# Oracle Service Bus - MySAP adapter synchronous events with SAP R/3

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# Oracle Service Bus - MySAP adapter synchronous events with SAP R/3

#### INTRODUCTION

The Oracle Service Bus (OSB) Adapter for MySAP is part of the OSB Adapter install. The OSB Adapter for MySAP can be deployed as both a web service servlet as well as JCA 1.5 Resource Adapter. The Adapter Framework is used for the bidirectional integration of the JCA 1.5 resource adapters with Oracle Service Bus. Adapter framework is based on open standards and acts as a pseudo JCA 1.5 container for deployment on top of J2EE JCA 1.0 containers. It manages the life-cycle (start/stop/endpoint activation/endpoint deactivation) as well as the message-inflow system contracts for receiving adapter events and forwarding it to the OSB's business and proxy services.

The OSB Adapter for MySAP supports two ways of receiving SAP events. It can be either by Remote Function Cal (RFC) or Intermediate Documents (IDOC). During event processing, the adapter receives RFCs and IDocs directly from SAP. SAP Message Objects define SAP events and they are published from SAP. The SAP Integration Broker is used for configuring a process for publishing SAP Message Objects to other 3<sup>rd</sup> party applications. The OSB Adapter for MySAP can subscribe to SAP Message Objects.

OSB Adapter for MySAP supports events either asynchronously or synchronously. In the synchronous event model, the enterprise application would publish an output for an event and would wait till it receives a response for the publication of the message. For example, when a user adds a customer in the banking application, it initiates an event by sending a request from the banking application to check the credit score of that customer with creditcheck application. The creditcheck application would respond back with the credit score for the customer. The banking application will receive the credit score details and will update the customer records in the banking application. All these constitute one single transaction.

Oracle Service Bus adapter for MySAP supports inbound transactions through both Remote Function Call(RFC) and Intermediate Documents (IDOCs). In the case of synchronous events with SAP R/3, when SAP publishes an event, it becomes the client. The OSB MySAP adapter acts as a server by receiving the request and does the processing by invoking other applications and sends the response back to SAP. Till then, the SAP R/3 application waits to receive the response back from the adapter. The **RFC** objects of SAP support synchronous events and the **IDOCs** do not support the synchronous events.

This document describes the details on how the MySAP adapter works synchronously. In this article, two SAP R/3 systems have been configured to show how they communicate with each other using synchronous events. One SAP R/3 system would act as a source system which initiates an event and other SAP R/3 system would act as a target system from where details are extracted. This scenario can be tried with any other EIS also. But, the source system should be always a SAP system. (i.e) the synchronous event origination can be done only from the SAP system. Target system can be a non-SAP system which can be other ERP's such as Siebel, PeopleSoft or JD Edwards or etc.,

This document provides step by step details on how to receive the event notification from SAP backend to BPEL through MySAP adapter and replies back after extracting the details from another system. The document has been developed using the 10gR3 OSB & Adapters installed on the windows platform and SAP R/3 version 4.7D. Hence, if you are using a different platform, then correlate the terms and commands specific to that operating system by referring the user guides of the specific component.

Note: Depending on the release or service pack installed, certain RFCs may not exist in your particular SAP R/3 system. Therefore, the examples included in this documentation may not be relevant to your system. If this is the case, you should use the examples as a general reference for adapter functionality and choose an RFC that exists within your SAP application environment.

#### Configuring the OSB adapter for MySAP

The OSB Application Explorer is used to configure the OSB Adapter for MySAP. WSDL files are created for both JCA Outbound (Request-Response service – BPEL invoke) and JCA Inbound (Event Notification – BPEL receive) interactions and saved to a local directory. These WSDLs are exposed to the JDeveloper via the WSIL servlet. The JDeveloper based design-time wizard has a WSIF browser that is launched from the BPEL Partner Link activity to explore the WSDLs generated by the OSB Adapter Application Explorer.

In case of Synchronous events, SAP R/3 publishes a message and waits till it receives a reply for the message.

#### Creation of the JCA configuration

OSB adapter for MySAP supports two types of configurations namely Java Connection Architecture (JCA) and Business Services (IBSE).

Start the Application Explorer. On top left, right click on *configuration* and select New. Following window shows up. Enter the details as shown below and select the OK button:

0	Name:	
4	ica_sample	]

*New configuration* window shows up. Select *JCA* for Service Provider from the drop down list. Enter the adapter installed folder for the *Home*.

🙀 New Configuration		×
Servic	e Provider JCA 💌	
Home	c:\soaga\adapters\application	
	OK Cancel	

A new configuration by name jca\_sample has been created and that will be shown in the Application Explorer as shown below:

Application Explorer		
<u>File</u> Options <u>H</u> elp		
S Configurations	📲 Detail	
- 🙀 IBSE	Home	c:/soaga/adapters/application/
Telesample	Service Provider	JCA

#### **Creation of the Adapter Target**

Select *jca\_sample*, right click and select connect to connect to the jca configuration. That will show two new nodes *Adapters* and *Events*.



Create a new target for the MySAP Adapter. This is the source system from which events will be triggered. For identification purposes, we can call this as sap1.

🔊 Add Target	×
Name:	sap1
Description:	
Туре:	Application Server 🗾 👻
	OK Cancel

Enter the values under the *User* tab.

Applica	tion Server		×
User	System Adv	anced Security	
Clien	t*	800	]
User	*	sapuser1	
Pass	word*	•••••	
Lang	uage*	EN	
Code	page		
Auth	entication mode	Password <b>v</b>	
		OK Cancel	
Fields m	arked with * are i	equired.	

Enter the values for the *system* tab.

oplication Server	٢
User System Advanced	Security
Application Server*	isdsrv2
System number*	00
Connection pool name	p1
Connection pool size	2
Connection timeout(min)	10
Connection wait time(sec)	30
	OK Cancel
elds marked with * are requir	ed.

Under the *Advanced* and *Security* tab, leave the default values.

After creating the target, click on the target. Enter the password on the right pane, then right click on the target and select *connect* to connect to the target.

📓 Application Explorer		
<u>File Options H</u> elp		
S Configurations	User System Adv	anced Security
← 1 pse ← 1 p jca_sample	Client*	800
Adapters P ■ MySAP	User*	sapuser1
vents Connect	Password*	•••••
Edit	Language*	EN
Delete	Codepage	
	Authentication mode	Password 💌

After connecting to the target, nodes for *Business Object Repository, Remote Function Modules* and *IDOCs* will be shown in the Application Explorer.



Create one another target for the MySAP adapter for a different SAP R/3 system. Follow the steps in the Creation of the Adapter Target section. This is the target SAP system, which will respond for the requests from the source SAP system. For identification purpose, we can call this target system as sap2. In real life scenario, the target SAP system could be different EIS other than SAP.

#### **Configuration of the Channel**

Select the *Events* tab and then select the *MySAP* node within the *events* node. Note that the channel configuration is for the source SAP System (sap1 target in the Application explorer).



Select the *Channels* under the *MySAP* node and then right click on the *channel* to *Add Channel*.



Channel establishes the connection between SAP R/3 and adapter and facilitates to receive the SAP R/3 published messages. Add Channel window shows up.

🙀 Add Channel	×
Name:	
MySAP_Channel1	
Description:	
Protocol:	
Application Server	- mySAP 💌
Available Port(s)	Selected Port(s)
Available Port(s)	Selected Port(s)           >>                 <
Available Port(s)	Selected Port(s)       >>             <
Available Port(s)	Selected Port(s)

Provide the following information:

a.Enter a name for the channel, for example, MySAP\_Channel1.b.Enter a brief description (optional).

c.From the Protocol list, select Application Server - mySAP.

Then click the *Next* button at the bottom of the window.

Following window shows up. Enter the details under the User tab as shown below:

Application Server	
User System Sec	curity Advanced
Client*	800
User*	sapuser1
Password*	•••••
Authentication mode	Password 🔻
<u> </u>	OK Cancel
Fields marked with * are	required.

Enter the details under the *system* tab as shown below:

Edit Channel	×
User System Security	Advanced
Gateway host*	isdsrv2
Gateway service*	sapgw00
Program ID of the server*	BPELID
Application Server*	isdsrv2
System number*	00
r	OK Cancel
Fields marked with * are requi	red.

Leave the default values under the *security* tab. Under the *Advanced* tab, enter the values as shown below:

Edit Channel	×
User System Sec	curity Advanced
IDOC Format	XML 💌
IDOC release	
IDOC release provide	IDOC DOCREL field
SAP trace	
Processing Mode	REQUEST_RESPONSE ▼
1	OK Cancel
Fields marked with * are	required.

Then click the *OK* button.

The channel that was created shows as like below in the Application Explorer. The channel appears under the channels node in the left pane. An X over the icon indicates that the channel is currently stopped.



Do not start the channel, as it is managed by BPEL PM Server. If you start the channel for testing and debugging purposes, stop it before runtime.

#### Generating WSDL for RFC inbound

After you create a channel and verify that it is not started, you must generate WSDL for the event using Application Explorer.

Go to the adapter target (sap1) and select the *Remote Function Modules* (RFC) node.



RFCs node explode and the list of objects shows up:



Scroll down and select the *Financial Accounting -> 0002 – Company Code Business Object – BAPI\_COMPANYCODE\_GETLIST.* 



Right click and select the Export Inbound JCA Service (Event) option.

Test Run
Export Schema(s)
Create Event Port
Create Inbound JCA Service(Event)
Create Outbound JCA Service(Request/Response)
Export Inbound JCA Service(Event)
Export Outbound JCA Service(Request/Response)
Apply Filter

Window for *Export WSDL* shows up. Name of the WSDL shows up automatically. Select following:

Location	-	speci	fy the OSB location for publishing the
		Inbo	und wsdl
Host	-	host	name where the wsdl to be published
Port	-	port	where WLS is listening.
User	-	weble	ogic
Password	-	weble	ogic
Element form D	efault	-	Qualified.
Channel		-	use the one that was created in step 10.
Port		-	No Port
Validation		-	Do not select anything.

Name	BAPI_COMPANYCODE_GETLIST_receive.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	weblogic
Password	•••••
Element Form Default	e qualified
	○ unqualified
Channel	MySAP_Channel1
Port	no port
Validation	Root
	Namespace
	Schema
	OK Cancel

Then click the **OK** button. Now, the WSDL would be created and will be stored in a folder accessible for the JDeveloper.

Connect to the second SAP target (SAP2). This is the target SAP system

Application Explorer			
<u>File Options H</u> elp			
S Configurations	User System Adv	anced Security	
👇 🙀 ibse 👇 📑 jca_sample	Client*	800	
প— 😎 Adapters	User*	sapuser2	
► 🚅 sap1 - 🗣 sar a	Password*	•••••	
	Language*	EN	
Po Ch Delete	Codepage		
MySAP_channel1	Authentication mode	Password 💌	

After connecting to the target, you will see the following:



Expand the Remote Function Modules to select the object *Financial Accounting* -> 0002 - Company Code Business Object - BAPI\_COMPANYCODE\_GETLIST.



Right click and select *Export Outbound JCA Service(Request / Response)* to generate the WSDL for the outbound operation.

# Test Run Export Schema(s) Create Event Port Create Inbound JCA Service(Event) Create Outbound JCA Service(Request/Response) Export Inbound JCA Service(Event) Export Outbound JCA Service(Request/Response) Apply Filter

Export WSDL dialog box opens and select the qualified WSDL option

Location	- specify the OSB location for publishing the
	Inbound wsdl
Host	- host name where the wsdl to be published
Port	<ul> <li>port where WLS is listening.</li> </ul>
User	- weblogic
Password	- weblogic
Export WSDL	$\mathbf{X}$
Name	BAPI_COMPANYCODE_GETLIST_invoke.wsdl
Location	default/wsdls
Host	localhost
Port	7001
User	webloaic
Password	•••••
Element Form Default	qualified
	⊖ unqualified
	OK Cancel

Click the *OK* button. The created WSDL can now be accessed from the JDeveloper.

Make sure that the channel is stopped. It should not be up and running. Then Close the Application Explorer.

Recycle the OSB. This is required for the OSB to read the adapter repository to understand the new changes.

#### **Configuring Synchronous Service in Oracle Service Bus**

#### **Creation of Wsdl Type Business Service**

Login to the OSB console. Using the *Project explorer* create folders by name "Business service" and "Proxy service".

Select the *Business Service* folder and Select the *Business Service* from the *Create Resource* drop down list under *Resources*.

		-						
Change Center 🛛 🖄	Welcome, weblogic	Connected to : base	_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logout	:   Help   O	acle Support	Ał
weblogic session • No Conflicts			[	weblogic session	Created 3/31/09 7:46 PM	No Conflicts	No Changes	5
View Changes     View All Sessions     Activate Discard Exit	C default/Business service							
	References	1 Ref(s)	Description - no description -					
Project Explorer	Referenced By	1 Ref(s)	(s) Edit Description					
rojects - default	😂 Folders							
Business service Proxy service words	▶ Enter New Folde	r Name:			Add Folder		<b>B N</b>	
							Items 0-0	) of
	Name 🛆	Select Resource Ty	pe 🔺					
		Service Proxy Service Business Servic	e	No Fol	ders to display.			
		Split-Join Interface					Items 0-0	) of
	Delete	WSDL XML Schema WS-Policy						
	ᡖ Resources	Transformation	-					
	Create Resource	: Select Resource T	/pe 💌					
							Items 1-2 of 2	2 🛛
					Reso	urce Type	Actions	

Enter a name for the *Service name*. Enter the value for *Description* as required. Select the *Service type* as *WSDL web service* and click on *Browse* button.



From the list of WSDLs, Select the outbound wsdl BAPI\_COMPANYCODE\_GETLIST\_INVOKE and click the **Submit** button.

View Eavorites Tools Help	rosoft Internet Evolorer			
		<b>-</b>		
🦓 Select a WSDL				
Search: Name:	Path:	Search View All Adv. Search		
		Items 1-4 of 4 4 1 🕨 🕅		
Name 🛆	Path	WSDL Namespace		
BAPI COMPANYCODE GETLIST invoke	default/wsdls	http://xmlns.oracle.com/pcbpel/iWay/wsdl		
BAPI_COMPANYCODE_GETLIST_receive	http://xmlns.oracle.com/pcbpel/iWay/wsdl			
GetDetail_invoke	http://xmlns.oracle.com/pcbpel/iWay/wsdl			
GetPeriod_invoke1 default http://xmins.oracle.com/pcbpel/iWay/wsdl				
		Items 1-4 of 4 4 1 🕨 🕅		
Submit Cancel				

Select *jcabinding* for *bindings* under *Select WSDL definitions* and click the *Submit* button.

Select a WSDL definition			
Search: Name:	Path:	Search View All Adv. Search	
lame	Path	WSDL Namespace	
API_COMPANYCODE_GETLIST_	invoke default/wsdls	http://xmlns.oracle.com/pcbpel/iWay/wsdl	
escription:			
Select WSDL definitions			
Select WSDL definitions			
Bindings			
Bindings			
Bindings			
Bindings     Jeabinding     Ports     BAPI_COMPANYCODE_GI	ETLIST		
<ul> <li>Select WSDL definitions</li> <li>Bindings         <pre>[cabinding</pre> <pre>[cabinding</pre>         BAPI_COMPANYCODE_G </li> </ul>	ETLIST		
<ul> <li>Select wSDL definitions</li> <li>Bindings         <pre>gradinging             Parts             BAPI_COMPANYCODE_G</pre> </li> </ul>	ETLIST		
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Bindings Ports BAPI_COMPANYCODE_G	ETLIST		
<ul> <li>Select WSDL definitions</li> <li>Jeabinding</li> <li>Ports</li> <li>BAPI_COMPANYCODE_G</li> </ul>	ETLIST		

Now, you will be taken back to the first screen of the Create a Business Service. Click the *Next* button now.

	logic connected to : base_domain	w Home ; O	racie VVLS Console ( Logout	; Help ; Ura	icie Support
blogic session		weblogic session	Created 3/31/09 7:46 PM	No Conflicts	No Changes
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View All Sessions General Cor	nfiguration				
rate Discard Exit Service Nam	e* Esdsun9_outbrid	_wsdl_BS	]		
ject Explorer Description			<u>*</u>		
fault Proipess convice			-1		
Proxy service Service Type	* Create a New S	Service			
Wisdis Sci nee Type	<ul> <li>WSDL Web S</li> </ul>	ervice defa	ault/wsdls/BAPI_COMPANYCOD	_GE Bro	WSe
		jcab	inding	(binding)	
	C Transport Typ	oed Service			
	C Any SOAP Se	rvice SO/	AP 1.1 💌		
	C Any XML Serv	ice			
	Create From Ex	sisting Service			
	C Business Serv	ice		Bro	WSe
	C Proxy Service			Bro	WSE
Next >>	Last >>	Cance	el 🖉		

Select *jca* for the *Protocol* from the drop down box. Leave *Load Balancing Algorithm* to the default. For the *Endpoint URI*, enter the jndi value *eis/OracleJCAAdapter/DefaultConnection* and click on *Add* button. The value for the jndi has been taken from the outbound wsdl. Click the *Next* button now.

Agaress Mittp://iocalhost:/UU1/sbco	nsole/sbconsole.portal/_ntpb=true&_wno	iowLabel=ExternalServicesPortlet@ExternalServicesPortlet_actionOverride=%2Fservices%2FEditServicT 🛃 😡 💷							
ORACLE' Servi	ice Bus 10gR3								
Change Center 🛛 🔊	Welcome, weblogic Connected	to:base_domain 🏠 Home ; Oracle WLS Console ; Logout ; Help ; Oracle Support ; A							
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No Conflicts									
View Changes	羄 Create a Business Serv	Create a Business Service (default/Business service/Esdsun9_outbnd_wsdl_BS)							
• VIEW All Sessions	Transport Configuration	Transport Configuration							
Activate Discard Exit	Protocol*	jca 💌							
Project Explorer	Load Balancing Algorithm	Load Balancing Algorithm round-robin							
erojects E- default	Endpoint URI* Format: jca:// <resource_adapter_jndl></resource_adapter_jndl>								
- Business service - Proxy service		jca://eis/OracleJCAAdapter/DefaultConnection Add							
L- wsdls		EXISTING URIS OPTIONS							
		There are no URI configured. At least one URI must be configured.							
	Retry Count	0							
	Retry Iteration Interval	30							
	Retry Application Errors  © Yes C No								
	«« Prev.	Last>> Cancel							
	• Тор								

Make sure that the field *Always use configuration from JCA WSDL* is selected. The *connection mode* is set to *Managed*. Then click the *Next* button.

No Conflicts							
View Changes	Create a Business Service (default/Business service/Esdsun9_outbnd_wsdl_BS)						
View All Sessions	JCA Transport Configuration						
Activate Discard Exit	Adapter Name	Way ERP Adapter					
Project Explorer Projects	Adapter Type	ERP					
default     Business service	Dispatch Policy	default					
Province	JNDI Service Account						
	Always use configuration from JCA WSDL						
	Connection Mode	<ul> <li>Managed</li> <li>Non-Managed</li> </ul>					
	Operation Name	BAPI_COMPANYCODE					
	Interaction Spec Properties	PROPERTY VALUE					
		FunctionName PROCESS					
	<< Prev. Next >>	Last >> Cancel					
	• Тор						

Verify all the details in the page. Then, click the Save button.

i 🕘 http://localhost:7001/sbcon	sole/sbconsole.portal?_nhpb=true&_windowLabel=Exten	nalServicesPortlet&ExternalServicesPortlet_actionOverride=%2Fservices%2FEditServicT 💽 🛃 😡 🛛 Links 🦈			
	General Configuration	<u> </u>			
are Discaro Exit	Service Name	Esdsun9_outbnd_wsdl_BS			
ect Explorer	Description				
fault	Service Type	Web Service - SOAP 1.1 (WSDL: default/wsdls/BAPI_COMPANYCODE_GETLIST_invoke, bindir			
Business service Proxy service	Transport Configuration				
wsuis	Protocol	jca			
	Load Balancing Algorithm	round-robin			
	Endpoint URI	jca://eis/OracleJCAAdapter/DefaultConnection			
	Retry Count	0			
	Retry Iteration Interval	30			
	Retry Application Errors	Yes			
	JCA Transport Configuration				
	Adapter Name	iWay ERP Adapter			
	Adapter Type	ERP			
	Always use configuration from JCA WSDL	true			
rations	Connection Mode	Managed			
ource Browser	Operation Name	BAPI_COMPANYCODE_GETLIST			
oject Explorer	Interaction Spec Properties	FunctionName = "PROCESS"			
rity Configuration	<< Prev. Save	Cancel			

## Creation of Wsdl Type Proxy Service – Source SAP system

From the *Project Explorer*, select the folder *Proxy service*. Select the *Proxy Service* from the *Create Resource* drop down list.

Change Center 🛛 🔊	Welcome, weblogic Conne	cted to : base	_domain	🟠 Home 🕴 Or	acle WLS Console   Logout	: Help O	acle Support		
weblogic session			[	weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s)		
View Changes	😂 default/Proxy servi	Gefault/Proxy service							
View All Sessions     Activate Discard Exit	References	3 Ref(s)	Descripti - no descr	on iption -					
Project Explorer	Referenced By	0	Edit D	escription					
Projects =- defaultes Proxy service wedis	Create Resource: Select	e: ct Resource Ty <i>ice</i> Prony Service golit-Join variance solutions Service golit-Join variance solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solutions solu	pe	No Fo	Add Folder		Items 0-0		

Enter a name for the *Service Name* and enter appropriate details for the *Description* field. Select the *WSDL Web Service* for *Service Type* and click the *Browse* button.

ORACLE' Serv	vice Bus 10gR3					
Change Center 🛛 🕅	Welcome, weblogic Conne	ected to : base_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logout	t Help O	racle Support
weblogic session		[	weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s)
No Conflicts     View Changes	🍃 Create a Proxy Se	rvice (default/Proxy se	ervice/)			
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- Provy service - Provy service - wsdis	Service Type*	Create a New Se WSDL Web Ser Messaging Serv C Any SOAP Serv C Any XML Servic Create From Exis	ervice	P 1.1 ¥	(port or	owse binding)
	Next >>	C Business Service	e Cancel		Br	owse

From the list of WSDLs, select the Inbound Wsdl BAPI\_COMPANYCODE\_GETLIST\_RECEIVE and click the **Submit** button.

📲 Select a WSDL								
Search: Name: Path: Search View All Adv. Search								
Items 1-4 of 4 4 4 1 4 1								
Name 🛆	Path	WSDL Namespace						
BAPI_COMPANYCODE_GETLIST_invoke default/wsdls http://xmins.oracle.com/pcbpel/iWay/wsdl								
BAPI COMPANYCODE GETLIST receive	default/wsdls	http://xmlns.oracle.com/pcbpel/iWay/wsdl						
GetDetail_invoke BAPI COMPANYCODE	GETLIST receive	http://xmlns.oracle.com/pcbpel/iWay/wsdl						
GetPeriod_invoke1	default	http://xmlns.oracle.com/pcbpel/iWay/wsdl						
Items 1-4 of 4 14 4 1 1 14								
Submit Cancel								

Select *jcabinding* for *Bindings* under the *Select WSDL definitions* and click the *Submit* button.

+3 Select a WSDL definition									
Search: Name:	Path:		Search	View All Adv. Search					
Name	Path		WSDL Nam	espace					
BAPI_COMPANYCODE_GETLIST_receive	default/wsdls		http://xmlns	s.oracle.com/pcbpel/iWay/wsdl					
Description:									
▷ Select WSDL definitions									
Bindings Iceanning Parts BAPI_COMPANYCODE_GETLIST					I				
<< Back Submit	Cancel								

Now, you will be taken back to the first screen for the Proxy service configuration. Click the *Next* button.

ORACLE' Serv	rice Bus 10gR3									
Change Center 🛛 🔊	Welcome, weblogic Conn	ected to : base_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logour	t i Help i O	racle Support 👘				
weblogic session		[	weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s)				
No Conflicts     View Changes	a Create a Proxy Service (default/Proxy service/)									
View All Sessions	General Configuration									
Activate Discard Exit	Service Name*	Isdsrv2_inbnd_wsc	Lps	]						
Project Explorer Projects	Description		×							
- wsdls	Service Type*	Create a New Se	rvice							
		WSDL Web Ser	vice defa	ult/wsdls/BAPI_COMPANYCOD	E_GE BI	owse				
			jcabi	nding	(binding)	)				
		C Messaging Serv	се							
		C Any SOAP Serv	ice SOA	P 1.1 💌						
		C Any XML Servic	э							
		Create From Exis	ting Service							
		O Business Service			Br	OWSE				
		C Proxy Service			Br	owse				
	Next >>	Last >>	Cancel							

Select *jca* for Protocol. For the *Endpoint URI*, enter the jndi value *eis/OracleJCAAdapter/DefaultConnection* and click on *Add* button. The value for the jndi has been taken from the inbound wsdl. Click the *Next* button now.

ORACLE' Servi	ce Bus 10gR3										
Change Center 🛛 🕅	Welcome, weblogic Connected	to : base_domain	Home Or	acle WLS Console 🕴 Logou	t i Help i Or	acle Support					
weblogic session			weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s)					
No Conflicts     View Changes	Create a Proxy Service (default/Proxy service/Isdsrv2_inbnd_wsdl_PS)										
View All Sessions	Transport Configuration										
Activate Discard Exit	Protocol*	jca 💌									
Project Explorer Projects	Endpoint URI*	Format: jca:// jca://eis/OracleJC/	<resource_adapter_indi> Adapter/DefaultConnection</resource_adapter_indi>								
- Business service - Proxy service - wsdls	Get All Headers	C Yes ⊙ No Header		Add							
		HEADER		ACTI	IN						
		There are no headers configured.									
	<< Prev.	Next >> Submit changes ( Configuration.	Last >>	Cancel							

Make sure that the field *Always use configuration from JCA WSDL* is selected. The *connection mode* is set to *Managed*. Then click the *Next* button.

Mgaress   http://localhost:/UU1/sbcons	ole/sbconsole.portal/_nhpb=true&_windowLabel=ExternalSer	vicesPortlet8ExternabervicesPortlet_actionOverride=%2Eservices%2EEdtServic 🚬 🛃 🗠 🔛								
No Conflicts										
View Changes	Create a Proxy Service (default/Proxy service/Isdsrv2_inbnd_wsdl_PS)									
View All Sessions	JCA Transport Configuration									
Activate Discard Exit	Adapter Name	Way ERP Adapter								
Project Explorer Project    Broject   Business service  Proxy service  wsdls	Adapter Type	ERP								
	Dispatch Policy	default								
	JNDI Service Account									
	Always use configuration from JCA WSDL	я Я								
	Connection Mode	<ul> <li>Managed</li> <li>Non-Managed</li> </ul>								
	Operation Name	BAPI_COMPANYCODE								
	Activation Spec Properties	PROPERTY VALUE								
		ChannelName isdsrv2_chnl								
		AdapterName MySAP								
	<< Prev. Next >>	Last >> Cancel								
	A Tao									

Leave the default value and click on *Next* button.

ORACLE' Service Bus 10gR3									
Change Center 🛛 🔊	Welcome, weblogic Connected	t to : base_domain	Home Or	acle WLS Console 🕴 Logour	t   Help   Or	acle Support 🕴 Ab			
weblogic session			weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s) 5			
No Conflicts		_							
View Changes	🍃 🏂 Create a Proxy Servio	e (default/Proxy se	rvice/Isdsrv2_in	bnd_wsdl_PS)					
View All Sessions	Operation Selection Conf	iguration							
Activate Discard Exit	operation activity configuration								
	Selection Algorithm	Transport Head	ler						
Project Explorer		SOAPAction He	ader						
Projects		WS-Addressing							
Business service		SOAP Header							
- Proxy service		SOAP Body Typ	e						
wsdls	<< Prev	Next >>	Last>>	Cancel					
			2401	Ganton					
	• Тор								

## Click the *Next* button.

ORACLE' Serv	ice Bus 10gR3								
Change Center 🛛 🔊	Welcome, weblogic Connected t	o : base_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logout	t   Help   O	racle Support 🕴 🧳			
weblogic session			weblogic session	Created 3/31/09 7:46 PM	No Conflicts	1 Change(s)			
No Conflicts     View Changes     View All Sessions	Create a Proxy Service (default/Proxy service/Isdsrv2_inbnd_wsdl_PS)								
Activate Discard Exit	Message Content Handling Content Streaming	Message Content Handling Content Streaming							
Project Explorer Projects  - default  - Business service  - Proxy service  - wedls		Buffer Type Memory B Disk Buffe Compression Enabled	uffer r <b>n</b>						
	<< Prev.	Next >>	Last >>	Cancel					

# Verify the details and click the *Save* button.

o Conflicts											
iew Changes	🝃 Create a Proxy Service - Summar	Preate a Proxy Service - Summary (default/Proxy service/Isdsrv2_inbnd_wsdl_PS)									
iew All Sessions	General Configuration										
ate Discard Exit	Service Name	Isdsrv2_inbnd_wsdl_PS									
ect Explorer	Description										
tts fault	Service Type	Web Service - SOAP 1.1 (WSDL: default/wsdls/BAPI_COMPANYCODE_GETLIST_receive, binding="jc									
Business service Proxy service	Transport Configuration	Transport Configuration									
wsais	Protocol	jca									
	Endpoint URI	jca://eis/OracleJCAAdapter/DefaultConnection									
	Get All Headers	No									
	Headers										
	JCA Transport Configuration										
	Adapter Name	iWay ERP Adapter									
	Adapter Type	ERP									
	Always use configuration from JCA WSDL	true									
	Connection Mode	Managed									
	Operation Name	BAPI_COMPANYCODE_GETLIST									
rations	Activation Spec Properties	ChannelName = "Isdsrv2_chni"									
ource Browser	Operation Colortion Configuration	AdapterName = "MySAP"									
	operation delection configuration										

#### **Configuring the Pipeline**

Select the Proxy Service that has been created already and click on the Action for *Edit Message flow*.

<ul> <li>view changes</li> </ul>	default/Proxy service					
View All Sessions     Activate Discard Exit	References	1 Ref(s)	Description - no description -			
Project Explorer	Referenced By	0	Edit Description			
Projects 由- default	😂 Folders					
- Business service - Proxy service	▶ Enter New Folder Name:			Add Folder		
wsdls						Items 0-0 of
	Name 🛆					
			No	Folders to display.		
						Items 0-0 of
	Delete					
	🛔 Resources					
	Create Resource: Select R	Resource Ty	rpe 💌			
						Items 1-1 of 1
					Resource Type	Actions
	Isdsrv2_inbnd_wsd_F	PS			Proxy Service	\$ 🎄 🖂 👘
operations						Edit Message Flow
Resource Browser	Delete					

A new page opens for *Edit Message flow*. Select the proxy service and right click to *Add Route* in the Proxy Service.

	LE <sup>.</sup> Service	Bus 10gR3						
Map of Mes	Welcome, weblogic	Connected to : base_dom	ain 🟠	Home   Or	acle WLS Console 🕴 Logou	t i Help i Or	acle Support	About Service Bus
🖾 Isdsrv2_inb			weblo	gic session	Created 3/31/09 8:02 PM	No Conflicts	2 Change(s)	5 Active Session(s)
	🚦 Edit Message Fl	ow : default/Proxy service/	Isdsrv2_inbno	d_wsdl_PS				
	Save	Cancel	Clea	r	Save All	Cancel All		
	€Тор			Isdsrv2	Add Pipeline Pair Add Route Add Conditional Bran Add Conditional Bran Add Operational Bra Add Service Error H. Paste Route	nch andler		







Select the *Add an Action* and right click to select *Communication -> Routing*.

Now, click the *Service* link to select the wsdl based business service created for outbound wsdl (Target SAP system).

		0				
Map of Me	Welcome, web	plogic Connected to : base_dom	ain 🕼 Home 🕴 Or	acle WLS Console 🕴 Logo	ut   Help   O	racle Support 🕴 About Service Bus
Isdsrv2_ini			weblogic session	Created 3/31/09 8:02 PM	No Conflicts	2 Change(s) 5 Active Session(s)
	Edit Stag	Je Configuration : Route Node				
	Save	Validate	Cancel	Clear	Save All	Cancel All
						@ View All Comme
	¢	Route to (Service2)* Request Actions: Add an Action Response Actions: Add an Action	Service from a pop-up summar	y table of		
	• Тор					

Select the Business Service that was created earlier (section **Creation of Wsdl Type Business Service**) and click the *Submit* button.

orac	ie service bus i selecci service - Plicrosore incernet explorer				
Select Service					
Search: Name: Path: Search View All					
			Items 1-3 of 3	14 4 1 P P	
	Name 🛆	Path		Resource Type	
•	Esdsun9_outbnd_wsdl_BS	default/Business service		Business Service	
0	Esdsun9_output_file_BS	default/Business service	Business Service		
0	Isdsrv2_inbnd_wsdl_PS	default/Proxy service		Proxy Service	
			Items 1-3 of 3	14 4 1 🕨 🕨	
	Submit Cancel				
Return to the parent page with the selected resource information and close this window.					

Now, select the operation as BAPI\_COMPANYCODE\_GETLIST from the drop down list for *invoking*.

Map of Mes Welcome,	, weblogic Co	onnected to : base_don	main 🕼 Home 🕴 C	racle WLS Console 🕴 Logo	ut   Help   O	racle Support	About Service Bus
Isdsrv2_int			weblogic session	Created 3/31/09 8:02 PM	No Conflicts	2 Change(s)	5 Active Session(s)
⊕ Edit £	Stage Config	guration : Route Node					
Sa	ave	Validate	Cancel	Clear	Save All	C	ancel All
							@ View All Comments
	Route 1	to Esdsun9_outbnd_wsd	I_BS <sup>*</sup> invoking Operation Operation outbound				
	Reques	t Actions:		Service de reter			
	۲	Add an Action					
	Respon	ise Actions:					
	۲	Add an Action					
• Тор							



			-					
Map of Me	Welcome, web	logic Connected to :	base_domain	🟠 Home 🕴 O	racle WLS Console 🕴 Lo	gout ( Help ( C	racle Support	About Service Bus
Isdsrv2_inb				weblogic session	Created 3/31/09 8:02	PM No Conflicts	2 Change(s)	5 Active Session(s)
- Nouter	Edit Stag	e Configuration : Ro	oute Node					
	Save	Valid	ate	Cancel	Clear	Save All	Ca	ancel All
								@ View All Comme
	<u>k</u>	Route to Esdsun9_ou	utbnd_wsdl_BS*	invoking BAPI_COM	PANYCODE_GETLIST			
		🗆 Use inbound ope	ration for outbou	ind				
		Request Actions:						
		Add an Actic	d					
		Response Actions:	Communicatio	on 🔸				
		Add an Act	Message Proc	essing				
			Reporting	•	Alert			
		-			Log			
	🛆 Тор				Report			

Select the link for *Expression*.

,				· · · · · · · · · · · · · · · · · · ·
Save	Validate Cancel Clear		Save All	Cancel All
e e				@ View All Comments
	Route to Esdsun9_outbind_wsdl_BS invoking [BAPI_COMPANYCODE_GE	ITLIST 💌		
	Use inbound operation for outbound		_	
	Request Actions:			
	Uog < <u>Expression</u> > with Annotation			
	Response Actions:			
	Add an Action			

In the *XQuery Expression Editor* Page type \$body and click on *Validate* button to validate the action and Click on *Save* button to save the action.

Namespa	ace Definitions	Welcome, weblogic	Connected to : base_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logout	Help
Default Na	mespaces			weblogic session	Created 3/31/09 8:02 PM	No Cor
Default Na. bpel-10g cbx dsp ejb email ( Variable N urm urm:s urm urm:s urm urm:s urm urm:s	mespaces http://www.bea.com/wil/sb http://www.bea.com/wil/sb http://www.bea.com/wil/sb http://www.bea.com/wil/sb mespaces ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- document:sap:rf::functions.re ap- docum	<ul> <li>⊗ XQuery/XSLT Expression</li> <li>Save</li> <li>XQuery Text   XQuery Ret</li> <li>\$body </li> </ul>	n Editor : Route Node Validate Test sources   XSLT Resources   Dynamic XQ.	veblogic session Cancel Rey	Created 3/31/09 8:02 PM	
<i>User Defin</i> No na	<i>ed Namespaces</i> Add Namespace mespaces have been found.					

## Select *Error* for the *at severity level* from the drop down list.

Save	Validate	Cancel	Clear	Save All	Cancel All
¢ e	Route to Esdsun9_outbnd_wsdl	_BS <sup>*</sup> invoking BAPI_COMP			@ View All
	Use inbound operation for o	utbound		-	
	Request Actions:				
	Log \$body <sup>II</sup> with Annotation	st to ESDSUN9	A Y		
		Debug pfp			
	Response Actions:	Varning Fror			
	Add an Action				

Select *Add an Action* in the *Response Action* and right click to select *Reporting* -> *Log*.

				@ View All Comme
Route to	D Esdsun9_outbnd_wsdl_BS* invaking	NPI_COMPANYCODE_GETLIST 💌		
	indound operation for outdound			
Request	Actions:  Cog \$body <sup>B</sup> with Annotation  >>>>> Request to ESDSUN9  >>>>>> at severity level Error •			
Respons	e Actions:			
•	Add an Action Communication	]]		
🛆 Тор	Reporting +	Alert		
		Log Report		
Save	Validate Cance	Clear	Save All	Cancel All

The screen will look as like shown below:

<b>e</b>	Route to Esdsun@_outbnd_wsd_BS* Invoking BAPI_COMPANYCODE_GETLIST
	Use inbound operation for outbound
	Request Actions:
	Cog Stody <sup>III</sup> with Annotation  >>>>> Request to ESDGUN9  >>>>>>  at severity level Error •
	Response Actions:
	Cog \$body <sup>II</sup> with Annotation     >>>>> Response from ESDSUN9     >>>>>     total     total     total     total     total     total     total     total     total
0.7.00	

Now, click the *Validate* and then the *Save* button.

Address 🗃 http://localhost:7001/:	sbconsole/sbconsoleplain.portal?_nfpb=true&_paget.abel=Stage_Details&StageDetailsPortletcommand=submitExprLog&StageDetailsPortlet	etservicenan 💌 🛃 Go 🛛 Links
Save	Validate Cancel Clear Save All	Cancel All
¢	Route to Esdsun9_outbrd_wsd_B5* invoking BAPI_COMPANYCODE_GETLIST	Ø View All Comments
	Use inbound operation for outbound	
	Request Actions:	
	Comparison of the second seco	
	Response Actions:	
	Cog Sbody <sup>III</sup> with Arnotation >>>> Response from ESDSUN9 at searchy level Error **	

Now, select the *save* button to save the *Edit Message Flow*.

Save Cancel	Clear	Save All	Cancel All
	2	1	
	isdsrv2_rece	ive_reply	
		•	
	RouteNo	ode1	

Now click the *Activate* button under the *Change Center* and click *Submit* button in the OSB console to save the changes

DRACLE' Serv	ice Bus 10gR3					
Change Center 🛛 🔊	Welcome, weblogic C	onnected to : base_domain	🟠 Home 🕴 Or	acle WLS Console 🕴 Logout	t   Help   Oracle	
weblogic session no Conflicts		[	weblogic session	Created 3/17/09 3:04 PM	No Conflicts 7	
View Changes     View All Sections	Changes					
Activate Discard Exit	Session Name	weblogic				
Project Explorer	User	weblogic Oracle Service Bus Progr	ess Meter			
ojects default Business Service proxy Service psft_wsdl	Submit	Session activation	:05 in progress	<u>×</u>		

#### **SAP Event Configuration**

An event in SAP is defined as an occurrence of a status change in an object. The event is created when the relevant status change occurs. Either the user or SAP must implement event creation. An event is created from a specific application program (the event creator) and then "published" system-wide.

An unlimited number of receivers can respond to the event with their own "response mechanisms". An event is usually defined as a component of an object type.

SAP *pseudo events* are events that are not published by the SAP Event manager, but are called from an ABAP program or Remote Function call (using the Destination parameter).

#### **Client and Server Programs**

**Remote Function Call (RFC)** programs for non-SAP systems can function as either the caller or the called program in an RFC communication. The two types of RFC programs are:

- RFC Client
- RFC Server

The RFC client is the instance that calls the RFC library to execute the function that is provided by an RFC server. The functions that can be executed remotely are called RFC functions, and the functions provided by the RFC API are called RFC calls.

#### **SAP Gateway**

The SAP Gateway is a secure application server. No connections are accepted unless they were pre-registered previously from the SAP presentation Client. A server connection presents itself to the Gateway and exposes a Program Identifier. If the Program Identifier is found in the list of registered Program IDs, the Gateway server then offers a connection to the server, which accepts a connection.

The Program ID then is linked with an RFC Destination within SAP, which enables SAP Function Modules and ALE documents (IDocs or BAPI IDocs) to be routed to the destination. The RFC Destination functions as a tag to mask the Program ID to SAP users. An RFC server program can be registered with the SAP Gateway and wait for incoming RFC call requests. An RFC server program registers itself under a Program ID at an SAP Gateway and not for a specific SAP system. In SAPGUI, the destination must be defined with transaction SM59, using connection type T and Register Mode. Moreover, this entry must contain information on the SAP Gateway where the RFC server program is registered.

#### **Registering Your Program ID in SAPGUI**

To enable your SAP system to issue the following calls or interfaces to the SAP event adapter, you must register your program ID under an RFC destination.

- Remote Function Calls (RFC)
- Business Application Programming Interfaces (BAPI)
- Intermediate Documents (IDOC)

The RFC destination is a symbolic name (for example, BPELDEST) that is used to direct events to a target system, masking the program ID. The Program ID is configured in both SAPGUI and the event adapter.

#### How to Register Your Program ID

To register your program ID: Launch the *SAP Workbench* and logon to the SAP system.

# Execute the *SM59* transaction or Select *Tools, Administration, Administration, Network,* and then *RFC destination*.

The Display and maintain RFC destinations window opens and displays a list of connections and drivers you can manage as shown in the following image.

<u>R</u> FC <u>E</u> dit <u>G</u>	oto System <u>H</u> elp			
😵	🛯 🔍 🔲 1 😋 🚱 📮 🎁 🕌 🎝 竹 烏 名 🛒 🖉 🖷			
Display and	d maintain RFC destinations			
Create Chang	Create Change Delete Find			
RFC Destinatio	ons			
	R/2 connections R/3 connections			
	HIIF Lonnections to EXI. Server HTTP Connections to R/3 System			
	Logical destinations			
	Connections via ABAP/4 driver			

Select *TCP/IP connections*.

#### Click Create.

The RFC Destination window opens and displays fields where you provide information about the RFC destination as shown in the following image.

 	rmation <u>T</u> est System <u>H</u> elp
<b>Ø</b>	L 🕄 🕄 L 🕄 🚱 😓 L 🖓 L L L L L L L L L L L L L L L L L
<b>RFC Destination</b>	
Test connection	
RFC destination	BPELDEST
Connection type T	New entry
Description	
Create RFC Destination	

a. In the *RFC destination field*, type a name, for example, BPELDEST. The value you type in this field is case-sensitive.

- b. In the *Connection type* field, type T (for destination type, TCP/IP).
- c. In the *Description* field, type a brief description.

Click Save from the tool bar or select Save from the Destination menu.

The RFC Destination BPELDEST window opens as shown in the following image.

Technical settings Logon/Security	Special Options
Activation Tune	
Start on Application Server	Registered Server Program
O Start on Explicit Host	
O Start on Front End Work Station	
Registered Server Program	
Program ID BPELID	

a. For the Activation Type, Select the radio button for *Registered Server Program.* 

b. In the *Program field*, type BPELID.

Click Save from the tool bar or select Save from the Destination menu.

Ensure your channel is running.

To verify that the SAP system and the OSB Adapter for mySAP ERP are communicating, click *Test connection*.

# RFC Function module should have been enabled for Remotely-callable

Access the menu **SE37** from SAP GUI. In the SAP Server, the **SE37** transaction enables you to send RFCs (Remote Function Calls) or BAPIs (Business Application Programming Interfaces) to any RFC destination.

⊡ 	<u>F</u> avorites	Extr <u>a</u> s	System	<u>H</u> elp	
😵 /nse37		Ē	۱ 🖪 ۱	C 🙆	😣   📮
SAP Easy	Access	5			
💽 💽 💫	ᡖ Othe	r menu	8		

Enter BAPI\_CUSTOMER\_GETLIST for the *Function module* and select the *Display* button.

Function Builder: Initial Screen	
🚰 🏄 🛱 🔂 🗊 🗊 🕼 🖗 Reassign	
Function module BAP1_COSTOMER_GETLIST	)
🗞 Display 🥖 Change 🗋 Create	

Following screen is shown. Select the tab Attributes.

Function Builder: Display BAPI_CUSTOMER_GETLIST
(수 국) 🎾 🕄 편 👔 🖓 🕮 🤩 🖴 🗮 💭 Pattern 🛛 🏘 📑 Insert 📑 Replace
Function module BAPI_CUSTOMER_GETLIST Active
Attributes Import Export Changing Tables Exceptions Source code
FUNCTION bapi_customer_getlist .
*"*"Lokale Schnittstelle:
*" IMPORTING
** VALUE(MAXROWS) LIKE BAPIF4A-MAX_ROWS DEFAULT 0
* WALDE (CPDONET) LIKE BARICOSIONER_CPD-CPD_ONET
*" EXPORTING
*" VALUE (RETURN) LIKE BAPIRETURN1 STRUCTURE BAPIRETURN1
*" TABLES
TIDRANGE STRUCTURE BAPICUSTORER_IDRANGE
* ADDRESSDATA STRUCTURE BAPTCOSTOMER_ADDRESSDATA
*" SPECIAL DATA STRUCTURE BAPICUSTOMER SPECIAL DATA
*" OPTIONAL
**

Under the *Processing type*, you would see the following:

Processing type	General Data	
O Normal function module	Person Responsible	SAP
Remote-enabled module	Last changed by	SAP
O Update module	Changed on	04/01/2007
Start immed.	Package	VS
🔿 Immediate start, no restart	Program name	SAPLLC01
◯ Start delayed	INCLUDE name	LLC01U03
◯ Coll.run	Original language	DE
	Released on	04/29/1998
	Edit lock	
	🔄 Global	

Make sure that the radio button for the *Remote-enabled module* is selected.

# **Triggering the event**

Login to SAP GUI.



You will see the following screen of SAP.



Select the function *SE37* from the menu.



You would see the following screen. Select BAPI\_COMPANYCODE\_GETLIST for the *Function module*.

Function Builder:	: Initial Screen		
🚰 🏋 🖽 🚭 🛅 🗊 🚱 Reassign			
Eunction module	BARI COMPANYCODE GETLIST		
1 anciion modale		9	
ଝିନ Display 🥖	Change 📑 Create	]	

Select the *single test (F8)* in the below options.

Function Builder: Initial Screen
🖆 🗡 🚍 🚭 🚺 🗊 🗊 🎇 Reassign

That will take you to the following Function module test screen. Enter the appropriate *RFC target system* value as shown below:

Test Function Module: Initi	Test Function Module: Initial Screen	
🕒 🕒 Debugging 🕄 Test data dire	ectory	
Test for function group LCO1 Function module BAPI_CUSTOMER_GETLIST Upper/lower case		
RFC target sys: BPELDEST		
Import parameters	Value	
MAXROWS CPDONLY	8	
Tables	Value	
IDRANGE ADDRESSDATA SPECIALDATA	0 Entries 0 Entries 7 0 Entries	

Select the *Execute (F8)* button in the test function module screen.



You will see the *Result* for the execution.

Export parameters	Value
RETURN	
Tables	Value
COMPANYCODE_LIST Result:	0 Entries 128 Entries

Click the value for the *Result* in the screen.

Tables	Value
COMPANYCODE_LIST Result:	0 Entries 128 Entries

This will show the results of the operation.

128 Entries
IDEC Couth Africo
US Division of CAB
Company 02
Company 01
Company 00
SP POST
IDES Services
IDES Retail INC US
IDES Retail GmbH
India Model Company, IN

This completes the article for working with the synchronous events with MySAP adapter with the Oracle Service Bus.

# CONCLUSION

Working with SAP R/3 synchronous events through OSB MySAP adapter is simple and elegant. Adapter provides a tightly coupled way of integrating SAP R/3 events with OSB.

# REFERENCES

Oracle® Service Bus for MySAP User Guide 10g Release 3 Oracle® Service Bus User Guide 10g Release 3.



OracleAS MySAP adapter synchronous events with SAP R/3 February 2009

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