iWay Software How-to's



Configuring iWay Service Manager for Bi-directional Communication With Salesforce.com

This topic describes how to configure communication between Salesforce.com and iWay Service Manager (iSM). An example is provided that shows data being propagated from Salesforce.com to Oracle and from Oracle to Salesforce.com.

This how-to includes the following topics:

- Prerequisites
- <u>Setting IWAYHOME in the iWay Integration Tools Workspace</u>
- Configuring a Connection From Oracle to Salesforce.com
- Building a Canonical Transform
- Adding a Transform to a Salesforce.com Process Flow
- <u>Configuring an RDBMS Channel Listener</u>
- Configuring a Connection From Salesforce.com to Oracle
- Deploying an Application From iWay Integration Tools to iWay Service Manager

Prerequisites

Before continuing, ensure that your environment supports the following prerequisites:

- iWay Integration Tools (iIT) version 8.0.1 or higher (for design time).
- iWay Service Manager (iSM) version 8.0.1 or higher (for run time and deployment)
- Oracle JDBC driver (for example, *ojdbc7.jar*)
- Oracle database access
- Salesforce.com login account
- IWAYHOME set in the iIT workspace

Setting the iWay Home Directory in the iWay Integration Tools Workspace

When creating a new workspace in iWay Integration Tools (iIT), you must define the *iWay Home Directory*. The iWay Home Directory is the local installation directory of your iWay Service Manager (iSM) instance or a copy of this directory if a local installation is not available.

To set the iWay Home Directory in the iIT workspace:

1. Open iWay Integration Tools (iIT).

2. Click *Window* in the menu bar and select *Preferences* from the context menu, as shown in the following image.



The Preferences dialog opens, as shown in the following image.

A Preferences				_	
type filter text		iWay Home Directory		<	• • => • •
 General Ant Data Manage Docker Help Install/Update Way Integrat Adapters Application Certificate Channels Configura Default iSI Deploymed Favorites Flow Way Hon Library Mathia Maven Set Service Mathia Transform 	ment e ion Tools m Management tions M Target Version ent Templates me Directory anager ttings anager eer	Install Directory:	c:\iway8		Browse
> Java Mission	Control 🗸			Restore Defaults	Apply
?				ОК	Cancel

3. Expand *iWay Integration Tools* and *iWay Home Directory* in the left pane.

- 4. In the Install Directory field, specify or browse to the path of your iSM installation directory (for example, *c*:*iway8*).
- 5. Click *Apply* and then *OK*.

Configuring a Connection From Oracle to Salesforce.com

To configure a connection from Oracle to Salesforce.com:

1. Right-click anywhere in the Application Explorer tab, select *New* from the context menu, and then click *Application Project*, as shown in the following image.

New Image: Application Project Copy Project Paste API Duplicate Deployment Template Delete Channel Import Flow Front Transform	New >		
Copy Paste Duplicate Duplicate Deployment Template Channel Import From Flow Transform			Application Project
Paste API Duplicate Deployment Template Delete Channel Import Flow Front. Flow	Сору	1	Project
Duplicate Deployment Template Delete Channel Import Flow Front. K Transform	Paste	0	API
Delete Delete Channel Flow Front Front	Duplicate	1	Deployment Template
Import Front From	🕷 Delete	-	Channel
Export K Transform	Import	٥	Flow
	Export	10	Transform
f(.) IFL Expression	Refrech	f(J	IFL Expression
Example		- 📬	Example

The New Application Project dialog opens, as shown in the following image.

New Application Pro	oject	
pplication Project		
Create a new Application	on project	
	-	
Project name SF_Den	10	
Project location		
Use default		
Directory D:\ilT-8.0.1	-win32.win32.x86_64\ilT-8.0.1\SFDemo_workspac	Browse
Maven Option		

2. Type a name for your application project in the Project name field (for example, *SF_Demo*) and click *Finish*.

The new application project is created and listed in the Application Explorer tab.

3. Right-click the *Flows* subfolder, select *New* from the context menu, and then click *Flow*, as shown in the following image.



The New Flow Wizard dialog opens, as shown in the following image.

New Flow \	Vizard		×
General Prop	erties		
Please select a	project location and choose a name for the new Flow		
Project Folder	/SF_Demo/Flows	Bro	wse
Name	ORAtoSFDC		
Description	1		^
	Create in current folder		
?	Finish	Canc	el

- 4. Type a name for your process flow in the Name field (for example, *ORAtoSFDC*) and click *Finish*.
- 5. From the Palette, which is located in the right pane, expand *Application Adapters*. Click and drag the *Salesforce* object to the workspace area on the line between the *Start* and *End* objects, as shown in the following image.

• "ORAtoSFDC ×					c	. 0
					😳 Palette	₽
Start Start	Salesforce		→O Enc	type filter text	1	
<)	> III Data Quality	
Properties ×	🕙 Error Log	Console	🕺 Problems			, 0
Configuration Pre-Execution	8 SalesForce	Adapter	Please set the iWay	Home prefer	ence	^
Post-Execution General	Configuation:				 ✓ 	
	Adapter Target:					~

6. In the Properties tab on the bottom of the screen, click the green plus sign (+) to the right of the Configuration field.

The New Generic dialog opens, as shown in the following image.

🔬 New Generic		-		\times				
Configuration p	onfiguration properties for salesforce.1							
A generic for con	figuring Sales Force Adapter.							
				_				
Generic Name:	salesforce.1							
Login Proxy Sett	lings							
Site URL:	https://login.salesforce.com/services/Soap/u/33.0]				
User Name:								
Password:	•••••]				
Security Token:	DXYw5aAI5CeHbLtmtH2V0h4d							
4	Connection Successful	×						
6	Connection was successful							
		ОК						
Test Connection								
	-							
?		<u>F</u> inish	Canc	el				

- 7. Perform the following steps:
 - a) Specify a name for the new generic in the Generic Name field, or accept the default, which is *salesforce.1*.
 - b) Specify values for the following parameters that are specific to the Salesforce.com instance to which you are connecting:
 - i. Site URL
 - ii. User Name
 - iii. Password
 - iv. Security Token
 - c) Click *Test Connection* to confirm and validate your connection to Salesforce.com.
 - d) If the connection test is successful, click OK, and then click Finish.

You are returned to the Properties tab on the bottom of the screen.

8. Click the ellipsis icon (...) to the right of the Adapter Target field and select *Set Target* from the context menu, as shown in the following image.

Properties ×	🕙 Error Log 📮 Console 🕺 Problems	
Configuration Pre-Execution	SalesForce Adapter Please set an adapter target	
Post-Execution	Continuation: salesforce 1	× 4 1*
General	Conguetor. Jacanter	
	Adapter Target:	
		Set Target
		the input Scheme
		Cutput Scherr
1		all settings

The Configuration dialog opens, as shown in the following image.



- 9. Expand the Account folder node, select Create_Account, and then click OK.
- 10. To view or save an XML input schema, click the ellipsis icon (...) to the right of the Adapter Target field, select *Input Schema*, and then either *View* or *Save* from the context menu.

In the following image and example, View is selected from the context menu.

Properties 🗙	🖲 Error Log	Console 🕺 Problems	C ~
Configuration	SalesForce A	danter	
Pre-Execution	Salestoreen	aaptei	
Post-Execution	Configuration: 54	lesforce 1	× 5 1*
General	configurations [14		
	Adapter Target:	com.ibi.sforce.process.CreateProcess/Account	
	Adapter Target:	com.ibi.sforce.process.CreateProcess/Account	Set Target
	Adapter Target:	com.ibi.sforce.process.CreateProcess/Account	 Set Target Input Schema > View
	Adapter Target:	com.ibi.sforce.process.CreateProcess/Account	 Set Target Input Schema > View Output Schema > Save

The XML input schema document opens as a new tab in your workspace area, as shown in the following image.

<pre></pre>	<pre>ilns:xs="http://www.w3.org/2001/XMLSchema" xmlns:reqAccountCre="http://www.iwaysoftware : name="Create-Account-Request"> :unentation> :umentation> :vation> !exType> uence> !lement maxOccurs="unbounded" minOccurs="1" name="Instance"></pre>	com/salesfor/
	<pre>::complex!ype> :xs:sequence> <xs:element maxoccurs="1" minoccurs="1" name="Name" type="xs:string"></xs:element> <xs:element maxoccurs="1" minoccurs="0" name="ParentId" type="xs:string"></xs:element> <xs:element maxoccurs="1" minoccurs="0" name="BillingStreet" type="xs:string"></xs:element></pre>	

- 11. Click the *Source* sub-tab to view the structure of the XML input schema.
- 12. Repeat step 10, but select *Input Schema* and click *Save* from the context menu to save the XML input schema.

The Save As dialog opens, as shown in the following image.

💋 Save As	— 🗆 X
Save As Save file to another location.	
Enter or select the parent folder:	
SF_Demo/Resources	
	Create Project
☆ <> <>	
 ✓ Image: SF_Demo image: Adapters image: Settings image: APIs image: Dundle.iab image: Channels image: Configurations > Configurations > Elows > Resources > Templates > Transforms 	
File name: Create_Account_request.xsd	
?	Cancel

13. Expand your application project, select the Resources folder, and then click OK.

Note: An XML schema shows the fields that are required to update data properly in Salesforce.com. Data from any source can now be used by using a Transform to build a canonical output that matches this XML schema.

Building a Canonical Transform

To build a canonical transform:

1. Import an input and output structure (XML schema).

Note: In the previous procedure, you already saved the output structure (*Create_Account_request.xsd*) in the Resources folder of your application project.

2. Import an input structure by right-clicking the *Resources* folder and selecting *Import* from the context menu.

The Import dialog opens, as shown in the following image.

💋 Import			\times
Select			์ก
Select an import wizard:			
type filter text			
🗸 🗁 General			^
O Archive File			
Existing Projects into Workspace			
😂 File System			
Ling Preferences			
Projects from Folder or Archive			
> > Way Integration			
> CVS			
> Constant			
> Contraction			
> > Mission Control			
> 🥟 Plug-in Development			
> 🗁 Run/Debug			
🔪 🙉 Team			~
	_		
		Cance	I

- 3. Expand General, select File System, and then click Next.
- 4. Browse to an XML file on your file system that represents the expected input structure.
- 5. Select the file and click *Finish*, as shown in the following image.

🔏 Import	_	o x
File system Import resources from the local file system.		
From directory: C:\tmp\sfdc\ora_source	~	Browse
Filter Types Select All Deselect All Into folder: SF_Demo/Resources	X .Ora_table_structure_#.xml X .Saleforce_response_#.xml X Ora_table_structure_0.xml X Ora_table_structure_1.xml X Ora_table_structure_4.xml X Ora_table_structure_4.xml X Ora_table_structure_5.xml X Ora_table_structure_5.xml X Ora_table_structure_6.xml X Ora_table_structure_7.xml X Ora_table_structure 8.xml	A V Browse
Options Overwrite existing resources without warning Create top-level folder Advanced >>		
? < Back	Next > Finish	Cancel

6. Right-click the *Transforms* folder under your application project, select *New* from the context menu, and then click *Transform*, as shown in the following image.



The New iWay Transform dialog opens, as shown in the following image.

🔏 New iWay	Transform							\times
General Prop	perties							
Please choose	e a name and loc	ation	for this r	new Trans	sform.			
							_	
Project Folder	/SF_Demo/Tran	sform	ns				Bro	wse
Name	ORA2SFDC							
Description								^
	Create in cur	ent fo	older					
			_		-			
?	< Bac	:k	N	ext >		Finish	Cance	el

7. Specify a name for your Transform (for example, ORA2SFDC), and click *Next*.

The Transform Type Selection pane opens, as shown in the following image.

🔏 New iWay Transform	_		×
Transform Type Selection			
Please select a transform type.			
Please choose the input and output format of the transform.			
Transform From Transform To			
CDF CSV EDI HIPAA EDI X12 EDIFACT Fixed Width IDOC JSON SWIFT XML IWay XML Response CDF CSV EDI HIPAA EDI X12 EDIFACT Fixed Width HTML IDOC JSON SWIFT XML IWay XML Request	equest		
(?) < <u>B</u> ack <u>Next</u> > <u>Finish</u>	h	Cance	el

8. Select *XML* in the Transform From and Transform To columns, and then click *Next*.

The XML Input pane opens, as shown in the following image.

🔏 New iWay Transform			\times		
XML Input					
Set Input Properties					
Transformation input components are used to build and validate the input to the assemble a view representing the shape of the input to the transform. The input testing the transformation at design time. Dictionary Data Validation	e transform. The input struct data is used to provide insta	ure is use nce data f	d to for		
Choose a XML, DTD or XSD below to represent the structure of the XML input d be retained as a part of the transform project by selecting the embed option where the selection of the transform project by selecting the selecting the selection of the transform project by selecting the selecting t	ata. Content of the selected nen choosing the structure.	structure	can		
Structure:		x			
Contains Namespace				Load from Workspace	
				Load from Clipboard	e for Str
			_		

9. Click the ellipsis icon (...) to the right of the Structure field in the Dictionary tab and select *Load from Workspace* from the context menu.

& New iWa	ay Trans	form				177		×
XML Input								
Set Input Properties								
Transformat assemble a v testing the t	tion inpo view rep transform	ut components resenting the si mation at desig	are used to bui hape of the inp n time.	ld and validate th ut to the transfor	e input to the transforr m. The input data is us	m. The input struc ed to provide inst	ture is u ance dat	sed to a for
Dictionary	Data	Validation						
Choose a X be retained Structure:	(ML, DT) i as a pa	D or XSD below it of the transfo	to represent th rm project by s	e structure of the electing the emb	XML input data. Conte ed option when choos	ent of the selected ing the structure.	structur	e can
\SF_Demo	Resou	rces\Ora_table_	structure_0.xml	Ê.			x	£
?				< <u>B</u> ack	Next >	Einish	Canc	el

10. Select your input structure.

11. Click the *Data* tab, as shown in the following image.



- 12. Click the ellipsis icon (...) to the right of the Data File field in the Data tab and select *Load from Workspace* from the context menu.
- 13. Select your input structure.
- 14. Click Next.

The Output pane opens, as shown in the following image.

Output			← < ⇒ <
Format	XML		~
Transforr to under	nation out tand the d	put components are used to build and validate the output to the tran ata format of the transform output. The output data is used to confi	nsform. The output structure is used gure the transform output.
Dictiona	ry Data	Formatter	
Choose can be r	a XML, DT etained as	D or XSD below to represent the structure of the XML output data. Co a part of the transform project by selecting the embed option when	ontent of the selected structure choosing the structure.
/SF_De	mo/Resou	rces/Create_Account_request.xsd/Create_Account_request.xsd	X
Cont	ains Name	space	

- 15. Click the ellipsis icon (...) to the right of the Structure field in the Dictionary tab and select *Load from Workspace* from the context menu.
- 16. Select the output structure (*Create_Account_request.xsd*) that you previously saved in the Resources folder.
- 17. Click Finish.

The Transform opens as a new tab in your workspace area.

18. Expand the input XML and output XML structures, as shown in the following image.



- 19. In the left Input pane click and drag *Name* to the right Output pane and release it on top of Name. Repeat this for all of the remaining fields that you wish to propagate.
- 20. Click Save and close the Transform component.

Note: Transforms can be called based on the input data. As a result, a single process flow could handle many inbound data structures.

Adding a Transform to a Salesforce.com Process Flow

To add a transform to a Salesforce.com process flow:

- 1. Open the process flow that was created earlier (ORAtoSFDC) to configure a connection from Oracle to Salesforce.com.
- 2. From the Palette, which is located in the right pane, expand *Components*. Click and drag the *Transform* object to the workspace area on the line between the *Start* and *Salesforce* objects.
- 3. In the Properties tab on the lower part of the screen, select *execute an iWay transform* from the Select Action drop-down list, as shown in the following image.



4. Select *ORA2SFDC* from the Name drop-down list, as shown in the following image.

Select Action: e	xecute an iWay transform	1
▼ Transform		
Name:	ORA2SFDC	
	ORA2SFDC	

5. Save and close the process flow.

Note: The process flow lines are set to *On Complete*, meaning that the process flow will complete regardless of an error. If you want your process flow to fail on anything other than *On Success*, click the line that follows an object in a process flow to change its behavior.

Configuring an RDBMS Channel Listener

To configure an RDBMS channel listener:

1. Expand your application project folder (for example, *SF_Demo*), right-click the *Channels* subfolder, select *New* from the context menu, and then click *Channel*, as shown in the following image.

 Application Explorer 	× [»] 2 □ □			
<	> -> @ E 🔄 🔻			
✓ 🔄 SF_Demo				
🗁 APIs				
🗁 Channel			~	
> 🗁 Configu	New	>	۱	Application Project
✓ ⇒ Flows	Go Into			Project
> 🔅 ORA	Open in New Window			
V 🗁 Resource	· ·		0	API
S Crea 📄	Сору		đ	Deployment Template
🗴 Ora_ 👘	Paste			Channel
🗁 Templat 👔	Duplicate		•	Flow
V 🗁 Transfor	Delete		1.	Transform

The Channel Object dialog opens, as shown in the following image.

Channel O	bject				\times
Channel Gen	eral Properties				
Please choose	a name and location fo	or this new Chann	el.		
Project Folder	/SF_Demo/Channels			Brow	/se
Name	ORAtoSFDC_CH				
Description					~
Township					
Template	None				\sim
	Create in current fol	der			
~					
?	< Back	Next >	Finish	Cancel	

2. Type a name for your channel in the Name field (for example, *ORAtoSFDC_CH*) and click *Finish*.

The Channel Builder opens as a new tab in your workspace area, as shown in the following image. The name of the tab corresponds to the name you specified for your channel.



3. In the left pane, expand the *inlet: inlet.1* node, select *listener:listener.1*, and then click *change type* in the right pane.

The Modify listener type dialog opens, as shown in the following image.

	🔬 Modif	fy listener ty	уре					\times
L	istener	Compone	ent Type					
	Specify t	he type for	the Listener Compone	ent				
	RDB							☆
	Displayin	ng 2 of 49						
	All	Favorites	Recent					
	Туре			Tags				
	RDB Hi	gh Waterm	ark (rdbhwm)	high waterma	ark, event pr	ocessing	, sql event	t pr
	RDB Se	lect with Po	ost-Execution (sql)	database liste	ener, databas	se event	handler, ta	abl
	Tags:			1		Filter:		
	email 1	filesyster	m ftp high watermark	http Idap o	racle			
	queue	ervisap s	ftp ssh tcp tcp telne	t udp				
		up .	and some cells come	c ddp				
	RDB :	Select v	vith Post-Execu	tion (sql)				
	Accepts	work from	entries in relational ta	bles				
_								
	?				Finish		Cance	I

4. Type *RDB* in the listener search/filter field, select *RDB Select with Post-Execution (sql)* from the resulting list, and then click *Finish*.

The listener type for your inlet is updated in the left pane of the Channel Builder, as shown in the following image.



- 5. In the right pane, expand the *Main* group and specify the following values for the *SQL Query* and *SQL Post-query* parameters:
 - SQL Query:

select * from SFDCRECEIVER WHERE UPDATED='N'

• SQL Post-query:

update SFDCRECEIVER set UPDATED='Y' where "Name"=^Name

For example:

Active	
true	
Table	
SQL Quer	у
select '	from SFDCRECEIVER WHERE UPDATED='N'
SQL Post-	query

- 6. Retain the default values for the remaining parameters in the Main group.
- 7. In the right pane, expand the *Data Base Access* group and specify the following values for the *Driver* and *URL* parameters:
 - Driver:

oracle.jdbc.driver.OracleDriver

• URL:

jdbc:oracle:thin:@iworatss-vm:1522:ORCL

For example:

▼ Data Base Access		
Driver		
oracle.jdbc.driver.Ora	cleDriver	
URL		
jdbc:oracle:thin:@iwo	ratss-vm:1522:ORCL	

8. Click *Save* (or press *Ctrl+S*).

You are now ready to associate this channel with the process flow you configured earlier, which configures a connection from Oracle to Salesforce.com.

9. In the left pane, expand the *route: route.1 (default)* node and select *process:process.1*, as shown in the following image.



10. In the right pane, click the *Select Process Flow* icon, as shown in the following image.



The Resource Selection dialog opens, as shown in the following image.

A Resource Selection	1			×
 ☆ ⇔ ⇔ ✓ ⇔ SF_Demo ✓ ⇔ Flows ♥ ORAte 	SFDC			
?		OK	Cance	el

- 11. Expand the *Flows* subfolder under your application project, select the *ORAtoSFDC* process flow, and then click *OK*.
- 12. Click *Save* (or press *Ctrl+S*) to save your channel configuration.

Configuring a Connection From Salesforce.com to Oracle

To configure a connection from Salesforce.com to Oracle:

1. Expand your application project folder (for example, *SF_Demo*), right-click the *Flows* subfolder, select *New* from the context menu, and then click *Flow*, as shown in the following image.



The New Flow Wizard dialog opens, as shown in the following image.

New Flow	Wizard		_		×
General Pro	perties				
Please select	a project location and choose a name for the	new Flow			
Project Folder	/SF_Demo/Flows			Bro	wse
Name	SFDCtoORA				
Description					^
					\sim
	Create in current folder				
?		Finish		Cancel	

2. Type a name for your process flow in the Name field (for example, *SFDCtoORA*) and click *Finish*.

To retrieve the input structure for your Transform (mapping from Salesforce.com to Oracle) from Salesforce.com, you need to add a File object, which writes a structure file received from Salesforce.com.

3. From the Palette, which is located in the right pane, expand *Connectors*. Click and drag the *File* object to the workspace area on the line between the *Start* and *End* objects, as shown in the following image.

			🛱 Palette
			type filter text
			Connectors
			& Blockchain
			S Email
			E File
	/		TOICA
0		0	JDBC
C -			Ø Mongo DB
Start	File	End	MS Excel
			W Queue (In)
			道 Queue (Out)
			© REST
			= SFTP
			TCP
			(i) Twilio
Properties ×	🖲 Error Log 📮 Console 🔏 🕅	roblems	d
Configuration	G File Connector 2 errors o	letected	
Pre-Execution	-		
Post-Execution	Select Action: write a file		×
General	+ Source		
	Source Settings		
	• Target (2 fields are required)		
	Target Settings		
	Post Action		

- 4. From the Select Action drop-down list in the Properties tab of the process flow, select *write a file*.
- 5. Expand the *Target* group and specify values for the *Directory* and *File Name* parameters.

You can use an asterisk character (*) to include a date time stamp in the file name or a hash character (#) to include a single digit counter in the file name. Adding multiple hash characters (###) will increase the counter limit.

File Conne	ctor
Select Action:	write a file
Source	
Source Set	tings
* Target	
Directory:	C:\tmp\FromSalesforces
File Name:	SF_Account_structure_#.xml
+ Target Set	tings
> Post Actio	n :

- 6. Click *Save* (or press *Ctrl+S*) to save your process flow configuration.
- 7. Follow the steps described in <u>Building a Canonical Transform</u> to create a new Transform named *SFDC2ORA*.

This new Transform (*SFDC2ORA*) will use the Salesforce.com structure file that is generated using the File Write object in your process flow. The output structure will be the Oracle structure file.

The new completed Transform should be configured and structured, as shown in the following image.



- 8. Click *Save* (or press *Ctrl+S*) to save your Transform.
- 9. From the Palette, which is located in the right pane, expand *Connectors*. Click and drag the *JDBC* object to the workspace area on the line after the Transform object, as shown in the following image.



10. In the Properties tab on the lower part of the screen, select *execute an SQL operation* from the Select Action drop-down list, as shown in the following image.

Properties ×	Error Log Console 1/2 Problems	
Configuration	IDBC Connector Please select a configuration below	
SQL Statement	G JOBE Connector Press sect a comparation deton	
Custom Properties	Select Action: execute an SQL operation	
Pre-Execution	Configuration	
Post-Execution	Comparation.	
General	SQL Processing	
	Result Set Processing	
	Output Document	
	Transactionality	
	Post Action	

11. Click the green plus sign (+) to the right of the Configuration field.

The New Generic dialog opens, as shown in the following image.

🔬 New Generic							×
Select Type							
Specify the type	of your Generic						
Select provider t	ype:						
JDBC Connection	n						
JNDI/JDBC Conn	lection						
Description:							
This generic con	nfigures a JDBC co	onnection.					^
							~
~	_						
(?)	< B	ack	Next >	Finish		Cance	
	C ILIKI LO	anacto	Illease calest	a continuention had	-		

12. From the Select provider type area, select *JDBC Connection*, and then click *Next*.

The Configuration properties for jdbc.1 pane opens, as shown in the following image.

🔏 New Generic						×
Configuration pr	operties for	jdbc.1				
This generic config	ures a JDBC cor	nnection.				
Generic Name: jdl	oc.to.oracle					
Connection Advan	ced					
Data Source URL:	jdbc:oracle:th	iin:@iwora	tss-vm:1522:ORCL			
JDBC Driver Class:	ver Class: oracle.jdbc.driver.OracleDriver					
User ID:	SCOTT					
Password:	 Password: Expression: 	•••••				
0	< B	lack	Mauto	Finish	6.	ncel

13. Provide values for the connection parameters as required, and then click *Finish*.

- 14. Click *Save* (or press *Ctrl+S*) to save your process flow.
- 15. Click the *SQL Statement* sub-tab under the Properties tab of the JDBC object, as shown in the following image.

Configuration	JDBC Connector	
SQL Statement		
Custom Properties	insert into SFDCRECEIVER values ('?Name','?Type','?Parentld','?BillingStreet','?BillingCity','?BillingState','?BillingPostalCode','?	^
Pre-Execution	BillingCountry','?Phone')	
Post-Execution		
General		
ocheld.		

This is where your SQL Insert statement can be added. For example, insert the following values into SFDCRECEIVER:

```
('?Name','?Type','?ParentId','?BillingStreet','?BillingCity','?BillingState','?BillingCountry','?BillingCountry','?Phone')
```

16. Click the *Custom Properties* sub-tab under the Properties tab of the JDBC object, as shown in the following image.

Configuration SQL Statement	JDBC Connector				
Custom Properties	Name	Туре	Value	Description	4
Pre-Execution	Name	string	XPATH(//listener.1/row/Name)		
Post-Execution	Туре	string	XPATH(//listener.1/row/Type)		1.
General	ParentId	string	XPATH(//listener.1/row/ParentId)		26
	BillingStreet	string	XPATH(//listener.1/row/BillingStreet)		100
	BillingCity	string	XPATH(//listener.1/row/BillingCity)		11.0
	BillingState	string	XPATH(//listener.1/row/BillingState)		3
	BillingPostalCode	string	XPATH(//listener.1/row/BillingPostal		
	BillingCountry	string	XPATH(//listener.1/row/BillingCountr		
	Phone	string	XPATH(//listener.1/row/Phone)		

17. Add a custom property for each of the values you will be inserting through the SQL Insert statement (for example, *?Name* requires a custom property called *Name*).

A custom property must resolve to a corresponding value. In this particular scenario, the value is provided by an XPath.

18. Click *Save* (or press *Ctrl+S*) to save your process flow.

You are now ready to add a Payload object to your process flow that will provide Salesforce.com with an acknowledgement (Salesforce Ack = true response document) when the Oracle database is successfully updated.



19. From the Palette, which is located in the right pane, expand *Components*. Click and drag the *Payload* object to the workspace area on the line after the Oracle JDBC object, as shown in the following image.



- 20. Change the behavior of the wire connecting the Oracle JDBC object and Payload object to *On Success*.
- 21. Click the *Payload* sub-tab under the Properties tab of the Payload object, as shown in the following image.

Properties ×	🕙 Error Log 🗳 Console % Problems
Configuration	Product Object
Payload	Payload Object
Pre-Execution	Format: vml
Post-Execution	
General	<soapenv:envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"> <soapenv:body> <notificationsresponse xmlns="http://soap.sforce.com/2005/09/outbound"> <ack>true</ack> </notificationsresponse> </soapenv:body> </soapenv:envelope>

22. Add the following XML payload:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soapenv:Body>
<notificationsResponse xmlns="http://soap.sforce.com/2005/09/outbound">
<Ack>true</Ack>
</notificationsResponse>
</soapenv:Body>
</soapenv:Envelope>
```

- 23. In the General sub-tab of the Payload object, specify a unique name for this object (for example, *Salesforce ACK true*).
- 24. Click *Save* (or press *Ctrl+S*) to save your process flow.

Note: Since the *On Success* condition has been specified for the connection between the Oracle JDBC and Payload objects, you assure that only when Oracle is successfully updated will an acknowledgement set to *true* be returned to Salesforce.com to confirm that a record was received.

You can also add a Catch object to your process flow, which will catch all errors within your process flow and route them down the Error wire.



In this scenario, you can add another Payload object to the process flow, but with *Salesforce Ack* = *false* as a response document.

You are now ready to configure a non-blocking (nHTTP) channel listener to receive messages from Salesforce.com.

25. Expand your application project folder (for example, *SF_Demo*), right-click the *Channels* subfolder, select *New* from the context menu, and then click *Channel*.

The Channel Object dialog opens, as shown in the following image.

Channel O	bject						×
Channel Ger	ieral Pro	perties					
Please choose	e a name a	ind location for th	his new Channel.				
Project Folder	/SF_Dem	o/Channels				Br	owse
Name	SFDCtoO	IRA_CH					
Description							^
							~
Template	None						~
	Create	in current folder					
0			Novt 2	Finish	1	Cance	4

26. Type a name for your channel in the Name field (for example, *SFDCtoORA_CH*) and click *Finish*.

The Channel Builder opens in your workspace area, as shown in the following image.

Channel Builder <u>2 errors detected</u>		
SFDCtoORA_CH	۵	listener.1 Listeners are protocol handlers, that
where the second se	•	configured endpoint. Listed below defined in the registry.
Sistener: listener.1 ✓ ⊕ route: route.1 (default)	×	Type: undefined change type
process: process.1 outlet: outlet.1	1.0	

27. In the left pane, expand the *inlet: inlet.1* node, select *listener:listener.1*, and then click *change type* in the right pane.

The Modify listener type dialog opens, as shown in the following image.

💰 Modify listener type				×
Listener Component Type				
Specify the type for the Listener Compo	onent			
NHTTP				н
Displaying 1 of 49				
All Favorites Recent				
Туре	Tags			
HTTP 1.1 [nonblocking] (nhttp)	http listener, https listener	, http, https	i	
Tags: email filesystem ftp high waterma rvi sap sftp ssh tcp tcp telnet udp	ark http idap oracle queue	Filter:		
HTTP 1.1 [nonblocking] Accepts work via HTTP/S protocol	(nhttp)			
0	Finish		Cance	el

- 28. Type *NHTTP* in the listener search/filter field, select *HTTP 1.1 [nonblocking] (nhttp)* from the resulting list, and then click *Finish*.
- 29. In the right pane, expand the *IP Properties* group and specify a port number Salesforce.com will communicate with by sending data, as shown in the following image.

Accents work via HTTP/S n	ratocal	i 🧟 😫
ype: HTTP 1.1 [nonblockin	g] (nhttp) <u>change type</u>	
ilter (enter string to filter	properties) Clear	
• Main		
- IP Properties		
Port		
9876		
Local Bind Address		
Persistence		

- 30. In the left pane, expand the *route: route.1 (default)* node and select *process:process.1*.
- 31. In the right pane, click the *Select Process Flow* icon.

The Resource Selection dialog opens, as shown in the following image.

SFDCtoORA_CH		۵	process.1
 ✓	TP 1.1 [nonblocking] (nhttp))	\$	component
\$⇔ outlet: outlet.1	 Resource section SF_Demo Flows ORAtoSFDC SFDCtoORA 		
Aaster-Details	G		

- 32. Expand the *Flows* subfolder under your application project, select the *SFDCtoORA* process flow, and then click *OK*.
- 33. Click *Save* (or press *Ctrl+S*) to save your process flow.

Deploying an Application From iWay Integration Tools to iWay Service Manager

This section provides suggested guidelines and recommendations when deploying an application from iWay Integration Tools (iIT) to iWay Service Manager (iSM).

Stopping and Starting Application Channels Using Auto Start

By default, all channels in an application start when the application is started. To stop channels from starting automatically, double-click on the application project *bundle* subfolder.

The application bundle opens as a new tab (bundle.iab) in your workspace area, as shown in the following image.

SF Demo	A-2416 0 .	Add channels, transforms	and processes to your	application. Auto	start column lets you control cha
 SF_Demo APIs Channels Channels SFDCtoORA_CH SFDCtoORA_CH Configurations ORAtoSFDC Flows ORAtoSFDC SFDCtoORA Resources Templates SFDC2ORA SFDC2ORA SFDC2ORA SFDC2ORA SFDC2ORA SFDC2ORA Sebundle Components M. Resources build.xml 		Name & ORA2SFDC ORAtoSFDC ORAtoSFDC_CH & SFDC2ORA OSFDCtoORA SFDCtoORA_CH	Type transform flow inlineChannel transform flow inlineChannel	Auto Start	Location /SF_Demo/Transforms/ORA2 /SF_Demo/Flows/ORAtoSFDC. /SF_Demo/Channels/ORAtoS /SF_Demo/Transforms/SFDC2 /SF_Demo/Flows/SFDCtoORA. /SF_Demo/Channels/SFDCto

Ensure the *Components* sub-tab is selected. Click the drop-down list in the Auto Start column that corresponds to your channel and select *no*. You can determine which channels should start automatically based on your application requirements.

Adding Required Third-Party Libraries and Drivers to Your Application

You can add any third-party libraries and drivers (for example, .jar files, JDBC drivers, and so on) to your application bundle as required.

Click the *Libraries* sub-tab at the bottom of the screen and then *Add external LIBs* in the right pane, as shown in the following image.



Browse to select any .jar file(s) that you want to include with your application.

Configuring a Deployment Template

Configuring a deployment template for your application project allows you to set up a customized runtime environment prior to application deployment. Logging and tracing are enabled in the template to debug runtime issues.

To configure a deployment template:

1. Expand your application project folder (for example, *SF_Demo*), right-click the *Templates* subfolder, select *New* from the context menu, and then click *Deployment Template*, as shown in the following image.



The Template Object dialog opens, as shown in the following image.

Deployment Please choose	Dbject Template General Properties a name and location for this new Deployment Template.	-		×
Project Folder	/SF_Demo/Templates			Browse
Name Description	SFDemo_Template			^ \
?	Finish		Can	cel

2. Type a name for your template in the Name field (for example, SFDemo_Template) and click Finish.

The Deployment Template Builder opens, as shown in the following image.

eployment Template Builder		
Deployment Template Builder SF_Demo_Template Settings Backup Settings Console Settings Data Settings General Settings Java Settings Log Settings Register Settings Trace Settings Providers Authentication Realms 		Log Settings The trace log is used to record the diagnostic information that is generated by the runtime components of iWay Service Manager. The transaction log is used to maintain a record of every document received and processed by iWay Service Manager. Filter (enter string to filter properties) ✓ Main Logging ✓ on/off Logfiles Location Iog
Data Providers		Time Zone
Security Providers		local 🗸 🗸
Activity Facilities		Logfile Size Limit
Correlation Facilities	*	F12

- 3. Expand *Settings* in the left pane and click *Log Settings*.
- 4. In the Log Settings area in the right pane, ensure that the *on/off* check box is selected to enable logging.

Note: You may want to select *local* from the Time Zone drop-down list to make it easier to view and track the logs.

5. Click *Trace Settings* in the left pane of the Deployment Template Builder, as shown in the following image.

Deployment Template Builder		
SF_Demo_Template	E 📤	produced during run in the runtime enviro
v * Template		Filter (enter string to
v 🗀 Settings	a de la	
Backup Settings		
Console Settings	_	▼ Main
Data Settings		
General Settings		Error
Java Settings		✓ on/off
♦ Log Settings		Warning
Path Settings A Benister Cettings		√ on/off
 Register Settings Trace Settings 		
		Info
C Authentication Bealms		l on/off
		Debug
C Security Providers		✓ on/off
✓ □ Facilities		Deep
Activity Facilities		- Con/off
Correlation Facilities		on/on
✓		Tree
v implication Business Activity Monitor		on/off
General Settings		Data
Correlation Settings		✓ on/off
🗀 Trading Partner Manager		Validation Pulos
A Resources		
S Libraries		on/ott
The second secon		External
		on/off
		Defer
		on/off

- 6. In the right pane, enable the following trace settings by selecting the corresponding *on/off* check boxes:
 - Error
 - Warning
 - Info

These first three trace settings return minimal traces. Enabling *Debug*, *Deep*, and *Data* returns more extensive and detailed traces.

7. Click *Save* (or press *Ctrl+S*) to save your deployment template.

Deploying an Application

To deploy an application from iIT to iSM:

1. Expand your application project folder (for example, *SF_Demo*), right-click the application project *bundle* subfolder, select *Run As* from the context menu, and then click *Run Configurations*, as shown in the following image.



The Run Configurations dialog opens, as shown in the following image.

Run Configurations Create, manage, and run	n configuration	s 📦
type filter text	Configure	launch settings from this dialog: • 'New' button to creiguration of the selected type.
 Application Deployme Build Docker Image Docker Compose Eclipse Application 	C New Duplicate Delete	plicate' buttonpy the selected configuration. lete' button toove the selected configuration. Filter' button to configure filtering options.
 Eclipse Data Tools Flow Java Applet Java Application Ju JUnit 	- Edit o Configure preference	aunch perspective settings from the <u>'Perspectives'</u>

2. Right-click *Application Deployment* in the left pane and select New from the context menu.

The Create, manage, and run configurations pane opens, as shown in the following image.

) 🗈 🗶 🕒 🔅 🔻	Name: SF Demo	
ype filter text	Main	
 Application Deployment New_configuration Build Docker Image Docker Compose Eclipse Application Eclipse Data Tools Flow Java Applet Java Application JUINIT JUNIT JUNIT Plug-in Test Maven Build MWE Workflow OSGi Framework Run Docker Image Transform Batch Test Transform Test 	Application: /SF_Demo/bundle.iab Template: /SF_Demo/Templates/SF_Demo_Template. Server Environment: URL: http://localhost:9000 User Name: iway Password: Deployment Options: Deployment Manager SF_Democrant	Browse Browse Refresh
	Deproyment Name: SF_Demo_ver_1 Deploy as Test Server: on/off Console Port:	Apply

- 3. Enter the required information for your application deployment as shown. You can also add the deployment template that you configured earlier to be used during run time.
- 4. Click *Apply* and then *Run*.

If you are prompted to save your changes, click *Yes*. If the application deployment was successful, you will see corresponding messages under the Console tab in iIT, as shown in the following image.

Properties Error Log	Console × 🎗 Problems	
ilT Message Console		
[INFO]11:14:49 Building [INFO]11:14:50 Applicati [INFO]11:14:50 Building [INFO]11:14:50 Deploymen [INFO]11:14:50 Deploying [INFO]11:14:53 Applicati	Application 'bundle' on 'bundle' built successfully. Deployment Template 'SF_Demo_Template' t Template 'SF_Demo_Template' built succes application 'bundle' using template 'SF_D on 'SF_Demo_ver_1' deployed successfully.	sfully. Demo_Template' and deployment name 'SF_Demo_ver_1'

Congratulations! You have completed all of the required steps to build and deploy an application that retrieves data from an Oracle data source and propagates it to Salesforce.com.

If you have any further questions or technical issues, you can open a support case using the <u>Technical Support Center</u>.

For more technical content, including additional how-to's, and videos, visit the <u>iWay and Omni</u> <u>Information Center</u>.