

Data Handling in the SAP NetWeaver System Landscape Directory – Step by Step



Applies to:

SAP NetWeaver System Landscape Directory (SLD). In this document all main SLD's mechanisms to retrieve and distribute Data are discussed in detail. The screenshots shown here are taken from an SAP NetWeaver System Landscape Directory 7.2, but will also valid for SLD systems of SAP NetWeaver 7.1 / SAP NetWeaver CE 7.1 in practically all aspects. Apart from the Full Automatic Synchronization, which only became available in 7.1 releases, step wise this will work mostly identical in 7.0 SLD systems; however, there might be slight changes in the UI.

Summary

The System Landscape Directory (SLD) of SAP NetWeaver is a central provider of information on software and systems. It is used by many client applications, such as *SAP NetWeaver Process Integration*, *SAP Solution Manager*, and the *Adaptive Computing Controller*.

SLD data is needed in three areas of the landscape, for *development systems*, *productive systems* and *systems managing systems*. According to the different roles, different types of data are needed in each area and represented by separate SLD systems. On the other hand, data should be gathered in one place to avoid inconsistencies. Therefore, data is retrieved once and then distributed.

Author: Wolf Hengevoss

Company: SAP

Created on: 1 February 2010

Author Bio



Wolf Hengevoss graduated in natural sciences from the University of Kaiserslautern. In 1999 he joined SAP as a member of product management of the Basis group working on topics such as Computer-Aided Test Tool and Business Address Services. Since the early stages of SAP Exchange Infrastructure, he has been working on the Java environment. Today, his focus is system landscape topics in general and the System Landscape Directory in particular.

Table of Contents

Data Handling in the SAP NetWeaver System Landscape Directory	3
Introduction	3
Data Gathering and Distribution Mechanisms in the SLD	3
SLD Data Types and Hierarchy 3	
Distribution Mechanisms 3	
Part 1 – Handle SLD Data in Namespaces.....	4
Introduction to Part 1.....	4
Steps in Part 1	4
1.1 Check SLD State and Content 4	
1.2 Manage SLD Data in Namespaces 5	
Part 2 – Import, Gather, and Create SLD Content.....	8
Introduction to Part 2.....	8
Steps in Part 2	8
2.1 Import SLD Content – Get SLD CR_Content (Software Catalog Data) 8	
2.2 Gather SLD Content – Configure the Self-Registration of a Technical System 9	
2.3 Manually Create SLD Content – Define A Business System 11	
Part 3 – Distribute SLD Content.....	14
Introduction to Part 3.....	14
Steps in Part 3	14
3.1 Forward Technical Systems Data – Define Forwarding of SLD Data Supplier Data 14	
3.2 Manually Export and Import Content – e.G. Distribute Business System Information 15	
3.3 Configure Your System to Manage Exports with CTS+ 17	
Part 4 (Optional) – Distribute SLD Data by Full Automatic Synchronization	21
Introduction to (optional) Part 4.....	21
Steps in Part 4	21
4.1 Configure SLD Object Server Settings – Required by Full Automatic Synchronization 21	
4.2 Backup SLD – Configure the Full Automatic Synchronization 22	
4.3 Use a Switch between Main-SLD and Backup-SLD 26	
Related Content.....	27

Data Handling in the SAP NetWeaver System Landscape Directory

Introduction

The System Landscape Directory (SLD) of SAP NetWeaver is a central provider of information on software and systems. It is used by many client applications, such as *SAP NetWeaver Process Integration*, *SAP Solution Manager*, and the *Adaptive Computing Controller*.

SLD data is needed in three areas of the landscape, for *development systems*, *productive systems* and *systems managing systems*. According to the different roles, different types of data are needed in each area. On the other hand, data should be gathered in one place to avoid inconsistencies. Therefore, data is retrieved once and then distributed.

Data Gathering and Distribution Mechanisms in the SLD

SLD Data Types and Hierarchy

Data types in the SLD in the hierarchy are:

- **CIM Model** describing all SLD content, therefore being the basis of SLD data
- **CR Content**, based on CIM, describing software products, components and versions
- **Technical Systems data** describing technical systems including their software based on CIM and CR Content
- **Manually created data**, mostly based on technical systems added to processes plus non-SAP CR Content

Distribution Mechanisms for SLD Data

To match the different needs of each area, three transport mechanisms with different features are used:

- **Manual export and import of data** allows distributing all data and includes filtering. It is therefore used to bring new data from development into productive area with full control of the export process. This kind of transport should be combined with CTS+
- **Automatic bridge forwarding** keeps all vital data of all technical systems in the landscape up-to-date. It is therefore used to distribute data from a central SLD gathering all these data in or associated with productive area into both development and systems management area.
- **SLD's full automatic synchronization** feature delivered with SAP NetWeaver AS Java 7.1 allows you to set up SLD instances so that they automatically keep their content identical. This is the basis for a new way of switching between equivalent instances in a few seconds. The result is that SLD data can be made available independently from software or hardware maintenance.

Part 1 – Handle SLD Data in Namespaces

Introduction to Part 1

The SLD contains 4 types of data:

- Data of the SLD itself, especially the *CIM (Common Information Model)* used to interpret all other data
- *Software Catalog* data: All software versions delivered by SAP and software created by customers and partners
- *Landscape* data: Technical systems available in the IT landscapes and Meta Data of these systems, which are used as *Business Systems* or as part of a *Landscape* for example for administrative purposes.
- *Development* data: Reserved names and *namespaces*, locations of development configurations, CIM information

Steps in Part 1

Data types 1 to 3 form a hierarchy each one being the prerequisites for the next one. All SLD data are handled in *namespaces*. You will see how to handle SLD namespaces.

1.1 Check SLD State and Content

Check SLD Data

SLD Data such as the *CIM data* and the *Software Catalog* are prerequisite for all SLD functions

- Open the **SLD Home**
- Log an as **Administrator**:

Open URL <http://localhost:50000/sld> in a browser window.

User ID *

Password *

- Check the *CIM version*:

- Open your SLD's "about this SLD" page on **SLD Home** by clicking its SID, e.g.: "LD1".

- Check *CIM Model version*, etc.

- Choose **Close**.

Note: In many cases, SLD data can only be exchanged, when the receiving SLD's CIM version is at least as new as the sender's. SLD checks this for example at file imports and displays a notification if prerequisites are not met.

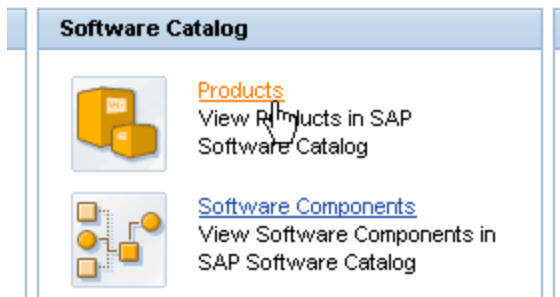
Home Administration Log Off Help System: **LD1** Namespace: [sld/active](#)

About the System Landscape Directory

J2EE SID:	LD1
Object Server:	Internal: MyRsrvdObjS_00, external: MyRsrvdObjS
SLD Version:	7.2000.20090728132230.0000
Java VM:	SAP AG 1.6.0_07 on Windows 2003 5.2
Namespace:	sld/active
CIM Model:	1.5.42
Data Content:	SAP_CR 5.0 (produced 2009-06-09)

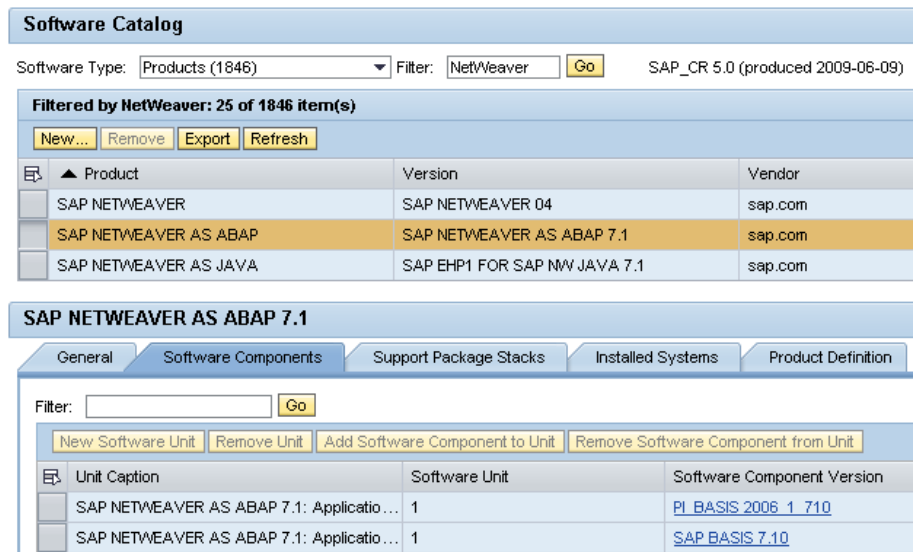
→

- Check the *Software Catalog*:
On **SLD Home** choose
Software Catalog / Products



- Filter for *SAP NetWeaver* and check the details:
Choose a product version and open the tab **Software Components** for example.

Note that data and version of the “CR Content” is shown in the upper right part of the window.



1.2 Manage SLD Data in Namespaces

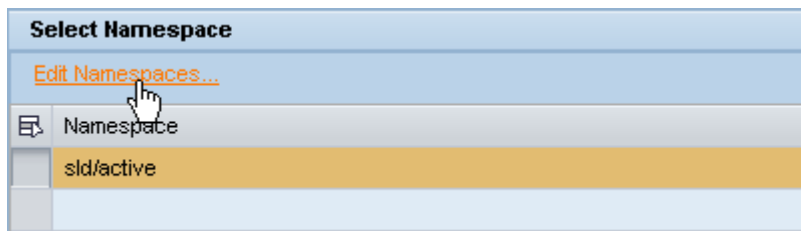
SLD Data are organized in namespaces, which allow to separate for example test data from productive data. Default namespace “sld/active” is always present and will be generated (but empty!) when deleted.

- Add an SLD namespace:
Open the namespace page by clicking the active namespace, here “**sld/active**”



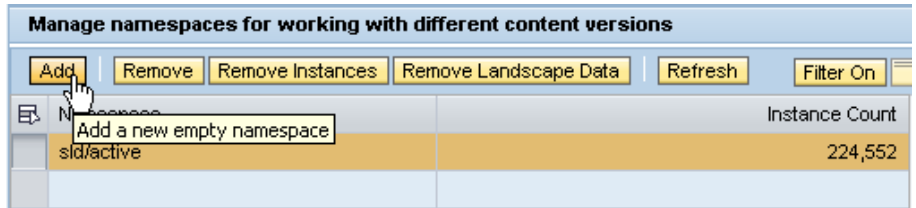
- Here you can select or edit namespaces. Create a new namespace for test data.

Choose **Edit Namespaces...**



- Add a new namespace, which will be empty:

Click **Add...**

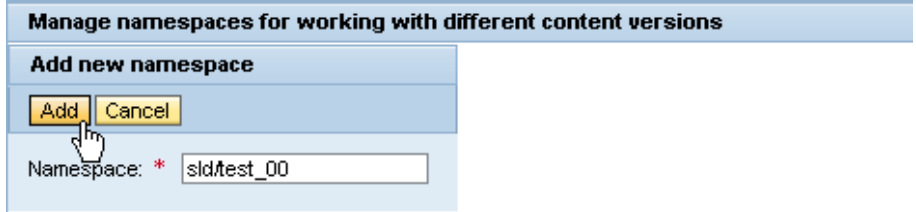


- Define a *name* for the new SLD Namespace:

Enter “*sld/test*”, for example and confirm with **Add**.

Note: Automatically, the new namespace is active in the SLD (check on SLD Home).

A model import is needed: SLD displays an error message on **SLD Home**.

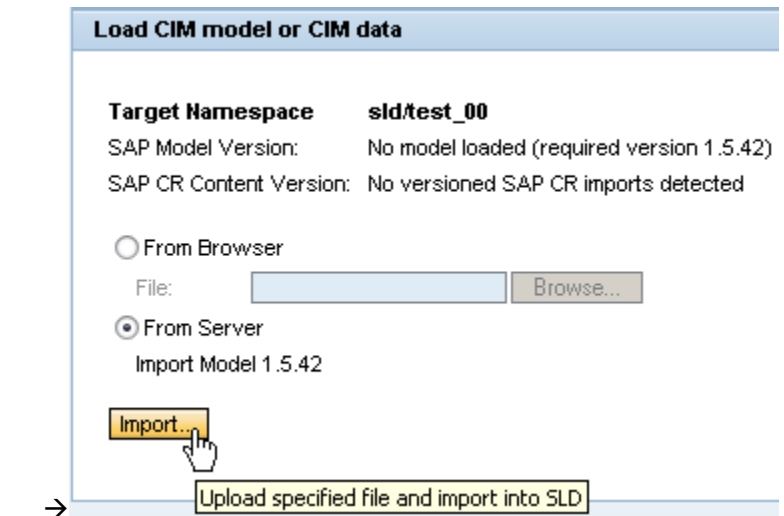
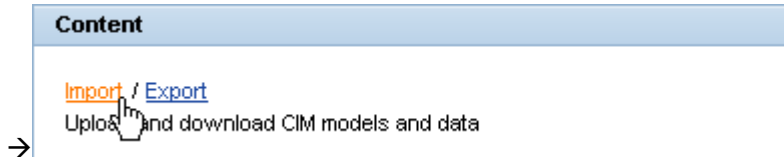
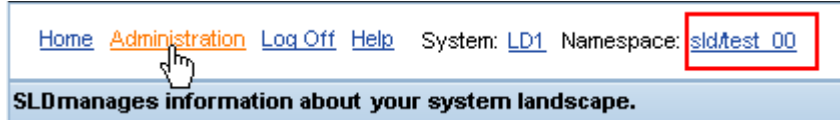


→ No SLD models are loaded in current namespace. Import SLD model 1.5.42 or newer

- To prepare the new namespace, for use you must *import CIM data* first:

- On **SLD Home** navigate to **Administration**

- Choose **Content / Import**.



Import the *CIM Model From Server*.

- Choose **Import...**

Confirm with **Continue Import**.

This will load the model data; after that you can now work in the new namespace.

Note: If any inconsistencies exist – such as a higher model version already available – SLD displays a warning.

Load CIM model or CIM data

Selected import: Model.
Version 1.5.42.
Contains 1,000 model classes and 74 qualifier declarations.

Continue Import Cancel Import

→

Load CIM model or CIM data

Importing 994 of 1,074 objects into namespace sld/test_00

92%

Stop Import

→

→ Import into namespace sld/test_00 finished; all 1,074 objects loaded

Your System Landscape Directory is now working with two separate namespaces. From now on, use your test-namespace for the other exercises – **Note** that SLD switches to sld/active, when restarted.

Result

Your SLD is configured now with a 2nd namespace (this is useful but not mandatory), which contains a CIM Model and therefore is prepared for the import of CR Content (see next part). The steps to import CIM Model and CR Content are necessary in any SLD. The initial setup, which takes care of these steps is part of the installation and automated configuration of the SLD, but updates of both data are a recurring administrative task in the SLD (see SAP Note **669669**).

Part 2 – Import, Gather, and Create SLD Content

Introduction to Part 2

Content is added to SLD namespaces in 3 ways:

- Import of data (CIM and Software Catalog data as a prerequisite for landscape data)
- System self-registration
- Manual creation of data

Steps in Part 2

2.1 Import SLD Content – Get SLD CR_Content (Software Catalog Data)

Import SLD CR Data

Once the CIM is imported into a new namespace, the next type of data, which needs to be imported, is the *Software Catalog (Component Repository or CR Content)*.

- Download *CR Content from SAP Service Marketplace* (for the path, see the Note below):

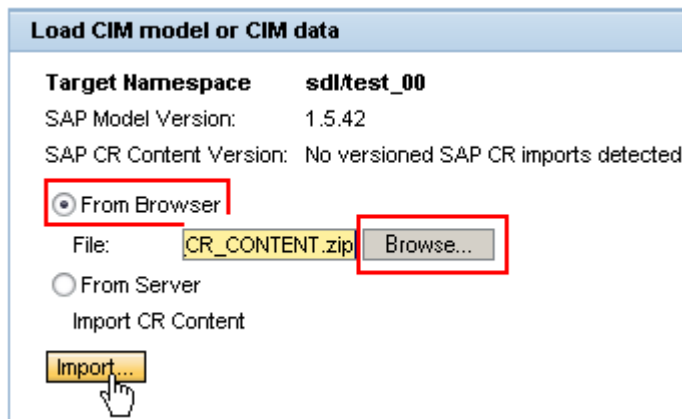
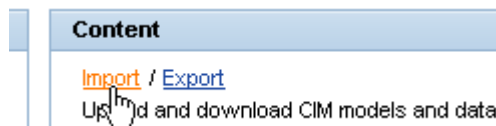
- Open the file share where a ZIP-file with CR Content is available (the name of the downloaded file will differ from the example shown here)

Note: You can also import from the server.

- Then choose **Administration → Content / Import**

- Use option **From Browser** to locate the ZIP-file, trigger. Confirm the import.

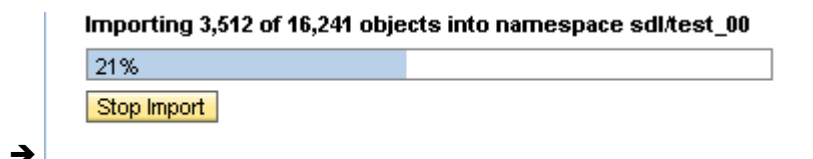
Result: The product data will be loaded. This may take several minutes. You will get a confirmation message.



→



→



→

→ Import into namespace sdl/test_00 finished; all 16,026 objects loaded

Note: Usually, CR Content is updated from *SAP Service Marketplace Download Centre* under **Support Packages & Patches → Entry by Appl. Group → SAP Technology Comp.s → SAP CR CONTENT**

- Check the imported data:
Choose **Home** → **Software Catalog / Products**.

Software Type: Filter:

Product	Version	Vendor
SAP NETWEAVER	SAP EHP1 FOR SAP NETWEAVER 7.0	sap.com
SAP NETWEAVER	SAP NETWEAVER 7.0	sap.com
SAP NETWEAVER	SAP NETWEAVER 7.1	sap.com

Your SLD test namespace now contains product data of several SAP NetWeaver releases.

2.2 Gather SLD Content – Configure the Self-Registration of a Technical System

Gather Technical Systems Data via SLD Data Supplier

All stacks of all technical systems (including those that host an SLD) in the landscape should be set up to report to 1 central SLD.

- Open the **NetWeaver Administrator**. Open URL e.g. <http://localhost:50000/nwa>. Log on as **Administrator**

- Navigate to *destination* maintenance:
In the *SAP NetWeaver Administrator* (NWA) choose **Configuration Management** → **Connectivity** → **Destinations**.

NetWeaver Administrator Personalize | Back Forward

User: Administrator | Active profile: Complete List | System: LD1 on iwdfvm3034, v.7.20

My Workspace | Availability and | Operation | **Configuration Management**

Security | Infrastructure | Scenarios | **Connectivity**

Destinations
Applications or services can establish connections to other services. When using such connections, you need to specify the remote service address and the user

- Open destination *SLD_DataSupplier*.

Destination List

Create... Remove Remove All Refresh

Destination	Destination Type
DASdefault	HTTP Destination
SLD_Client	HTTP Destination
SLD_DataSupplier	HTTP Destination

- Choose **Edit**.

Edit Ping Destination

→ HTTP Destination SLD_DataSupplier

- Enter the connection to the **central SLD**, here SID = **"LD1"**:

- Connection and Transport**: URL of the

HTTP Destination SLD_DataSupplier

Connection and Transport Logon Data

Connection

URL:

receiving SLD's AS e.g. = <http://iwdfvm3034:50000>
then choose *Logon Data*.

- **Logon Data: User Name and Password = SAP_DS_<SID>/password**

- **Save** the changes and use button **Ping** to test it.

Result: Your SLD is connected to LD1.

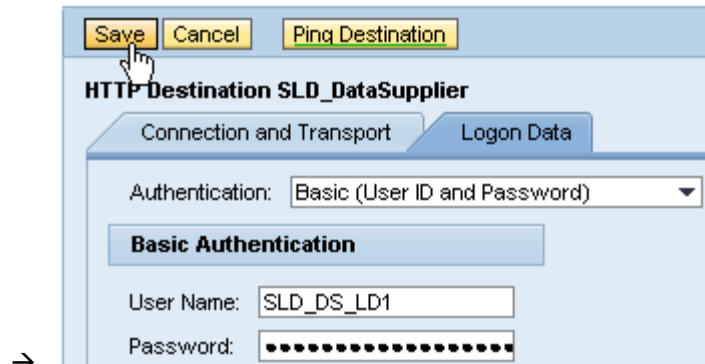
- Test the self-registration: in the **NWA** choose **Back**, when still you're on destination "data supplier".

Choose **Configuration Management** → **Infrastructure** → **SLD Data Supplier Configuration...**

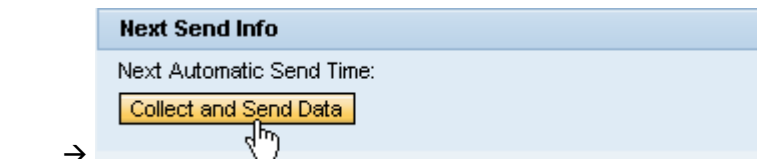
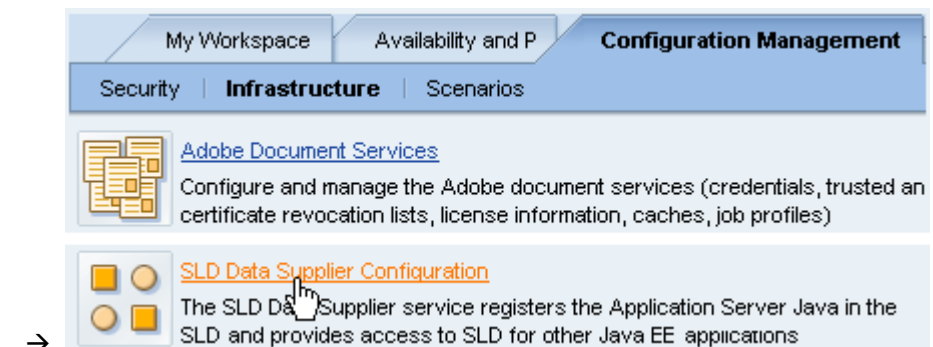
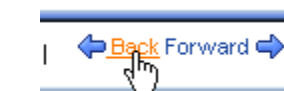
- Choose **Collect and Send Data**.

Result: Your system should be shown in your list of *Technical Systems*.

You'll see a message.



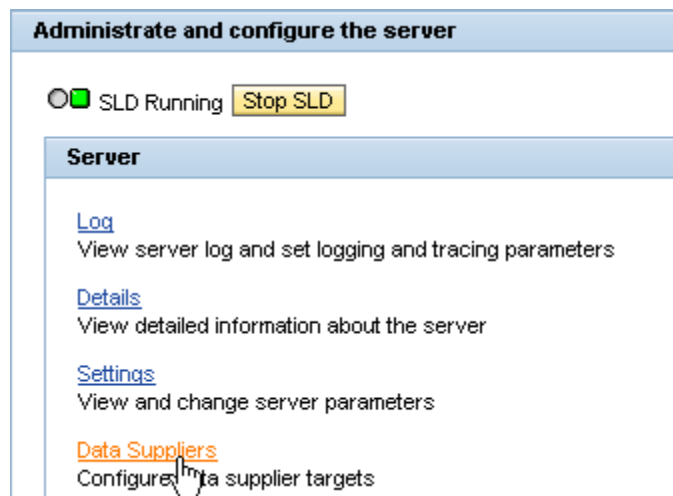
→ Successfully connected to HTTP destination



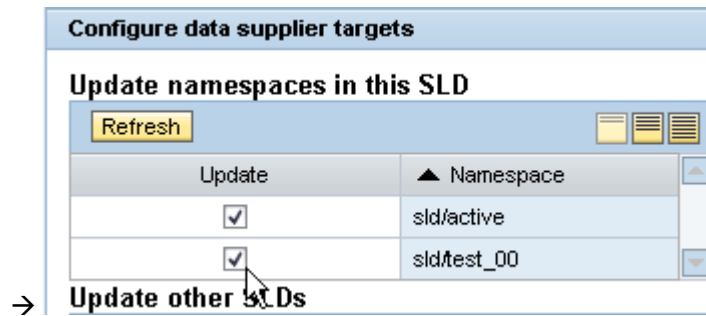
→ Collect and Send Data completed successfully

- Set **target Namespace(s)** to be updated (you can have data added to one, some or all namespaces in your SLD):

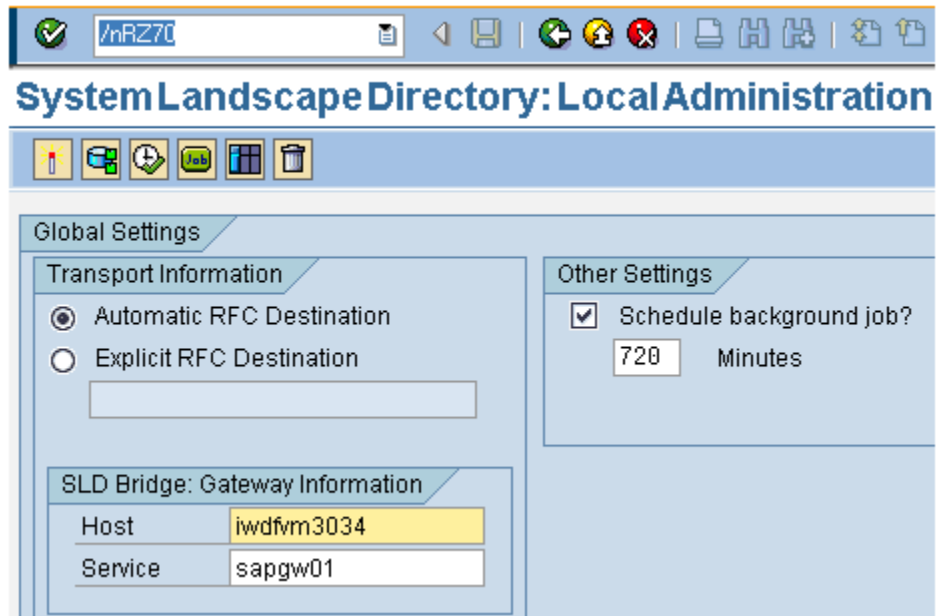
- In the SLD choose **Administration** → **Data Suppliers**



- Select your newly created namespace, e.g. **sld/test_00**



- In a system based on AS ABAP the *SLD Data Supplier connection* is set up in transaction **RZ70 – System Landscape Directory: Local Administration**.



Note that even in a dual stack, both AS need to be set up *separately* to register at the SLD.

Your technical system now reports its data including changes to its software state to the central SLD.

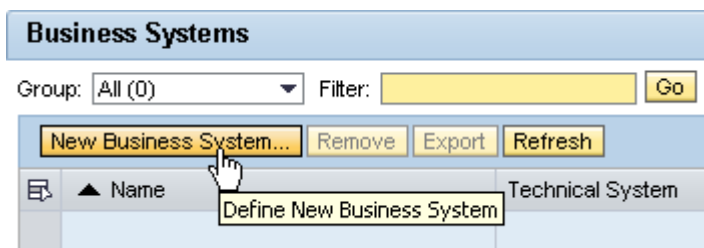
2.3 Manually Create SLD Content – Define a Business System

Create SLD Data manually Based on CIM data, CR-Content and Technical Systems, in the SLD higher levels of data can be created. One example is a Business System, used to assign systems to messages for SAP NetWeaver PI.

- Create a *Business System*:

- On **SLD Home** open **Landscape / Business Systems**

- Choose **New Business System....**



- In the 4-step wizard add the following data:

- **Type = AS Java**

Note: Data of a Technical System is required and your AS Java can be used.)

- **System** = your technical system (e.g. **LD1 on IWDF...**)

Note: Technical System data is not removed when the data supplier is reconfigured. In the next exercise you will learn about the connection to the central SLD, which keeps technical system info up-to-date.

- **Logical System Name** = **empty for Java-based systems** (used for AS ABAP only)

- Confirm with **Next**.

- Enter the Business System Name e.g. = **MyBusinessSystem_00**, where **XX** is your group number.

Confirm with **Next**.

Application Systems need to be assigned to an Integration Server.

This can be done later.
Confirm with **Finish**.

Result: Your Business System is displayed on **SLD Home** → **Landscape / Business Systems**

1 System Type **2** Technical System **3** Name **4** **Integration**

Select the role of this business system; if it is an as, specify the integration server.

Business System Role:

Related Integration Server:

→ Business system MyBusinessSystem_00 has been created successfully.

Business Systems

Group: Filter:

Name	Technical System
MyBusinessSystem_00	LD1 on iwdfv3034

→

Your SLD now contains CIM data, Software Catalog, Technical Systems', and manually created data.

Result

Your SLD contains imported, registered and manually created data now.

Part 3 – Distribute SLD Content

Introduction to Part 3

Different content is needed in SLDs with different roles; for each content and purpose, specific distribution mechanisms are used:

- Technical Systems data: Used mainly in Solution Manager and PI or Web Dynpro Java development. So its distributed using **SLD bridge forwarding**
- Manually created Data is transported from
 - Development to productive SLD using **manual Export/Import** to achieve controlled, one-way distribution
 - **Manual Export/Import** can also be combined with the **enhanced Change and Transport System (CTS+)**
- Optionally, SLD data can be synchronized completely into a Backup-SLD using **full automatic synchronization**

Steps in Part 3

3.1 Forward Technical Systems Data – Define Forwarding of SLD Data Supplier Data

Forwarding SLD Data Supplier Data

Technical system data sent to an SLD using a data supplier can be forwarded to other SLDs. This is used especially to provide systems managing systems with required data. Manually created data is not included. There are no dependencies between sender and receiver.

- Configure the **forwarding** of SLD Data Supplier Data:

- In *SLD Home* choose **Administration** → **Server / Data Suppliers**

- Under **Update other SLDs** choose **Add**.

- Enter the following:

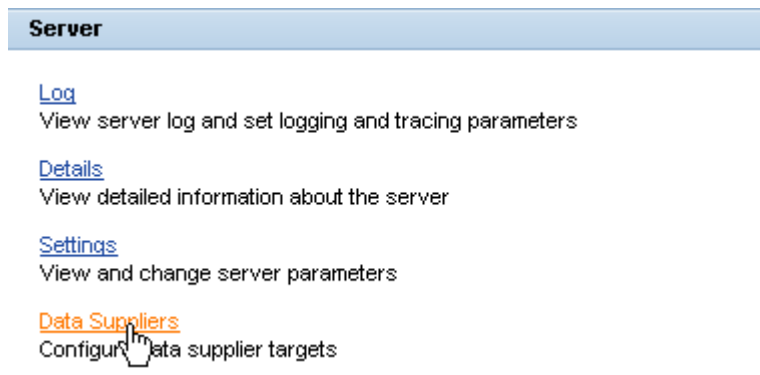
- SLD's URL e.g. = **http://iwdf...**

- **User = SLD_DS_<SID>**

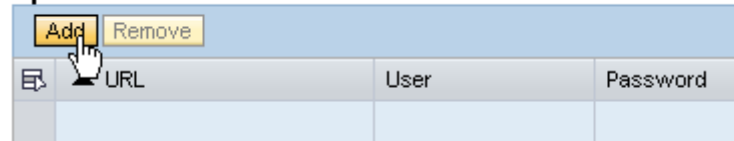
- **Password**

- **Confirm with Add**.

Result: Your system is shown in the central SLD (here its SID = "LD1").



Update other SLDs



Update other SLDs



SLD content is updated, when registration is scheduled next time or when update is triggered in the *NWA* under **Configuration Management** → **Infrastructure** → **SLD Data Supplier**

Configuration → Collect and Send Data.

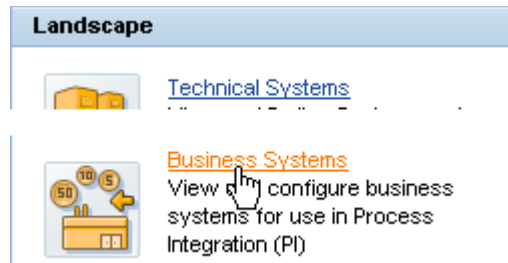
Note that you **cannot use user SLD_DS_LD1 to check the content of LD1**. This technical user is only used to send data – checking the content of LD1 will be possible in exercise 4.3.

Your SLD now forwards Technical Systems' data to the central SLD. This mechanism is used e.g. to update SAP Solution Manager's local SLD.

3.2 Manually Export and Import Content – e.G. Distribute Business System Information

Export and Import SLD Data All types of SLD data can be exported from one SLD (completely or in selected types or items) and imported into another. Prerequisite is that the receiving SLD contains – at least – the same CIM version.

- Navigate to your Business System:
 - On **SLD Home** go to **Landscape / Business Systems**



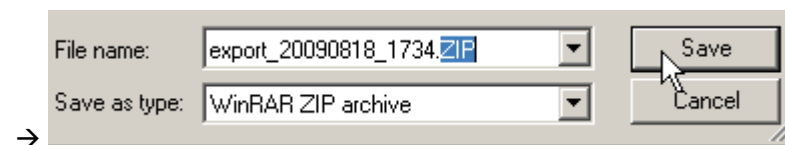
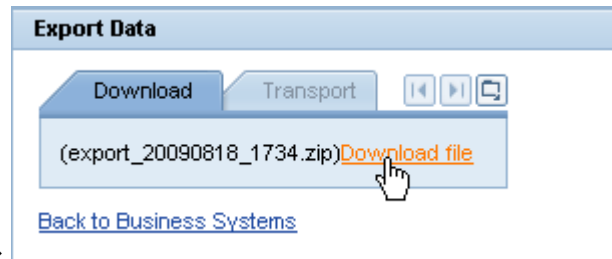
- Export your Business System:

- Select your **Business System**
- Choose **Export**.

A ZIP-file is created.

- **Download** the ZIP-file and **Save**.

Note: There is a **BUG** in the download in some states: Change the file extension to "**ZIP**" if necessary.

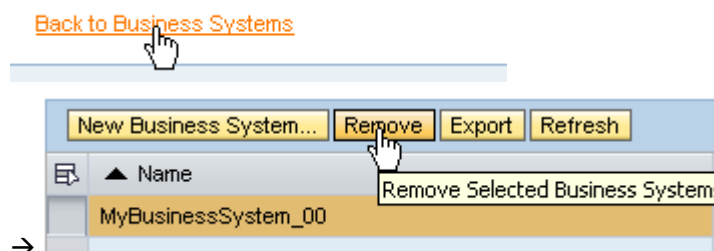


Note, that the Technical System data is required in the receiving system, but not automatically added to the export file of Business System data and need to be taken care of separately.

- **Remove** Business System data:

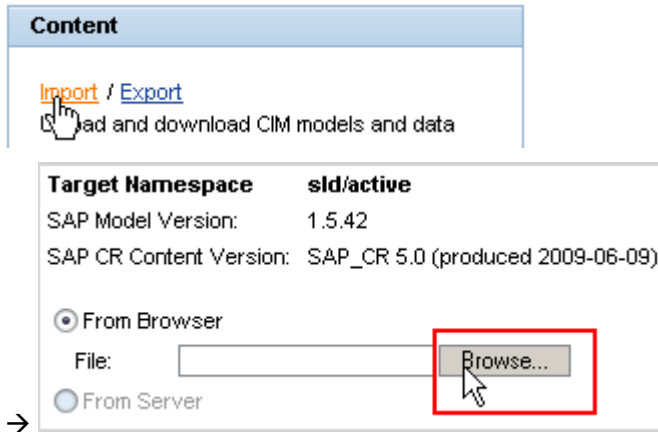
- For testing purposes choose **Back to Business Systems** and **Remove** your **Business System**:

...and **confirm**.



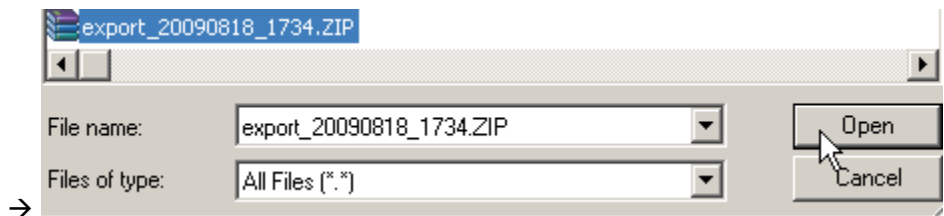
■ **Import SLD Data:**

- In the SLD choose **Administration** → **Content** / **Import**

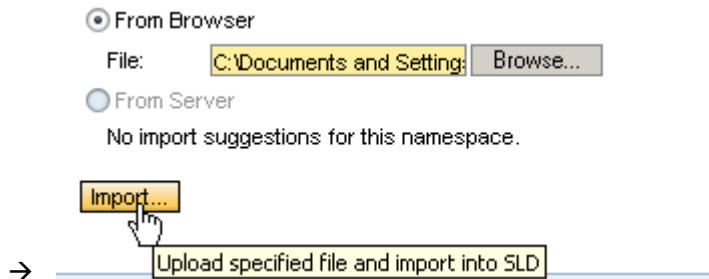


- Choose the select the file in the file explorer using **Browse...**

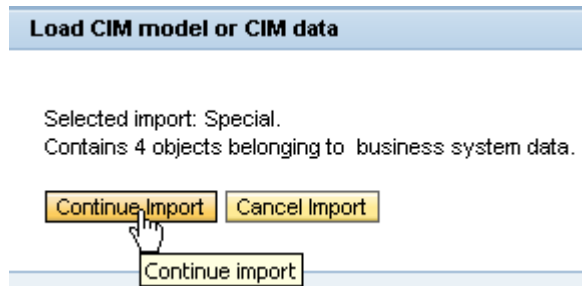
- Navigate to your export file and **Open** it.



- Start to **Import** the file.



- Check the content: If it is empty, repeat the export steps, otherwise **Continue Import**.



Result: Your Business System will be shown in the list again. You'll get a message.

✔ Import into namespace sld/testnew finished; all 16,026 objects loaded

The same ZIP file can be imported into other SLDs as well, when the other SLD's model version is sufficient and the

Technical Systems' data are available.

3.3 Configure Your System to Manage Exports with CTS+

Source systems access All types of SLD data can be exported from one SLD also using CTS+. This requires CTS functions to manage configuration on the source system plus representation of sending and receiving transport requests. systems and their connection on the CTS system.

- Create an export user:

Open the AS Java start page on <http://localhost:50000>
- Choose the **User Management**.



User Management

The user management administration console provides administrators with the functions they need to manage users, groups, roles, and user-related data in the User Management Engine (UME). Users without administrator permissions can use it to change their user profile.

- Create a new user:

Choose **Create User**.



- Enter the user's data:

- Logon ID = **ALM263_XX**

- Initial Password = **abcd1234**
(Note that the password needs to match user on CTS+ system)

- Last Name = **XX**

- Security Policy = **Technical User**
(no password change at 1st log on required)

- Now choose **Assigned Groups**
(the last tab – scroll to the right if necessary)

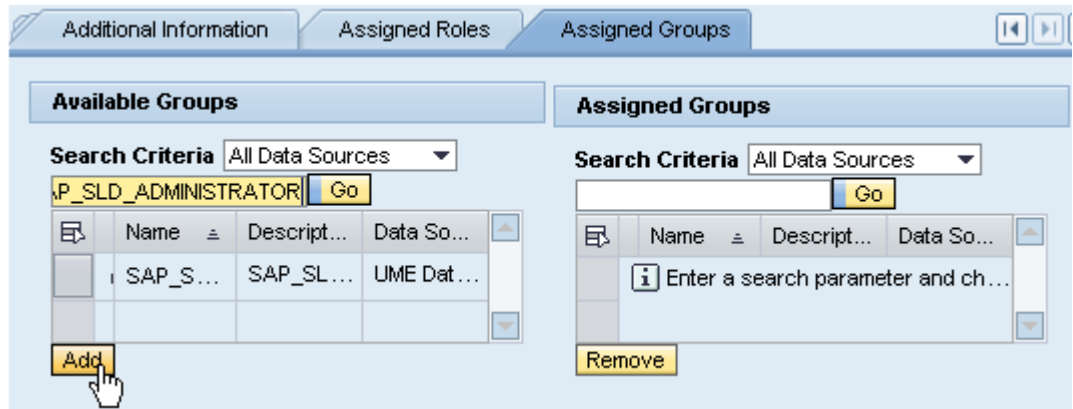
Note: This user needs to be available on the CTS+ host system (M36) also.

- Assign a *Group* to the user:

- Filter for *SLD_ADMIN*.
Choose **Group** **SAP_SLD_Administrator**

- Choose **Add**.

- **Save**

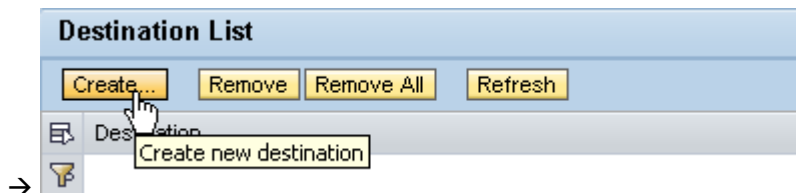
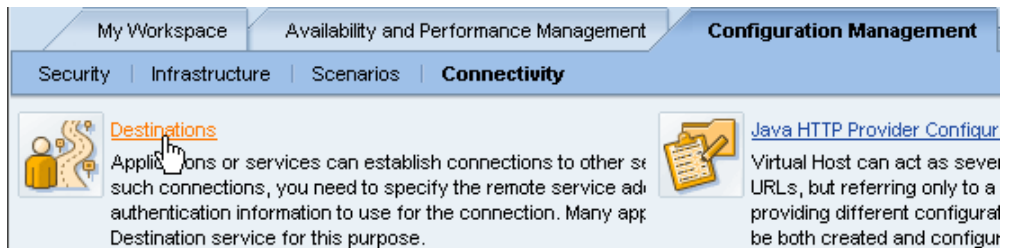


- Prepare your system to work as a source:
Create a *destination* to the CTS Server.

- In the **NWA** open **Configuration Management** → **Connectivity** → **Destinations**

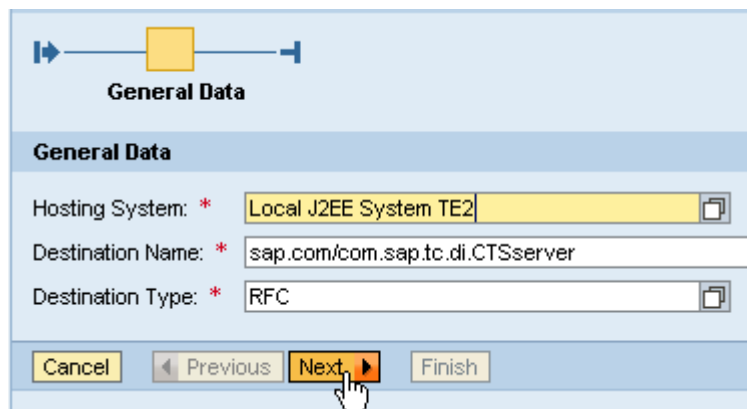
- Choose **Create...**

Open URL <http://localhost:50000/nwa>.



- In the 1st step on **your** local system create a *destination* named **sap.com/com.sap.tc.di.CTSserver** of type **RFC**

Note that this name is predefined and case sensitive.



- Add the connection data for the transport system:

- *load balancing* = **No**

- *host of the transport system* = e.g. **iwdfvm3040**

- *System Number* = **10**

- *System ID of the transport system* = **M36**

- Choose **Next**.

The screenshot shows the 'RFC Destination sap.com/com.sap.tc.di.CTSserver' configuration wizard. The 'Connection and Transport Security Settings' step is active. The 'Connection' section has 'Load Balancing' set to 'No' (highlighted with a red box), 'Local System Connection' unchecked, 'Target Host' as 'iwdfvm3040', 'System Number' as '10', and 'System ID' as 'M36'. The 'SNC' section has 'SNC' set to 'Inactive' and 'GoP' as '3: Privacy Protection'. Navigation buttons at the bottom include 'Cancel', 'Previous', 'Next' (with a mouse cursor), and 'Finish'.

- Enter **Logon Data**:

- *Authentication* = **Technical User**

- *Client* = **001**

- *User Name* must be existing, e.g. = **ALM263_XX + Password**

- *Destination Name* = **This Destination**
(other fields are empty) →

- Choose **Finish**

The screenshot shows the 'Logon Data' step of the configuration wizard. The 'Authentication' section has 'Authentication' set to 'Technical User', 'Client' as '001', 'User Name' as 'ALM263_00', and 'Password' masked with dots. The 'Repository Connection' section has 'Destination Name' as 'This Destination'. Navigation buttons at the bottom include 'Cancel', 'Previous', 'Next', and 'Finish' (with a mouse cursor).

- Logon with your newly created user **ALM263_XX** to the SLD using a new window
Open URL <http://localhost:50000/sld>.
Choose Namespace **sld/test_XX**.

- Repeat the Export steps in **SLD Home** → **Landscape** → **Business Systems**:

Result: You will see that the tab **Transport** is active; a transport request has been generated.

You will get a message.

Download Transport

Refresh Create/Select Request

Request: SLDK90001C

Description: GENERATED REQUEST

Owner: ADMIN

Note: Business System 00

Attach Exported Data Process Requests

[Back to Business Systems](#)

Your SLD is now integrated into the transport management of a bigger IT landscape.

Result

Your SLD data is now distributed to other SLD systems in the landscape. Go on with the next part of the exercises.

Part 4 (Optional) – Distribute SLD Data by Full Automatic Synchronization

Introduction to (optional) Part 4

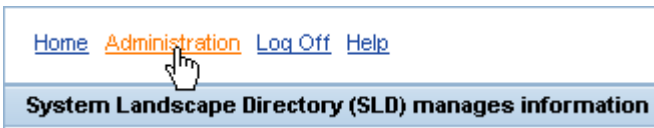
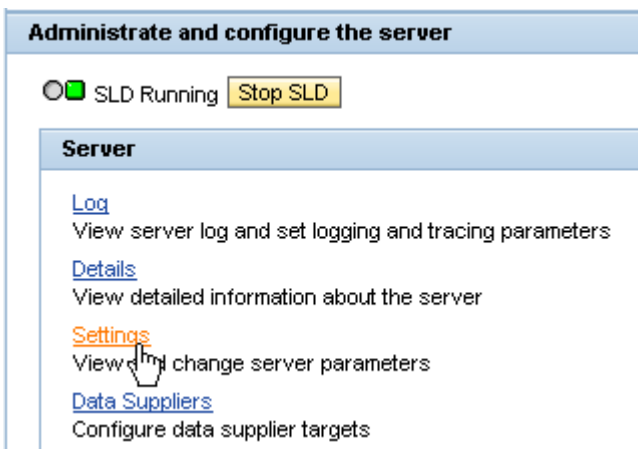
As of SAP NetWeaver AS Java 7.1 SLD systems can be configured to automatically synchronize their content either in one direction or bi-directionally.

The first option can be used to provide a target SLD with all data from the source SLD without retrieving its content. This might be useful if in very big landscapes SLD data of regions shall be gathered centrally. The latter option is especially useful to create a backup SLD. In any case, this feature **needs to be used carefully, since all changes including deletions are distributed immediately** and without further user interaction.

- Technical Systems data: Used mainly in Solution Manager and PI or Web Dynpro Java development. So its distributed using **SLD bridge forwarding**
- Manually created Data is transported from
 - Development to productive SLD using **manual Export/Import** to achieve controlled, one-way distribution
 - **Manual Export/Import** can also be combined with the **enhanced Change and Transport System (CTS+)**
- Optionally, SLD data can be synchronized completely into a Backup-SLD using **full automatic synchronization**

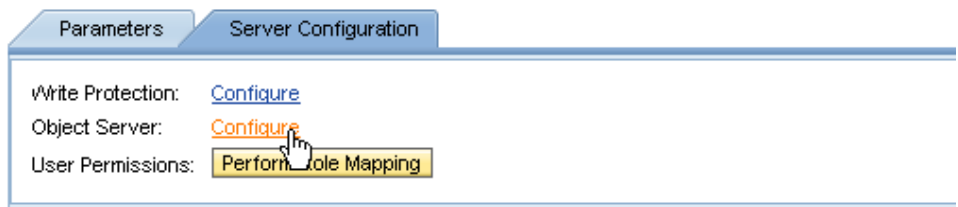
Steps in Part 4

4.1 Configure SLD Object Server Settings – Required by Full Automatic Synchronization

<p>System Landscape Directory has an Object Server Name for example used for (unique) naming of development objects and as identification in sync.</p>	<p>Two prerequisites need to be fulfilled, when full automatic synchronization and a switching between SLDs with the role “name server” is used: For naming purposes the Object Server Name must be the same in both SLDs; for synchronization it must be different: Therefore in this scenario you must set 2 Object Server Names, <i>internal</i> and <i>external</i>.</p>
<ul style="list-style-type: none"> ■ Navigate to <i>SAP NetWeaver SLD Home</i> 	<p>Open URL http://localhost:50000/sld in a browser window</p>
<ul style="list-style-type: none"> ■ Check server details: <p>On your SLD on SLD Home choose Administration.</p>	
<ul style="list-style-type: none"> ■ Navigate to the <i>Object Server</i> settings: <p>Choose Server / Settings.</p>	

■ Choose tab **Server Configuration**

- Start function **Object Server: Configure**.

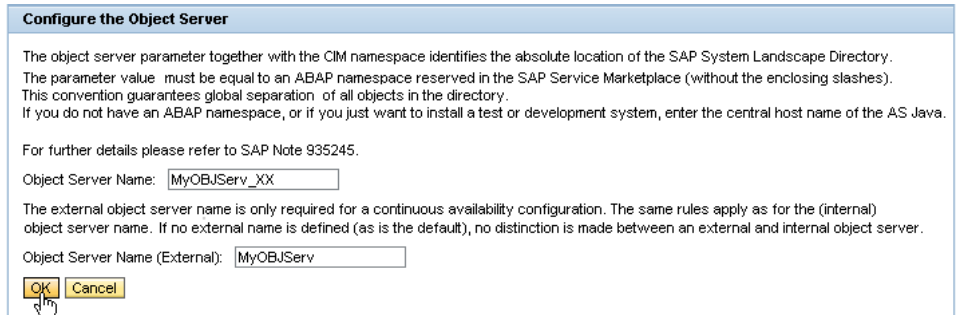


■ Create 2 *Object Server Names*, internal and external (for continuous availability setup). Enter values as follows:

- Object Server Name e.g. = **MyOBJServ_XX**,

- Object Server Name (External) = **MyOBJServ**.

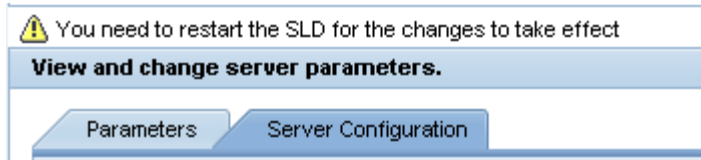
For details on the Object Server parameter see SAP Note **935245**.



Note: Different internal Object Server names for both SLDs are required. As of SAP NetWeaver 7.1 EHP1, SP2 you use identical external object server names for name reservation purposes also from the backup system SLD 2

You'll get a warning that a SLD restart is needed.

Note that this does *not* mean to restart the AS Java.

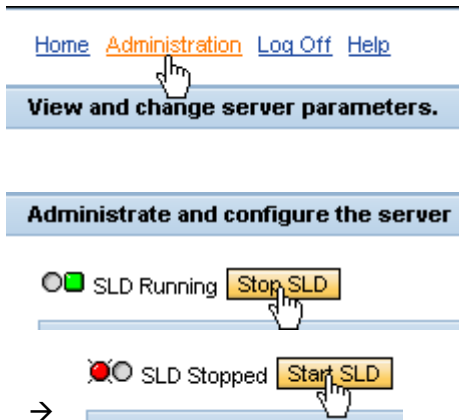


■ To restart the SLD

- Choose **Administration**:

- Choose **Stop SLD**

- Choose **Start SLD**



The SLD Object Server is configured for use in a Full Automatic Synchronization (also if used as a Name Server). Object Server Name is usually configured as host name when name service is not used. This will work as well, then.

4.2 Backup SLD – Configure the Full Automatic Synchronization

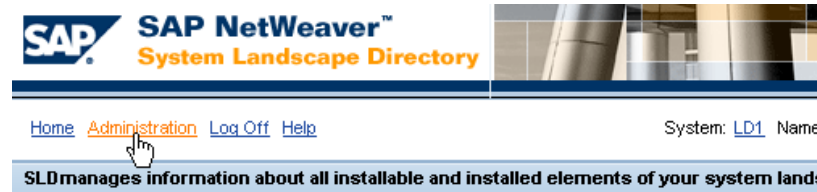
Exchanging data between SLD systems using full automatic synchronization.

All types of SLD data can be sent from one SLD to another or changes can be exchanged mutually between them. Note that using specific users is important for data management in SLD.

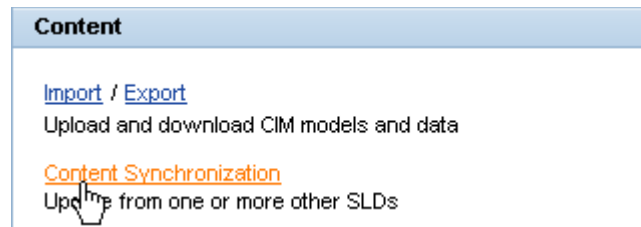
- Navigate to *Content Synchronization* maintenance of SLD:

Open your SLD on <http://localhost:50000/sld>

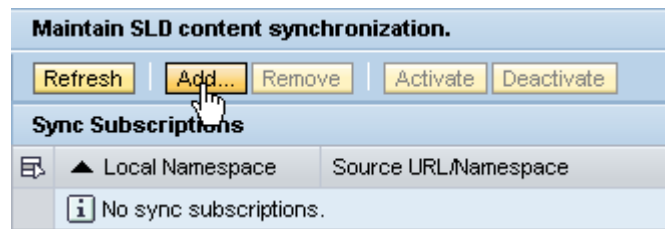
On the **SLD Home**, choose **Administration**.



- Create a new Sync connection
 - Choose **Content / Content Synchronization**



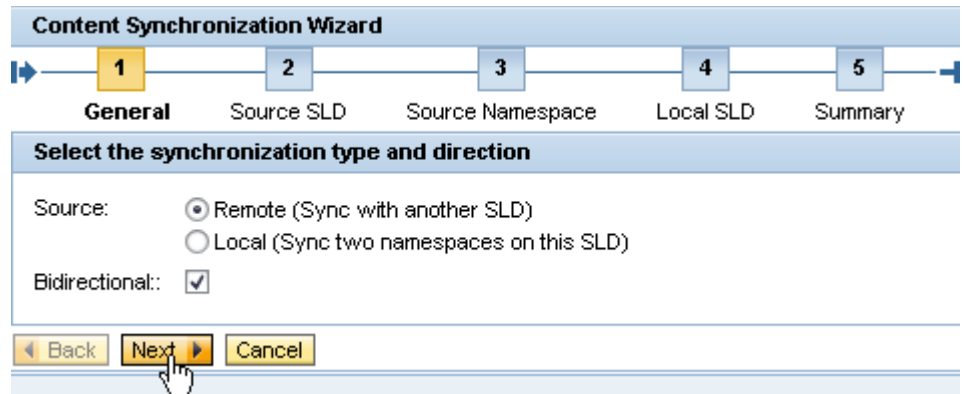
- In the *SLD content synchronization maintenance*, choose **Add...**



- In the **Content Synchronization Wizard**

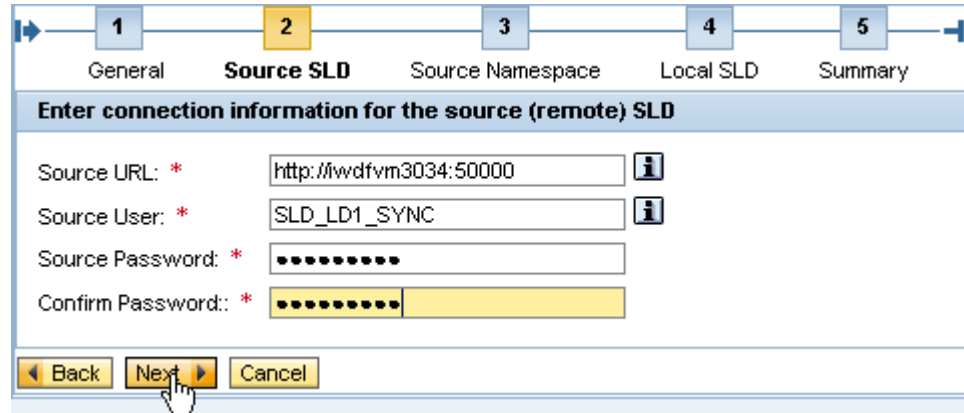
Set following options:

- **keep** Source = **Remote**
- **select** the **Bidirectional** option
- Choose **Next**



- Add a sync user available on the remote SLD:

- Enter **Remote SLD URL** e.g. = **http://iwdfvm3034:50000**
- Enter user **SLD_LD1_SYNC** and the **password**

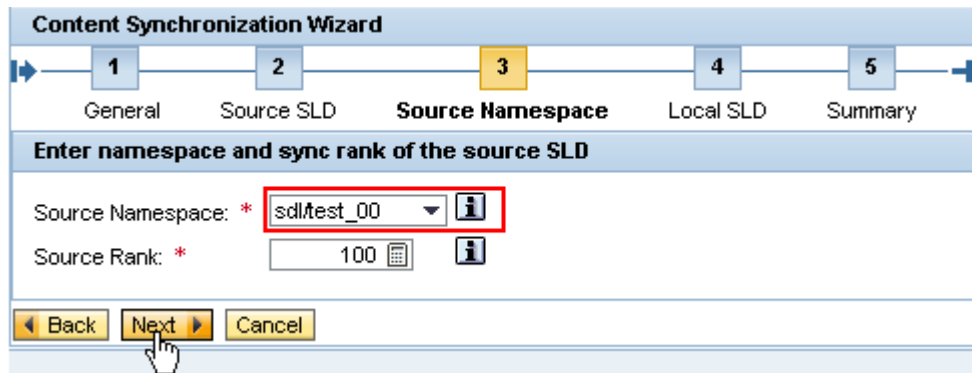


■ Make rank settings:

- Select a namespace, e.g. **sld/test_00** (mostly it will be sld/active).

- Set source rank = **100**

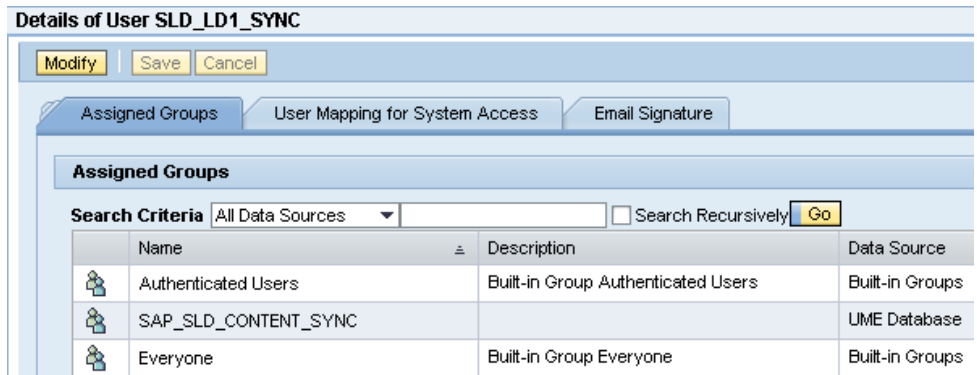
(in case of a conflict of data – occurs, when same data is changed at the same time – a higher rank number defines that this SLD’s data will “win”)



■ **Optionally** (if time permits) create and use a sync user **TE2_XX_SYNC**, where XX = your group number.

Note that this also is a technical user, no password change is required.

Proceed as in **exercise 3.3**. Required group is **SAP_SLD_CONTENT_SYNC**



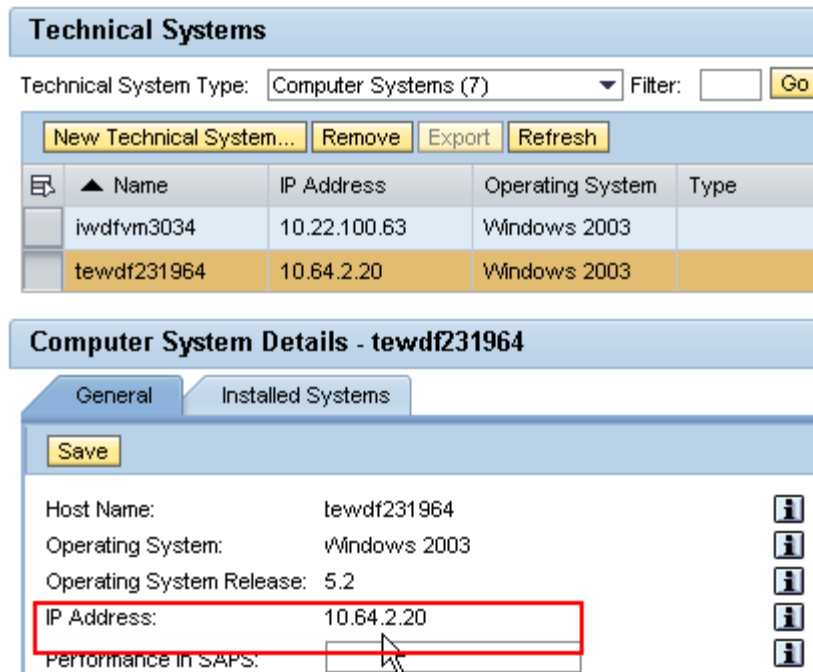
■ Find **your** system’s IP configuration:

- Open a **SLD Home** → **Landscape / Technical Systems**.

- Choose **your** system **tewdf....**

- On tab **General** read the **IP address** and make a note to have it available in the next step.

- **Note:** After the sync, many systems will be shown.



- Set up local SLD connection:
 - **Local URL** = SLD's **IP Address (10.64....)** or host name
 - Use newly created user **TE2_XX_SYNC / pwd.** (**administrator** user will work, specific users are preferable).
 - Choose a namespace
 - Choose **rank = XX**; XX is between 1 and 100, 100 being the highest rank.
 - Choose **Next**.

Content Synchronization Wizard

1 General 2 Source SLD 3 Source Namespace **4 Local SLD** 5 Summary

Enter information about this SLD and the target namespace and rank

Local URL: * ⓘ

Local User: * ⓘ

Local Password: *

Confirm Password: *

Local Namespace: * ⓘ

Local Rank: * ⓘ

◀ Back **Next ▶** Cancel

- You'll see a summary (shown here for a different system).

Content Synchronization Wizard

1 General 2 Source SLD 3 Source Namespace 4 Local SLD **5 Summary**

Review the summary below. When you click Finish, the sync will be configured and started.

Sync Source: http://wdfvm3034:50000 sld/test_00
User: SLD_LD1_SYNC
Rank: 100

Sync Target: http://wdfd00225268a:50400 sld/active
User: Admin
Rank: 25

Sync Direction: Bidirectional (Source <-> Target)

◀ Back **Finish** Cancel

- Confirm with **Finish**.

- You will see the content synchronization maintenance.

To get a **status** of the new sync connection, choose **Status / Full Sync (Active)**

Maintain SLD content synchronization.

Refresh Add... Remove Activate Deactivate Auto-Refresh Filter On

Sync Subscriptions			
Local Namespace	Source URL/Namespace	Status	Action
sld/active	http://wdfvm3034:50000 sld/test_00	Full Sync (Active)	Full Sync

Sync Notifications Of Remote SLDs		
Local Namespace	Target URL	Status
sld/active	http://wdfvm3034:50000	Active

4.3 Use a Switch between Main-SLD and Backup-SLD

Creating a hot-backup SLD system.	When combining the Full Automatic Synchronization with use of a virtual IP address / virtual host name you can create a hot-backup SLD. All clients access the virtual host so that switching only happens in the background.
■ Assign a virtual IP address to your SLD systems	Get a reserved IP address in your landscape. Make all data suppliers and SLD client applications use this access the SLD. You can then easily
■ Check the result	You can type the virtual IP address plus the port number of SLD and Backup-SLD (ports must be identical) plus "/sld" into a browser – you will get access to the SLD system the virtual IP address is assigned to (this must be only one at each point in time). For details see the blog " <i>How to Ensure that SLD Data is Available during Maintenance</i> " (http://www.sdn.sap.com/irj/scn/weblogs?blog=/pub/wlg/13709)

Note that we can only simulate this approach here, so log of and log on again to check the effect: In the real world, such a program would switch the assignment of a virtual IP address / host name between main and backup-SLD system.

Result

You can use each of the SLD systems as a hot-backup SLD.

Related Content

[How-to Handle Data in the SAP NetWeaver System Landscape Directory](#): Basic information

[SLD Knowledge Center @ SDN](#): Guides and documentation links on SLD

[SLD Resources @ SDN](#): Blogs and Demos on SLD

Copyright

© Copyright 2010 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, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated 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.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP Business ByDesign, 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 other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects S.A. in the United States and in other countries. Business Objects is an SAP company.

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.