

# Global Data Synchronization: Security Guide



**Release 1.0**



## Copyright

© Copyright 2004 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, and Informix are trademarks or registered trademarks of IBM Corporation in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.






JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

MaxDB is a trademark of MySQL AB, Sweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

## Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help* → *General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

## Typographic Conventions

Type Style	Description
<i>Example text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Cross-references to other documentation.
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Global Data Synchronization: Security Guide .....	5
Introduction .....	5
Before You Start .....	7
Technical System Landscape .....	9
User Administration and Authentication .....	10
User Management .....	11
User Data Synchronization .....	14
Integration into Single Sign-On Environments .....	15
Authorizations .....	16
Network and Communication Security .....	18
Communication Channel Security .....	19
Network Security .....	20
Communication Destinations .....	21
Data Storage Security .....	27
Security for Additional Applications .....	28
Other Security-Relevant Information .....	30
Trace and Log Files .....	31
Appendix .....	32



## Introduction



This guide does not replace the daily operations handbook that we recommend customers create for their specific productive operations.

## Target Audience

- Technology consultants
- System administrators

This document is not included as part of the Installation Guides, Configuration Guides, Technical Operation Manuals, or Upgrade Guides. Such guides are only relevant for a certain phase of the software life cycle, whereby the Security Guides provide information that is relevant for all life cycle phases.

## Why Is Security Necessary?

With the increasing use of distributed systems and the Internet for managing business data, the demands on security are also on the rise. When using a distributed system, you need to be sure that your data and processes support your business needs without allowing unauthorized access to critical information. User errors, negligence, or attempted manipulation on your system should not result in loss of information or processing time. These demands on security apply likewise to the Global Data Synchronization (GDS) business scenario. To assist you in securing the business scenario, we provide this Security Guide.

## About this Document

The Security Guide provides an overview of the security-relevant information that applies to the business scenario. If the business scenario consists of several application components, then it contains an overall overview as well as the individual guides for each of the underlying application components.

### Overview of the Main Sections

The Security Guide comprises the following main sections:

- **Before You Start**

This section contains information about why security is necessary, how to use this document, and references to other Security Guides that build the foundation for this Security Guide.
- **Technical System Landscape**

This section provides an overview of the technical components and communication paths that are used by the business scenario.
- **User Administration and Authentication**

This section provides an overview of the following user administration and authentication aspects:

  - Recommended tools to use for user management.
  - User types that are required by the business scenario.
  - Standard users that are delivered with business scenario.

- Overview of the user synchronization strategy, if several components or products are involved.
- Overview of how integration into Single Sign-On environments is possible.
- **Authorizations**

This section provides an overview of the authorization concept that applies to the business scenario.
- **Network and Communication Security**

This section provides an overview of the communication paths used by the business scenario and the security mechanisms that apply. It also includes our recommendations for the network topology to restrict access at the network level.
- **Data Storage Security**

This section provides an overview of any critical data that is used by the business scenario and the security mechanisms that apply.
- **Security for Third-Party or Additional Applications**

This section provides security information that applies to third-party or additional applications that are used with the business scenario.
- **Dispensable Functions with Impacts on Security**

This section provides an overview of functions that have impacts on security and can be disabled or removed from the system.
- **Other Security-Relevant Information**

This section contains information about, for example, using the Web browser as a user front end.
- **Trace and Log Files**

This section provides an overview of the trace and log files that contain security-relevant information, for example, so you can reproduce activities if a security breach does occur.
- **Appendix**

This section provides references to further information.



Where the *Global Data Synchronization: Business Scenario Configuration Guide* is referenced in this guide, see SAP Service Marketplace at [service.sap.com/ibc](http://service.sap.com/ibc) → *Industry Solutions* → *SAP for Consumer Products*.



Where the *SAP MDM-GDS: GDS Console User Guide* is referenced in this guide, see SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides) → *SAP NetWeaver* → *Release 04* → *Operations* → *SAP MDM*.



Where the *SAP MDM 5.5 <SP> - Installation Guide* is referenced in this guide, see SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides) → *SAP NetWeaver* → *Release 04* → *Installation* → *SAP MDM*.



## Before You Start

### Fundamental Security Guides

The *Global Data Synchronization (GDS)* business scenario is built from the component applications. Therefore, the corresponding Security Guides also apply to the business scenario. Pay particular attention to the most relevant sections or specific restrictions as indicated in the table below.

#### Fundamental Security Guides

Application	Guide	Most Relevant Sections or Specific Restrictions
SAP Web Application Server	<i>SAP NetWeaver '04 Security Guide</i>	In the <i>SAP NetWeaver '04 Security Guide</i> , choose <i>Security Guides for the SAP NetWeaver Products</i> → <i>SAP Web Application Server Security Guide</i> .
SAP R/3 or SAP ECC	<i>SAP ERP Central Component Security Guide</i>	All sections.
SAP Exchange Infrastructure 3.0	<i>SAP NetWeaver '04 Security Guide</i>	In the <i>SAP NetWeaver '04 Security Guide</i> , choose <i>Security Guides for the SAP NetWeaver Products</i> → <i>SAP Security Guide XI</i> .
Operating Systems and Database Platforms	<i>SAP NetWeaver '04 Security Guide</i>	In the <i>SAP NetWeaver '04 Security Guide</i> , choose <i>Operating System and Database Platform Security Guides</i> .
Master Data Management (MDM)	<i>MDME 5.5 - Security Guide</i>	All sections.

For a complete list of the available SAP Security Guides, see the quick link [/securityguide](#) on SAP Service Marketplace.

The *MDME 5.5 – Security Guide* is located on SAP Service Marketplace at [service.sap.com/instguides](#) → *SAP NetWeaver* → *Release 04* → *Operations* → *SAP MDM*.

### Important SAP Notes

The most important SAP Notes that apply to the security of the business scenario are shown in the table below.

#### Important SAP Notes

SAP Note Number	Title	Comment
810592	Security Guide: Global Data Synchronization	The SAP Note covers all problems discovered after the publication of the security guide, and provides additional information about security issues.
138498	Single Sign-On Solutions	Information about single sign-on solutions for SAP

		systems.
30724	Data Protection and Security in SAP Systems	
128447	Trusted/Trusting Systems	Needed for Customizing of trusted/trusting systems' RFC connections



 **Technical System Landscape****Use**

For more information about the technical system landscape, see the resources listed in the table below.

**More Information About the Technical System Landscape**

<b>Topic</b>	<b>Guide/Tool</b>	<b>Quick Link to SAP Service Marketplace</b>
Technical description for GDS and the underlying technological components such as SAP NetWeaver	Master Guide	<a href="http://service.sap.com/instguides">service.sap.com/instguides</a>
Technical configuration High availability	Technical Infrastructure Guide	<a href="http://service.sap.com/ti">service.sap.com/ti</a>
Security		<a href="http://service.sap.com/security">service.sap.com/security</a>



## User Administration and Authentication

The *Global Data Synchronization (GDS)* business scenario uses the user management and authentication mechanisms provided with the SAP NetWeaver platform, in particular the SAP Web Application Server (ABAP and Java). Therefore the security recommendations and guidelines for user administration and authentication as described in the *SAP Web AS Security Guide for ABAP Technology* or *SAP Web AS Security Guide for Java Technology* also apply to the business scenario.

In addition to these guidelines, we include information about user administration and authentication that specifically applies to the business scenario in the following topics:

- [User Management \[Page 11\]](#)

This topic lists the tools to use for user management, the types of users required, and the standard users that are delivered with the business scenario.
- [User Data Synchronization \[Page 14\]](#)

The business scenario shares user data with other sources. This topic describes how the user data is synchronized with these other sources.
- [Integration into Single Sign-On Environments \[Page 15\]](#)

This topic describes how the business scenario supports Single Sign-On mechanisms.



## User Management

User management for the *Global Data Synchronization (GDS)* business scenario uses the mechanisms provided by the SAP Web Application Server (ABAP and Java), for example, tools, user types, and password policies. For an overview of how these mechanisms apply for the business scenario, see the sections below. In addition, we provide a list of the standard users required for operating the business scenario.

### User Administration Tools

The table below shows the tools to use for user management and user administration with the business scenario.

#### User Management Tools

Tool	Detailed Description
User Management Engine (UME) administration console	Use the Web-based UME administration console to maintain users, roles, and authorizations in Java-based systems that use the UME for the user store, for example, the SAP Web AS Java and the Enterprise Portal. The UME also supports various persistency options, such as ABAP Engine or a directory server.
SAP Web AS Java user management using the Visual Administrator	Use the Visual Administrator to maintain users and roles on the SAP Web AS for Java. The SAP Web AS for Java also supports a pluggable user store concept. The UME is the default user store.
User Management for the ABAP Engine (transaction code <code>SU01</code> )	Use the user management transaction code <code>SU01</code> to maintain users in ABAP-based systems.
Profile Generator (transaction code <code>PF03</code> )	Use the Profile Generator to create roles and assign authorizations to users in ABAP-based systems.
Central User Administration (CUA)	Use the CUA to centrally maintain users for multiple ABAP-based systems. Synchronization with a directory server is also supported.

### User Types

It is often necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively have to change their passwords on a regular basis, but not those users under which background processing jobs run.

For more information about these user types, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Security Guides for the SAP NetWeaver Products* → *SAP Web Application Server Security Guide* → *SAP Web AS Security Guide for ABAP Technology* → *User Authentication* → *User Types*.

### Standard Users

The table below shows the standard users that are necessary for operating the business scenario.

**Standard Users**

<b>System</b>	<b>User ID</b>	<b>Type</b>	<b>Password</b>	<b>Description</b>
SAP Web AS	<sapsid>adm	SAP System Administrator	To be entered	<i>SAP NetWeaver '04 Installation Guide</i>
SAP Web AS	SAP Service <sapsid>	SAP System Service Administrator	To be entered	<i>SAP NetWeaver '04 Installation Guide</i>
SAP Web AS	SAP Standard ABAP Users (SAP*, DDIC, EARLYWATCH, SAPCPIC)	See <i>SAP NetWeaver Security Guide</i>	See <i>SAP NetWeaver Security Guide</i>	<i>SAP NetWeaver '04 Security Guide → Security Guides for the SAP NetWeaver Products → SAP Web Application Server Security Guide → SAP Web AS Security Guides for ABAP Technology → User Authentication → Protecting Standard Users</i>
SAP Web AS	SAP Standard SAP Web AS Java Users (Administrator, Guest, Emergency)	See <i>SAP NetWeaver Security Guide</i>	See <i>SAP NetWeaver Security Guide</i>	<i>SAP NetWeaver '04 Security Guide → Security Guides for the SAP NetWeaver Products → SAP Web Application Server Security Guide → SAP Web AS Security Guide for Java Technology → User Administration and Standard Users → Standard Users and → Standard User Groups</i>
SAP MDM Console	DBMS Server User	-	To be entered	<i>SAP MDM 5.5 &lt;SP&gt; - Installation Guide → Installing MDM on Windows → MDM Server</i>
SAP MDM	MDM User	-	To be entered	<i>SAP MDM 5.5</i>

Server				<SP> - Installation Guide → Installation Process
SAP R/3 or SAP ECC	SAP R/3 or SAP ECC User	See <i>SAP ERP Central Component Security Guide</i>	See <i>SAP ERP Central Component Security Guide</i>	<i>SAP ERP Central Component Security Guide</i> → <i>User Administration and Authentication</i>
SAP MDM- GDS Console 1.0	SAP GDS Console User	See <i>SAP MDM- GDS: GDS Console User Guide</i>	See <i>SAP MDM- GDS: GDS Console User Guide</i>	<i>SAP MDM-GDS: GDS Console User Guide</i> → <i>Performing User Management</i>  <b>and</b> <i>SAP MDM-GDS: GDS Console User Guide</i> → <i>Installing the GDS Console</i> → <i>Entering Configuration File Properties for GDS.ini</i>



For information about SAP NetWeaver standard users, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Security Guides for the SAP NetWeaver Components* → *SAP Web Application Server Security Guide* → *SAP Web AS Security Guide for ABAP Technology* → *User Authentication* → *Protecting Standard Users*.

For information about SAP NetWeaver password rules, see SAP Help Portal at [help.sap.com](http://help.sap.com) → *Documentation* → *SAP NetWeaver* → *Release 04 (English)* → *SAP NetWeaver* → *Security* → *Identity Management* → *Users and Roles (BC-SEC-USR)* → *User Maintenance* → *Logon and Password Security in the SAP System* → *Password Rules*.



## User Data Synchronization

### Use

To avoid administrative effort, the use of user data synchronization could be useful in your system landscape. Since the *Global Data Synchronization (GDS)* business scenario is based on SAP NetWeaver components, all the mechanisms for user data synchronization of SAP NetWeaver are available for GDS.



For information about user data synchronization, on SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) see *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *User Administration and Authentication* → *Integration of User Management in Your System Landscape*.



## Integration into Single Sign-On Environments

The *Global Data Synchronization (GDS)* business scenario and its components support the Single Sign-On (SSO) mechanisms provided by the SAP Web Application Server (Java and ABAP). Therefore, the security recommendations and guidelines for user administration and authentication as described in the *SAP Web Application Server ABAP Security Guide* also apply to the GDS business scenario.



The GDS Console and MDM components are not SSO-compliant. GDS uses the user and role management system of the underlying MDM system.



## Authorizations

### Use

The *Global Data Synchronization (GDS)* business scenario does **not** use the authorization provided by the SAP Web Application Server.

The SAP Web Application Server authorization concept is based on assigning authorizations to users based on roles. For role maintenance, use the profile generator (transaction code **PF03**) on the SAP Web AS for ABAP and the User Management Engine's user administration console for SAP Web AS for Java.

In addition, the process of assigning screen sequences to user groups to activate the *GDS-Relevant* indicator uses an access control list to add another level of security by controlling authorization at object level.



For information about the use of access control lists, see the relevant section of the *Global Data Synchronization: Business Scenario Configuration Guide* under *Setting Up ERP System → Assigning a New Screen Sequence to a Group of Users*.

### Standard Roles

The table below shows the standard roles that are used by the business scenario.

#### Standard Roles

System	Role	Description	Further Information
SAP R/3 or SAP ECC	SAP_CA_BFA_DATATRANSFER	Data Transfer Specialist	<i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in SAP XI to Transfer Data to GDS Console → Setting Up ALE and IDoc Connections</i>
SAP R/3 or SAP ECC	SAP_IDOC_ADMINISTRATIONS	IDoc Interface for Administrators	<i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in SAP XI to Transfer Data to GDS Console → Setting Up ALE and IDoc Connections</i>
SAP XI	SAP_XI_APPL_SERV_USER		<b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Installation Guide - SAP Exchange Infrastructure 3.0 → Post-Installation Activities → Creating RFC Destinations in the ABAP Environment



			<p><b>and</b></p> <p><b>service.sap.com/instguides</b> → <i>SAP NetWeaver</i> → <i>Release 04</i> → <i>Installation</i> → <i>SAP XI</i> → <i>Configuration Guide – SAP XI 3.0</i> → <i>Connecting Business Systems with an Integration Engine to the Central Integration Server</i></p>
SAP MDM-GDS Console	GDSApplicable.Roles: Editor User Admin	Legal user roles for GDS.	<p><i>SAP MDM-GDS: GDS Console User Guide</i> → <i>Installing the GDS Console</i> → <i>Setting Up GDS Console</i> → <i>Entering Configuration File Properties for GDS.ini</i></p> <p><b>and</b></p> <p><i>SAP MDM-GDS: GDS Console User Guide</i> → <i>Performing User Management</i></p>

### Standard Authorization Objects

The table below shows the security-relevant authorization objects that are used by the business scenario.

#### Standard Authorization Objects

Authorization Object	Field	Value	Description
S_RFC	Activity	Execute	<i>Global Data Synchronization: Business Scenario Configuration Guide</i> → <i>System Connections</i> → <i>Setting Up Data Transfer from ERP System to GDS Console</i> → <i>Making Settings in SAP XI to Transfer Data to GDS Console</i> → <i>Setting Up RFC Destinations to Business Systems on Integration Server</i>
S_RFC	RFC object	EDIN	See above
S_RFC	Object type	Function Group	See above
B_ALE_RECV	-	-	See above



## Network and Communication Security

Your network infrastructure is extremely important in protecting your system. Your network needs to support the communication necessary for your business and your needs without allowing unauthorized access. A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system and application level) or network attacks such as eavesdropping. If users cannot log on to your application or database servers at the operating system or database layer, then there is no way for intruders to compromise the machines and gain access to the backend system's database or files. Additionally, if users are not able to connect to the server LAN (local area network), they cannot exploit well-known bugs and security holes in network services on the server machines.

The network topology for the *Global Data Synchronization (GDS)* business scenario is based on the topology used by the SAP NetWeaver platform. Therefore, the security guidelines and recommendations described in the *SAP NetWeaver '04 Security Guide* also apply to the business scenario. For details that specifically apply to the business scenario, see the following topics:

- [Communication Channel Security \[Page 19\]](#)  
This topic describes the communication paths and protocols used by the business scenario.
- [Network Security \[Page 20\]](#)  
This topic describes the recommended network topology for the business scenario. It shows the appropriate network segments for the various client and server components and where to use firewalls for access protection. It also includes a list of the ports needed to operate the business scenario.
- [Communication Destinations \[Page 21\]](#)  
This topic describes the information needed for the various communication paths, for example, which users are used for which communications.

For more information, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → :

- *Network and Communication Security*
- *Security Aspects for Connectivity and Interoperability*



## Communication Channel Security

### Use

As communication channels transfer all kinds of business data, they should be protected against unauthorized access. We offer general recommendations and technologies to protect your system landscape based on SAP NetWeaver.



To achieve a secure system landscape, you should activate the Secure Network Communication (SNC) for RFC and Secure Sockets Layer Protocol (SSL) for http within all communication channels in the GDS business scenario.



For information about the communication security of SAP NetWeaver, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Network and Communication Security*.

For information about security aspects for connectivity and interoperability of SAP NetWeaver, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Security Aspects for Connectivity and Interoperability*.

The table below shows the communication paths used by the business scenario, the protocol used for the connection, and the type of data transferred.

#### Communication Paths

Communication Path	Protocol Used	Type of Data Transferred	Data Requiring Special Protection
Front-end client using SAP GUI for Windows to application server	DIAG	All application data	For example, passwords, business data
Front-end client using a Web browser to application server	HTTP(S)	All application data	For example, passwords, business data
Application server to application server	RFC, HTTP(S)	Integration data	Business data
Application server to third-party application	HTTP(S)	All application data	For example, passwords, business data
AS2 adapter to external data pools	AS2, HTTP	Messages from the system	Encrypted messaging, digital certificates

DIAG and RFC connections can be protected using Secure Network Communications (SNC). HTTP connections are protected using the Secure Sockets Layer (SSL) protocol.

For more information, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Network and Communication Security* → *Transport Layer Security*.



## Network Security

Your network infrastructure is extremely important in protecting your system. A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system and application level) or network attacks such as eavesdropping.

We offer general recommendations to protect your system landscape based on SAP NetWeaver.



For information about the network security of SAP NetWeaver, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Network and Communication Security*.

To provide a minimum security level for your network infrastructure, you must use a firewall for all your services provided over the Internet.

A more secure variant is to protect your systems (or groups of systems) by locating the different "groups" in different network segments, each protected with a firewall against unauthorized access. (Note: external security attacks can also come from "inside" if the intruder has already taken over control of one of your systems.)



For information about access control using firewalls, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Network and Communication Security* → *Using Firewall Systems for Access Control*.

As the Global Data Synchronization (GDS) business scenario enables the transfer of business data using the Internet, network security is an important topic. As already mentioned above, your network infrastructure should be protected by a firewall and data sent over the Internet should be protected by communication encryption and digital signatures.



For information about communication encryption, in this Security Guide, see the following sections: [Communication Channel Security \[Page 19\]](#) and [Security for Additional Applications \[Page 28\]](#) → *Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0* → *Secure Communication Channel Configuration*.

If you use the Seeburger AS2 adapter, see the *SEEBURGER EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0: Setup Guide* on SAP Service Marketplace at [service.sap.com/swdc](http://service.sap.com/swdc) → *Download* → *Installations and Upgrades* → *Entry by Application Group* → *Adapters* → *for SAP NetWeaver 04* → *NW04-XI-A AS2 BY SEEBURGER* → *NW04-XI-A AS2 BY SEEBURGER* → *Installation*. To access the documentation, you must extract the ZIP file on the *Download* tab page.



## Communication Destinations



Users and authorizations for connection destinations can cause high security flaws in instances of careless use.

Golden rules for connection users and authorizations:

- Choose user type "communication" or "system".
- Assign only the minimum required authorizations to the user.
- Choose a secure and secret password for the user.
- Store only connection user logon data for users of type "connection" or "system".
- Choose "trusted system" functions whenever possible instead of storing connection user logon data.

The table below shows an overview of the communication destinations used by the *Global Data Synchronization* (GDS) business scenario.



For a graphical overview of the communication destinations used by the GDS business scenario, see *SAP MDM-GDS: GDS Console User Guide* → *Overview* → *GDS Console*.

### Connection Destinations

Destination	SAP R/3 or SAP ECC or SAP R/3 → SAP XI
Delivered	Yes
Type	RFC – R/3
User, Authorizations	User role: SAP_XI_APPL_SERV_USER

Description	<p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in ERP System to Transfer Data to the GDS Console → Defining the RFC Destination to the Integration Server</i></p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Configuration Guide – SAP XI 3.0 → Preparation → Service Users and Assigned Roles</p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Configuration Guide – SAP XI 3.0 → Integration of Business Systems Using the IDoc Adapter → Settings for the IDoc Sending System (R/3)</p>
-------------	---

Destination	SAP R/3 or SAP ECC → SAP XI <SAPSLDAPI>
Delivered	Yes
Type	RFC – TCP/IP
User, Authorizations	-

Description	<p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in ERP System to Transfer Data to the GDS Console → Defining the RFC Destination to the Integration Server</i></p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Installation Guide - SAP Exchange Infrastructure 3.0 → Post-Installation Activities → Creating RFC Destinations in the ABAP Environment</p> <p><b>and</b></p> <p>→ Creating RFC Destinations in the ABAP and Java Environments</p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Configuration Guide - SAP XI 3.0 → Connecting Business Systems with an Integration Engine to the Central Integration Server → Creating a Connection Between a Business System and the System Landscape Directory (SLD)</p>
-------------	--

Destination	SAP R/3 or SAP ECC → SAP XI <LCRSAPRFC>
Delivered	Yes
Type	RFC – TCP/IP
User, Authorizations	-

Description	<p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in ERP System to Transfer Data to the GDS Console → Defining the RFC Destination to the Integration Server</i></p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Installation Guide - SAP Exchange Infrastructure 3.0 → Post-Installation Activities → Creating RFC Destinations in the ABAP Environment</p> <p><b>and</b></p> <p>→ Creating RFC Destinations in the ABAP and Java Environments</p> <p><b>and</b></p> <p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → SAP XI → Configuration Guide – SAP XI 3.0 → Connecting Business Systems with an Integration Engine to the Central Integration Server</p>
-------------	--

Destination	SAP XI → SAP XI <LCRSAPRFC>
Delivered	Yes
Type	RFC – TCP/IP
User, Authorizations	-
Description	<p><b>service.sap.com/instguides</b> → SAP NetWeaver → Release 04 → Installation → SAP XI → Installation Guide – SAP Exchange Infrastructure 3.0 → Post-Installation Activities → Activities for SAP Exchange Infrastructure → Creating RFC Destinations in the ABAP and Java Environments</p>

Destination	SAP XI → SAP XI <SAPSLDAPI>
Delivered	Yes
Type	RFC – TCP/IP
User, Authorizations	-



Description	<a href="http://service.sap.com/instguides">service.sap.com/instguides</a> → SAP NetWeaver → Release 04 → SAP XI → Installation Guide - SAP Exchange Infrastructure 3.0 → Post-Installation Activities → Activities for SAP Exchange Infrastructure → Creating RFC Destinations in the ABAP and Java Environments
-------------	---

Destination	SAP XI → SAP R/3 or SAP ECC
Delivered	Yes
Type	RFC- R/3
User, Authorizations	User Role: SAP_XI_IS_SERV_USER Authorization Objects: <ul style="list-style-type: none"> <li>• S_RFC (Activity Execute, RFC object EDIN, object type Function Group)</li> <li>• B_ALE_RECV</li> </ul>
Description	<i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Transfer from ERP System to GDS Console → Making Settings in SAP XI to Transfer Data to GDS Console → Setting Up RFC Destinations to Business Systems on Integration Server</i> <b>and</b> <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> → SAP NetWeaver → Release 04 → SAP XI → Configuration Guide - SAP XI 3.0 → Integration of Business Systems Using the IDoc Adapter → Settings of the Integration Server System

Destination	SAP XI → Transora Data Pool
Delivered	Yes
Type	HTTP
User, Authorizations	SSL Client

Description	<p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Exchange with Transora Data Pool</i> - plus subsequent topics in this section.</p> <p><b>and</b></p> <p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Exchange with Transora Data Pool → Selecting and Configuring Connections</i></p> <p>See also:</p> <p><i>SEEBURGER EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0: Setup Guide</i> on SAP Service Marketplace at <a href="http://service.sap.com/swdc">service.sap.com/swdc</a> → Download → Installations and Upgrades → Entry by Application Group → Adapters → for SAP NetWeaver 04 → NW04-XI-A AS2 BY SEEBURGER → NW04-XI-A AS2 BY SEEBURGER → Installation.</p>
-------------	--

Destination	SAP XI → UCCnet Data Pool
Delivered	Yes
Type	HTTP
User, Authorizations	SSL Client
Description	<p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Exchange with UCCnet Data Pool</i> - plus subsequent topics in this section</p> <p><b>and</b></p> <p><i>Global Data Synchronization: Business Scenario Configuration Guide → System Connections → Setting Up Data Exchange with UCCnet Data Pool → Selecting and Configuring Connections</i></p> <p>See also:</p> <p><i>SEEBURGER EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0: Setup Guide</i> on SAP Service Marketplace at <a href="http://service.sap.com/swdc">service.sap.com/swdc</a> → Download → Installations and Upgrades → Entry by Application Group → Adapters → for SAP NetWeaver 04 → NW04-XI-A AS2 BY SEEBURGER → NW04-XI-A AS2 BY SEEBURGER → Installation.</p>



## Data Storage Security

The data storage security of SAP NetWeaver and components installed on this base is described in detail in the *SAP NetWeaver '04 Security Guide*.



For information about the data storage security of SAP NetWeaver, see SAP Service Marketplace at [service.sap.com/securityguide](http://service.sap.com/securityguide) → *SAP NetWeaver '04 Security Guide (Complete)* → *SAP NetWeaver '04 Security Guide* → *Operating System and Database Platform Security Guides*.

For information about the data storage of the SAP GDS Console, see the *SAP MDM-GDS: GDS Console User Guide* → *Installing the GDS Console* → *Entering Configuration File Properties for GDS.ini* **and** *Entering Configuration File Properties for SAP.properties*.



## Security for Additional Applications

### Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0

#### Security Features

To learn more about the security features of the Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0, see the *SEEBURGER EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0: Setup Guide* on SAP Service Marketplace at [service.sap.com/swdc](http://service.sap.com/swdc) → *Download* → *Installations and Upgrades* → *Entry by Application Group* → *Adapters* → *for SAP NetWeaver 04* → *NW04-XI-A AS2 BY SEEBURGER* → *NW04-XI-A AS2 BY SEEBURGER* → *Installation*. To access the documentation, you must extract the ZIP file on the *Download* tab page. In the Configuration Guide, choose *Overview* → *Features*.

#### Secure Communication Channel Configuration

To secure communication channels used by the Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0, see the following subsections on SAP Service Marketplace at [service.sap.com/swdc](http://service.sap.com/swdc) → *Download* → *Installations and Upgrades* → *Entry by Application Group* → *Adapters* → *for SAP NetWeaver 04* → *NW04-XI-A AS2 BY SEEBURGER* → *NW04-XI-A AS2 BY SEEBURGER* → *Installation*. To access the *Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0 Configuration Guide*, you must extract the ZIP file on the *Download* tab page. In the *Channel Configuration* section of the Configuration Guide, see the following sections:

- *Activities*
- *Receiver Channel (Outbound Processing)*
- *Sender Channel (Inbound Processing)*
- *Sender Agreement*
- *Receiver Agreement*

#### Listener Port and URL

For information about the ports and URLs used, see SAP Service Marketplace at [service.sap.com](http://service.sap.com) → *Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0 Configuration Guide* → *Listener Port and URL*.

#### Security Settings

For information about encryption and signing within the Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0, see SAP Service Marketplace at [service.sap.com/swdc](http://service.sap.com/swdc) → *Download* → *Installations and Upgrades* → *Entry by Application Group* → *Adapters* → *for SAP NetWeaver 04* → *NW04-XI-A AS2 BY SEEBURGER* → *NW04-XI-A AS2 BY SEEBURGER* → *Installation*. . To access the *Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0 Configuration Guide*, you must extract the ZIP file on the *Download* tab page. In the Configuration Guide, choose *Security Settings* → *Encryption and Signing*.

For information about the configuration of Secure Sockets Layer (SSL) within the Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0 see SAP Service Marketplace at [service.sap.com/swdc](http://service.sap.com/swdc) → *Download* → *Installations and Upgrades* → *Entry by Application Group* → *Adapters* → *for SAP NetWeaver 04* → *NW04-XI-A AS2 BY SEEBURGER* → *NW04-XI-A AS2 BY SEEBURGER* → *Installation*. . To access the *Seeburger EDIINT AS2 Adapter for SAP Exchange Infrastructure 3.0 Configuration Guide*,

you must extract the ZIP file on the *Download* tab page. In the Configuration Guide, choose *Security Settings* → *SSL*.

## General Information

For more information about the security for additional applications, see the fundamental Security Guides listed in [Before You Start \[Page 7\]](#).



## **Other Security-Relevant Information**

### **Web Browser as User Front End**

To use the Web browser as a user front end, you have to activate Java script (Active Scripting) to ensure a working user interface. This could conflict with your security policy regarding Web services.



## Trace and Log Files

All trace and log files of the *Global Data Synchronization (GDS)* business scenario use SAP NetWeaver standard mechanisms.

For information about the security for additional applications, see the fundamental Security Guides listed in [Before You Start \[Page 7\]](#).

For the GDS Console, you can make settings for the log file in the GDS.ini file. For more information, in the *SAP MDM-GDS: GDS Console User Guide*, see the *Log* section under *Installing the GDS Console → Entering Configuration File Properties for GDS.ini*.

 **Appendix****Related Security Guides**

You can find more information about the security of SAP applications, on SAP Service Marketplace, quick link `security`. Security guides are available under the quick link `securityguide`.

**Related Information**

For more information about topics related to security, see the following quick links:

**Quick Links to Related Information**

<b>Content</b>	<b>Quick Link on the SAP Service Marketplace</b>
Security	<code>service.sap.com/security</code>
Security Guides	<code>service.sap.com/securityguide</code>
Related SAP Notes	<code>service.sap.com/notes</code>
Released Platforms	<code>service.sap.com/platforms</code>
Network Security	<code>service.sap.com/network</code> <code>service.sap.com/securityguide</code>
Technical Infrastructure	<code>service.sap.com/ti</code>
SAP Solution Manager	<code>service.sap.com/solutionmanager</code>