SAP NetWeaver Developer Workplace SR1 (SPS06) – part 6 (SLD)

Before you start
Please check the document called **SAP NetWeaver Developer Workplace SR1 (SPS06) – part 6a (SLD)** in order to see if any updated information is available to the information included in this document.

The information described below in regards to the SAP SLD, what is it, what can you do with it, why do you need it, is subject to change in the future. If this is the case, the designated integration consultant will contact you and inform you of the details.

Make sure you have the **Post-Installation Guide** document called **System Landscape Directory of SAP NetWeaver 2004s** as depicted below.

Post-Installation Guide

System Landscape Directory of SAP NetWeaver 2004s

Document Version 1.00 – April 2006

In the section called 2.1 Changing the JVM Max Heap Size, just leave the entry of 1024 which is already set when you view the Java settings pane. Don't change it to 512.

Introduction

You shouldn't need to conduct any "Post-Installation" configurations to your Local System Landscape Directory which you installed using SAPinst as described in the document **SAP NetWeaver Developer Workplace SR1 (SPS06) – part 1 (DWP Install**). Depicted below is the selection you should have made.


However, review the manual and go through it in order to familiarize yourself with the SAP SLD. If needed, make the necessary changes. Below is more detailed information about SLD, and why we consider it during the J2EE-DEP 7.0 certification.

SLD (SAP System Landscape Directory)

What is SLD?

SLD acts as the central information provider for SAP and third-party tools where comprehensive information about all the installable and installed elements of your system landscape is stored. It contains a description of your system landscape (that is, software components that are currently installed) and a repository of software components that can theoretically be installed in your landscape (such as the software components available from SAP) relevant for the management of your software lifecycle. Thus, the SLD serves as a central information repository for your system landscape which consists of a number of hardware and software components depending on each other with regard to installation, software updates, and demands on interfaces.

The figure below shows the flow of data between the SLD and other components.
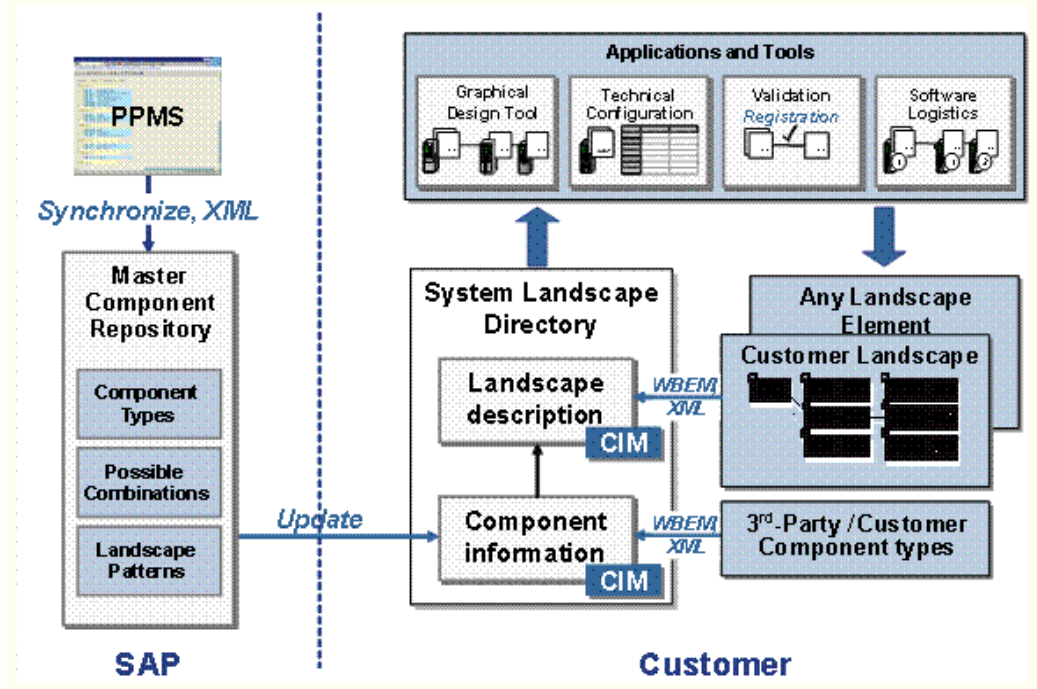
Where is more information available about SLD?

You can find more information about SLD at https://www.sdn.sap.com/irj/sdn/nw-sld (you need to have access to the service market place) and http:///help.sap.com -> In the Overview section select -> SAP NetWeaver -> SAP NetWeaver 2004s (English language) -> SAP Library -> Technology Consultant's Guide -> SAP NetWeaver Operations -> Administering SAP NetWeaver -> System Landscape Directory (SLD) as depicted in the figure below.
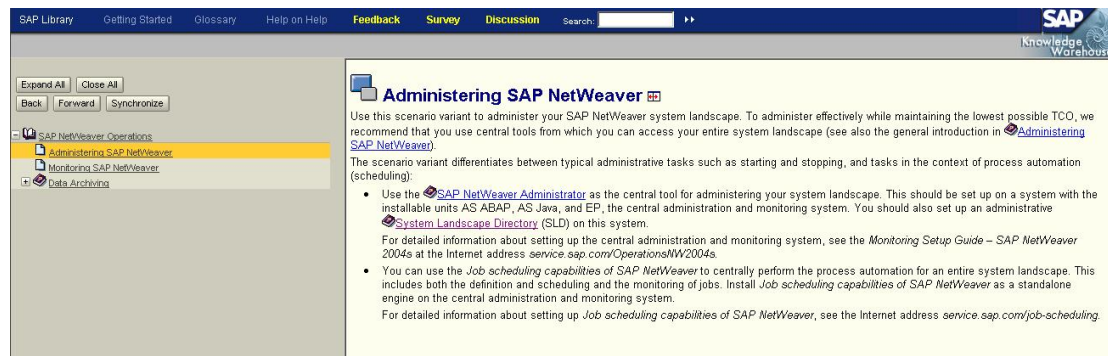
What can you do with the SAP SLD?

1. Create technical systems

2. Create landscapes, add systems to landscapes, create hosted systems, and add sub-landscapes to landscapes

3. Create business systems and business system groups

4. View the Software Catalog, create third-party products and software components, and define software dependencies

5. Define name prefixes for development and reserve names.

How can you access the SLD?

Once you're finished with your SAP NetWeaver 2004s installation, in your web browser, enter the URL of the SLD using the following pattern:
http://<host>:<port>/sld

Example: http://<host running the J2EE engine>:<port, for example 50100>/sld

What are the SLD Post-Installation steps?

SLD is already contained in the installation (SAPinst) of every SAP NetWeaver 2004s system with usage type AS Java (see figure depicted below and the selection which can be made when you install Developer Workplace for SAP NetWeaver 2004s SR1, for example).

Therefore, no additional installation steps are required to activate SLD – you only have to perform the easy configuration as a post installation step. You can find information on how to do the SLD post installation in the SAP Service Marketplace -> http://service.sap.com/instguides -> Installation & Upgrade Guides -> SAP NetWeaver -> Release 2004s -> Installation -> 5. Configuration -> Post-Installation Guide – SLD of SAP NetWeaver 2004s. General information about SLD can be found at https://www.sdn.sap.com/irj/sdn/nw-sld.

In the figure depicted above, the selection "Configure a local SLD" was made solely for J2EE-DEP 7.0 certification purposes. In other words, a SLD is needed, in order to demonstrate to SAP that an ISV can register is J2EE application (software product(s)/component(s)) in the SLD. Once the ISV product is used live at a SAP customer's site, the ISV product and it's software components can be registered within the SAP customers SLD in order for SAP support, if needed, to have an overview, what software products/ components have been installed at a SAP customers environment in order to analyze and resolve problems quickly. That's why your J2EE application(s), need(s) to be, **SAP SLD ready or better said SAP Solution Manager Ready**. We verify this during the J2EE-DEP 7.0 certification process.

Why do I need to understand SLD for J2EE-DEP 7.0 Installation/Deployment certification on SAP NetWeaver 2004s?

As a central information provider for SAP and third-party tools, SLD data can be used to deliver services that you need to keep your landscape up and running. A key requirement for effective support of IT solutions is the ability to perform root cause analysis with speed and efficiency. For example, SLD data that is automatically gathered by the System Landscape Directory is replicated to the **SAP Solution Manager** (what exactly the SAP Solution Manager is, is beyond the scope and purpose of certification). SAP support utilizing **Solution Manager Diagnostics**, can help trace problems and resolve them quickly, if for example, a homegrown J2EE application causes instability to the SAP system. For more details about the SAP Solution Manager, Solution Manager Diagnostics, as well as troubleshooting the J2EE engine and applications running on it, please visit http://service.sap.com/solutionmanager.

Commencing on April 2, 2007, SAP Solution Manager will be **the only source from which customers receive maintenance updates** for SAP NetWeaver 2004s and beyond, as well as applications based upon it (including mySAP™ Business Suite 2005 applications).

To summarize it, SAP support would like to be in a situation, where they know exactly what software products and components have been installed at a customer's site, including those, of third-party software vendors (J2EE applications, for example), and if the need arises, be able to support the SAP customers who are having a problem with their system.

What is the SAP SLD Software Catalog?

The SLD contains a Software Catalog of all installable SAP products and software components. The Software Catalog includes information about support packages and dependencies between the products and software components. This information is the basis for the description of the system landscape.

For more information about the logic behind the products and software components, see Products and Software Components.

You can use the software catalog views to perform the following tasks:

- View the Software Catalog
- Create and remove third-party products
- Create and remove third-party software components
- Define and remove dependencies between software component versions

How do I configure SAP SLD security roles?

The SLD functions are protected from unauthorized access. There are several J2EE security roles and corresponding User Management Engine (UME) actions that are assigned to different SLD functions.

> There is no corresponding UME action for the DataSupplierLD J2EE security role.

J2EE Security Roles and UME Actions	Permissions
LcrUser	Read access to SLD data.
LcrSupport	Read-only access to all SLD data and UI, including the Administration area (used for SAP support).
LcrClassWriter	Create, modify and delete CIM classes (includes the LcrUser role).
LcrInstanceWriterLD	Create, modify and delete CIM instances of the Landscape Description subset (includes the LcrUser role).
DataSupplierLD J2EE security role with no corresponding UME action	Create, modify and delete CIM instances of the Landscape Description subset as a data supplier without access to the SLD UI.
LcrInstanceWriterCR	Create, modify and delete CIM instances of the Component Information subset (includes the LcrUser role).
LcrInstanceWriterNR	Create, modify and delete CIM instances of the Name Reservation subset (includes the LcrUser role).
LcrInstanceWriterAll	Create, modify and delete all types of CIM instances (includes the LcrUser, LcrInstanceWriterCR, LcrInstanceWriterLD, and LcrInstanceWriterNR roles).
LcrAdministrator	Administrative tasks (includes all other roles).

Before you can use the SLD, you have to map these security roles and actions to individual users or user groups.

We recommend that you create user groups and map them to the appropriate security roles and actions instead of assigning them to individual users.

Users that belong to a particular group receive all permissions that are granted to the group. We recommend that you use the following user groups with the corresponding role assignment:

User Group	Assigned Security Role
SAP_SLD_GUEST	LcrUser
SAP_SLD_DEVELOPER	LcrInstanceWriterNR
SAP_SLD_CONFIGURATOR	LcrInstanceWriterLD and LcrInstanceWriterNR
SAP_SLD_ORGANIZER	LcrInstanceWriterAll
SAP_SLD_ADMINISTRATOR	LcrAdministrator
SAP_SLD_DATA_SUPPLIER	DataSupplierLD
SAP_SLD_SUPPORT	LcrSupport

You have to create these groups with the appropriate tool for your user store (J2EE, ABAP or LDAP). If the UME is used with an ABAP-based system as the back-end user storage, these

groups already exist except for SAP_SLD_DATA_SUPPLIER and SAP_SLD_SUPPORT. (ABAP user roles appear as user groups on the J2EE side. SAP Web AS ABAP 6.40 and above contains these default user roles.)

If these groups exist, you can perform the mappings that are defined in the table above.

If you want to set up SLD security for certification test purposes, you only have to map the LcrAdministrator role to the SAP_SLD_ADMINISTRATOR group and assign an administrator user to this group.

Procedure

1. In your Web browser, enter the URL of the Identity Management using the following pattern: **http://<host>:<port>/useradmin**.

2. Create UME roles and assign to them the corresponding UME actions.

   The UME actions are already defined in the UME.

   We recommend that you define these roles with the same name as the corresponding J2EE role. Associate each role with the corresponding UME action, for example the LcrUser role with the LcrUser action.

3. Create user groups and assign each new UME role to the appropriate user group as defined in the table above. For example, assign the SAP_SLD_GUEST group to the LcrUser UME role.

4. Assign users to the user groups.

5. Log on to the J2EE Engine Visual Administrator as an administrator.

6. Choose *Services → SLD Data Supplier*.

7. Choose *Assign User Groups to Roles*.

The SLD configuration service performs the default mappings of user groups to J2EE security roles.

For more information about managing security roles, see Managing Users, Groups, and Roles at http://help.sap.com -> SAP NetWeaver 2004s etc..

Now go on and read **SAP NetWeaver Developer Workplace SR1 (SPS06) – part 7 (DWP Install Quick Test)**