Creating Web Service from Function Modules/BAPIs & Integrating with SAP Interactive Forms



Applies to:

ECC 6.0, SAP Interactive forms by Adobe.

Summary

This document states how to create Web Service from an existing Function Module or BAPI and how to use that for any business scenario using SAP Interactive Forms by Adobe. Form created by this method can be used standalone without portal, to submit data to SAP database within Organization's Intranet.

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Author Bio



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Introduction

In this document we will see how we can create web service from an existing function module or BAPI and how we can use it in a SAP Interactive form based on some Business Scenario.

- Creating Web Service
- Configurations through SOAMANAGER.
- Downloading web service in a WSDL file.
- Using this WSDL file in Interactive form to run a business scenario.

Creating Web Service based on Function Module/BAPI

> Go to transaction SE37. Open the function module you want to use as web service.

Function Builder: Initial Screen
🖆 🌴 🖽 🕂 🛅 💼 🗭 Reassign
Function Module ZBAPI_BUPA_CREATE_FROM_DATA
log Display

➢ Go to Utilities->More Utilities->Create Web Service->From the Function Module.

☞ <u>F</u> unction Module <u>E</u> dit <u>G</u> oto	Utilities(M) Environment S	System <u>H</u> elp		
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4 - 1 % • P @ 4 *	Display Navi <u>q</u> ation Window	Ctrl+Shift+F4	h Brinter - Eurotian Medule	Desumentation
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Function module ZBAPI_BUP	Help on			
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3 *"*"Local Interi	Where-Used List	Ctrl+Shift+E3	Runtime Analysis	
5 *" IMPORTING	Versions	Carronner o	Edit Pattern	
6 *" OPTIC	MAL		Edit Locally	
7 *" VALUE (PAR	TNERCATEGORY) LIKE BAP	IBUS1006 HEAD		
8 *" VALUE (PAR	TNERGROUP) LIKE BAPIBU	S1006 HEAD-PAL	Upload/Download	
9 *" VALUE (CEN	ITRALDATA) LIKE BAPIBUS	1006 CENTRAL	Forc <u>e</u> Line Longin	
10 *" STRUCTURE H	APIBUS1006_CENTRAL	_	Create Web Service	From the Function Module
11 *" VALUE (CEI	NTRALDATAPERSON) LIKE B	APIBUS1006_CEN	RAL_PERSON	From the Eurotion Group
12 *" STRUCTURE H	3APIBUS1006_CENTRAL_PERS	ON OPTIONAL		. Tomato F <u>a</u> ndaon oroup
13 *" VALUE (CEN	NTRALDATAORGANIZATION) L	IKE BAPIBUS100	<pre>>6_CENTRAL_ORGAN</pre>	

> It will open the wizard. Give the service definition name prefix with 'Z' or 'Y'. Give Description also.



> In Choose Endpoint, select the check box for mapping.

🖻 Choose Endpoint	×
 Object Type Choose Endpoint Choose Operations Configure Service 	Enter the name of the function module that is to be offered as a Web Service. If you select the checkbox <zkname existing<br="" mapping,="" the="">descriptions of the end point elements are copied. Initial letters are capitalized and underscores removed.</zkname>
 Enter Package/Request Complete 	Function Module ZBAPI_BUPA_CREATE_FROM_DATA Image: Mapping der Namen Image: Mapping der Namen
	💷 🚯 Back 🔂 Continue 🔀 Cancel

Here you can choose the Security/Authentication level for the web service. Choose according as requirement.



> Choose local Object or Give any package name according to requirement. Click on continue.

🖻 Enter Package/Request		
 Object Type Choose Endpoint Configure Service Enter Package/Request 	Enter the name of the package and transport request.	
Complete	Package/Request Package \$TMP Transport Request ✓ Local Object	
	🐨 💤 🙆 Back 🛃 Continue 🔀 Cancel	

Click complete.



Now go to T-code SE80. There you can see the Web service you have created under you package name-> enterprise services folder.

Object Name	Descrip	
 Zservice_vikas 	service for th	٠
 zsw_test 	testing	-
 ztest 	test by amia	
ztest1	test	
ztest123	ztest	
ztest999	test	
 ztest_bapi_pr_Create 	Test WS for	
 ztest_demo_anu 	Testing	
Ztest_trg	Testing	
 ZVendorDisplayWebService 	Vendor Disp	
 zweb_current_user_id 	web service	**
 zweb_servic_test 	Testing web	
ZWS_BUPA_CREATE_FROM_DATA	Create Busi	
 z_web_service 	Web Service	
Client Proxies		
Server Proxies		•
Data Types		•
	↓ ↓ ▶	

Configurations through SOAMANAGER

> Now open Transaction Code SOAMANAGER, it will open the browser window as below:

SOA Management
Technical Configuration Business Administration Logs and Traces Monitoring
Profile Management Manage profiles that can be used to access provider systems as well as to expose services based on them.
Provider System Management Manage all provider systems that will be used by this system.
System Global Settings Configure the global settings of a system, such as the HTTP proxy.
Publication Administration Publication Administration.

> Choose Business Administration Tab.

Search your web service giving the name, choosing service by as "Service" as below:

Web Service Administration						
Search Design 1	ime object for Web Service	Configuration				
Search	rowse					
Search by: Se Search Resu	rvice Search Patte	ern: zws_bupa_create_from_FA	Internal Name 💌 in System: IS6/300 💌 Go Show	v Advanced Sear	ch	
Internal N	ame	External Name	Namespace	Туре	Description	
() zws	BUPA_CREATE_FROM_DATA	ZWS_BUPA_CREATE_FROM_DATA	urn:sap-com:document:sap:soap:functions:mc- style	Service	Create Business Partner	
Apply Selection						

> Select the Web service and click on Appy Selection Button. It will open the details as below:

Click on "Open WSDL Document for selected Binding".

Sea	archikesuits				
	Internal Name	External Name	Namespace	Туре	Description
	ZWS_BUPA_CREATE_FROM_DATA	ZWS_BUPA_CREATE_FROM_DATA	urn:sap-com:document:sap:soap:functions:mc- style	Service	Create Business Partner
App	ply Selection				
Details	s of Service Definition: ZWS_BUPA_CRE	ATE FROM DATA			
Details	s of Service Definition: ZWS_BUPA_CRE	ATE_FROM_DATA			
Details Back to	s of Service Definition: ZWS_BUPA_CRE	ATE_FROM_DATA			
Details Back to Ov	s of Service Definition: ZWS_BUPA_CRE search verview Configurations Classificati	CATE_FROM_DATA			
Details Back to Ov Object	s of Service Definition: ZWS_BUPA_CRE Disearch verview Configurations Classificati t Status:	CATE_FROM_DATA	I / Endpoints: 1		4
Details Back to Ov Object Portty	s of Service Definition: ZWS_BUPA_CRE <u>Disearch</u> verview Configurations Classificati t Status: pe Namespace:	CATE_FROM_DATA	i / Endpoints: 1 m.document:sap:soap:functions:mc-style		
Details Back to Ov Object Portty Portty	s of Service Definition: ZWS_BUPA_CRE > search verview Configurations Classifications t Status: pe Namespace: pe Names	EATE_FROM_DATA	I / Endpoints: 1 m document:sap:soap:functions:mc-style 4_ CPEATE_FROM_DATA		
Object Object Portty Interna SOAP	s of Service Definition: ZWS_BUPA_CRE Description: Configurations Classification t Status: De Namespace: De	CATE_FROM_DATA	I / Endpoints: 1 m. document:sap:apap;/functions:mc-style document:sap:apap;/functions:mc-style document:sap:apap;/functions:mc-style document:sap;/functions:mc-styl		•
Details Back to Objec Portty Portty Interna SOAP Packa	s of Service Definition: ZWS_BUPA_CRE search verview Configurations Classificati t Status: pe Namespace: pe Name: a Name: 2 Applikation: ge Name:	CATE_FROM_DATA	I / Endpoints: 1 m.document:sap:soap:functions:mc-style 4_CREATE_FROM_DATA 2_CREATE_FROM_DATA 30M.SOAP:RUNTIME:APPLICATION:RFC:710		
Object Portty Portty Interni SOAP Packa	s of Service Definition: ZWS_BUPA_CRE 2 search verview Configurations Classificati 1 Status: pe Name: 2 applikation: ge Name:	arte_FROM_DATA	I/Endpoints: 1 m.document.sap.soap.functions:mc-style A_CREATE_FROM_DATA A_CREATE_FROM_DATA SOM:SOAP:RUNTIME:APPLICATION:RFC:710		
Details Back to Objec Portty Portty Interna SOAP Packa Open	s of Service Definition: ZWS_BUPA_CRE 2.search verview Configurations Classificati 1 Status: pe Namespace: pe Name: a Name: Applikation: ge Name: portype WSDL document	CATE_FROM_DATA	I / Endpoints: 1 m.document:sap:soap:functions:mc-style 4_CREATE_FROM_DATA 2_CREATE_FROM_DATA 20M:SOAP:RUNTIME:APPLICATION:RFC:710		
Object Object Portty Portty Interna SOAP Packa Open Open	s of Service Definition: ZWS_BUPA_CRE Description: Classification: Status: pe Name: pe Name: Applikation: ge Name: porttype WSDL document WSDL document for selected binding	ATE_FROM_DATA	I / Endpoints: 1 m document:sap:soap:functions:mc-style A_CREATE_FROM_DATA A_CREATE_FROM_DATA A_CREATE_FROM_DATA COM:SOAP:RUNTIME:APPLICATION:RFC:710		

> It will open the following XML code in the browser, save this as a WSDL file on the desktop.



Once you have got the WSDL file, you can use it to create an interactive form.

Designing the Interactive Form

> Open the designer. In the data view choose New Data Connection as below:



> In the option pop-up choose "WSDL File". Click next.

Name New Connec DataConnectio	tion:		_		
Get Data Descripti	on from:				
C XML Schema	base				
C Sample XML	Data				
WSDL File					
	< Back	Next >	Cancel	Help	

> Here choose the WSDL file from desktop.

Open WSDL File	WSDL File:	Ema 2 2 2 2 2 2 2 2 2 2 2 2 2
Look in:	: 🞯 Desktop 💽 🕤 🧭 📴 🖬 🗸	Pas Rac
My Recent Documents Desktop My Documents My Computer	My Documents My Computer My Network Places WS_BUPA_CREATE.wsdl	je
	File name: WS_BUPA_CREATE.wsdl	Open
My Network	Files of type: WSDL Files (*.wsdl)	Cancel
Flaces	Open as read-only	1.

> Choose the functionality of web service as below, and click finish.

1 7 7 7	Input Message: ZbapiBupaCreateFromData Message Part: parameters Output Message: ZbapiBupaCreateFromData Message Part: parameter Port Type: ZWS_BUPA_CREATE_FROM_DAT This operation has a binding_operation element This operation has an SOAP:BINDING element		FromDataRequeteFromFromFromFromFromFromFromFromFromFrom
	•		►

Now you will be able to see the Data Connection created as below, with all the fields of Function Module. You will be able to see some fields under <FunctionModuleName>Request and some fields <FunctionModuleName>Response. One is for import parameters and one is to receive output from Web service. So to pass values use request fields and to get values use response fields. This data connection will also provide an execute button in Data View. That is the action button to call the web service. So you can drag and drop the fields and this button on the form layout to design a form.



> Design the form as per the requirement with all required fields

I Hierarchy x Data View II IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	 ■ 4 ▲ ■ 4
DATASOURCE Master Pages) Determined and the second s	≡₄ ▲ ≡₄
(Master Pages) 0 2 ↓ Standard	-
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Page1	
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Unitide Subform)	
Date/Ime Field Subform)	
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StaticText10 2 2	
Address Details:	
Geferenced Objects)	
Control of the optical street:	-
ContainerFoundation_JS 4 - Postar Code : Cay : C	▲ ×
Country:	
5 Field Value Binding	
rearent ju	
Default Binding (Open, Save, Submit):	
Normal	
Data Pattern:	
0	
Import/Export Bindings (Execute):	
9 I Iconnection.Data.DataConnection.Bo	
Internal Use Only - Confidential	

For action button you can see a URL is present as shown in figure below and for binding of a field you can see default binding is Normal but in Import/Export Bindings its showing the binding from Data connection we have created.

		Object 🗷 Accessibility
	Field Execute	Field Value Binding Name: TextField3 0
	Connection: DataConnection	Default Binding (Open, Save, Submit): Normal :≡⊿
(Web Service URL:	Data Pattern:
	/srt/rfc/sap/zws_bupa_create_from_d	Import/Export Bindings (Execute):
	ZbapiBupaCreateFromData	IconnectionData.DataConnection.Bo
	1	
	Execution Options	

Deploy and Run the Form

Once the form is designed deploy it using any WD Java or WD ABAP application. From the deployed application you can download this form and it can be used to call the web service within the organization's intranet.

Find	-		
•			
	re duces re buces re buces re buces	Business Partner Creation Form	
1.0	General Data:		
	Business Partner :	Partner Group :	
	Address Details	5:	
	Title :	Name :	
	Street :	House Number :	
	Postal Code :	City :	
	Country :		
		Submit	

To test the form fill in the required entries and lick on submit button. It will ask you to allow for calling that web service URL.

re.	duce cover use cycle	Business Pa	artne	r Creation I	Form
General Da	ta:				
F Business Partr ⊢	er : 1111222233	Partner Gro	up:	Business Partner	•
ddress De	Security Warning			×	
Title :	The document is trying to conr http://blade23.wipro.com:800	ect to D/sap/bc/srt/rfc/sap/zws_b	upa_create	_from_dat	
Street :	If you trust the site, choose A	_data/zws_bupa_create_m low. If you do not trust the	om_data e site, choos	se Block.	
Postal Code :	Remember my action for this site				
Country :		Help Allow		Block	
		Submit			

Click on allow and give the userid and password for you SAP R/3 server into which your web service and function module are residing. It will create the business partner as we are using web service for this scenario. Similarly you can create any scenario specific web service and call them into your forms.

Street :	ets	Connect to blade 32 winners	House Number :	tewt
Postal Code :	11111			test
Country :	Iceland	The server blade23.wipro.con [IS6] requires a username and Warning: This server is reque password be sent in an insecu without a secure connection). User name: Password: Wername: Rem	n at SAP Web Application Server d password. sting that your username and irre manner (basic authentication v02	
			OK Cancel	

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