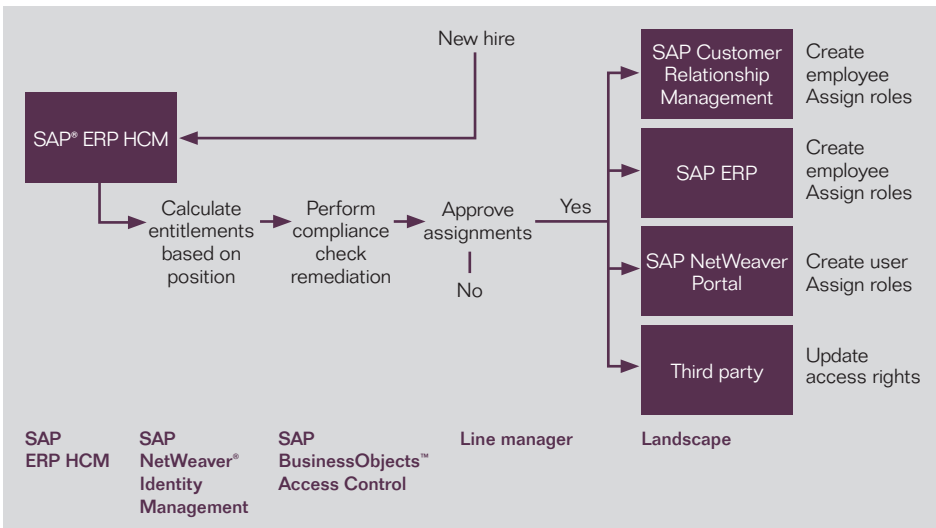


Figure 5: Integration of HR Processes with Identity Management

FEATURES AND FUNCTIONS

WHAT YOU CAN DO WITH SAP NetWeaver IDENTITY MANAGEMENT

SAP NetWeaver Identity Management consists of two main components – the identity center and the virtual directory server – that combine to deliver the functions shown in Figure 6.

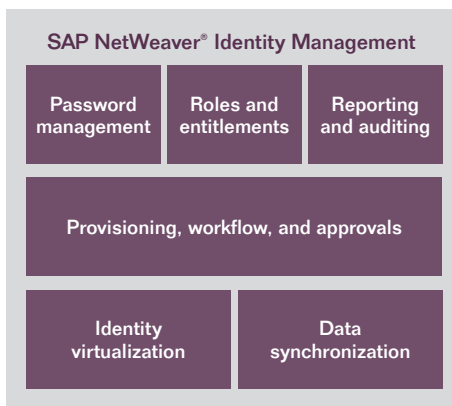


Figure 6: Components of SAP NetWeaver® Identity Management

The main functions of SAP NetWeaver Identity Management include:

- **Identity virtualization**

SAP NetWeaver Identity Management provides an integrated, unified view of the virtual identity of users, as well as identity services to let you leverage identity information and access rights across networks.

- **Data synchronization**

If you change key information in one application, it is transformed and propagated to other related applications to maintain data consistency and quality.

- **Provisioning, workflow, and approvals**

Business rules and policies drive assignment and maintenance of user access rights across multiple systems. You can quickly provision employees as well as business partners, and all changes and approvals are fully auditable.

- **Password management**

The software supports self-service password reset and password synchronization across all connected target systems, as well as the ability to perform self-service updates of personal information. These functions reduce the cost incurred by your help desk in servicing password resets.

- **Roles and entitlements**

Roles align with business processes rather than technical directory structures. Users are assigned roles and given certain privileges, called entitlements, that enable access to various systems.

- **Reporting and auditing**

Critical for compliance, this feature enables you to produce reports based on current access and past events. If questions come up, reports can conclusively state whether the person in question had entitlements to particular applications and associated features and functions. You can transparently maintain all changes to data, user access rights, and administrative permissions.



SAP NetWeaver Identity Management is integrated with several applications of the SAP Business Suite software to provide end-to-end support for user provisioning. This comprehensive support for user provisioning is driven by the business processes implemented by the various applications of SAP Business Suite.

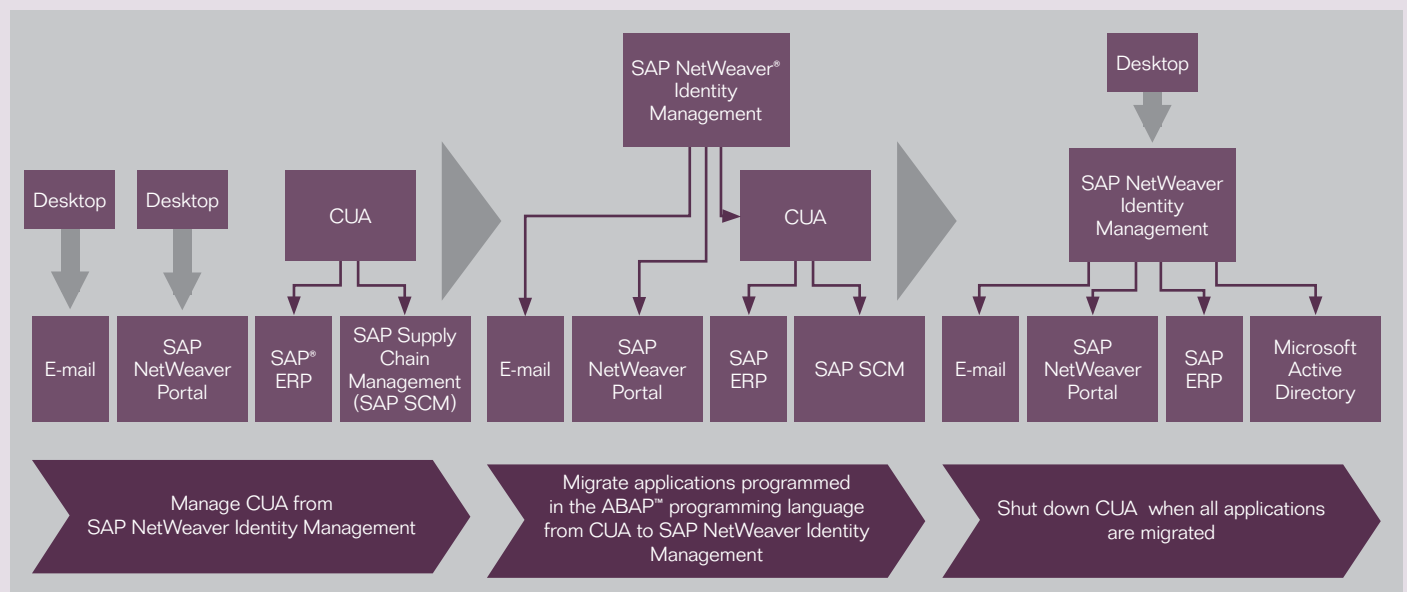
Migrating from CUA to SAP NetWeaver® Identity Management

You use the central user administration (CUA) tool to manage users across multiple SAP® software systems that are based on the ABAP™ programming language. Moving to the SAP NetWeaver® Identity Management component from CUA provides the following advantages:

- Supports all relevant systems, including SAP and third-party software

- Supports sophisticated business roles definition and management
- Provides self-service password resets, removing the biggest headache for help-desk staff
- Enables workflow-based requests for approvals, automating user provisioning in multiple back-end systems
- Supports LDAP directories and databases, as well as standards such as SPML and DSML

Furthermore, migration from CUA is intuitive. As shown in the figure below, install SAP NetWeaver Identity Management on top of CUA. Start connecting applications programmed in ABAP to SAP NetWeaver Identity Management and disconnecting them from CUA. After you disconnect the last application from CUA, the migration is complete.



Migration from CUA to SAP NetWeaver® Identity Management

THE BENEFITS

TAKING IDENTITY MANAGEMENT TO THE NEXT LEVEL

SAP NetWeaver Identity Management takes identity management to the next level by providing a business-oriented solution. The component lets you lift identity management from the technical level to the business level by focusing on managing the life cycle of employees, partners, and customers rather than on technical account management.

With identity services and the ability to work in your SOA, SAP NetWeaver Identity Management helps you access identity management functionalities from your SOA environment.

SAP NetWeaver Identity Management lets you emphasize compliance by providing full audit and reporting func-

tionalties and integrating with SAP BusinessObjects GRC solutions in preventing segregation of duties violations.

Most important, SAP NetWeaver Identity Management supports SAP software as well as the full heterogeneous landscape, including LDAP directories, third-party business applications, operating systems, e-mail systems, and databases.

You can integrate SAP NetWeaver Identity Management across the entire system landscape and beyond, using SOA, into the larger business network. By lowering TCO and increasing operational efficiency, SAP NetWeaver Identity

Management helps meet your organization's objectives of lower cost, higher productivity, compliance, and auditability.

By integrating SAP NetWeaver Identity Management with SAP BusinessObjects governance, risk, and compliance (GRC) solutions, you can prevent segregation of duties violations and put in place mitigating controls.

Management helps meet your organization's objectives of lower cost, higher productivity, compliance, and auditability.

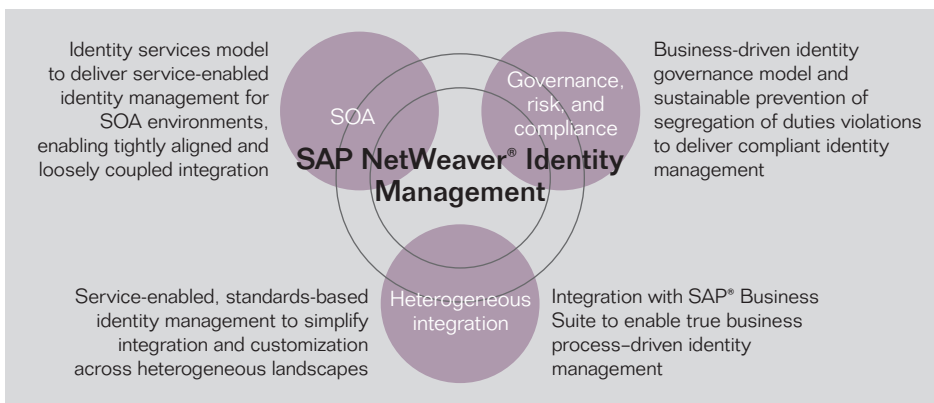


Figure 7: Support for Today's Complex Business Requirements

For More Information

For more information about how SAP NetWeaver Identity Management can help your organization, call your SAP representative today or visit us on the Web at

www.sap.com/platform/netweaver/components/IDM/index.epx.

Summary

Today identity management is becoming a key challenge as your organization needs to ensure that users have the right access to applications in a timely manner while ensuring the security of your organization's data. The SAP® NetWeaver Identity Management component helps you address those challenges and align identity management with your organization's key business processes.

Business Challenges

- Reduce operational costs in complex system landscapes
- Manage access to applications by participants from within as well as across enterprise boundaries
- Comply with local and global regulations

Key Features

- **Identity virtualization** – Gain an integrated, unified view of the virtual identity of users, as well as identity services to leverage identity information and access rights across networks
- **Data synchronization** – Transform and propagate changed user and identity information to other related applications to maintain data consistency and quality
- **Provisioning, workflow, and approvals** – Assign and maintain user access rights across multiple systems, as well as provision employees and business partners; audit all changes
- **Password management** – Provide password self-service functionality and password synchronization across all connected target systems
- **Roles and entitlements** – Align roles with business processes rather than technical directory structures
- **Reporting and auditing** – Produce reports based on current access and past events

Business Benefits

- **Lower costs and higher productivity** through integrated identity management across heterogeneous systems
- **Flexible identity management** in response to changing business processes
- **Compliance with regulatory requirements** for auditability of access to applications
- **Improved identity management** over the life cycle of employees, partners, and customers

For More Information

Call your SAP representative, or visit us online at www.sap.com/platform/netweaver/components/IDM/index.epx.

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