



System Landscape Directory of SAP NetWeaver®

Boris Zarske
Senior Product Specialist, SAP AG

As a result of this lecture, you will have learned:

- **Learn about the role of system landscape directory (SLD) of SAP NetWeaver[®], its functions and new features**
- **Basic concepts and features of SLD**



Introduction to SLD

Summary

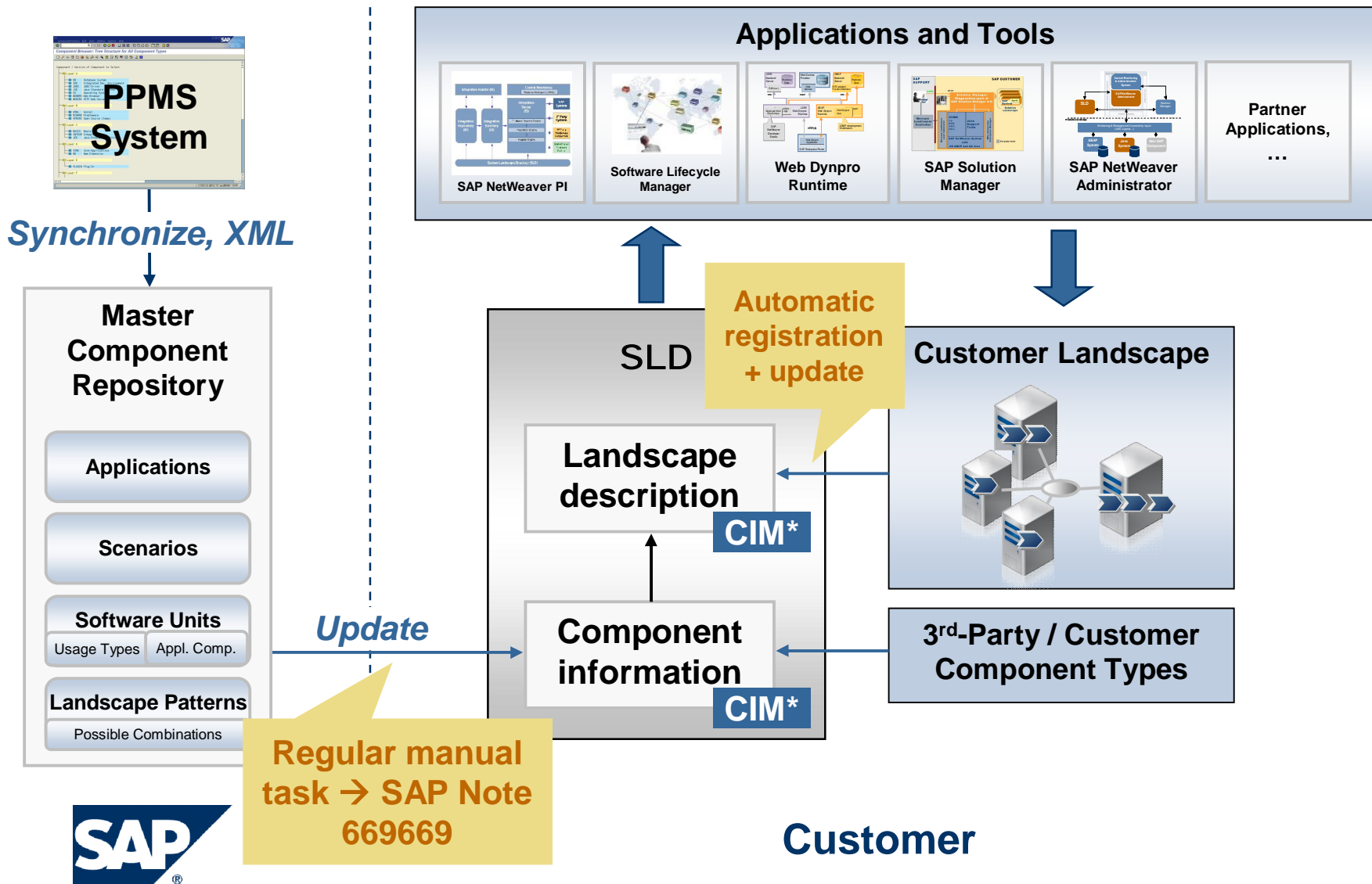


Introduction to SLD

Motivation

Summary

SLD: The Basic Idea



* Common Information Model – Object-oriented industry standard of the DMTF

■ Approach:

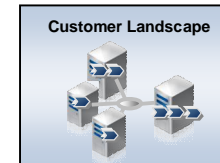
Provide one central provider of landscape information:

◆ **Catalog of installable software:**

All components that can – theoretically – be installed
→ *Component information repository*



◆ **List of installed software (including technical details)**
→ *Landscape description*



■ Result:

◆ **Landscape data is gathered + updated automatically**

- No **manual gathering** (from SAP Service Marketplace + every system, ...)
- Data stored **centrally + consistently** (not in Excel sheets, for example)

◆ **Stored information can act as basis for different tools and services**



Introduction to SLD

Key Features

Summary

Key Features of SLD

- SLD is a component of SAP NetWeaver® and completely implemented with **Java technology**

- Based on proven **industry standards** of DMTF*:
 - ◆ **Common Information Model (CIM):**
 - Object-oriented modeling
 - Extensibility
 - ◆ **Web-Based Enterprise Management (WBEM):**
 - Mapping of CIM operations onto HTTP
 - Access to CIM data in an open and standard way

- **Openness:**
 - ◆ 3rd-party software as data provider
 - ◆ 3rd-party software as data consumer



* Distributed Management Task Force – www.dmtf.org

■ How to get it?

- ◆ **SLD contained in Application Server Java (AS Java) systems**
 - As of SAP Web Application Server Java 6.40
 - **No further installation** required, only **quick configuration** to activate SLD in a system
- ◆ **Easy configuration** to connect existing systems to SLD (data suppliers)
- ◆ For newer SAP products, configuration of SLD and data suppliers already **included in standard implementation procedure (SAPinst)**

AS Java

■ How to access it?

- ◆ <http://<hostname>:<HTTP port>/sld>

SLD Web-Based User Interface: Initial Page

SAP NetWeaver™ System Landscape Directory

[Home](#) [Administration](#) [Log Off](#) [Help](#) [About](#)

The System Landscape Directory (SLD) maintains information about all installable and installed elements of your system landscape.

Landscape	Software Catalog	Development
Technical Systems View and define systems and servers.	Products View products in the SAP Software Catalog.	Name Reservation Manage name reservation for NetWeaver development.
Landscapes View and configure groups of systems	Software Components View software components in the SAP Software Catalog	
Business Systems View and configure business systems for use in the Exchange Infrastructure (XI).		

Landscape Description

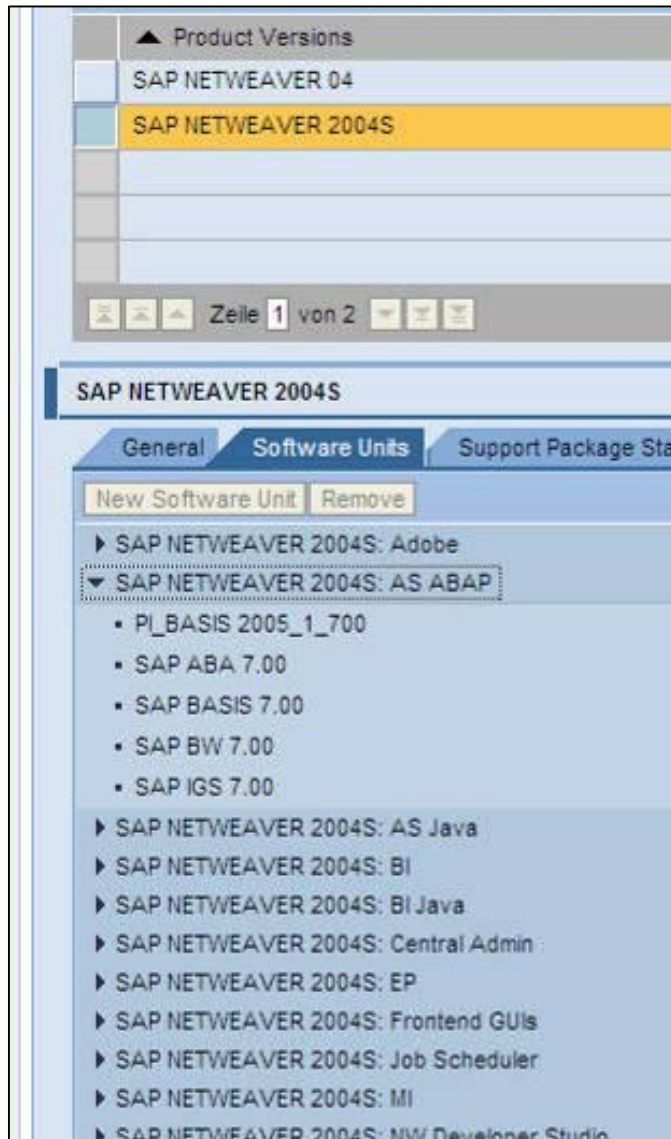
- Technical Landscape
- Landscapes
- Business Landscape

Component Information

Name Reservation for Java Development

Information Stored in SLD: Component Information

SAP



- Software catalog provides information about **all available SAP software**
- Includes **available version numbers and patch levels**
- **Dependencies between components and other relations:**
 - ◆ Supported platforms and releases for OS, DB,
 - ◆ Allowed combinations (integration matrix – inter-product dependencies)
- **Data provided by SAP** (→ regular update from SAP Service Marketplace)
- **Basis for the description of the system landscape**

Information Stored in SLD: Landscape Description



Home Administration Log Off Help About

View and define systems and servers.

Technical Systems

Technical System Type: Web AS ABAP Filter: Go

New Technical System... Remove Export Refresh

Name	Host	Version	Last Update
AB0 on db_host_00	db_host_00	46C	07/28/2005 15:45
AB1 on db_host_1	db_host_1	46D	07/28/2005 15:48
BW5 on localhost	localhost	46D	08/08/2005 15:17
BW6 on bw6_host	bw6_host	46D	09/05/2005 13:59
BWP on bwp_host	bwp_host	46D	08/23/2005 13:49

Row 1 of 12

- Installed systems with comprised products and components
- Includes installed versions and patch levels
- System topology information (addresses and links)
- Data by/for SAP NetWeaver Process Integration:
 - ◆ Application business system names
 - ◆ Transport targets for directory content transports
 - ◆ Software component versions

Customer Landscape

Landscape Description (cont.)



View and define systems and servers.

Technical Systems

Technical System Type: Filter:

Name	Host	Version	Last Update
AB0 on db_host_00	db_host_00	46C	07/28/2005 15:45
AB1 on db_host_1	db_host_1	46D	07/28/2005 15:48
BW5 on localhost	localhost	46D	08/08/2005 15:17
BW6 on bw6_host	bw6_host	46D	09/05/2005 13:59
BWP on bwp_host	bwp_host	46D	08/23/2005 13:49

Row 1 of 12

ABAP Technical System Details for: AB0 on db_host_00

General Database Clients Message Server Application Servers Internet Transaction Servers **Installed Products**

System Name: AB0
System Home: db_host_00
Installation Number: 0123456789
Release: 46C
Description:
Administrative Contact:
TMS Domain:
TMS Transport Group Name:

Landscape Description (cont.) – Installed Products



ABAP Technical System Details for: AB0 on db_host_00

General Database Clients Message Server Application Servers Internet Transaction Servers **Installed Products**

Filter On

Add New Product Remove Save

Product	Product Name	Product Version	Software Component Name	Current SP/PL	Latest SP
All Software Components			BC-FES-GUI, 46C, A...		
SAP R/3, 4.6C	SAP R/3	4.6C	PI2004_1_46C	4	12
			SAP ABA 4.6C	48	52
			SAP APPL 4.6C	48	52
			SAP BASIS 4.6C	48	52

Row 1 of 2 Row 1 of 17



Introduction to SLD

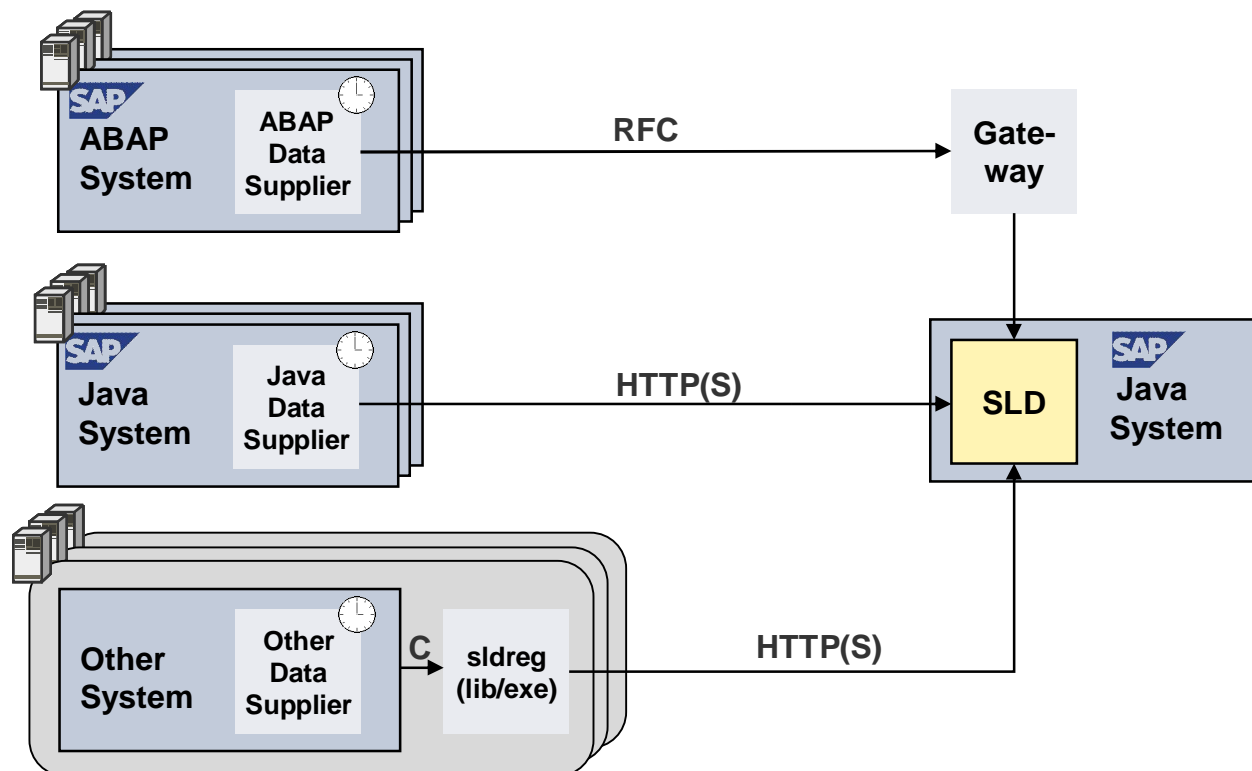
Data Suppliers

Summary

How Does SLD Get Landscape Description Data?

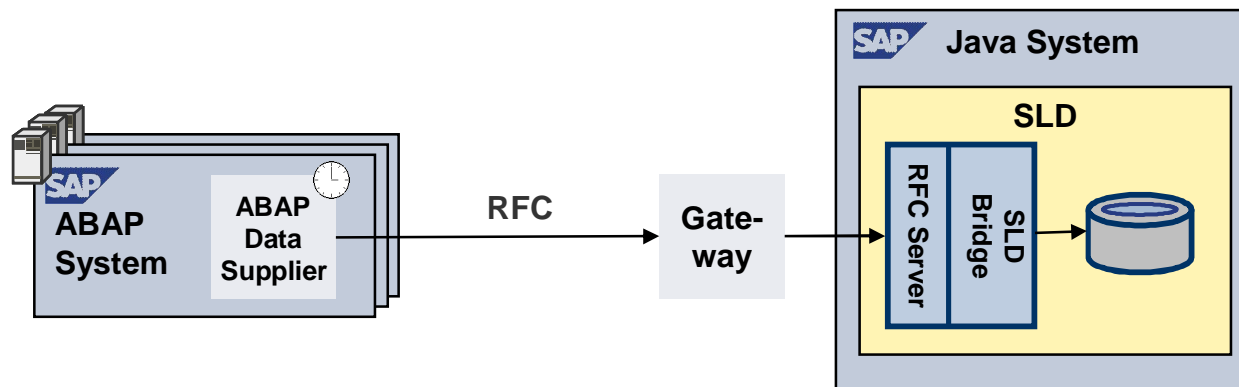
Data suppliers collect and send data of systems to SLD:

- Must be set up once per landscape element
- After that, they send reliable and up-to-date data automatically:
 - ◆ At the **system startup**
 - ◆ **Periodical reporting** (batch job)



Architecture of data supplier for ABAP-based systems:

- The data supplier within an ABAP-based system periodically delivers collected system information to **SAP Gateway** (required additionally)
- SAP Gateway routes information to **SLD bridge** (part of SLD)
- SLD bridge transfers this information (as CIM-compliant data) to **SLD**
- Data suppliers are **available** for ABAP-based systems as of release **4.0B** (SAP_BASIS/SAP_ABA)



Data Supplier – ABAP-Based Systems

The screenshot displays the SAP System Landscape Directory (SLD) Local Administration interface. The window title is "System Landscape Directory: Local Administration". The interface is divided into several sections:

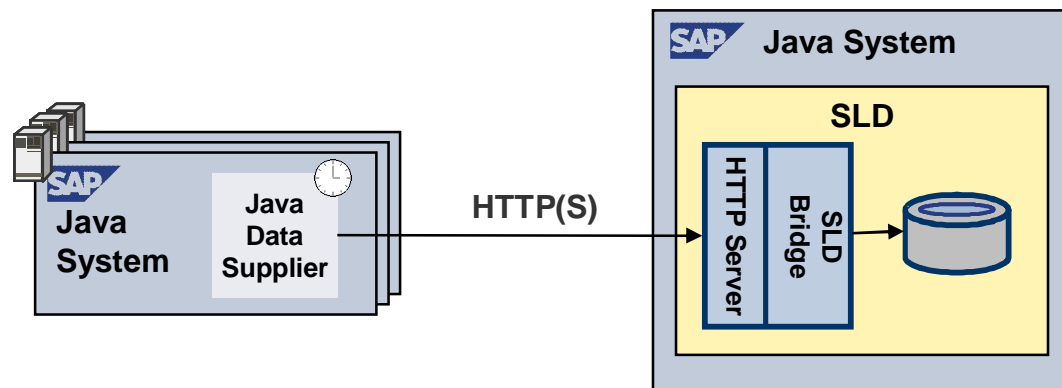
- Global Settings:**
 - Transport Information:** Radio buttons for "Automatic RFC Destination" (selected) and "Explicit RFC Destination".
 - Other Settings:** A checked checkbox "Schedule background job?" with a value of "720" and the unit "Minutes".
 - SLD Bridge: Gateway Information:** Fields for "Host" (value: "slidmain") and "Service" (value: "sapgw47").
- Data Collection Programs:** A table listing various data collection programs with columns for "Active", "Sequ...", "Program Name", "Test", "Display", and "Test...".

Active	Sequ...	Program Name	Test	Display	Test...
<input checked="" type="checkbox"/>		_SLD_APPL_SERV	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	1	_SLD_ASSOC	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_BCSYS	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_CLIENT	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_COMPSYS	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_DBSYS	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_GWSRV	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_INSTSC	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_INSTSP	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_IPSERV	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>		_SLD_MSGSRV	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		_SLD_RFC	<input type="checkbox"/>	<input type="checkbox"/>	

Transaction RZ70

Architecture of data supplier for Java-based systems:

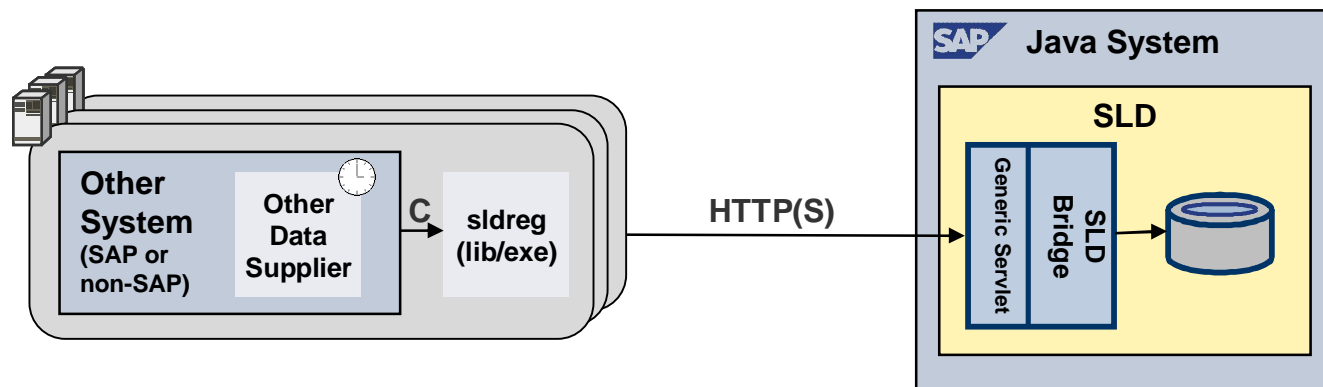
- **SLD bridge** (part of SLD) serves as an HTTP servlet which receives system data reported by Java data suppliers and forwards them to SLD
- Data suppliers are **available** for Java-based systems as of SAP Web Application Server Java 6.30



Data Supplier – SLDREG

Architecture of data supplier for non-ABAP, non-Java-based systems:

- SLDREG, **available** as of SAP NetWeaver 7.0
- Can be used for SAP (such as TREX) or non-SAP components



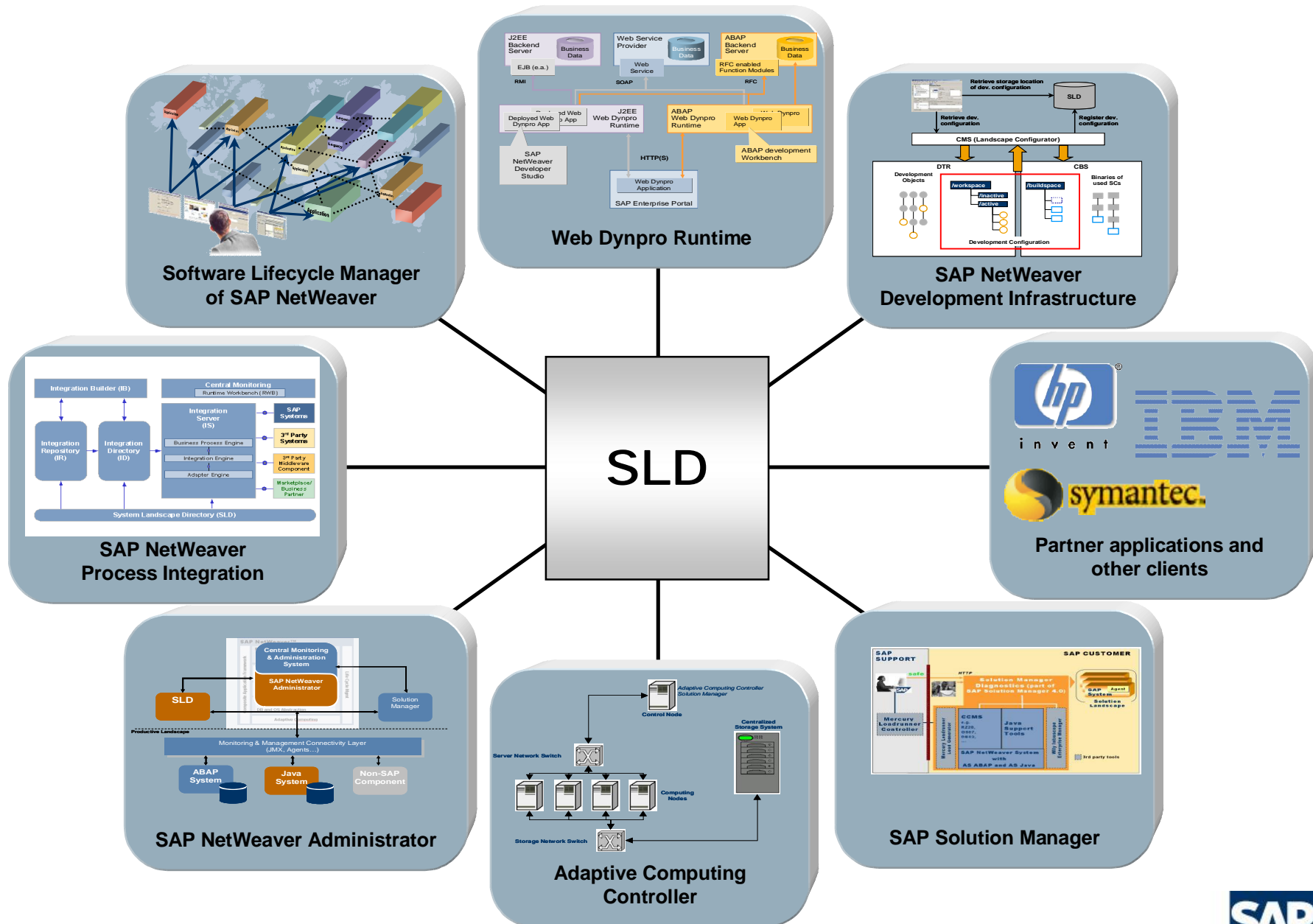


Introduction to SLD

Overview of Data Consumers (SLD Clients)

Summary

Information in SLD as Foundation for SAP Applications





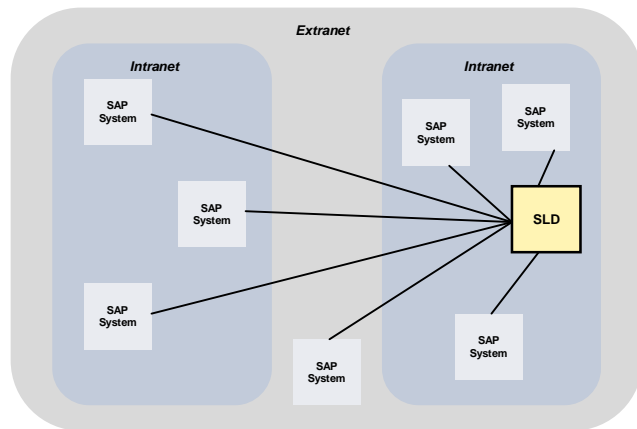
Introduction to SLD

Topology

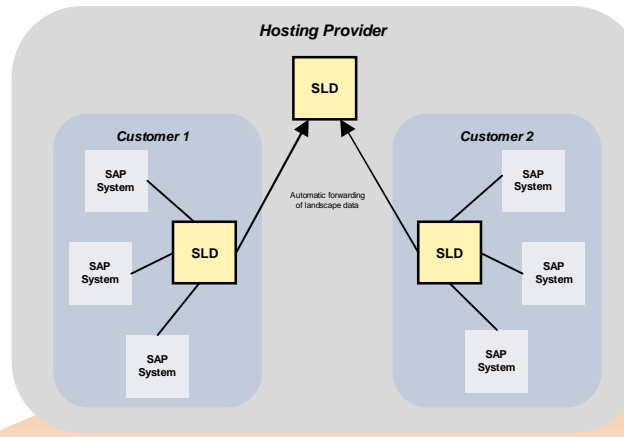
Summary

Your SLD Topology – A question of Your Requirements

Organization



Central – Single SLD



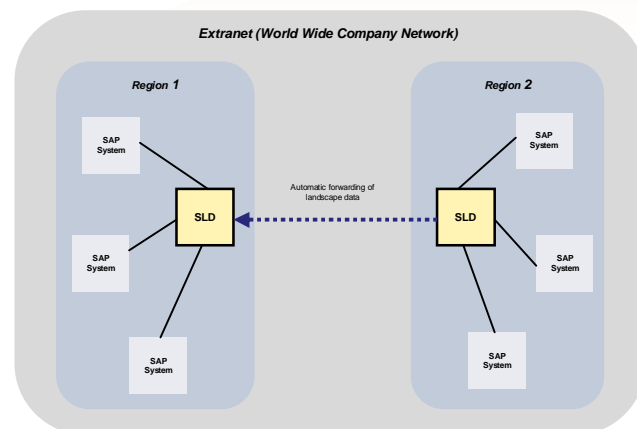
Distributed – Several SLDs

Different **topology options** with different advantages and disadvantages

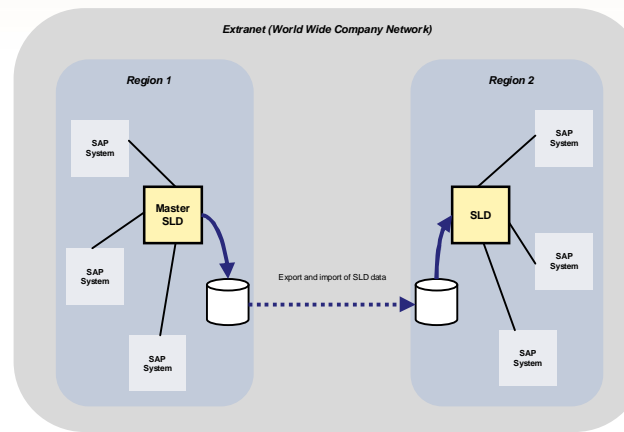
→ No general recommendation that fits all **use cases**

→ Depends on your **requirements** + your landscape

Synchronization



Synchronization of several SLDs – Automatic Forwarding



Synchronization of several SLDs – Export/Import

For more information, see the *Planning Guide – SLD* (available in SAP Service Marketplace at service.sap.com/sld)



Introduction to SLD

Summary

SLD:

- SLD acts as **central information provider** in your system landscape
 - Using the SLD helps to reduce the redundancy of system landscape information
 - SAP systems inside a landscape **report data automatically** to the SLD
- SLD serves as the **landscape data foundation** for applications based on it
- Based on your requirements, we offer different options how and where to run SLD in your landscape
 - Plan your **SLD landscape strategy** well in advance
 - Starting point: *Planning Guide – SLD*

→ Public Web:

www.sap.com

SAP Developer Network: www.sdn.sap.com → *IT Practices and IT Scenarios* → *Software Life-Cycle Management*

→ SAP Service Marketplace:

SAP Service Marketplace: service.sap.com/sld

Planning Guide – System Landscape Directory available under service.sap.com/sld → *Media Library*

(How to plan your SLD system landscape)

Post-Installation Guide – System Landscape Directory available under service.sap.com/sld → *Media Library*

(How to set up SLD in an AS Java system)

Master Guide – SAP NetWeaver available under service.sap.com/installnw70

(Information about shared services + how to run them together with SLD)

Further Information – List of Important SAP Notes for SLD

SAP Note Number	Title	Description
935474	Grouping SLD instances	Describes how you can merge two SLDs by importing the content of one SLD into another SLD.
936318	Splitting an SLD instance	Describes how you can split an SLD into two or more instances.
935245	Importance of “Object Server” SLD parameter	Describes the consequences of changing the object server, which could be required to split or merge SLDs.
720717	Reduce the number of System Landscape Directories (SLD)	Describes manual actions you have to perform for SAP NetWeaver Process Integration if you merge multiple SLDs.
954820	Compatibility of SLD in the system landscape	Gives information about released combinations of SLD server and SLD client releases.
764393	Configuration of the SAP System Landscape Directory	Contains further information about the required number of SLD instances in a landscape and how to synchronize them.
669669	Updating the SAP Component Repository	Describes how you can perform the manual update of the component information and of the CIM model



THANK YOU FOR YOUR
ATTENTION !

QUESTIONS – SUGGESTIONS – DISCUSSION

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, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, System i, System i5, System p, System p5, System x, System z, System z9, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, Informix, i5/OS, POWER, POWER5, POWER5+, OpenPower and PowerPC are trademarks or registered trademarks of IBM Corporation.

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.

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.

The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG.

This document is a preliminary version and not subject to your license agreement or any other agreement with SAP. This document contains only intended strategies, developments, and functionalities of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. Please note that this document is subject to change and may be changed by SAP at any time without notice.

SAP assumes no responsibility for errors or omissions in this document. SAP does not warrant the accuracy or completeness of the information, text, graphics, links, or other items contained within this material. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

SAP shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials. This limitation shall not apply in cases of intent or gross negligence.

The statutory liability for personal injury and defective products is not affected. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third-party Web pages nor provide any warranty whatsoever relating to third-party Web pages.

Weitergabe und Vervielfältigung dieser Publikation oder von Teilen daraus sind, zu welchem Zweck und in welcher Form auch immer, ohne die ausdrückliche schriftliche Genehmigung durch SAP AG nicht gestattet. In dieser Publikation enthaltene Informationen können ohne vorherige Ankündigung geändert werden.

Die von SAP AG oder deren Vertriebsfirmen angebotenen Softwareprodukte können Softwarekomponenten auch anderer Softwarehersteller enthalten.

Microsoft®, WINDOWS®, NT®, EXCEL®, Word®, PowerPoint® und SQL Server® sind eingetragene Marken der 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, System i, System i5, System p, System p5, System x, System z, System z9, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, Informix, i5/OS, POWER, POWER5, POWER5+, OpenPower und PowerPC sind Marken oder eingetragene Marken der IBM Corporation.

Adobe, das Adobe Logo, Acrobat, PostScript und Reader sind Marken oder eingetragene Marken von Adobe Systems Inc. in den USA und/oder anderen Ländern.

ORACLE® ist eine eingetragene Marke der ORACLE Corporation.

UNIX®, X/Open®, OSF/1® und Motif® sind eingetragene Marken der Open Group.

Citrix®, das Citrix-Logo, ICA®, Program Neighborhood®, MetaFrame®, WinFrame®, VideoFrame®, MultiWin® und andere hier erwähnte Namen von Citrix-Produkten sind Marken von Citrix Systems, Inc.

HTML, DHTML, XML, XHTML sind Marken oder eingetragene Marken des W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

JAVA® ist eine eingetragene Marke der Sun Microsystems, Inc.

JAVASCRIPT® ist eine eingetragene Marke der Sun Microsystems, Inc., verwendet unter der Lizenz der von Netscape entwickelten und implementierten Technologie.

MaxDB ist eine Marke von MySQL AB, Schweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, und weitere im Text erwähnte SAP-Produkte und -Dienstleistungen sowie die entsprechenden Logos sind Marken oder eingetragene Marken der SAP AG in Deutschland und anderen Ländern weltweit. Alle anderen Namen von Produkten und Dienstleistungen sind Marken der jeweiligen Firmen. Die Angaben im Text sind unverbindlich und dienen lediglich zu Informationszwecken. Produkte können länderspezifische Unterschiede aufweisen.

Die in dieser Publikation enthaltene Information ist Eigentum der SAP. Weitergabe und Vervielfältigung dieser Publikation oder von Teilen daraus sind, zu welchem Zweck und in welcher Form auch immer, nur mit ausdrücklicher schriftlicher Genehmigung durch SAP AG gestattet.

Bei dieser Publikation handelt es sich um eine vorläufige Version, die nicht Ihrem gültigen Lizenzvertrag oder anderen Vereinbarungen mit SAP unterliegt. Diese Publikation enthält nur vorgesehene Strategien, Entwicklungen und Funktionen des SAP®-Produkts. SAP entsteht aus dieser Publikation keine Verpflichtung zu einer bestimmten Geschäfts- oder Produktstrategie und/oder bestimmten Entwicklungen. Diese Publikation kann von SAP jederzeit ohne vorherige Ankündigung geändert werden.

SAP übernimmt keine Haftung für Fehler oder Auslassungen in dieser Publikation. Des Weiteren übernimmt SAP keine Garantie für die Exaktheit oder Vollständigkeit der Informationen, Texte, Grafiken, Links und sonstigen in dieser Publikation enthaltenen Elementen. Diese Publikation wird ohne jegliche Gewähr, weder ausdrücklich noch stillschweigend, bereitgestellt. Dies gilt u. a., aber nicht ausschließlich, hinsichtlich der Gewährleistung der Marktgängigkeit und der Eignung für einen bestimmten Zweck sowie für die Gewährleistung der Nichtverletzung geltenden Rechts.

SAP haftet nicht für entstandene Schäden. Dies gilt u. a. und uneingeschränkt für konkrete, besondere und mittelbare Schäden oder Folgeschäden, die aus der Nutzung dieser Materialien entstehen können. Diese Einschränkung gilt nicht bei Vorsatz oder grober Fahrlässigkeit.

Die gesetzliche Haftung bei Personenschäden oder Produkthaftung bleibt unberührt. Die Informationen, auf die Sie möglicherweise über die in diesem Material enthaltenen Hotlinks zugreifen, unterliegen nicht dem Einfluss von SAP, und SAP unterstützt nicht die Nutzung von Internetseiten Dritter durch Sie und gibt keinerlei Gewährleistungen oder Zusagen über Internetseiten Dritter ab.