

SAP Solution Brief

SAP NetWeaver

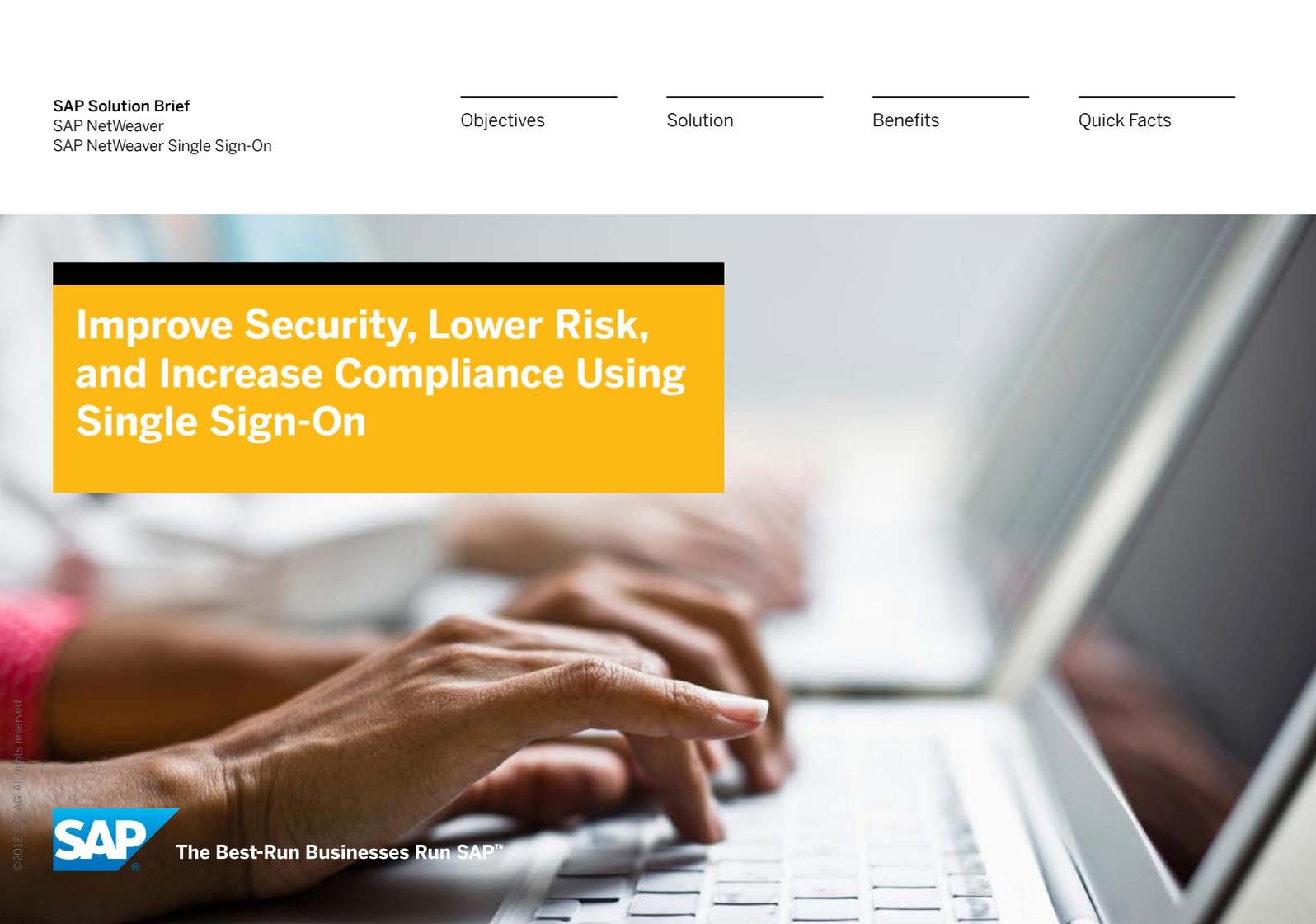
SAP NetWeaver Single Sign-On

Objectives

Solution

Benefits

Quick Facts



**Improve Security, Lower Risk,
and Increase Compliance Using
Single Sign-On**



The Best-Run Businesses Run SAP™

Single sign-on in the SAP® software architecture

Single sign-on in the SAP® software architecture

Do you need to enhance your IT security concept by incorporating a scalable, reliable logon procedure for your SAP® software landscape? With the SAP NetWeaver® Single Sign-On application, you can provide user-friendly, secure user authentication and enhanced regulatory compliance for both SAP and non-SAP solutions.

For many workers, the increasing number of different passwords they are required to remember is a major challenge. Not only do they waste valuable time contacting help desks for forgotten-password resets, but they often also resort to the risky practice of writing their passwords on paper. However, complex

passwords are essential to the strict security standards your organization needs to minimize risk of unauthorized access to sensitive data. Moreover, you increasingly need to strengthen and simplify compliance with regulatory requirements. Against this background, SAP NetWeaver Single Sign-On provides a much-needed lifeline.



What is single sign-on?

What is single sign-on?

Set the course for secure user authorization

Centralize one-time authorization

Single sign-on versus logon ticket

Single sign-on versus native secure network communication

Single sign-on is a process in which your employee logs on to a system – such as the PC at his or her desk – once, at the start of a work session. The worker then has full access to all the applications he or she is authorized to use. This means that multiple logons are not necessary.

In theory, you can secure an IT landscape by having a complex and individual password for each system and each application. But in this scenario, the burden of IT security rests on the business users' shoulders. They are responsible not only for IT security but also for proving their identity by entering a password every single time they log on to a system. Risks arise from the multitude of different passwords, some of which may be weak (see [figure](#) on the next page).

Single sign-on is more secure than separate password prompts.



What is single sign-on?

- Set the course for secure user authorization
- Centralize one-time authorization
- Single sign-on versus logon ticket
- Single sign-on versus native secure network communication

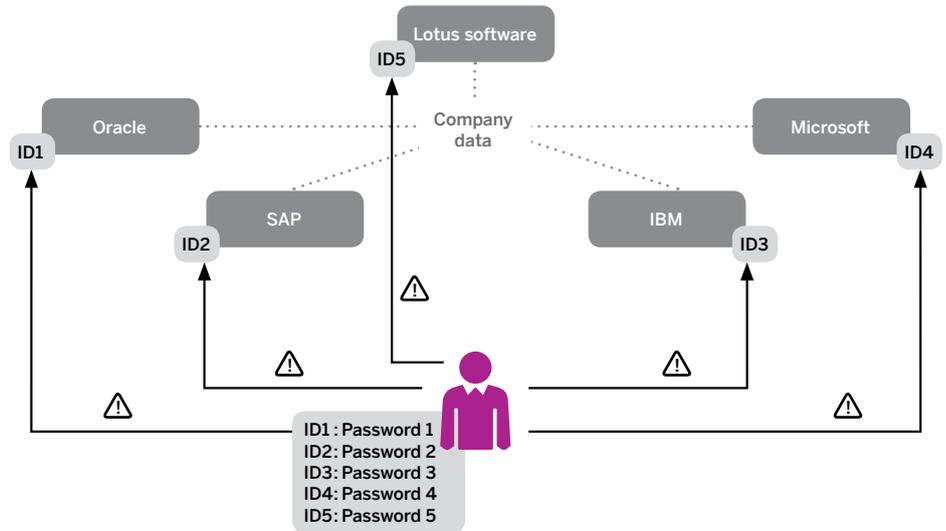


Figure 1: Risks from individual and direct user authorization using separate passwords



Set the course for secure user authorization

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When your business users are forced to memorize a large number of complex passwords, they soon become frustrated and stressed. And the effort involved in regularly renewing passwords in a heterogeneous IT landscape makes the task of ensuring secure access to information and applications even more complex. Humans become the weakest links in the chain: they resort to writing their passwords down, divulging them to other people, or creating lists of passwords that anyone can access.

Single sign-on is an authentication procedure that requires the user to provide proof of his or her identity just one time. This standardized and secure procedure gives users access to the system landscape that they are authorized to work in. And vitally, it passes responsibility for managing and ensuring secure, once-a-day access for users to the IT administrators. This makes your employees' lives much easier, because they need to remember only one password to gain access to a large number of systems. In addition, single sign-on opens the door to using simpler and more secure authentication procedures, such as smart cards and authentication tokens.

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Single sign-on gives your employees the ease and convenience they need. It also strengthens corporate security by minimizing the effort and risk involved in “managing” complex passwords by means of sticky notes or password lists. And employees no longer waste time contacting the help desk to have their passwords reset, which in turn relieves pressure on the organization’s IT support personnel.

By deploying SAP NetWeaver Single Sign-On, the German Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung), for example, was able to reduce its volume of password-related help-desk calls by 70%. Studies show that the cost of a single help-desk call can cost up to US\$50, so single sign-on offers enormous scope for achieving significant savings in IT support expenditure.

Decreasing the number of password-related help-desk calls decreases total cost of ownership.



Centralize one-time authorization

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With SAP NetWeaver Single Sign-On, you benefit from two security-relevant topics: encrypting the connection between the user and your business software, and deploying single sign-on technology to reduce the number of passwords. SAP acquired the secure login and enterprise single sign-on technology from the best-of-breed product from SECUDE,

and we integrated and enhanced it in SAP NetWeaver Single Sign-On. As a result, this solution works with the SAP software portfolio and makes your software – SAP and non-SAP – more secure. It also integrates your software into a central single-sign-on landscape. The figure on the following page shows the benefits of separating authorization and authentication management (see [figure](#) on the next page).

Reduce to one the number of passwords that workers are required to memorize.



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Authorization management

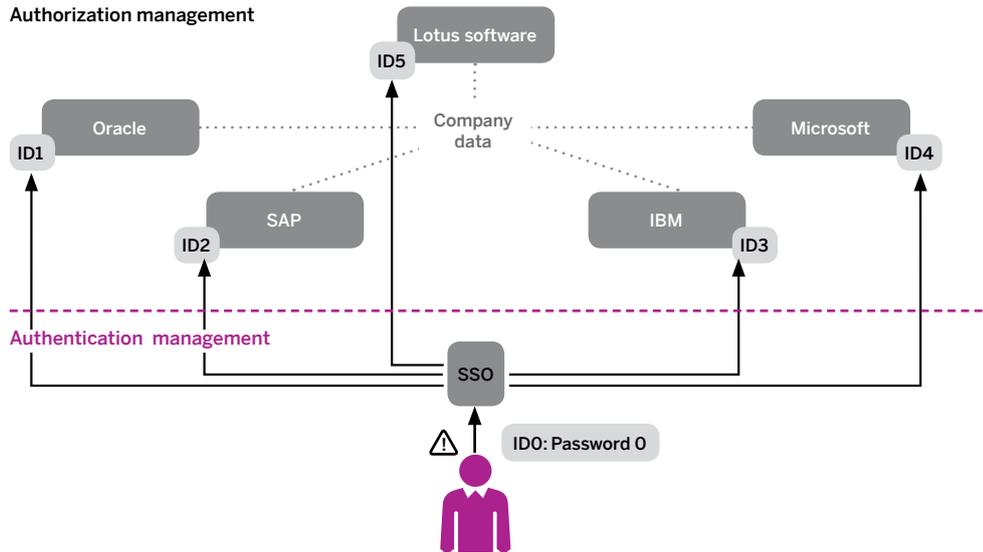


Figure 2: Separation of authorization and authentication management



Single sign-on versus logon ticket

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For a long time, the logon ticket from SAP has been the product of choice for accessing SAP back-end software through single sign-on in portal integration projects. However, if the communication connection between the user and the required back-end software was configured as unencrypted, then the logon ticket is transferred in clear text. You risk having the ticket intercepted and manipulated by a sniffer. Moreover, if the connection was unencrypted and the cookie-based ticket is stolen, a sniffer could also steal a user's identity. For this reason, our security guidelines contain an urgent recommendation for all organizations to encrypt their communication connections, no matter what single sign-on technology you use.

With SAP NetWeaver Single Sign-On, you eliminate the limitation of the logon ticket, which can be deployed only in the corporate domain. That is, you can use single sign-on for connections between partners, customers, and the internal systems beyond the boundaries of the corporate network. Also, in addition to access to Web-based and browser-based applications, SAP NetWeaver Single Sign-On lets you access SAP and non-SAP applications through Microsoft Windows-based GUIs. And setting up an authentication mechanism for non-SAP software requires no programming effort.

SAP RUNS SAP

SAP's own IT organization replaced the logon ticket technology with the SAP NetWeaver Single Sign-On application company-wide for access to more than 80,000 clients.



Single sign-on versus native secure network communication

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Many companies use Secure Network Communication (SNC) to help ensure a secure connection between SAP GUI-based and back-end software systems. However, this connection is supported only on Windows operating systems. SAP offers a runtime library for this purpose, and you can download and install appropriate functions from our Web site. However, if your SAP software servers are installed on UNIX or Linux platforms,

you face a considerably greater challenge. You need to download the source code for the corresponding Kerberos implementation from the Massachusetts Institute of Technology Web site, adapt it, and translate it. In contrast, SAP NetWeaver Single Sign-On is a future-proof option that offers you direct integration through Windows to all the current server operating systems.

Take secure connectivity to the next level.

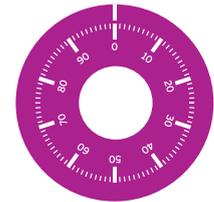


Secure and standardize access to your landscape

Secure and standardize access to your landscape

SAP NetWeaver Single Sign-On offers numerous benefits:

- Increased protection against unauthorized access
- Greater reach, thanks to cross-domain single sign-on and single sign-on to non-SAP software
- Broader functional scope, with single-sign-on access to the standard Windows GUI and Web-based systems
- Lower risk and reduced effort



Encryption and a single password are the hallmarks of SAP NetWeaver Single Sign-on.





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Summary

With the SAP NetWeaver® Single Sign-On application, you can meet the security standards your organization needs to minimize risk of unauthorized access to sensitive data. In addition, you can strengthen and simplify compliance with regulatory requirements.

Objectives

- Reduce risk of unauthorized access to company-wide software systems
- Decrease the number of passwords employees are required to remember
- Comply with government and industry regulations for access security

Solution

- Single-sign-on technology
- Encrypted connection between workers and business software
- Ability to secure both SAP® and non-SAP software
- Support for connections among internal, partner, customer, and other systems
- Direct integration through Windows to current server operating systems

Benefits

- Improved employee efficiency as a result of reducing the number of passwords needed to one
- Wider software coverage, through single-sign-on access to standard Microsoft Windows GUI and Web-based systems
- Lower corporate risk
- Reduced effort for both IT and business users

Learn more

Call SAP or visit www54.sap.com/solutions/tech/application-foundation-security/software/single-sign-on/index.html.



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