

**How-to Guide
SAP NetWeaver '04**



How To...Handle the SLD for SAP XI

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**Applicable Releases:
SAP NetWeaver '04 Support Package Stack 10**

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1 Scenario

We recommend that you use a single System Landscape Directory (SLD). The cost of running the SLD infrastructure increases with the number of SLD instances. In particular, adding a second SLD involves additional costs for synchronizing data between these two instances. From a cost perspective, it is preferable to configure a single SLD.

The following factors can make a multiple-SLD architecture necessary:

- Legal constraints
- Company rules
- Network constraints (for example, firewalls, availability of resources)

Nevertheless, within such an architecture it is necessary to define one master SLD where you consolidate all information relating to your company's software components and business systems.

In the introduction we describe how SAP Exchange Infrastructure (SAP XI) uses the SLD. We then present two scenarios where you may have a separate SLD.

The step-by-step solution explains:

- How to transport (export and import) technical systems and business systems individually (see Figure 1: Yellow star number 1)
- How to transport (export and import) all master SLD data (see Figure 1: Yellow star number 2)

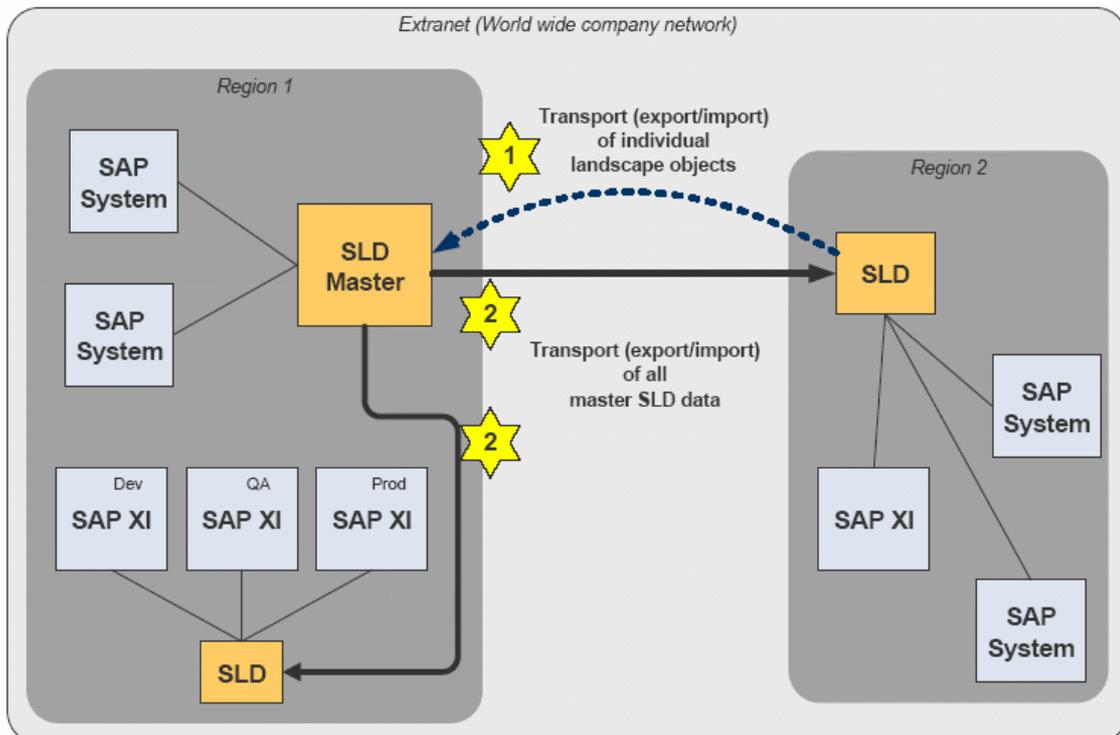


Figure 1: Synchronization of Multiple SLDs in Regionally Distributed Environments

2 Introduction

SAP XI has several SLD use cases:

- The SLD acts as a server for application business system names for the receiver determination in the Integration Directory. Therefore, all business systems must be available in one master SLD if you need to send messages from a business system in Region 1 to a receiver system in Region 2.
- The SLD acts as a server for application business system names for application systems to get their own business system name (Java Proxy Framework and SAP systems).
- The SLD provides the transport targets for Integration Directory content transports, such as from a business system in a development environment to a business system in a test environment.
- The SLD provides all systems and adapters for the end-to-end monitoring in the Runtime Workbench assigned to an Integration Server.
- The SLD provides the address for the transfer of adapter configuration data from the Integration Directory to the adapter cache.
- The SLD contains functions for software component version management.

To make sure that these use cases can be supported if you have several SLDs, we recommend that you organize your master SLD in the following way:

In **development or productive** environments (see Figure 1: "Region 1"):

- Register or self-register your systems to a master SLD.
- Create and maintain all products and software component versions in the master SLD. **Note:** You will cause inconsistencies if you create products or software component versions in different SLDs.
- Transfer the content of the master SLD to your sub-SLD instances frequently. For the first transfer, you transfer the complete software and landscape data; subsequently, you only transfer the increment (Section 3.2). The content of the sub-SLD instances is almost a complete copy of the master SLD content. This includes the SAP CR content, which is only imported to the master, and then forwarded to the sub-SLD instances from there.

Examples of sub-environments:

- High-availability SLD for production systems
- Development environment SLD for SAP NetWeaver Development Infrastructure (NWDI)

In **regionally-separated** domains (see Figure 1: "Region 2"):

- In this scenario, the master SLD is located in Region 1 and the sub-SLD in Region 2.
- All products and software component versions must be maintained in the master SLD.
- Business systems in Region 2 are registered and maintained in the SLD in Region 2.
- Technical systems and corresponding business systems are individually exported from the SLD in Region 2 and imported into the master SLD in Region 1. (Section 3.1).
Note: SAP-XI-specific information (such as Runtime Workbench and Adapter Framework information) is not included in this export and import.
- The content of the master SLD is transported to your regional SLD on demand. For the first transfer, you transfer the complete software and landscape data; subsequently, you only transfer the increment (Section 3.2).

Notes:

- We recommend that you make one person in your organization responsible for maintaining data on the master SLD, and exporting and importing. You must at least make sure that only a very limited number of persons have access to the SLD to transport, create, and change data.
- Transport targets of SLD content transports must have the same or a higher SAP CIM model version as the SLD source system.
- The SLD Bridge (used to forward the registration of technical systems) forwards only the self-registered technical systems, and is therefore not sufficient for SAP XI (the SLD Bridge does not take non-SAP systems into account, for example).

3 The Step-By-Step Solution

Section 3.1 describes how to transfer data from technical systems and business systems that are locally registered to the master SLD.

Section 3.2 describes how to transfer the data from the master SLD from Region 1 to Region 2 (see Figure 1).

3.1 Exporting and Importing Technical Systems and Business Systems

1. You must export and import new or changed technical and business systems individually to the target SLD.

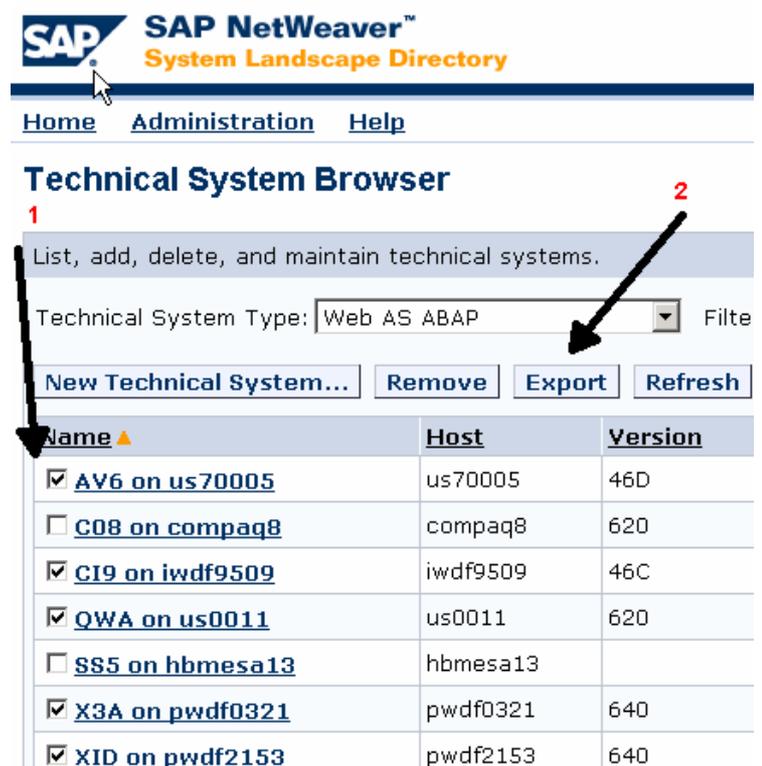
In the source system (= SLD Region 2), **first** choose *Technical Landscape*.



2. First, select all the technical systems you need to transfer.

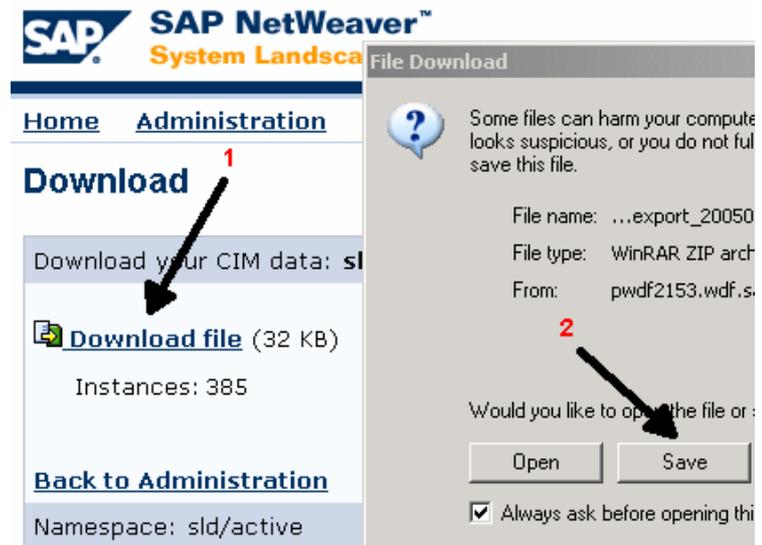
Then, choose *Export*.

Note: Associations for business systems with no technical system in the target SLD will be lost. This will result in error messages. Ensure that all technical systems are selected.



3. Choose *Download file* and *Save* the Zip archive.

Note: Use a designated directory to store all archives.



4. Choose *Administration* on the SLD home page of the SLD master (Region 1).

Note: If *Administration* is not displayed on the SLD home page, the user group SAP_SLD_ADMINISTRATOR is not assigned to your user. Check your permissions.



5. Choose *Import*.



6. Browse to the exported file and choose *Import File*.

Note: This will overwrite existing entries.

Note: Always work within the SLD namespace *sld/active*.

The screenshot shows the SAP NetWeaver System Landscape Directory interface. At the top, there is a navigation bar with 'Home', 'Administration', and 'Help' links. Below this is the 'Import Selection' section. A message states: 'Upload CIM models and data to the current namespace: **sld/active**.' There is a text input field for the file path containing '\XI_30\HowTo\export_20050302_170659.zip' and a 'Browse...' button to its right. Below the input field is an 'Import File' button, which is pointed to by a black arrow. At the bottom of the section is a 'Back to Administration' link.

7. Our **second step** is to transfer the business systems.

In the source system (= SLD Region 2), choose *Business Landscape*.

The screenshot shows the SAP NetWeaver System Landscape Directory interface. At the top, there is a navigation bar with 'Home', 'Administration', and 'Help' links. Below this is the 'System Landscape Directory' section. A message states: 'The SAP System Landscape Directory (SLD) n'. There are three main sections: 'System Landscape' (in green), 'Technical Landscape' (with a description: 'View and define systems, servers, and clients of your system landscape.'), and 'Business Landscape' (with a description: 'View and configure business systems for use in the Exchange Infrastructure (XI)'). A black arrow points to the 'Business Landscape' link.

8. First, select all the business systems you need to transfer.

If you have multiple systems in your SLD, it is helpful to pre-select the displayed business system using *Groups* or by working with a filter.

Finally, choose *Export*.

Note: You must transfer the technical systems in the second column first.

Repeat Steps 3-5 described above.

9. Choose *Download file* and *Save* the Zip archive.

Note: Use a designated directory to store all archives.

10. In the target SLD, navigate to *Administration* and choose *Import*.

SAP NetWeaver™ System Landscape Directory

Home Administration Help

Business Landscape

View and configure business systems for use in the Exchange Infra

Group: Training Filter: XID

New Business System... Remove Export Refresh

Name ▲	Technical System	Client
<input checked="" type="checkbox"/> Airline_Group_One	XID on pddf2153	112 of XID
<input checked="" type="checkbox"/> Airline_Group_Two	XID on pddf2153	113 of XID
<input checked="" type="checkbox"/> Travel_Agency_Holiday	XID on pddf2153	
<input checked="" type="checkbox"/> Travel_Agency_Summer	XID on pddf2153	111 of XID
<input checked="" type="checkbox"/> XID	XID on pddf2153	100 of XID
<input checked="" type="checkbox"/> Select All 5 Items		

SAP NetWeaver™ System Landscape Directory

Home Administration

Download

Download your CIM data: sld/active

Download file (32 KB)

Instances: 385

Back to Administration

Namespace: sld/active

File Download

Some files can harm your computer, or you do not fully trust the source of this file. Do you want to save this file?

File name: ...export_20050

File type: WinRAR ZIP archive

From: pddf2153.wdf.sld

Would you like to open this file or save it?

Open Save

Always ask before opening this type of file.

SAP NetWeaver™ System Landscape Directory

Home Administration Help

Administration

Stop Server Status: Running

Configure the server, import and export data, and view the logs.

Server

Server Log View the server log, and set logging and tracing parameters.

Content Import, Export and Backup Upload and download CIM models and data.

11. Browse to the exported file and choose *Import File*.

Note: This will overwrite existing entries.

Note: Applications for business systems with no technical system in the target SLD will be lost. This will result in error messages. Ensure that all technical systems are transferred first.

Note: It is possible to re-import individual technical or business systems. Note that a new import always overwrites previous imports.

SAP NetWeaver™
System Landscape Directory

[Home](#) [Administration](#) [Help](#)

Import Selection

Upload CIM models and data to the current namespace: **sld/active.**

File:

[Back to Administration](#)

3.2 Transporting (Exporting and Importing) All Master SLD Data

12. In the source SLD (Region 1), choose *Administration* on the SLD home page.

Note: If *Administration* is not displayed on the SLD home page, the user group

SAP_SLD_ADMINISTRATOR is not assigned to your user.

Make sure only selected persons in your organization are granted this permission.

13. You must transfer all data to the target SLD (Region 2) using export and import.

For the first export, use *Full Export*. Subsequently, the *Incremental Export* option is sufficient.

Info: *Incremental Export* includes all changes since the last export.

Note: Full and incremental exports are stored in the database and can be downloaded at any later stage. Nevertheless, we strongly recommend that you use a designated directory to store the export archives.

SAP NetWeaver™
System Landscape Directory

[Home](#) [Administration](#) [Help](#)

System Landscape Directory

The SAP System Landscape Directory (SLD) n

System Landscape

Technical Landscape
View and define systems, servers, and clients of your system landscape.

Business Landscape
View and configure business systems for use in the Exchange Infrastructure (XI).

SAP NetWeaver™
System Landscape Directory

[Home](#) [Administration](#) [Help](#)

Export

Export data to create a history of content versions ([more...](#)).

Export Line: This export line is used to export all instances of namespaces, for example) is not included.

Last export: 3.0 (changes until Thu Nov 18 13:41:01 CET 2004)

Incremental Export

Full Export

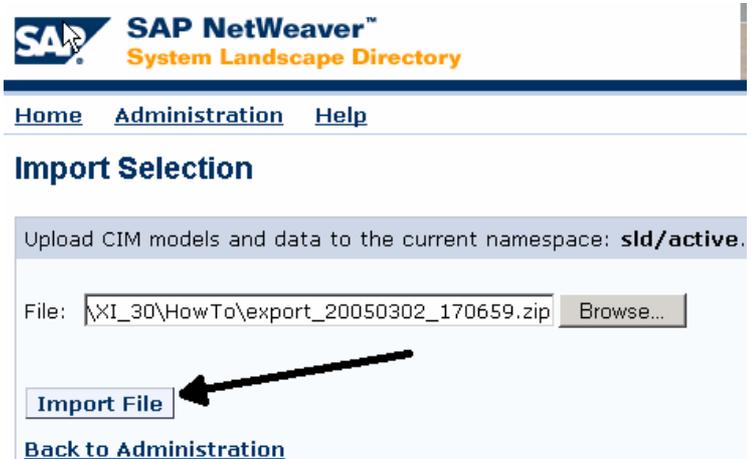
14. In the target SLD (Region 2), navigate to *Administration* and choose *Import*.

Note: The export data contains the SAP CR content. No further imports in addition to your master SLD are required.



15. Browse to the exported file and choose *Import File*.

Note: Depending on the size of your system, the import may take some time, so please be patient.



4 Appendix

If you want to reduce the number of SLDs in your landscape, see SAP Note 720717 for information about changing SAP XI settings.

For more information, see the *Technical Infrastructure Guide – SAP System Landscape Directory* on SAP Service Marketplace at service.sap.com/sld.

www.sdn.sap.com/irj/sdn/howtoguides