

SAP Business One 2007 integration for SAP NetWeaver (B1iSN2007)

Chapter: System Landscape – Physical
Network



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Workshop Objectives Chapter: System Landscape – Physical Network



After completing this chapter, you will be able to:

- Explain the out-of-the-box connectivity provided with B1iSN2007
- Explain the necessary system landscape for the B1iSN 2007 out-of-the-box scenarios
- Explain and set up the connectivity between B1iSN and SAP Business One
- Explain and set up the connectivity between B1iSN and SAP ERP
- Process the system landscape set up for B1iSN connectivity to SAP Business One and SAP ERP

Part 1: Overview

- B1iSN 2007 connectivity types
- B1iSN 2007 System Type overview
- B1iSN 2007 connectivity parameter

Part 2: System landscape set up

- Scope of connectivity
- Configuration overview
- B1iSN server – set up connectivity to SAP Business One
- SAP Business One server – set up connectivity to B1iSN server
- SAP ERP – set up RFC connectivity to B1iSN server
- B1iSN server – set up RFCA / RFCP connectivity to SAP ERP

Part 3: Post processing

Content Chapter: System Landscape – Physical Network



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Part 3: Post processing

Overview: B1iSN 2007 Connectivity Types

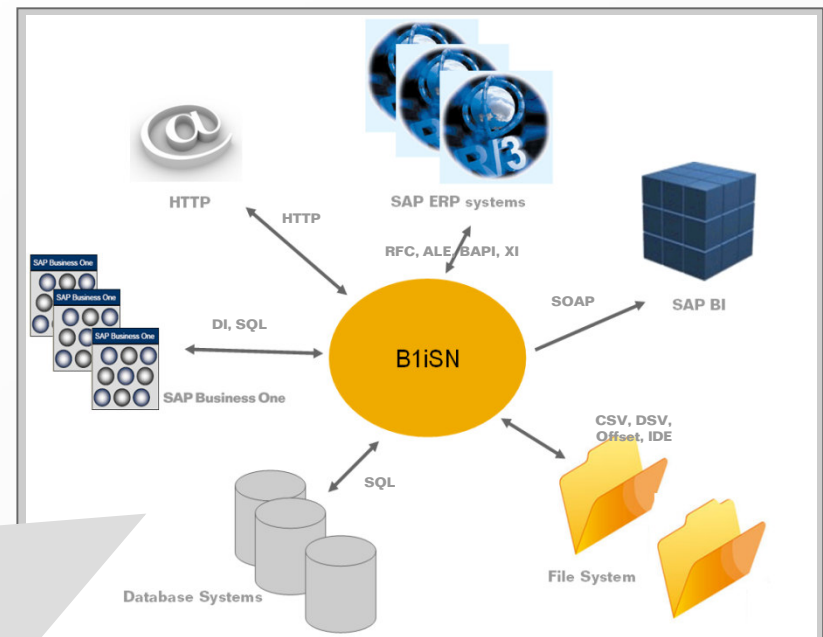


B1iSN 2007 provides a bunch of out-of-the-box connectivity types

- SAP Business One (DI, SQL)
- SAP ERP (RFC / ALE)
- SAP NetWeaver BW (RFC / SOAP)
- Database systems (SQL)
- HTTP any
- File (CSV, Offset)

For each connectivity type multiple systems can be set up (many to many)

Connectivity types are represented in B1iSN via System Types



Overview: B1iSN 2007 System Types



SAP SAP Business One 2007 integration platform
Integration Application Explorer

Landscape Application Manager Monitor Tools

Create System

B1i Server

- SystemB1_01
- SystemDB_01
- LI2CLNT100
- SystemB1_02
- SystemB1_03

General Information

System Type	B1.2004
System Name	B1.2004
Link to	B1.2005 B1.2007 BI.3.5.3 BI.7.0.3 ECC6.0 F.AnySystem F.B1.2004 F.B1.2005 F.B1.2007 J.AnySystem R3.46C R3.47.100 R3.47.200
	<input type="button" value="Create"/>

*..you will see the details
for this topic
in a later chapter*



System Types
...determine
connectivity
parameters...

System Types
...determine
detail scenario
mapping...

Out-of-the-box System Types

- SAP Business One: 2004, 2005, 2007, 8.8
- SAP ERP: R/3 4.6C, 4.7.100, 4.7.200, ECC 6.0
- SAP NW BW: 3.5.3, 7.0.3
- File System:
F.AnySystem, B1 2004, 2005, 2007, 8.8
- Database: J.AnySystem

Overview: B1iSN 2007 Connectivity Parameter



Landscapes Application Manager Monitor Tools

- Create System
- B1i Server
 - SystemB1_01
 - SystemDB_01
 - LI2CLNT100
 - SystemB1_02
 - SystemB1_03
 - SystemB1_04
 - EH3CLINT100

EH3CLINT100 Save

General Information

Type: ECC6.0
Name: EH3CLINT100
ID: 0010000109

Connectivity List (Active) Test Connection

RFC

applicationServer	
client	
user	
password	
language	
systemNumber	
maxConnections	2
gatewayHost	
gatewayServiceNumber	
senderPartner	
senderPort	
receiverPartner	
receiverPort	

Connectivity List (Passive)

RFCP

applicationServer	
client	
user	
password	
language	
systemNumber	
maxConnections	2
gatewayHost	
gatewayServiceNumber	
programID	
unicode	false

Different parameters are needed if you want to connect to, e.g
SAP ERP or **SAP Business One**

Landscapes Application Manager Monitor Tools

- Create System
- B1i Server
 - SystemB1_01
 - SystemDB_01
 - LI2CLNT100
 - SystemB1_02
 - SystemB1_03
 - SystemB1_04
 - EH3CLINT100

SystemB1_04 Save

General Information

Type: B1.2007
Name: SystemB1_04
ID: 0010000108

Connectivity List (Active) Test Connection

B1DI

b1Server	
licenseServer	
company	
dbType	Microsoft SQL Server 2000
dbUser	
dbPassword	
userName	
password	
language	English(US)
isTrust	false
jcoPath	
diProxyhost	
diProxyport	
proxyHost	
proxyPort	

Connectivity List (Passive)

Content Chapter: System Landscape – Physical Network



Part 1: Overview

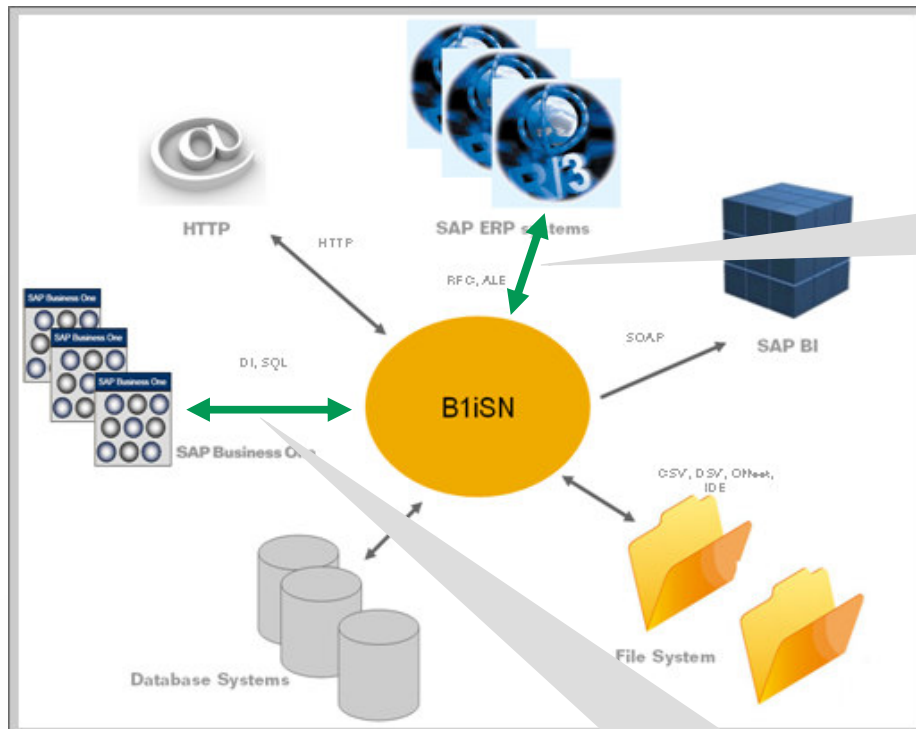
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Part 3: Post processing

System Landscape Set Up: Scope of Connectivity



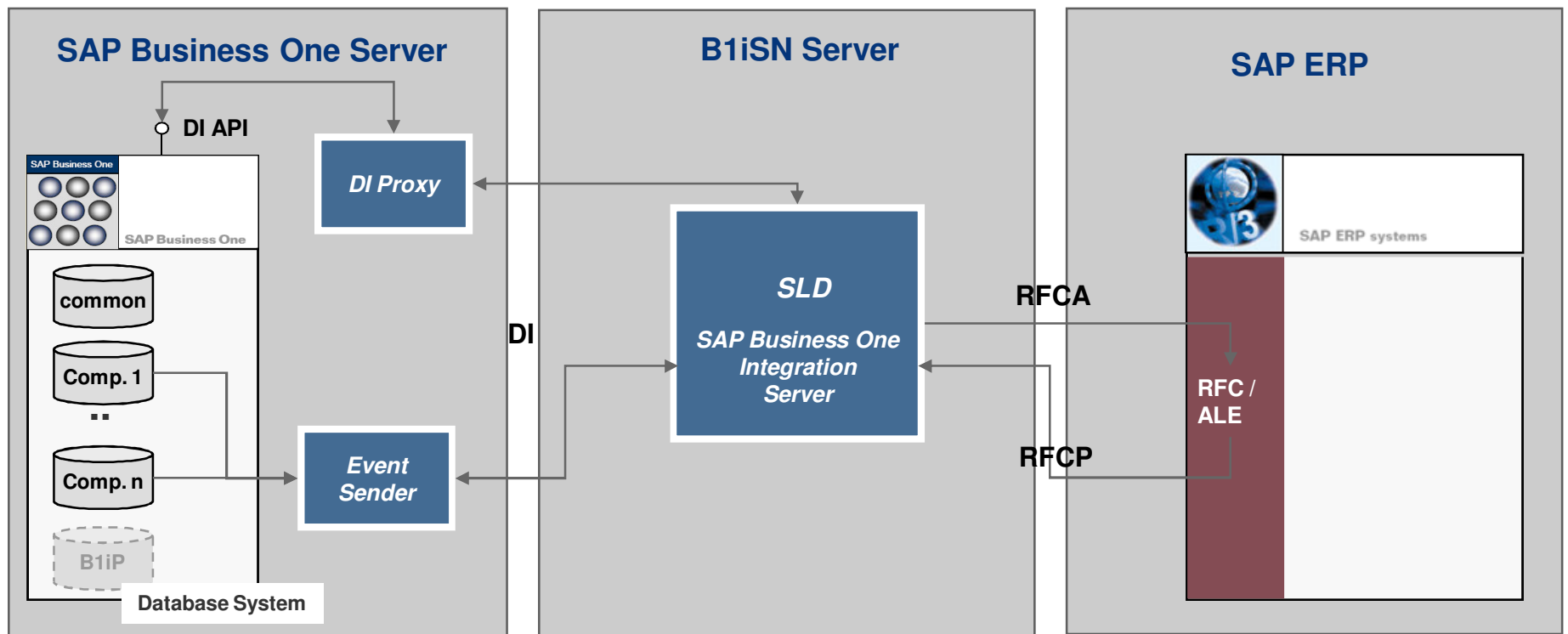
For the following out-of-the-box scenarios the connectivity between **B1iSN** and **SAP ERP** is set-up



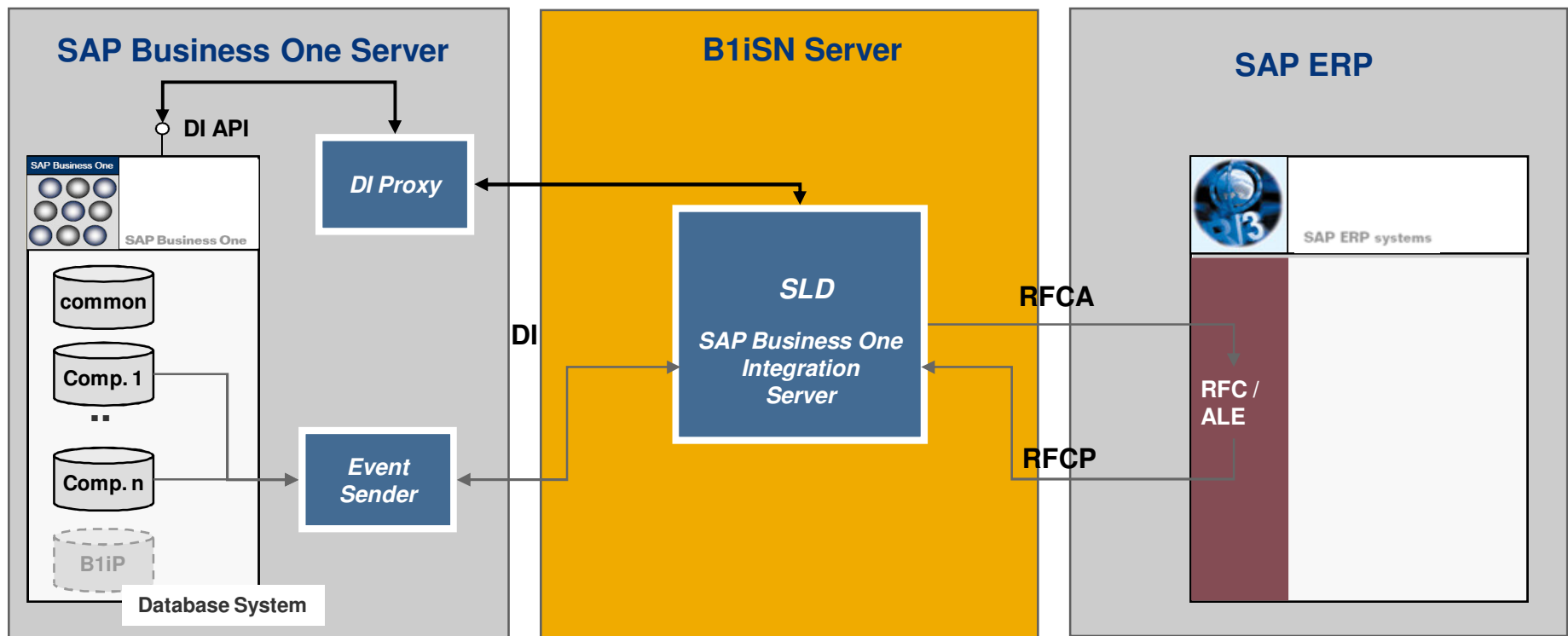
..you will see the details for additional connectivity types (Database, File System) set up in a later chapter

For the following out-of-the-box scenarios the connectivity between **B1iSN** and **SAP ERP** is set-up

System Landscape Set Up: Configuration Overview



System Landscape Set Up: Configuration Overview



System Landscape Set Up on B1iSN Server: Create System Entry for SAP Business One



1 Create a new System (entry) for SAP Business One

2 Maintain (edit) connectivity settings for SAP Business One

- b1Server (name / IPaddress)
- licenseServer (name / IPaddress + Port)
- dbType
- dbUser
- dbPassword
- UserName
- password
- jcoPath
- diProxyhost
- diProxyport

3 Test Connection after the settings are saved

DiProxy service on the B1 Server must run for the successful connection test

*..the value for **b1Server** must be equal to the value used later in the **EventSender** set up*

*User **B1i** delivered from on B1 2007 per company db*

General Information

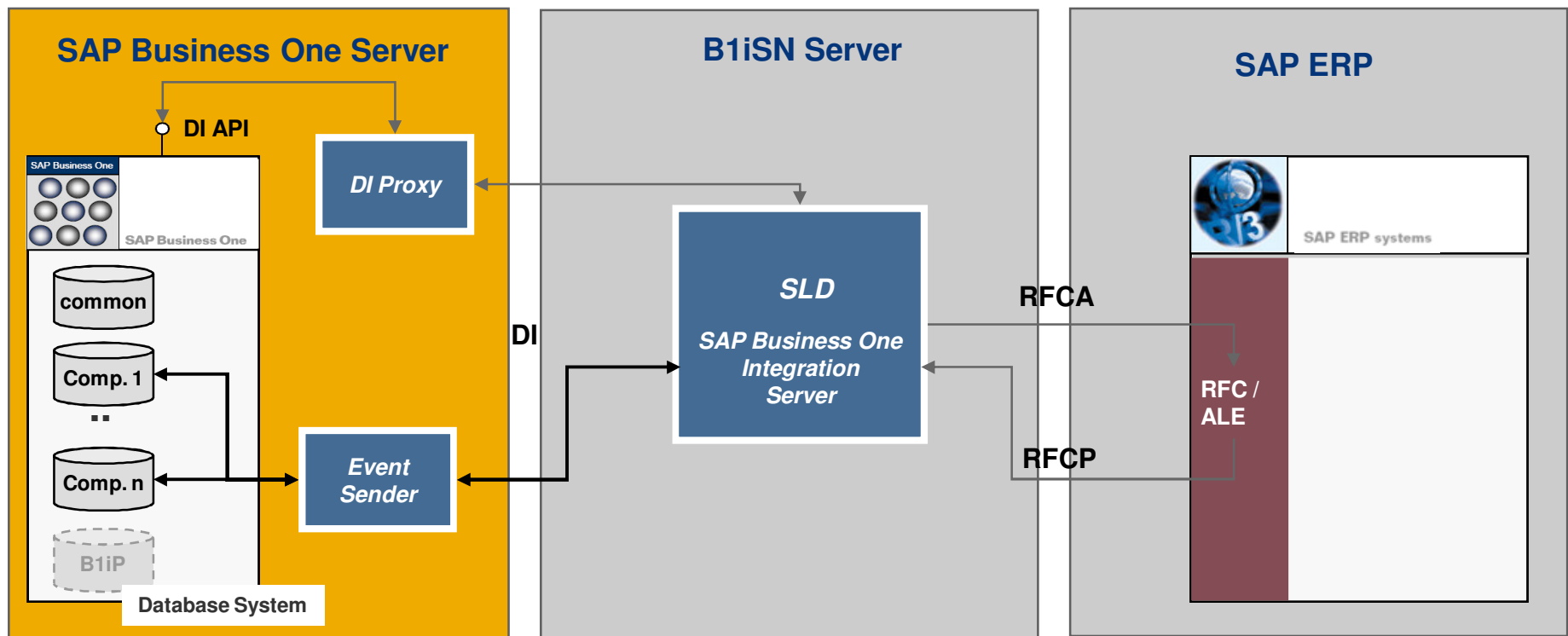
System Type: B1.2007
System Name: B1_Group00
Link to: B1i Server

Connectivity List (Active)

B1DI

b1Server: WDFN00179496A
licenseServer: WDFN00179496A:30000
company: SBODemo_DE
dbType: Microsoft SQL Server 2005
dbUser: sa
dbPassword:
userName: B1i
password:
language: English(US)
isTrust: false
jcoPath: C:\Program Files\SAP\SAP Business On
diProxyhost: 10.20.15.179
diProxyport: 2099
proxyHost:
proxyPort:

System Landscape Set Up: Configuration Overview



System Landscape Set Up on SAP Business One Server: Configure Event Sender



1 Set up connectivity to SAP Business One db (common)

2 Set up connectivity to B1iSN Server and the Sending Methods for events send to the B1iSN server

3 Select company db and configure filter for events (objects, user) you are interested in. Test the inbound processing step for Events sent from this db

..the value for **DB Server Name** must be equal to the value used for **b1Server** in B1iSN the System set up

Sending Method is Direct. All Events are directly sent to 1 B1iSN sever and not distributed via EventDispatcher to several B1iSN Server / iApps

Company Database Name SBODemoDE
 B1 Application URI ReceiveB1Events/com.sap.b1i.system
 .eventdispatcher/ipo/ReceiveB1Events.ipo/ReceiveB1Events

Company Database Name SBODemoDE
 Include List B1 Object(s) 22.13
 Exclude List B1 User

Company Database Name SBODemoDE
 Event Filter B1iSN2005 Receiver
 Event Filter B1iSN2007 Receiver

Excuse: EventSender



Note:

The EventSender is only needed to send events / data from SAP Business One via B1iSN to any other system. In case no scenario is set up for data being transferred from SAP Business One to any other receiver – then the EventSender is not needed to be set up.

Check if Events are generated in SAP Business One

1. Stop SAP Business One EventSender Service
2. Create in SAP Business One data for a business object, e.g. Purchase Order
3. Open SQL Server Management Studio and open in SBO-COMMON table SEVT; check if there is a (event) record created for the business object and the company db; e.g. 22 in SBODemo_CN
4. Start SAP Business One EventSender Service
5. Open SQL Server Management Studio and check in SBO-COMMON if table SEVT is empty



Check if Events are sent to B1iSN Server

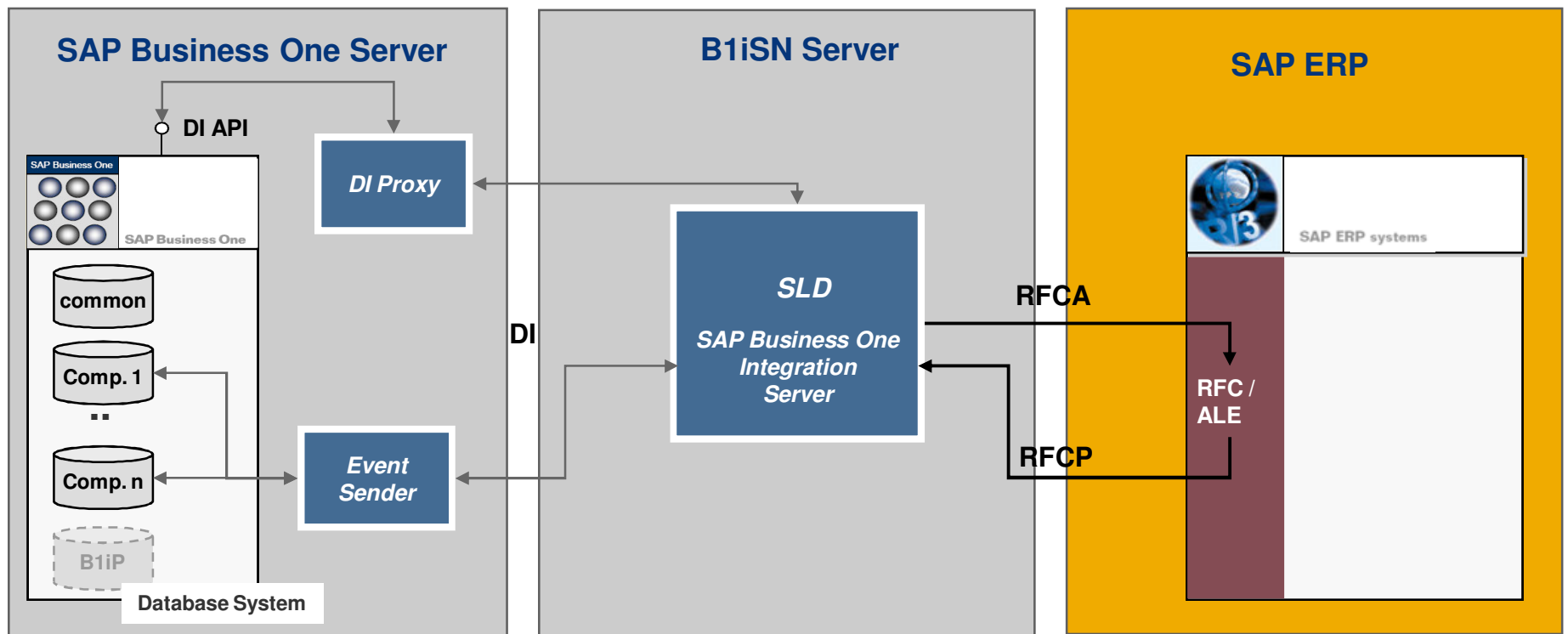
1. Open Integration Application Explorer via Start -> SAP Business One integration platform -> Administration
2. Go to Monitor and select B1 Event Monitor in the tree on the left hand of screen
3. Check on the right hand of the screen if there is a list of Events available

Source Company	Object Id	Object Key(s)	Key Value(s)	Send Date Time	Target Host	Target B1/A
SystemB1_01	22	DocEntry	148	2009/03/17 11:31:53	local	/0010000100
SystemB1_01	22	DocEntry	149	2009/03/17 11:32:11	local	/0010000100
SystemB1_01	17	DocEntry	119	2009/03/17 11:33:18	local	/0010000100

Source Company	Object Id	Object Key(s)	Key Value(s)	Send Date Time
SystemB1_01	12	INTERNAL_K	15	2009/03/17 00:00:08
SystemB1_01	12	INTERNAL_K	15	2009/03/17 00:00:22
SystemB1_01	12	INTERNAL_K	15	2009/03/17 00:05:27



System Landscape Set Up: Configuration Overview



System Landscape Set Up SAP ERP: Configure ALE / RFC



1

Go to ALE configuration and create a Logical System entry for B1iSN server

Change View "Logical Systems": Overview

Log. System	Description
B1ISNGR00	Logical System B1iSN Group 00
B1ISNGR01	Logical System B1iSN Group 01
B1ISNGR02	Logical System B1iSN Group 02
B1ISNGR03	Logical System B1iSN Group 03

Id for the Logical System entry can be defined "freely", but the id of this entry and the id for the RFC Destination entry must be equal

2

Go to ALE configuration and create a RFC Destination from type T for the B1iSN server

RFC Destination B1ISNGR00

Connection type: T (TCP/IP connection)

Description: RFC Connection B1iSN Group 00

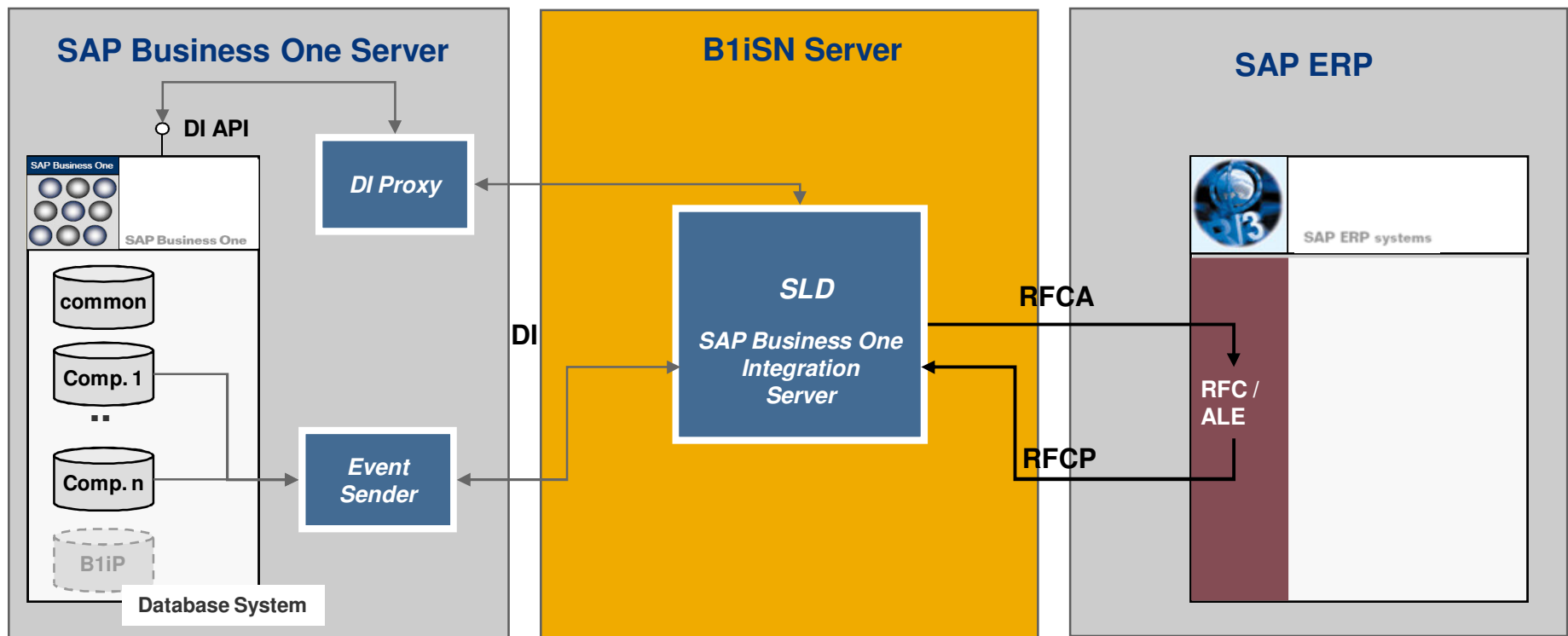
Activation Type: Registered Server Program

Registered Server Program: Program ID B1ISNGR00

Id for the RFC Destination must be equal to the id defined for the Logical System entry

B1iSN is called via a registered server Program id, the program entered here and later on the B1iSN server side must be equal

System Landscape Set Up: Configuration Overview



System Landscape Set Up on B1iSN Server: Create System Entry for SAP ERP - RFCA



SAP Business One 2007 integration platform
Integration Application Explorer

1 Create a new System (entry) for SAP ERP

General Information

System Type: R3.47.200

System Name: LI2CLNT100

Link to: B1i Server

Create

1 Create a new System (entry) for SAP ERP

Only the active RFC part can be tested for connection from B1iSN server

SAP Business One 2007 integration platform
Integration Application Explorer

3 Test Connection after the settings are saved

LI2CLNT100

General Information

Type: R3.47.200

Name: LI2CLNT100

ID: 00100000102

Connectivity List (Active)

RFCA Test Connection

applicationServer	ld1130
client	100
user	KOCHPA
password	*****
language	EN
systemNumber	10
maxConnections	2
gatewayHost	ld1130
gatewayServiceNumber	saggw10
senderPartner	B11184848
senderPort	B11184848
receiverPartner	LI2CLNT100
receiverPort	SAPLI2

2 Maintain (edit) connectivity settings for RFCA

3 Test Connection after the settings are saved

In case of RFC active B1iSN server is the (active) sender partner

2 Maintain (edit) connectivity settings for RFCA

- applicationServer (name / IPaddress)
- client
- user
- password
- systemNumber
- gatewayHost
- gatewayServiceNumber
- senderPartner
- senderPort
- receiverPartner
- receiverPort

SenderPartner is the Logical System / RFC Destination entry created before in SAP ERP to identify / connect to B1iSN server

ReceiverPartner is the Logical System entry to identify the client of your receiving SAP ERP system

System Landscape Set Up on B1iSN Server: Create System Entry for SAP ERP - RFCP



SAP Business One 2007 integration platform
Integration Application Explorer

Save

LI2CLNT100

General Information

Type R3.47.200
Name LI2CLNT100
ID 0010000102

Connectivity List (Active)

Connectivity List (Passive)

RFCP

applicationServer	ld1130
client	100
user	KOCHPA
password	*****
language	EN
systemNumber	10
maxConnections	2
gatewayHost	ld1130
gatewayServiceNumber	sapgw10
programID	E11184848
unicode	false

The RFC passive part can only be tested from the RFC Destination created in SAP ERP to access the B1iSN server

4

Maintain (edit) connectivity settings for RFCP

- applicationServer (name / IPaddress)
- client
- user
- password
- systemNumber
- gatewayHost
- gatewayServiceNumber
- programID
- Unicode

This programID must be equal to the programID maintained already in the RFC Destination created in SAP ERP to access the B1iSN server

Excuse: How to Collect Information in / about SAP ERP



Check Gateway Parameters for gatewayHost and gatewayServiceNumber

Attributes	
Release	640
Release no	6400
internal version	2
start time	Sat Mar 14 22:15:15 2009
build time	Dec 30 2005 20:45:44
build with Unicode	FALSE
build with Threads	FALSE
gateway hostname	1d1130
gateway service	sapgw10
req_sync_limit	24
appc_ca_bk_size	34396
gwreq_in	34588
appdata_in	34316
overflow_size_limit	500000
overflow_use	0
trace level	1

To figure out the systemNumber; go to SAP GUI and display properties of the SAP ERP system



Check SystemNumber

Description	System Des...
CSN [REPL]	CSN - Customer
CSS [PUBLIC]	CSS - Customer
DL3 [SPACE]	IDES R/3 Sales (
EH3 [ECC 6.0]	
ID3 [SPACE]	IDES ERP Master
IDT [SPACE]	IDES R/3 Test (w
ISP [PUBLIC]	ISP ERP2005 DB
L12 [1130.wf...	L12 SAP Business
Q53 [PUBLIC]	Cont 353 Tes
X3C [PUBLIC]	3.0 Content C
X7A [PUBLIC]	7.00 Content

Check Logical System for receiverPartner

Implementation Guide Edit Goto Additional Information Utilities System Help

Display IMG

Existing BC Sets Existing BC Sets for Activity Activated BC Sets for Activity

Structure

- Application Link Enabling (ALE)
 - Sending and Receiving Systems
 - Assign Required Authorizations
 - Logical Systems
 - Define Logical System
 - Assign Client to Logical System

Change View "Clients": Overview

Client	Name	City	Crcy	Changed on
000	SAP AG	Walldorf	DEM	19.11.2002
066	early Watch	Walldorf	EUR	28.04.2004
100	Copy from client 000	Walldorf	EUR	23.02.2006
			EUR	09.06.2006
			EUR	25.04.2006

Change View "Clients": Details

Client: 100 Copy from client 000

City: Walldorf Last Change: Date

Logical System: L12CLNT100

Std currency: EUR

Client role: Test

To figure out the gateway information in your SAP ERP system; go to transaction SMGW – Goto – Parameters - Display



To figure out the Logical System ID entry assigned to your SAP ERP client; go to transaction SALE – Sending and Receiving Systems – Assign Client to Logical System – choose the client entry of SAP ERP Client and show detail



System Landscape Set Up on B1iSN Server: Assign Systems to Subsidiary Integration Application



SAP Business One 2007 integration platform
Integration Application Explorer

1 **Enter the Administration Console of the Subsidiary Integration Application**

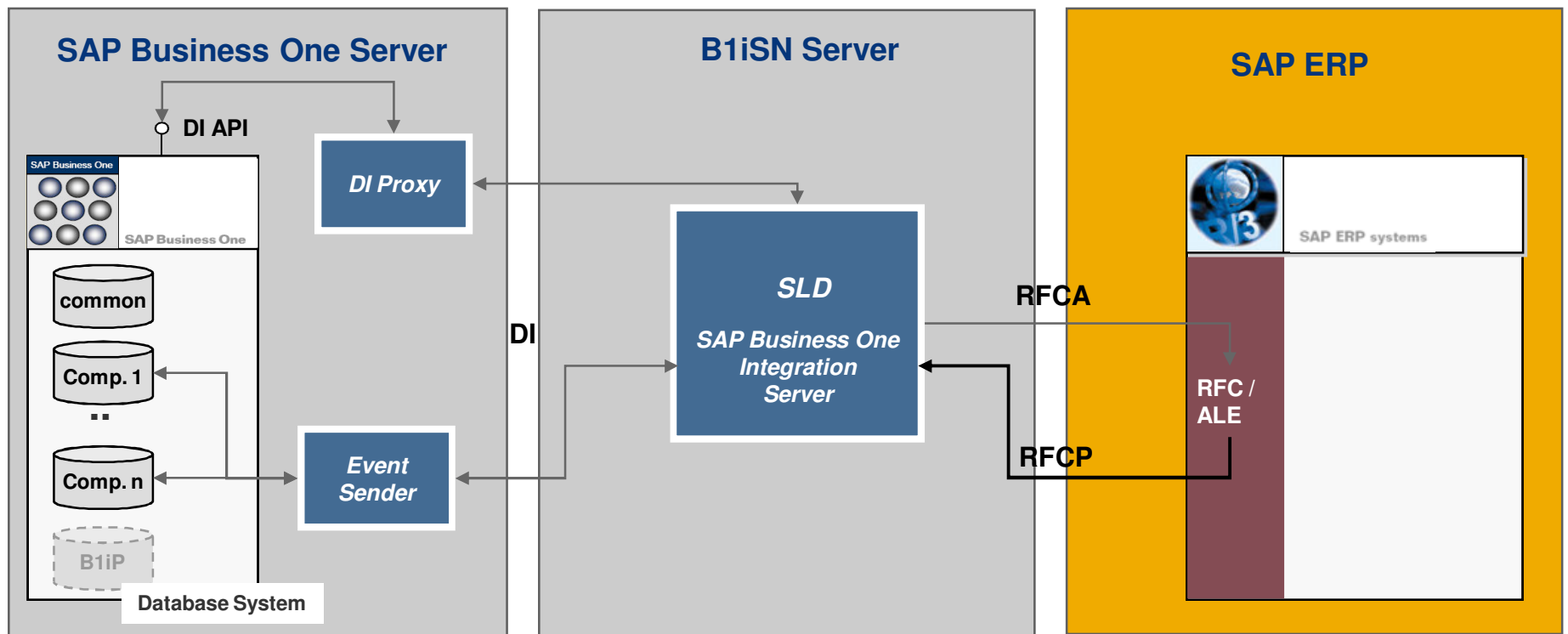
2 **In the Administration Console of the Subsidiary Integration Application select Landscape – Assign Systems**

3 **Select Assign flag for the according System entries and Save your settings**

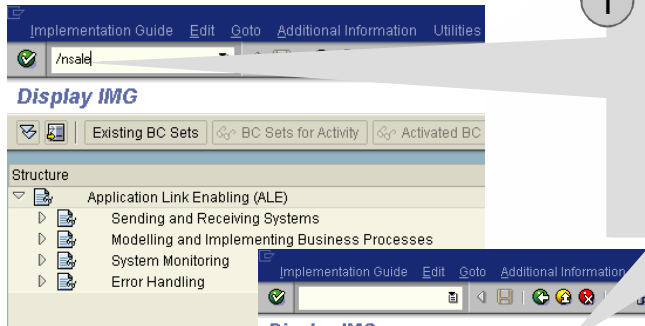
Via the assignment of the System entries set up in the System Landscape before, the inbound process to receive messages from SAP ERP is started. This is prerequisite for the last step to Test Connection the RFCP from the RFC Destination in R/3

Assign	Landscape List	ID	System Type
<input type="checkbox"/>	SystemB1_02	0010000104	B1.2005
<input type="checkbox"/>	SystemB1_03	0010000105	B1.2005
<input checked="" type="checkbox"/>	SystemB1_01	0010000100	B1.2007
<input type="checkbox"/>	SystemB1_04	0010000108	B1.2007
<input type="checkbox"/>	EH3CLNT100	0010000109	ECC6.0
<input checked="" type="checkbox"/>	SystemDB_01	0010000101	J.AnySystem
<input checked="" type="checkbox"/>	LQ2CLNT100	0010000102	R3.47.200

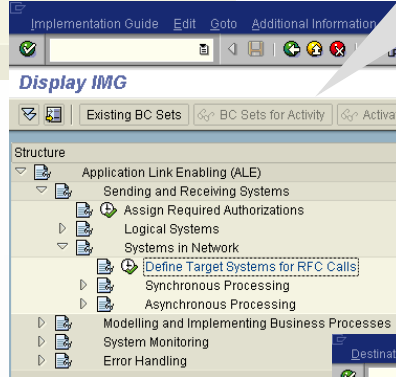
System Landscape Set Up: Configuration Overview



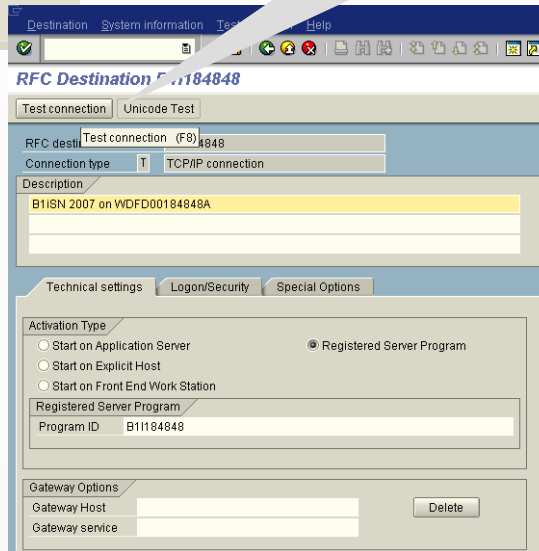
System Landscape Set Up SAP ERP: Test RFCP Connection



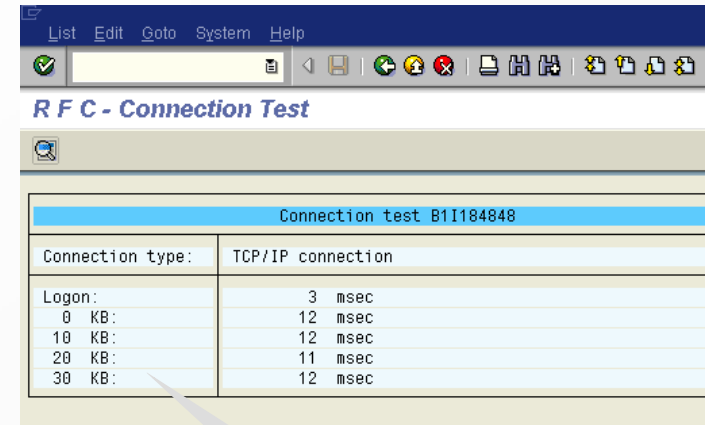
1
Go to ALE configuration and select the RFC Destination from type T set up for the B1iSN server



2
Select Test connection to test the connectivity to your RFCP set up on the B1iSN server



3
Check the Connection test result



Content Chapter 5: System Landscape – Physical Network



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Part 3: Post processing

Post Processing on SAP Business One Server: Maintain DI-Proxy Properties



Finally the DI-Proxy property file should be checked and if necessary maintained. Please be aware that the settings maintained might be overwritten via an B1iSN technology upgrade; so this check should also be done after an upgrade.

List of Parameters and influence

-  **RMI_PORT=2099** **Specify the TCP port used by DI-Proxy, 1099 will be used by default if no value is provided**
-  **PROXYHOME** **MUST be specified on multi-homed hosts with multiple IP-addresses**
-  **MAXDIERRORS** **Max-number of DI errors, DI-Proxy auto-restarts when DI errors exceed this positive integer. 50 by default**
-  **RESTARTPERIOD** **Running period in minutes, DI-Proxy auto-restart every < RESTARTPERIOD > minutes. 60 by default**
-  **ORPHANED** **The value in minutes when the pending and not-yet completed DI-transaction is deemed as orphaned, and therefore will be clean out of internal transaction-list to avoid endless execution**
-  **JCOPATH** **Global JCO-Path and JCO-Version have higher priority than the JCO-Path/JCO-Version maintained per SysId on the B1iSN Server / SLD.**
-  **JCOVERSION**

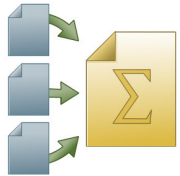


Note that: either of the above two parameters (or both) is specified. DI-Proxy will run in auto-restart mode



Note: it is recommended to assign a value here. Use double back-slashes to specify JCOPATH e.g. JCOPATH=C:\\Program Files\\SAP\\SAP Business One DI API\\JCO\\LIB

Summary Chapter 5: System Landscape – Physical Network



You should be able to:

- Explain and process the system landscape set up for SAP Business One and SAP ERP system with the B1iSN server for further processing of the integration scenarios

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