Made by: Areli Arias
Based on: Peoplesoft Technical Notes by Ajay

WEB Services Documentation

Integration Broker – Part 1 - *Configuration*

This posting will cover the configuration of Integration Broker for integration of two Peoplesoft 8.53 systems.
For this posting, we have two installations of PeopleSoft Demo Financial and Supply Chain Management 9.2 as follows.

Property	Installation # 1	Installation # 2
PS Image Id	FSCMDB-85308-PI004	FSCMDB-85309-PI005
VirtualBox Version	4.1.2 r77245	4.3.10
VirtualBox Adapter	192.168.2.181	192.168.56.1
PS dbname	EP92DM00	EP92DM05
hostname	fscm92.ps.com	fscm9205demo.ps.com
Static IP Address (eth0)	192.168.1.186	192.168.56.101
netmask	255.255.255.0	255.255.255.0
Default Gateway	192.168.1.1	192.168.1.1
DNS server	192.168.1.1	192.168.1.1
Tools Version	8.53.02	8.53.09
Application Version	9.2.000	9.2.000
Oracle DB version	11.2.0	11.2.0.3

The hosts files on both machines have the following entries.
192.168.1.186   fscm92.ps.com
192.168.56.101   fscm9205demo.ps.com

We will setup the Integration Broker on both installations for Integrations between the two systems. Both installation s have PSFT_EP as the default local node. We rename the default local node to TOSHIBA_L755 on installation #1 and to IBM_X3650 on installation #2. On installation #1 we will have remote node IBM_X3650. On installation #2 we will have remote node TOSHIBA_L755.
When the PeopleSoft 9.2 Image was deployed on Virtual Box, it created a virtual machine with all the required components like Database, Application server, Web server and Process Scheduler. Let us start the virtual machine so all the four servers mentioned above will start automatically. The Virtual machine comes preconfigured with a number of things. An Enterprise installation will not have that advantage. So we will go through all the steps even if they are not required on Virtual Machine.

The following major steps will be performed.
Step #1) Configuring the Application Server on installation#1
Step #2) Configuring the Application Server on installation#2
Step #3) Renaming the default local node on installation#1
Step #4) Renaming the default local node on installation#2
Step #5) Adding remote node on installation#1
Step #6) Adding remote node on installation#2
Step #7) Configuring using the delivered WorkCenter on installation#1
Step #8) Configuring using the delivered WorkCenter on installation#2
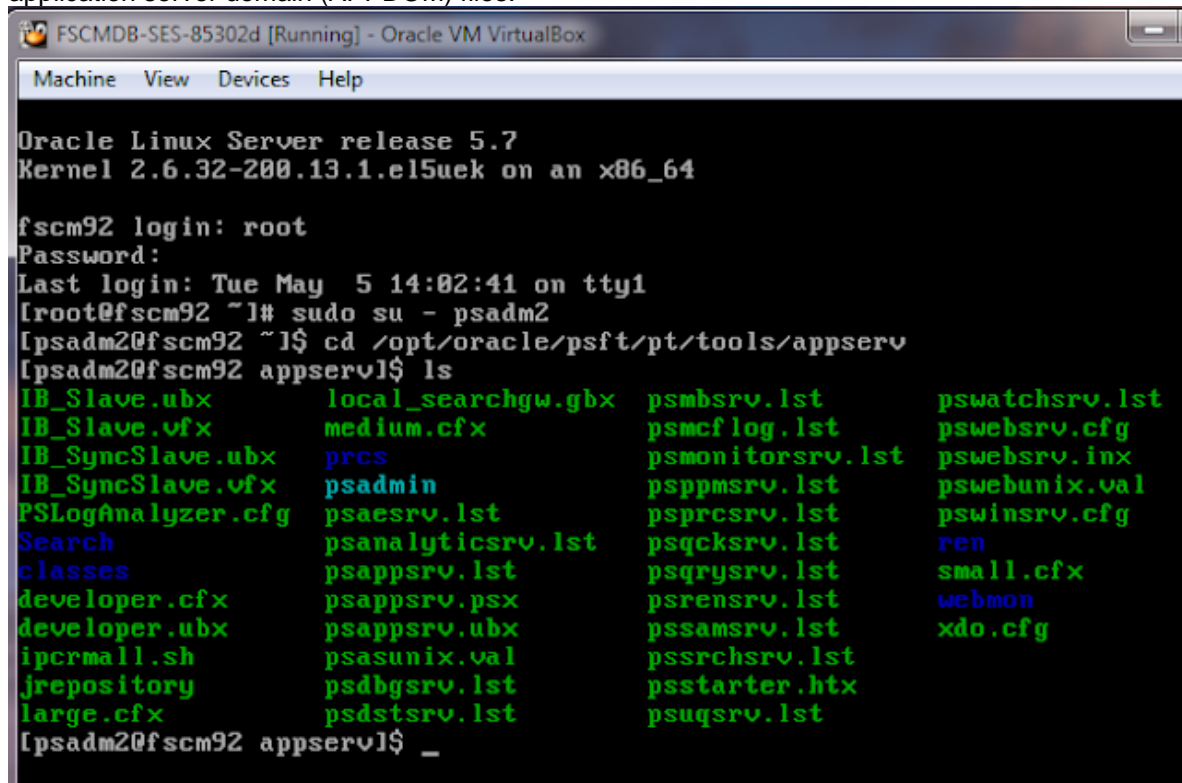
Let us begin.

Step #1) Configuring the Application Server on installation#1
Let us login to the Linux command shell as root. For administering the PeopleSoft 9.2 application

installed on Virtual Box we will use the Peoplesoft userid psadm2. At the command prompt for root switch to user psadm2. Change the directory to the one pointed by PS_CFG_HOME/appserv. In our case PS_CFG_HOME is pointing to /home/psadm2/psft/pt/8.53. This location has the default application server domain (APPDOM) files.

Start psadmin from here.

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```
[psadm2@fscm92 appserv]$ psadmin

PSADMIN -- PeopleTools Release: 8.53.02
Copyright (c) 1996, 2013, Oracle. All rights reserved.

--------------------------------
PeopleSoft Server Administration
--------------------------------

  PS_CFG_HOME              /home/psadm2/psft/pt/8.53
  PS_HOME                  /opt/oracle/psft/pt/tools
  PS_APP_HOME              /opt/oracle/psft/pt/apptools


  1) Application Server
  2) Process Scheduler
  3) Search Server
  4) Web (PIA) Server
  5) Switch Config Home
  6) Replicate Config Home
  q) Quit


Command to execute (1-6, q): _
```

Select option 1 for Application Server.
Select option 1 for Administer a Domain.
Select option 1 for the domain (APPDOM in my case).
Select option 2 for Domain shutdown menu.
Select option 1 for Normal shutdown.

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```
All domain processes have stopped.

---------------------------------
PeopleSoft Domain Administration
---------------------------------
      Domain Name: APPDOM

 1) Boot this domain
 2) Domain shutdown menu
 3) Domain status menu
 4) Configure this domain
 5) TUXEDO command line (tmadmin)
 6) Edit configuration/log files menu
 7) Messaging Server Administration menu
 8) Purge Cache
 9) Preload Cache
10) Clean IPC resources of this domain
 q) Quit

Command to execute (1-10, q) : _
```

Select option 4 for Configuration of Domain. Type 'y' for shutdown of domain.

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```
  1) Pub/Sub Servers    : Yes    16) DBNAME          :[EP92DM00]
  2) Quick Server       : No     17) DBTYPE          :[ORACLE]
  3) Query Servers      : Yes    18) UserId          :[VP1]
  4) Jolt               : Yes    19) UserPswd        :[VP1]
  5) Jolt Relay         : No     20) DomainID        :[APPDOM]
  6) WSL                : No     21) AddToPATH       :[.]
  7) PC Debugger        : No     22) ConnectID    :[people]
  8) Event Notification: No      23) ConnectPswd:[peop1e]
  9) MCF Servers        : No     24) ServerName  :[]
 10) Perf Collator      : No     25) DomainConnectPswd:[]
 11) Analytic Servers   : Yes    26) WSL Port       :[7000]
 12) Domains Gateway    : No     27) JSL Port       :[9000]
                                 28) JRAD Port      :[9100]


     Actions
     =========
 13) Load config as shown
 14) Custom configuration
 15) Edit environment settings
  h) Help for this menu
  q) Return to previous menu

HINT: Enter 15 to edit DBNAME, then 13 to load

Enter selection (1-28, h, or q): _
```

Make sure that
  Option 1) Pub/Sub Servers is set to Yes
  Option 4) Jolt is set to Yes
  Option 27) JSL Port is set (to 9000 in our case)
If you made change to any option, select option 13) Load config as shown. Or else, select q to quit that menu.
You will be at the Domain Administration menu again. Select option 7 for Messaging Server Administration menu.

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```
-----------------------------------------------------------------
                Messaging Server Administration menu
-----------------------------------------------------------------
 Domain Name : APPDOM

  In addition to the default messaging servers, the following
  dedicated messaging servers are in the domain configuration:

        << No dedicated messaging servers are defined >>


 Commands:
   1) Create a new messaging server
   2) Edit the queue list for a messaging server
   3) Delete an existing messaging server
   q) Quit

Command to execute (1-3, q) : _
```

If no messaging server is listed, select option 1) Create a new messaging server.
Select option 1) Publication Broker.
Enter the name of the server (as FSCMSG).
Enter the messaging queues as 25.

```
-----------------------------------------------------------------
                Messaging Server Administration menu
-----------------------------------------------------------------
 Domain Name : APPDOM

  In addition to the default messaging servers, the following
  dedicated messaging servers are in the domain configuration:


   SERVER NAME        TYPE   QUEUES
   ---------------    ----   ---------------
   FSCMSG             BRK    25


 Commands:
   1) Create a new messaging server
   2) Edit the queue list for a messaging server
   3) Delete an existing messaging server
   q) Quit

Command to execute (1-3, q) : _
```

Select option q) to go back to the Domain Administration menu.
Select option 1) Boot this Domain.
Select option 1) Boot (serial boot).
Select option 3) Domain status menu.
Select option 1) Server status menu.

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```
PSBRKHND        BRKHQ_FSCM+ PUBSUB        401      0          0 (  IDLE )
JREPSVR         00094.00250 JREPGRP       250      0          0 (  IDLE )
PSBRKDSP        BRKDQ_dflt  PUBSUB        100      0          0 (  IDLE )
PSSAMSRV        SAMQ        APPSRV        100      0          0 (  IDLE )
PSBRKHND        BRKHQ_dflt  PUBSUB        101      0          0 (  IDLE )
JSL             00095.00200 JSLGRP       200      0          0 (  IDLE )
PSPUBDSP        PUBDQ_dflt  PUBSUB       200      0          0 (  IDLE )
PSPUBHND        PUBHQ_dflt  PUBSUB       201      0          0 (  IDLE )
PSQRYSRV        QRYQ        APPSRV        70      0          0 (  IDLE )
PSSUBDSP        SUBDQ_dflt  PUBSUB       300      0          0 (  IDLE )
PSSUBHND        SUBHQ_dflt  PUBSUB       301      0          0 (  IDLE )

>


--------------------------------
PeopleSoft Domain Status Menu
--------------------------------
     Domain Name: APPDOM

  1) Server status
  2) Client status
  3) Queue status
  q) Quit

Command to execute (1-3, q) [q]: _
```

We see that the PUBSUB and JSLGRP servers are running.
Select option q) four times to exit Peoplesoft Server Administration.

Step #2) Configuring the Application Server on installation#2
Perform the similar set of activities on installation#2 as we did on installation#1 in previous step #1.

Step #3) Renaming the default local node on installation#1
For standard integrations among 2 or more systems, each database involved must have
   A local Node definition for itself
   A remote Node definition for each of the other systems involved in integrations
Renaming a node requires the following actions:
  a) Deactivate all the domains in your messaging system. Access the Domain Status page. For
each active domain in the system, from the Domain drop-down list box, select Inactive. Click
Update to change the status of all domains to Inactive and all dispatchers to Cleanup. Click Force
Reset to change the status of all dispatchers to Inactive.

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b) Remove the data from the live message tables. You have several choices when removing data from the live message tables. You can archive messages one at a time from the Asynchronous Details or Synchronous Details component. You can archive messages with a batch process using the Archive Monitor Data component. You can purge message data using one of several Data Mover scripts delivered in $PS_HOME\scripts on the client or $PS_HOME/scripts in the Virtual box. We will delete data using AppMsgPurgeLive.dms script which deletes data from the following tables
   ---- Core tables ----
   psapmsgpubhdr, psapmsgpubdata, psapmsgpubcon, psapmsgsubcon,
psapmsgpuberr, psapmsgpuberrp, psapmsgpubcerr, psapmsgpubcerrp, psapmsgsubcerr, psapmsg
subcerrp, psapmsgpcondata, psapmsgscondata, psiberr
psiberrp, psibdebuglog, psibaeattr, psapmsgibattr, psapmsgdomstat, psapmsgdspstat,
   ---- Synchronous core tables ----
   psibloghdr, psiblogdata, psiblogerr , psiblogerrp, psiblogibinfo
   ---- Lock tables ----
   psibfclock, psibadslock
   c) Rename the node definition PSFT_EP to TOSHIBA_L755 on installation # 1.

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d) Reboot the Web Server.
e) Navigate back to Nodes page. We will specify only the required fields on the Node Page (Description, Authentication, NodePassword=Nodename, Userid=VP1). All Integrations will validate the password defined for Node(s).

  Authentication is required for single sign-on. Default userid is the userid that the sender must specify to invoke a Service Operation.

Step #4) Renaming the default local node on installation#2
Perform the similar set of activities on installation#2 as we did on installation#1 in previous step #3.
On installation#2 the default local node will be renamed to IBM_X3650.

 Step #5) Adding remote node on installation#1
On installation#1 the remote node definition first page for IBM_X3650 should match (except DESCR) with the local node IBM_X3650 defined on installation#2.

We cannot configure the Target connector until we configure the Integration Gateway. We will be configuring Integration Gateway in the next activities and revisit Nodes definition to add Target connectors to remote node.

Step #6) Adding remote node on installation#2
On installation#2 the remote node definition first page for TOSHIBA_L755 should match (except DESCR) with the local node TOSHIBA_L755 defined on installation#1.

Step #7) Configuring using the delivered WorkCenter on installation#1
For the next set of activities, we will use the delivered workflow activity guide called Integration Network WorkCenter. This WorkCenter provides centralized access to the PeopleSoft PIA pages used to configure PeopleSoft Integration Broker and the Integration Network.
Let us begin the workflow activity guide. Navigate to PeopleTools, Integration Broker, Integration Network WorkCenter. By default, the Integration Network pagelet appears in the work area. Click Ok on the message box

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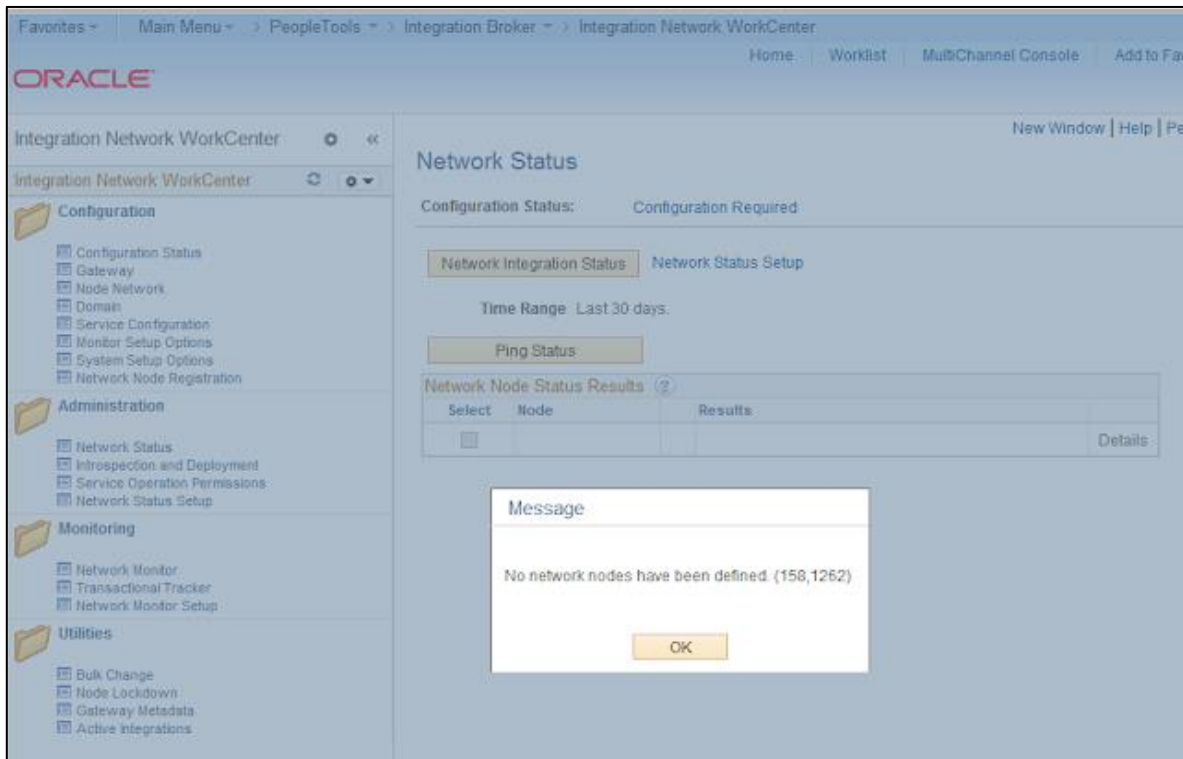
Minimize the Integration Network WorkCenter pagelet and maximize the (Integration Broker) IB
Configuration pagelet.

Activity 7.1: Setting Up the Integration Gateway
Here we will define the gateway URL, load target connectors, Register nodes on the local gateway,
Define integration gateway keystore values. In the left navigation page, click Set Up Gateway.
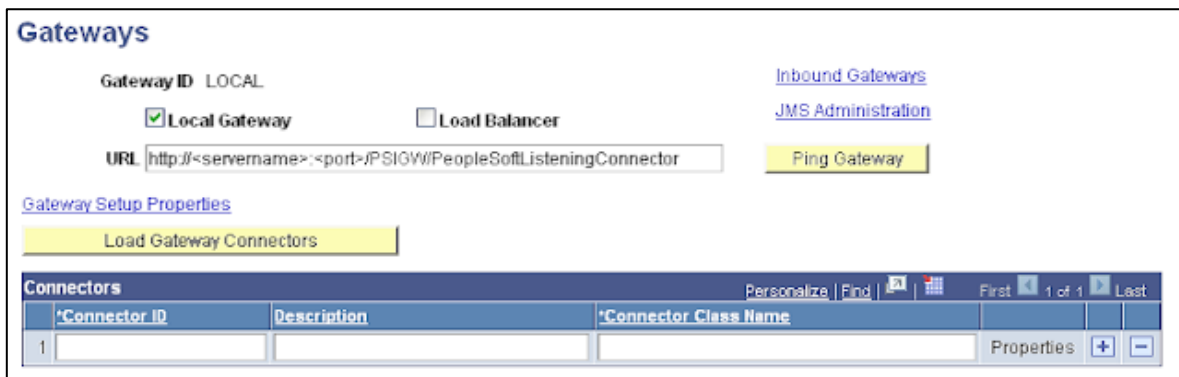
 In the URL field enter the gateway URL in the following format:
http://<machinename>:<port>/PSIGW/PeopleSoftListeningConnector
For our installation, let us type in the following URL
http://fscm92.ps.com:8000/PSIGW/PeopleSoftListeningConnector
and save. We have used hostname for <machinename> and used port 8000. Save and click on the
'Ping Gateway' button. A new page opens showing the status as shown below.

PeopleSoft Integration Gateway

PeopleSoft Listening Connector

Tools Version : 8.53.02

Status:ACTIVE

 Click on the Load gateway Connectors button. The delivered connectors are loaded. The completed page looks like the following. Successful load of connectors indicate that Integration Gateway and Application Server are communicating.

Gateways

Gateway ID LOCAL

☑ Local Gateway   ☐ Load Balancer

URL http://fscm92.ps.com:8000/PSIGW/PeopleSoftListeningConnector

Inbound Gateways

JMS Administration

Ping Gateway

Gateway Setup Properties

Load Gateway Connectors

Connectors
Personalize | Find | | | First 1-11 of 11 Last

	*Connector ID	Description	*Connector Class Name			
1	AS2TARGET		AS2TargetConnector	Properties	+	−
2	EXAMPLETARGETCONNE		ExampleTargetConnector	Properties	+	−
3	FILEOUTPUT		SimpleFileTargetConnector	Properties	+	−
4	FTPTARGET		FTPTargetConnector	Properties	+	−
5	GETMAILTARGET		GetMailTargetConnector	Properties	+	−
6	HTTPTARGET		HttpTargetConnector	Properties	+	−
7	JMSTARGET		JMSTargetConnector	Properties	+	−
8	PSFT81TARGET		ApplicationMessagingTargetConnector	Properties	+	−
9	PSFTTARGET		PeopleSoftTargetConnector	Properties	+	−
10	SFTPTARGET		SFTPTargetConnector	Properties	+	−
11	SMTPTARGET		SMTPTargetConnector	Properties	+	−

When you save the changes on the Gateways page, the system marks the 'Setting up gateway' activity complete. However we still need to register nodes on the local gateway and define integration gateway keystore value for the gateway configuration to be complete. Now that Target connectors are loaded, let us go back to Node definition and define connector to the remote node. It looks like the following after save.

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Come back to the Integration Network WorkCenter. Click the Gateway Setup Properties link. Enter the gateway user ID and password that were set up during the PIA installation process.

The PeopleSoft Node Configuration page appears.

The Gateway Default Application Server section is where you define the application server to process integrations if inbound integrations do not specify a target node. The PeopleSoft Nodes section is where you register PeopleSoft nodes that will handle integrations.

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To register nodes for your PeopleSoft integration partners, you must obtain the following information from them:
• Node name. (The node should be defined in the database).
• Application server URL.
• Application server user ID.
• Application server password.
• PeopleTools release number.
• Application server domain password (if applicable).
The Application Server URL format is //<machinename>:<port>. Enter the machine name (fscm92.ps.com) and Jolt port (9000) of the application server. In the Domain Password field, enter the domain password if one was defined when the application server was configured.
In the PeopleSoft Nodes grid, in the Node Name field, enter the name of the local default node. In the Application Server URL field enter the machine name and Jolt port of the application server. The format is //<machinename>:<port>.

Click the Ping Node button for local node TOSHIBA_L755 only. A successful ping means that the integration gateway can communicate with the node. Similarly we will Ping Node button for remote node IBM_X3650, but we will come back to that after installation#2 is setup.
Let us define Integration Gateway Keystore password. From the PeopleSoft Node Configuration page, click the Advanced Properties Page link. The Gateway Properties page appears.

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IB Gateway Properties

Gateway Properties

URL http://fscm92.ps.com:8000/PSIGW/PeopleSoftListeningConnector

Gateway Properties

```
#
## Integration Gateway CERTIFICATE Section
#

# Use the supplied encryption utility to provide an encrypted password for the entry
below
# Example:
#ig.certificateAlias=<myalias>
#ig.certificatePasswd=<mypassword>
#
#ig.certificateAlias=goober
#ig.certificatePasswd=EalEXWwk5lw=


#
## please get keystore file "test" in your local machine and change the dir below to fit
```

▼ Password Encryption

Password	Confirm Password

Encrypt	Encrypted Password	

Scroll to the ## Integration Gateway CERTIFICATE Section of the file.
Locate the secureFileKeystorePath property. Confirm the keystore path setting:
a. Uncomment the secureFileKeystorePath property if it is not already uncommented.
b. Confirm that the path defined for the keystore path is accurate.
Enter an encrypted keystore password.
c. Expand the Password Encryption utility at the bottom of the page.
d. In the Password field, enter the keystore password.
e. In the Confirm Password field, enter the password again.
f. Click the Enter button to encrypt the password. The encrypted password appears in the Encrypted Password field.
g. Copy the value in the Encrypted Password field to the clipboard.
h. Navigate back to the secureFileKeystorePasswd property in the file.
i. Uncomment the property and paste the encrypted value, setting the property equal to the encrypted value.
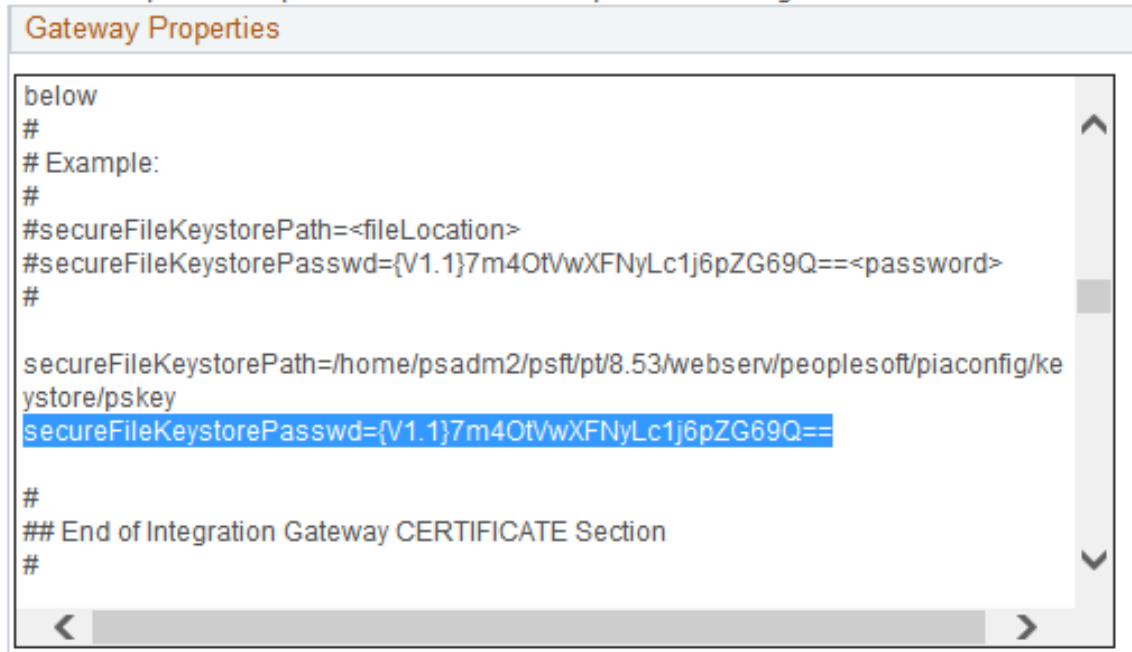
Click the OK button. Click the OK button on the PS node Configuration page.

Activity 7.2: Adding Target Locations
In this activity we:
• Define the schema namespace and the service namespace.
• Define target locations to serve as Integration End point. This end point is the service URL used by consumers to access and invoke services.
• Define the service system status.
Click the Add Target Location(s) link in the left navigation pane. The Service Configuration page appears. Leave the Service Namespace and the Schema Namespace field as delivered.
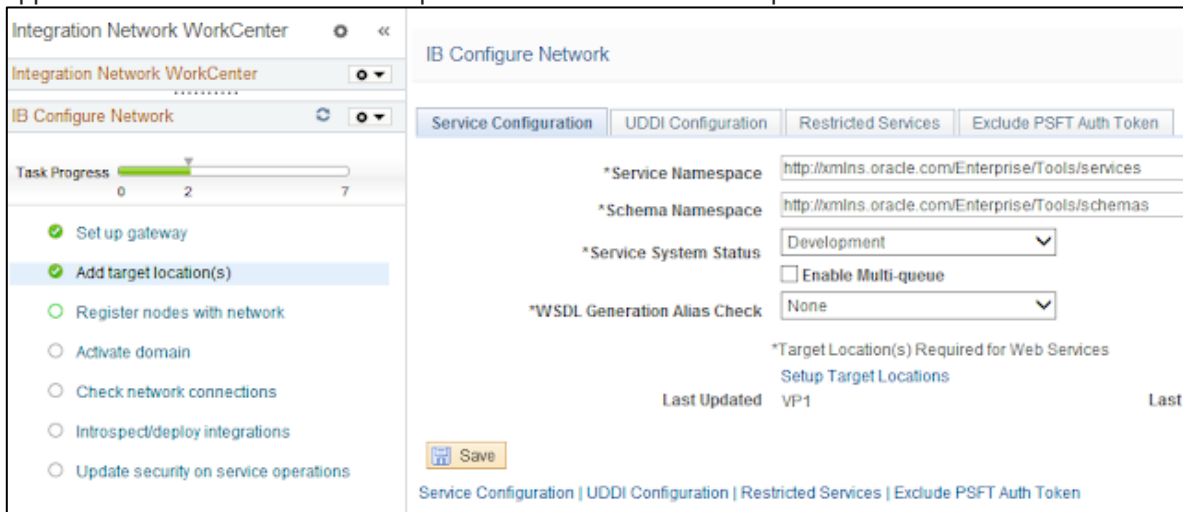
Let us define the Target Locations. Target locations are URLs that PeopleSoft Integration Broker uses to build and validate XML message schemas, export WSDL documents, and as the SOAP endpoint. To access the page, click the 'Set Target Locations' link on the Service Configuration page. The Target Locations page provides examples of the format to enter for the target location.
http://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<defaultlocalnode>
The following target location was specified.
http://fscm92.ps.com:8000/PSIGW/PeopleSoftServiceListeningConnector/TOSHIBA_L755

After entering the target location, the page looks like the following.

We used the alternate URL format specifying node name. The alternate format is required if Multiple Application Server domains sharing the same gateway. Click the OK button. The Service Configuration page appears. Save. The workflow will mark this activity complete.

Activity 7.3: Registering Nodes with Network
In this activity we:
• Set the network node password.
• Confirm that integration gateway keystore values are set.
• Register remote nodes in the network.
Let us set the network node password. PeopleTools is delivered with an IB_NETWORK node. This node is used to perform functionality across all nodes in the integration network, including registering network nodes on participating systems. The password set must be identical on all systems participating in the integration network. Use the Update Node Network Password page (IB_INTNET_NODEPWD) to enter the password for the network node.
Navigate back to the IB Configure Network pagelet using the control in the navigation pane of the Integration Network WorkCenter. The page features a read-only Secure Keystore Value Defined checkbox that indicates if these values are set in the integration gateway properties file. Validate that the default local node TOSHIBA_L755 has a check in the In-Network column. Click to check and save, if it is not checked. The In-Network can have checked value on if Configured-in-Gateway and Active-Node are checked. Check the In-Network box for remote node IBM_X3650 and save.

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That activity is marked complete.

Activity 7.4: Activating Pub/Sub Server Domains
Along with setting '1) Pub/Sub Servers' is set to Yes in Application Server configuration, this step is required so Integration Systems can process asynchronous operations.
Click on Next or on Activate Domain. The Domains grid shows the machine name and the path to the application server on which the pub/sub server resides. If the pub/sub server domain is not active, select Active from the Domain Status drop-down list and Click the Update button. When you activate the domain, as the previous example illustrates, the pub/sub dispatcher server processes appear in the Dispatcher Status grid with an active (ACT) status.

The number of processors shown in the Dispatcher Status above depends on the small/medium/large configuration template selected at the time of configuring the Application

Server. Six Pub/Sub servers are available for large model, one dispatcher and one handler. Only 2 Pub/Sub servers are available for Developer model, one dispatcher and one handler.

Activity 7.5: Checking Network Connections
Click on Next or on Checking Network Connections. We will verify that the local node can communicate with other PeopleSoft nodes defined in the integration network.

The Network Node Status Results grid lists all of the nodes that are configured in the integration network. Since the configuration on installation # 2 is not complete yet, it is expected that node IBM_X3650 will give some error message. Click the Ping Status button to verify that the network nodes can communicate with one another.

A successful ping indicates that you have correctly defined the selected remote PeopleSoft nodes in the integration network and that the local system can connect to them. A successful ping also indicates that the PeopleSoft integration partners represented by the remote nodes have correctly defined your node as part of their integration.

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The next check is the Network Integration Status. Click the Network Integration Status button to verify that the Integration Systems on the selected nodes are properly configured and integrations can be performed.

To fix the above error, navigate to the following.

Select the second routing definition which is inactive. Click on the Activate selected Routings button. And save.
Go back to Integration Network WorkCenter and click again the Network Integration Status button.

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Since we are using the userid VP1, we did not get any permission issue. If you get an error message that PS user not authorized to invoke Service Operation GETNETWORKSTATUS (158,536), please make sure user has access to permission list PTPT4000.
Mark the activity manually as complete.

Step #8) Configuring using the delivered Workcenter on installation#2
Do the same things for the installation # 2 as we did for the installation # 1.

That completes the configuration of Integration Broker for integration of two Peoplesoft 8.53 systems.

Integration Broker - Part 2 – *Publishing and Calling Component Interface based SOAP web services*

This article is in continuation of a previous article "Integration Broker – Part 1 – Configuration".

Instead of recreating another set of objects for use here, we will utilize some of the objects developed in the posting "Component Interfaces – Part 1". The objects that will be utilized here from that article are:
   The records PS_AJ_TABLE_TYPES, PS_AJ_MAP_XLAT_TBL.
   The pages AJ_TABLE_TYPES, AJ_MAP_XLAT_TBL.
   The component AJ_MAP_XLAT_TBL and its registration (including Portal Registries).
   Data populated in tables PS_IBU_GROUP_INV and PS_AJ_TABLE_TYPES.
   The tested component interface AJ_MAP_XLAT_TBL_CI.

The example has been created and tested on the following software environment:
   Peoplesoft Application: FSCM 9.2
   Peoplesoft Peopletools: 8.53.02
   Peoplesoft Virtual Machine Image id: FSCMDB-85308-PI004
   Database: Oracle 11.2.0

Assumptions:
1) The objects listed above and created in posting "Component Interfaces – Part 1" (up to Component Interface) are available for reuse.
2) The Soap Client is installed on your Desktop.
3) The Integration Broker is configured correctly.

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Based on:

We will be logged in as VP1 so we do not have to spend too much time in security.

The major steps will be:
1) Loading sample data using SQL and On-line to review the component.
2) Creating Web Services.
3) Providing Web Services for use by third parties.
4) Calling Web Services from SoapUI desktop.

1) Loading sample data using SQL and On-line to review the component.
Let us clear the data from table PS_AJ_MAP_XLAT_TBL and reload sample data using the following data using following SQLs.
```
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','CIA','
',' ','SRC CIA','ADV','PSFT ADV',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','COD','
',' ','SRC COD','COD','PSFT COD',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','DA','
',' ','SRC DA','30day DA30','PSFT 30day DA30',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES
('CA90701','PAYMENT_TERMS','EOM45',' ',' ','SRC EOM45','M45','PSFT
M45',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES
('CA90701','PAYMENT_TERMS','EOM75',' ',' ','SRC EOM75','M75','PSFT
M75',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','LC90','
',' ','SRC LC90','LC90','PSFT LC90',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','M45','
',' ','SRC M45','M45','PSFT M45',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','M75','
',' ','SRC M75','M75','PSFT M75',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','N00','
',' ','SRC N00','N00','PSFT N00',SYSDATE,'AGGARWAA');
INSERT INTO PS_AJ_MAP_XLAT_TBL VALUES ('CA90701','PAYMENT_TERMS','N10','
',' ','SRC N10','N30','PSFT N30',SYSDATE,'AGGARWAA');
```
In the PIA, navigate to the component AJ_MAP_XLAT_TBL and go to the tab Map Xlated Items.

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Based on: Peoplesoft Technical Notes by Ajay

```
select * from PS_AJ_MAP_XLAT_TBL WHERE IBU_GROUP = 'CA90701' AND
TABLE_TYPE = 'PAYMENT_TERMS';
```


2) Creating Web Services.
Navigate to create Component Based Web Service.

Made by: Areli Arias

Favorites ▾   Main Menu ▾   › PeopleTools ▾ › Integration Broker ▾ › Web Services ▾ › CI-Based Services

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CI-Based Services
Select Component Interfaces

Component Interface Name:	AJ_MAP_XLAT_TBL_CI
Component Name:	AJ_MAP_XLAT_TBL
Owner ID:	

Search

Select CIs		Personalize | Find | View All |		First ⊕ 1 of 1 ⊕ Last
Select	CI Name	Description	Component Name	Owner ID
☐				

Review CI Status

🖃 Notify

Click on the Search button.

CI-Based Services
Select Component Interfaces

Component Interface Name:	AJ_MAP_XLAT_TBL_CI
Component Name:	AJ_MAP_XLAT_TBL
Owner ID:	

Search

Select CIs		Personalize | Find | View All |		First ⊕ 1 of 1 ⊕ Last
Select	CI Name	Description	Component Name	Owner ID
☐	AJ_MAP_XLAT_TBL_CI		AJ_MAP_XLAT_TBL	

Review CI Status

Select the Checkbox for the CI displayed and click on Review-CI-Status button.
On the next page, select all five actions.

Made by: Areli Arias
Based on: Peoplesoft Technical Notes by Ajay

CI-Based Services

Review Status

Status			Find	First ◄ 1 of 1 ► Last

CI Name: AJ_MAP_XLAT_TBL_CI   **Description:**

Service: CI_AJ_MAP_XLAT_TBL_CI   **Status:**   Service does not exist and will be created.

Choose Method

Select	Action	Method	Service Operation	Status
☑	Create Operation.	Get		Does not exist.
☑	Create Operation.	Create		Does not exist.
☑	Create Operation.	Find		Does not exist.
☑	Create Operation.	Update		Does not exist.
☑	Create Operation.	Updatedata		Does not exist.

☑ Select All   ☐ Deselect All

[Display Selected Actions]   Return to Select CIs

Click on Display-Selected-Actions button.
Assign Aliases for five actions and an alias for the Service action.

CI-Based Services

Help

Confirm Actions

Actions				Find	First ◄ 1 of 1 ► Last

CI Name: AJ_MAP_XLAT_TBL_CI   **Description:**

Service: CI_AJ_MAP_XLAT_TBL_CI   **Service Alias:** AJXlatsCI_WebService

Service Status: Service does not exist and will be created.   ☑ Inherit All CI Permissions

Choose Operation

Select	Action	Method	Service Operation	Alias	Inherit CI Permissions	Version	Message Names and Descriptions
☑	Create Operation.	Get	CI_AJ_MAP_XLAT_TBL_CI_G.V1	AJXlatsGet	☑		Names and Descriptions
☑	Create Operation.	Create	CI_AJ_MAP_XLAT_TBL_CI_C.V1	AJXlatsCreate	☑		Names and Descriptions
☑	Create Operation.	Find	CI_AJ_MAP_XLAT_TBL_CI_F.V1	AJXlatsFind	☑		Names and Descriptions
☑	Create Operation.	Update	CI_AJ_MAP_XLAT_TBL_CI_UP.V1	AJXlatsUpdate	☑		Names and Descriptions
☑	Create Operation.	Updatedata	CI_AJ_MAP_XLAT_TBL_CI_UD.V1	AJXlatsUpdateData	☑		Names and Descriptions

[Perform Selected Actions]   Return to Select CIs

The default version 1 will be used. Click on Perform Selected Actions button.

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All five operations are created. Click on View Service Definition link.

```
   CI_AJ_MAP_XLAT_TBL_CI_C is for creating new rows for record
PS_AJ_TABLE_TYPES
   CI_AJ_MAP_XLAT_TBL_CI_F is for searching existing rows
   CI_AJ_MAP_XLAT_TBL_CI_G is for getting existing row from record
PS_AJ_TABLE_TYPES
   CI_AJ_MAP_XLAT_TBL_CI_UD is for updating existing rows for
PS_AJ_TABLE_TYPES and PS_AJ_MAP_XLAT_TBL
   CI_AJ_MAP_XLAT_TBL_CI_UP is for creating new rows for record
PS_AJ_MAP_XLAT_TBL
```

3) Providing Web Services for use by third parties.

Now that operations are created let us provide the web services for external systems. We will use a delivered activity guide. Navigate to the following page. Enter first few characters of the web service name.

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Click on search button.

Click on Next button.

Provide Web Service Wizard   Step 2 of 4

①-②-③-④   < Previous   Next >

Select Service Operations

Select one or more operations for each service.

Service CI_AJ_MAP_XLAT_TBL_CI   Description CI_AJ_MAP_XLAT_TBL_CI
☑ Use Service Alias in WSDL   Service Alias AJXlatsCI_WebService
☐ Use Secure Target Location   ☐ Generate WSDL 2.0

Operations					Find	View All	🗗 First ◀ 1-5 of 5 ▶ Last	
Service Operation	Description	Operation Type	Request Message	Response Message	Fault Message	
☑ CI_AJ_MAP_XLAT_TBL_CI_C.V1	CI_AJ_MAP_XLAT_TBL_CI_C	Synchronous	M603444.V1	M872531.V1	M139760.V1	
☑ CI_AJ_MAP_XLAT_TBL_CI_F.V1	CI_AJ_MAP_XLAT_TBL_CI_F	Synchronous	M244728.V1	M556779.V1	M571698.V1	
☑ CI_AJ_MAP_XLAT_TBL_CI_G.V1	CI_AJ_MAP_XLAT_TBL_CI_G	Synchronous	M1060066.V1	M821650.V1	M829005.V1	
☑ CI_AJ_MAP_XLAT_TBL_CI_UD.V1	CI_AJ_MAP_XLAT_TBL_CI_UD	Synchronous	M963177.V1	M838335.V1	M970453.V1	
☑ CI_AJ_MAP_XLAT_TBL_CI_UP.V1	CI_AJ_MAP_XLAT_TBL_CI_UP	Synchronous	M423715.V1	M573490.V1	M523593.V1	

☑ Select All   ☐ Clear All

Check the checkbox for Use Service Alias in WSDL and click on Select All link to check all five service operations. Click on the Next button.

Provide Web Service Wizard   Step 3 of 4

①-②-③-④   < Previous   Next >

View WSDL

View the generated WSDL for each service.

Selected Services		🗗 First ◀ 1 of 1 ▶ Last
Service	Description	
CI_AJ_MAP_XLAT_TBL_CI	CI_AJ_MAP_XLAT_TBL_CI	View WSDL

Click on the View WSDL link to view the WSDL.

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Based on: Peoplesoft Technical Notes by Ajay

WADL Viewer   ✕

Help

Service: CI_AJ_MAP_XLAT_TBL_CI

```
<?xml version="1.0"?>
<wsdl:definitions name="AJXlatsCI_WebService.1"
targetNamespace="http://xmlns.oracle.com/Enterprise/Tools/services/AJXlatsCI_WebServi
ce.1"
xmlns:M1060066.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M1060066.V1"
xmlns:M139760.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M139760.V1"
xmlns:M244728.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M244728.V1"
xmlns:M423715.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M423715.V1"
xmlns:M523593.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M523593.V1"
xmlns:M556779.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M556779.V1"
xmlns:M571698.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M571698.V1"
xmlns:M573490.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M573490.V1"
xmlns:M603444.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M603444.V1"
xmlns:M821650.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M821650.V1"
xmlns:M829005.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M829005.V1"
xmlns:M838335.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M838335.V1"
xmlns:M872531.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M872531.V1"
xmlns:M963177.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M963177.V1"
xmlns:M970453.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M970453.V1"
xmlns:plnk="http://schemas.xmlsoap.org/ws/2003/05/partner-link/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://xmlns.oracle.com/Enterprise/Tools/services/AJXlatsCI_WebService.1"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
```

    Return

Click return button. Click next button.

Provide Web Service Wizard   Step 4 of 4

①—②—③—④   < Previous   Finish

Specify Publishing Options

The WSDL for the selected services will be published to the PeopleSoft WSDL Repository.

☐ **Publish to UDDI**

☑ **WSDL Repository**

Click the Finish button.

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Based on: Peoplesoft Technical Notes by Ajay

Provide Web Service Wizard

Confirm Results

View the WSDL Generation Log to confirm the results of the wizard.

WSDL Generation Log:

Service: CI_AJ_MAP_XLAT_TBL_CI has been exported.
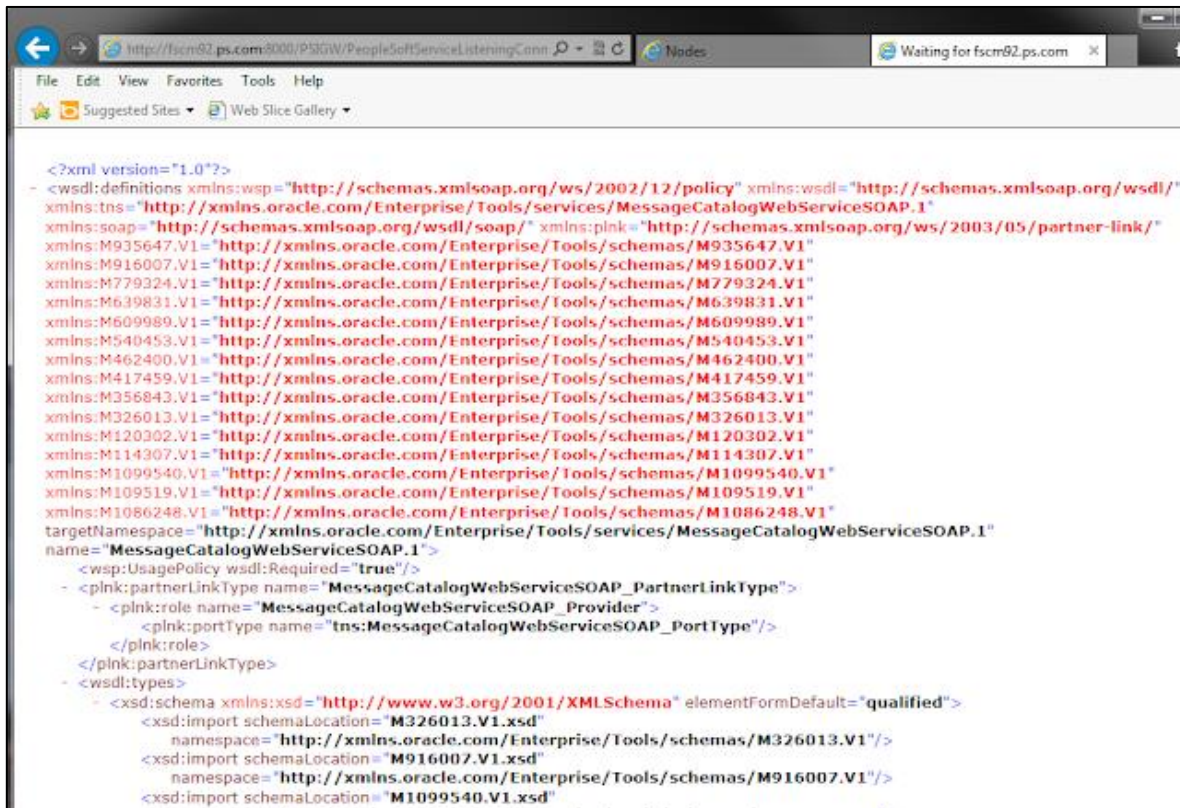
Inserted WSDL: AJXlatsCI_WebService.1 in the repository

Generated WSDL URL:
http://fscm92.ps.com:8000/PSIGW/PeopleSoftServiceListeningConnector/TOSHIBA_L755/AJXlatsCI_WebService.1.wsdl

[Provide Another Service]   [Generate SOAP Template]

So we have the following values to note.
Service: CI_AJ_MAP_XLAT_TBL_CI
WSDL: AJXlatsCI_WebService.1
WSDL
URL: http://fscm92.ps.com:8000/PSIGW/PeopleSoftServiceListeningConnector/TOSHIBA_L755/AJXlatsCI_WebService.1.wsdl
You can copy the above WSDL URL and paste in the address bar of a new browser window to view the SOAP enabled XML file.

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Based on: Peoplesoft Technical Notes by Ajay

I got an error which. The error log could be seen
at http://fscm92.ps.com:8000/PSIGW/errorLog.html
I changed the default userid from @userpass@ to VP1 for the node ANONYMOUS.

Click on the generate SOAP Template and review the Template.

Made by: Areli Arias
Based on:

Generate SOAP Template

Service:	CI_AJ_MAP_XLAT_TBL_CI
Description:	CI_AJ_MAP_XLAT_TBL_CI

WSDL

```
<?xml version="1.0"?>
<wsdl:definitions name="AJXlatsCI_WebService.1"
targetNamespace="http://xmlns.oracle.com/Enterprise/Tools/services/AJXlatsCI_WebService.1"
xmlns:M1060066.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M1060066.V1"
xmlns:M139760.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M139760.V1"
xmlns:M244728.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M244728.V1"
xmlns:M423715.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M423715.V1"
xmlns:M523593.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M523593.V1"
xmlns:M556779.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M556779.V1"
xmlns:M571698.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M571698.V1"
xmlns:M573490.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M573490.V1"
xmlns:M603444.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M603444.V1"
xmlns:M821650.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M821650.V1"
xmlns:M829005.V1="http://xmlns.oracle.com/Enterprise/Tools/schemas/M829005.V1"
```

Choose An Existing Operation   Personalize | Find | View All | 🗗 | 🖩   First ◀ 1-5 of 5 ▶ Last

Operation Name	Description
CI_AJ_MAP_XLAT_TBL_CI_C.V1	CI_AJ_MAP_XLAT_TBL_CI_C
CI_AJ_MAP_XLAT_TBL_CI_F.V1	CI_AJ_MAP_XLAT_TBL_CI_F
CI_AJ_MAP_XLAT_TBL_CI_G.V1	CI_AJ_MAP_XLAT_TBL_CI_G
CI_AJ_MAP_XLAT_TBL_CI_UD.V1	CI_AJ_MAP_XLAT_TBL_CI_UD
CI_AJ_MAP_XLAT_TBL_CI_UP.V1	CI_AJ_MAP_XLAT_TBL_CI_UP

🔍 Return to Search

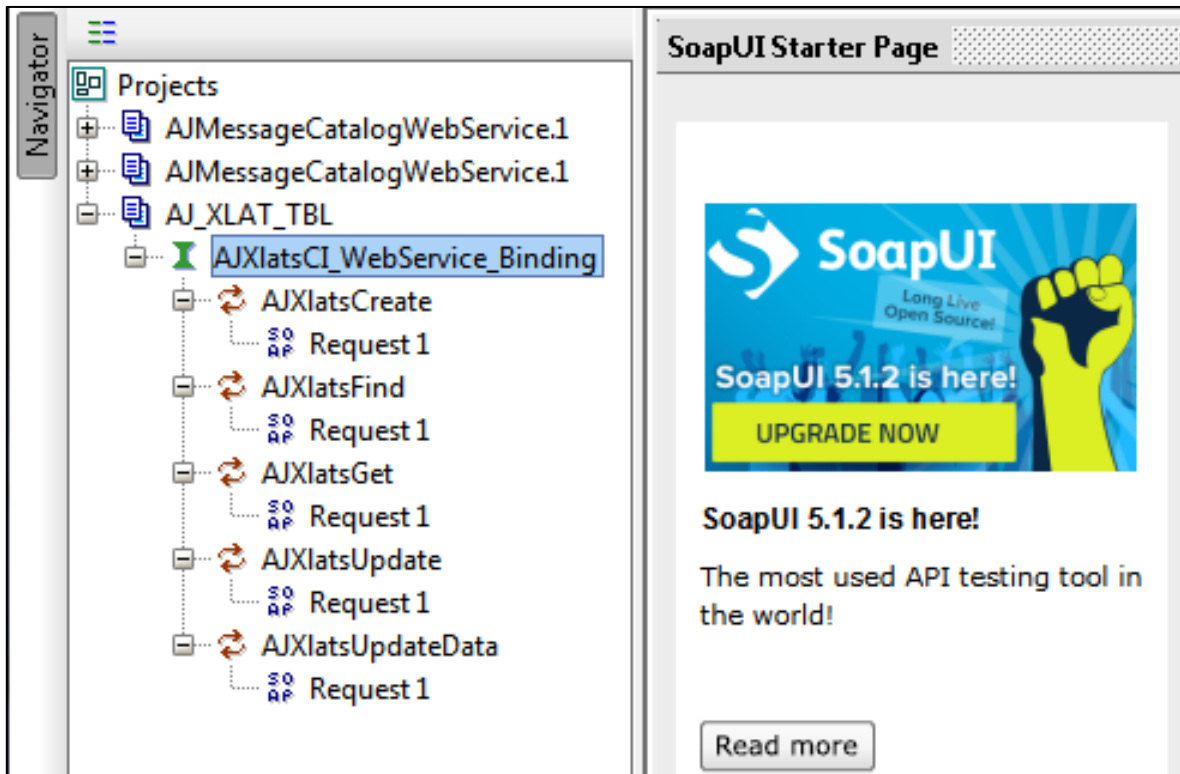
4) Calling Web Services from SoapUI desktop.
Start SoapUI on your desktop. Click on File->New SOAP project. Enter the project name as
AJ_XLAT_TBL and initial WSDL as
http://fscm92.ps.com:8000/PSIGW/PeopleSoftServiceListeningConnector/TOSHIBA_L755/AJXlats
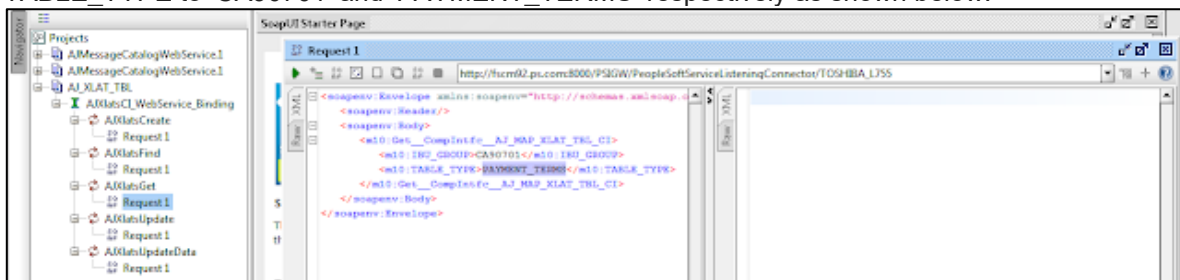CI_WebService.1.wsdl
Click on OK button.

Made by: Areli Arias

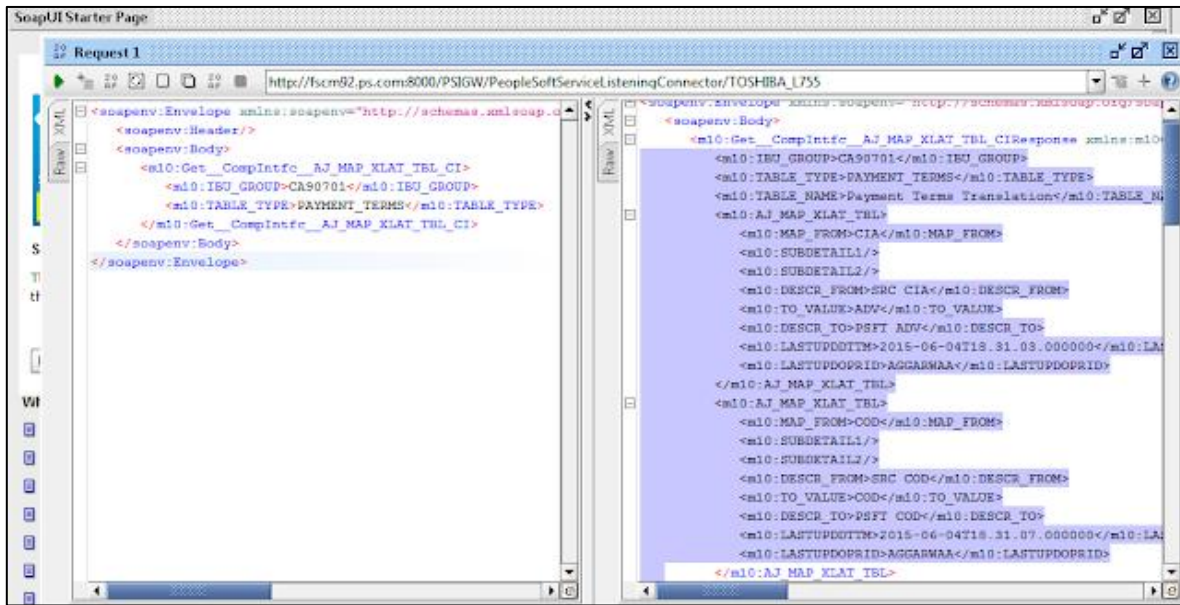Double click on Request1 property of AJXlatsGet operation.

In the Request section (in the middle), change the question marks for IBU_GROUP and TABLE_TYPE to 'CA90701' and 'PAYMENT_TERMS' respectively as shown below.

Click on the Green arrow on top left of request window to submit the request (or press Alt-Enter). The response window on the right is showing the data found.

Made by: Areli Arias

Let us have a look at the online data before we make any updates.

We will update the data for the existing row #10 where Map-From_Value is N10. We will use the Service Operation AJXlatsUpdateData. Let us change the Description_From from 'SRC N10' to 'UPD SRC N10'. We will keep to_value as N30 and leave Description_to as ? and comment out other fields as shown below.

Made by: Areli Arias
Based on: Peoplesoft Technical Notes by Ajay
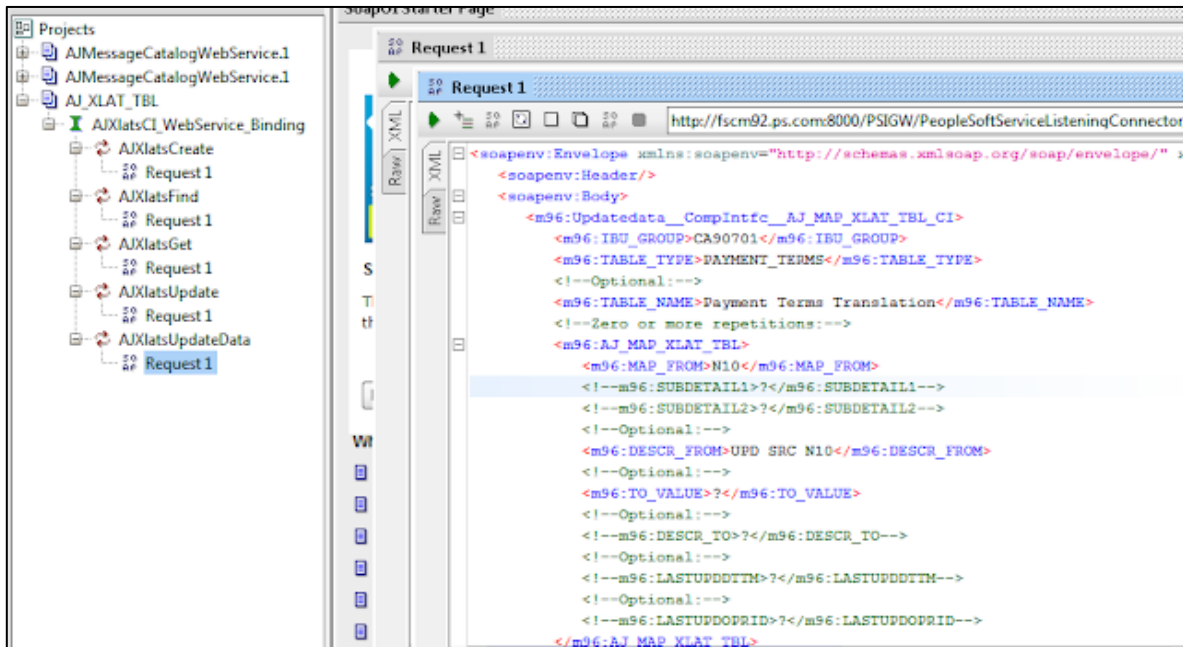
Note that we have retyped the existing value for TABLE_NAME tag.
   <m96:TABLE_NAME>Payment Terms Translation</m96:TABLE_NAME> Note we did not change the default value for TO_VALUE tag.
   <m96:TO_VALUE>?</m96:TO_VALUE> Submit the request. The response looks like the following.

Let us have a look at the online data after this Web Service operation.

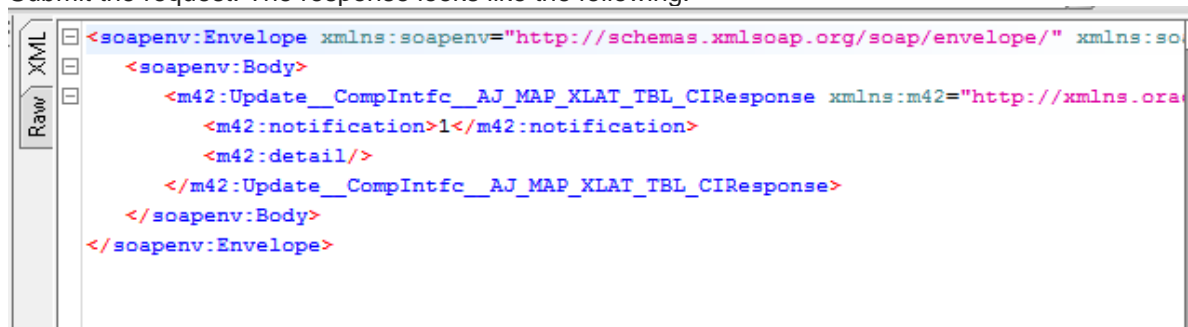|	Map From Value	Subdetail	Subdetail	Description From	To Value	Description To	Last Update Date/Time	Last Update User ID	
1	CIA			SRC CIA	ADV	PSFT ADV	06/04/15 6:31:03PM	AGGARWAA	+ −
2	COD			SRC COD	COD	PSFT COD	06/04/15 6:31:07PM	AGGARWAA	+ −
3	DA			SRC DA	30day D	PSFT 30day DA30	06/04/15 6:31:10PM	AGGARWAA	+ −
4	EOM45			SRC EOM45	M45	PSFT M45	06/04/15 6:31:14PM	AGGARWAA	+ −
5	EOM75			SRC EOM75	M75	PSFT M75	06/04/15 6:31:24PM	AGGARWAA	+ −
6	LC90			SRC LC90	LC90	PSFT LC90	06/04/15 6:31:28PM	AGGARWAA	+ −
7	M45			SRC M45	M45	PSFT M45	06/04/15 6:31:32PM	AGGARWAA	+ −
8	M75			SRC M75	M75	PSFT M75	06/04/15 6:31:35PM	AGGARWAA	+ −
9	N00			SRC N00	N00	PSFT N00	06/04/15 6:31:39PM	AGGARWAA	+ −
10	N10			UPD SRC N10		PSFT N30	06/04/15 6:31:43PM	AGGARWAA	+ −

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Based on: Peoplesoft Technical Notes by Ajay

We see that the Description_from is updated. Note that we commented Subdetail1, Subdetail2, DESCR_TO, LASTUPDDTTM and LASTUPDOPRID so they are not updated. While we left TO_VALUE uncommented like <m96:TO_VALUE>?</m96:TO_VALUE> so it got updated to '?'. Anything left uncommented will be considered to be updated.
We will update data for adding a row #11 at level 1. We will use the Service Operation AJXlatsUpdate. Let us specify the fields as shown below.
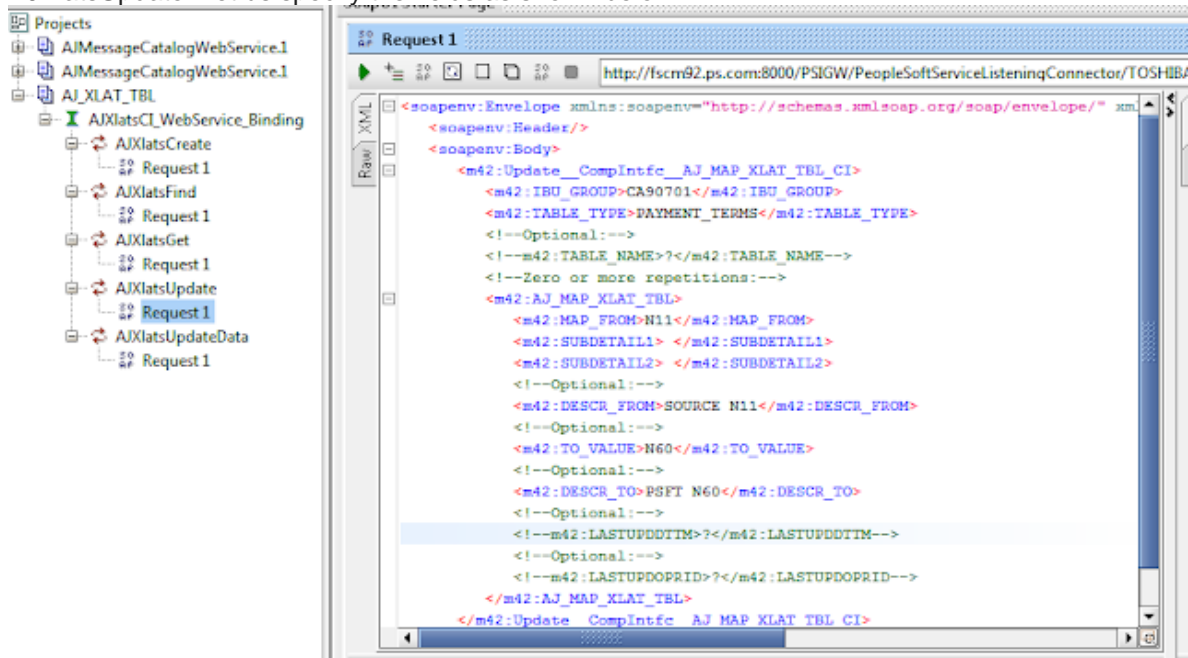
Submit the request. The response looks like the following.

Let us have a look at the online data again.

Made by: Areli Arias
Based on:

The data is added for the MAP_FROM_VALUE 'N11'.

That is it for CI based SOAP Web Services.

Integration Broker - Part 3 - *Consuming a 3rd-Party Web Service*

The example has been created and tested on the following software environment:
   Peoplesoft Application: FSCM 9.2
   Peoplesoft Peopletools: 8.53.02
   Peoplesoft Virtual Machine Image id: FSCMDB-85308-PI004
   Database: Oracle 11.2.0

Assumptions:
1) The Integration Broker is configured correctly.
2) The Soap Client is installed on your Desktop.

The major steps will be the following:
1) Selecting and reviewing a web service
2) Consuming a web service in PeopleSoft
3) Creating a new Peoplesoft Page for using Web Service
4) Testing online page to get quote for a stock using consumed web service

1) Selecting and reviewing a web service
We will be working with is a simple web service for getting the Stock quotes for the day. The WSDL for this web service is available at http://www.webservicex.net/stockquote.asmx?wsdl
First thing is to check this web service is available. In your browser, open a new window (or tab) in your browser and type the above URL in the address bar and press enter. You should see something similar to the following screen.

Made by: Areli Arias
Based on: Peoplesoft Technical Notes by Ajay
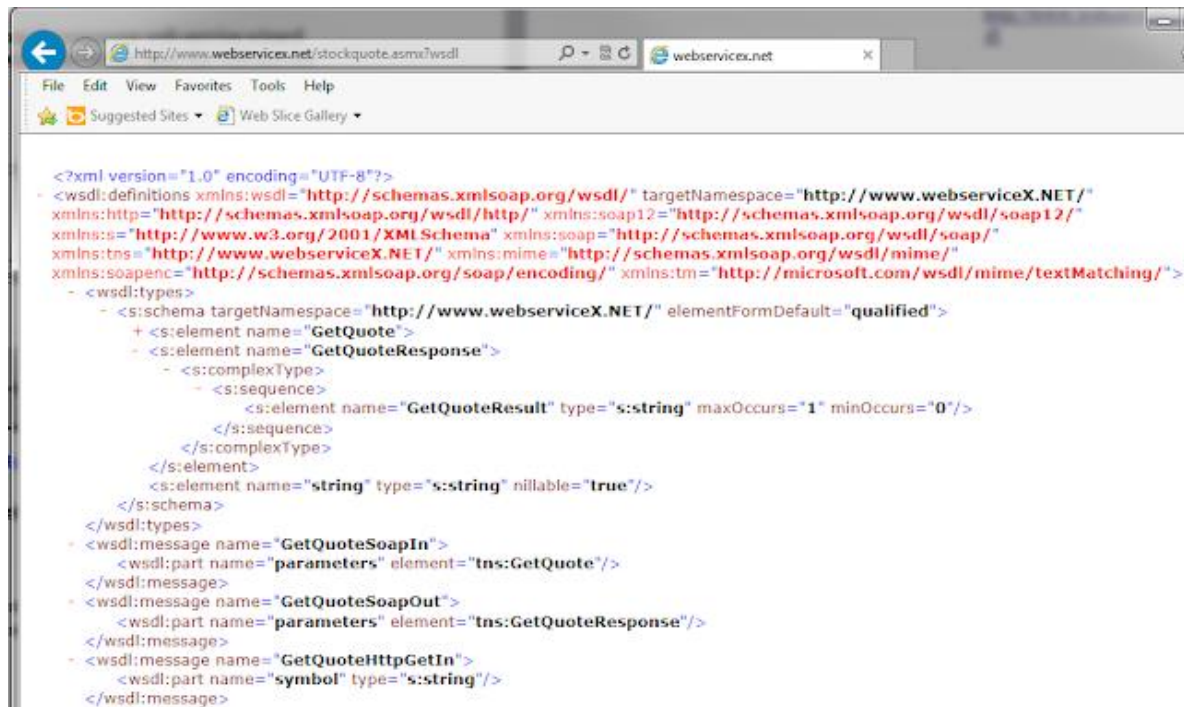
Let us load the web service in soapUI and review what it needs and what it can provide.

Start soapUI and create a new SOAP project. Fill in the following:

Project name: StockQuoteSoap

Initial WSDL/WADL: http://www.webservicex.net/stockquote.asmx?wsdl

Click the Ok button.

The project loads. To load the request to SOAP editor, double click on the Request1 as highlighted below.
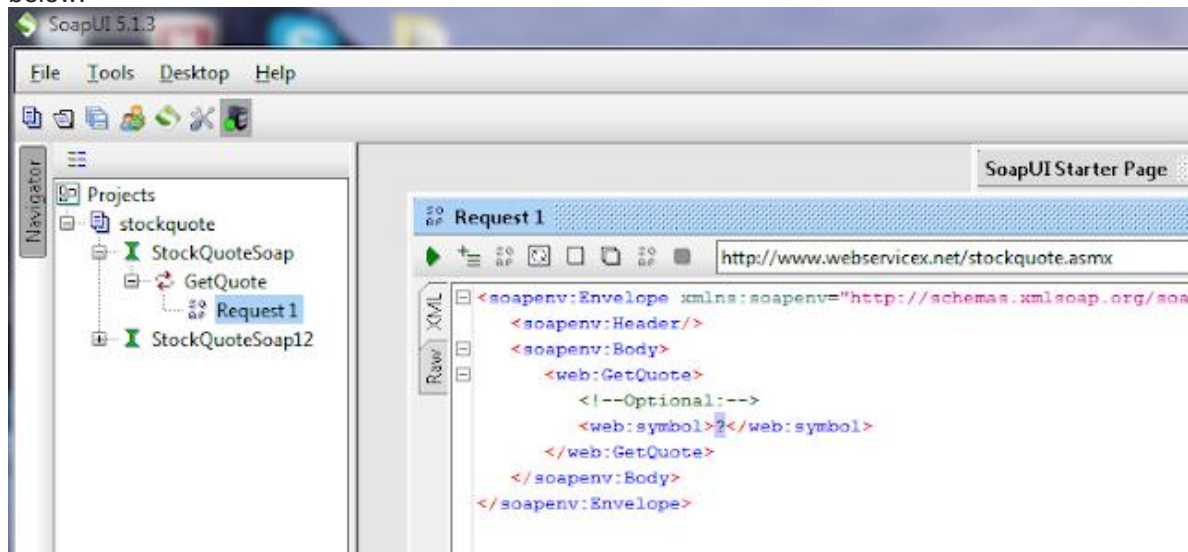
Replace the highlighted question mark with GOOG. As some of you might be aware that GOOG is the symbol for Google Incorporated. Click on the green arrow to submit the request. You will see the response as follows.

Made by: Areli Arias

Based on:

Let us look at the response more closely. We get the following data back.
<Symbol>GOOG</Symbol>
<Last>533.33</Last>
<Date>6/5/2015</Date>
<Time>4:00pm</Time>
<Change>-3.37</Change>
<Open>536.35</Open>
<High>537.20</High>
<Low>532.52</Low>
<Volume>1388220</Volume>
<MktCap>363.95B</MktCap>
<PreviousClose>536.70</PreviousClose>
<PercentageChange>-0.63%</PercentageChange>
<AnnRange>486.23 - 598.01</AnnRange>
<Earns>21.16</Earns>
<P-E>25.21</P-E>
<Name>Google Inc.</Name >
So we have a working web service which takes the symbol of the stock and returns all the above values.

2) Consuming a web service in PeopleSoft
Let us navigate to PeopleTools > Integration Broker > Web Services > Consume Web Service
Click on the WSDL URL radio button and paste the
URL http://www.webservicex.net/stockquote.asmx?wsdl.

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Based on: Peoplesoft Technical Notes by Ajay

Consume Web Service Wizard   Step 1 of 8
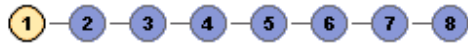
①–②–③–④–⑤–⑥–⑦–⑧   Next >

Select WSDL Source

Select the source of the WSDL you would like to consume.

WSDL Sources

○ UDDI   [⌄]

◉ WSDL URL   [http://www.webservicex.net/stockquote.asmx?wsdl]

○ WSIL URL   [   ]

○ File   [   ]

                              Load from File

○ Legacy WSDL (Prior to 8.48)

☐ Build Document Messages

Uncheck the Build Document Messages checkbox.Note: Another way is to open the wsdl in a new browser window and save the file as an XML file. Then used the File radio button and load from the XML file you just saved.
Click on the Next button.
In the step 2, review the WSDL by clicking the View WSDL hyperlink.

Consume Web Service Wizard   Step 2 of 8
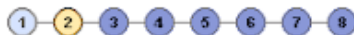
①–②–③–④–⑤–⑥–⑦–⑧   < Previous   Next >

Select Service

Select one or more services to consume.

WSDL Source: WSDL URL   Description: http://www.webservicex.com
                                                 /CurrencyConvertor.asmx?wsdl

Services		Find	View All	🔲 First ◄ 1 of 1 ► Last
Select	WSDL Service	WSDL Url
☑	CurrencyConvertor	http://www.webservicex.com/CurrencyConvertor.asmx?wsdl View WSDL

Click on the Next button.
This web service has 4 service ports indicating the four ways the web service can be accessed.
Select the first, STOCKQUOTESOAP service port.

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Based on: Peoplesoft Technical Notes by Ajay

Next, you get to choose the only one service operation i.e. GetQuote.

Since it is a synchronous service, there is one request message and one response message. Click Next button to create these two messages. (The step 5 was skipped. That is ok).

We have renamed the internal message names for internal and external to be more meaningful. The final step we will leave the receiver node as default WSDL_NODE.

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Click the Finish button and review the results on the next page.

Click on the View Consumed Service to open the service and see the IB definitions that have been created.

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Services

Service	STOCKQUOTESOAP

☐ REST Service Type

*Description [STOCKQUOTE] ✕

Comments STOCKQUOTE

Service Alias StockQuote

Owner ID [⌄]

*Namespace http://www.webserviceX.NET/

Link Existing Operations   View WSDL

Service Operations

Service Operation [ ]

Operation Type [⌄]   [Add]

Existing Operations

Personalize | Find | View All | 🗗 | 🌐   First ◀ 1 of 1 ▶ Last

Operation | **Message Links** | ▦▶

Operation.Default Version	Description	Active	Operation Type	
GETQUOTE.V1	GETQUOTE	☑	Synch	−

[Save]   Return to Search   [Add]

For the node WSDL_NODE, we will setup the PRIMARYURL property for the connector HTTPTARGET connector as the following URL http://www.webservicex.net/stockquote.asmx

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Save the page and ping the node to confirm that the setup is correct.

Perform the security administration to provide access to the service operations of the service STOCKQUOTESOAP.

Click on the GETQUOTE link for the service operation.

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Based on: Peoplesoft Technical Notes by Ajay

Click on the Service Operation Security link.

Give a permission list which is assigned to our user profile (in our case the user is VP1).

3) Creating a new Peoplesoft Page for using Web Service
Let us review the XML from the request and the response to determine the parameters to be sent and the data to be expected. We will submit the

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Based on:

WSDL http://www.webservicex.net/stockquote.asmx in SOAPUI for symbol GOOG and get the XML as follows.

<u>XML from Request</u>

```
<soapenv:Envelope xmlns:soapenv=http://schemas.xmlsoap.org/soap/envelope/
xmlns:web="http://www.webserviceX.NET/"><soapenv:Header/><soapenv:Body><w
eb:GetQuote>
<!--Optional:-->
<web:symbol>GOOG</web:symbol>
</web:GetQuote></soapenv:Body></soapenv:Envelope>
```

<u>XML from Response</u>

```
<soap:Envelope xmlns:soap=http://schemas.xmlsoap.org/soap/envelope/
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<soap:Body><GetQuoteResponse xmlns="http://www.webserviceX.NET/">
<GetQuoteResult><![CDATA[<StockQuotes><Stock>
<Symbol>GOOG</Symbol>
<Last>526.83</Last>
<Date>6/8/2015</Date>
<Time>4:00pm</Time>
<Change>-6.50</Change>
<Open>533.31</Open>
<High>534.12</High>
<Low>526.24</Low>
<Volume>1524139</Volume>
<MktCap>359.51B</MktCap>
<PreviousClose>533.33</PreviousClose>
<PercentageChange>-1.22%</PercentageChange>
<AnnRange>486.23 - 598.01</AnnRange>
<Earns>21.16</Earns>
<P-E>24.90</P-E>
<Name>Google Inc.</Name>
</Stock></StockQuotes>]]></GetQuoteResult></GetQuoteResponse></soap:Body>
</soap:Envelope>
```

Based on the above data columns, let us create a page in peoplesoft and a work record containing some of the above highlighted fields plus one for a button.
The work record looks like the following.

Let us create a simple page like the one below.

Made by: Areli Arias

Based on:

On the FieldChange event of Get Stock Quote button (field SEARCH_BUTTON), we will add the following peoplecode.

```
Local Message &wsdl_request, &wsdl_response;
Local SOAPDoc &wsdl_soapdoc;
Local XmlDoc &wsdl_soapxmldoc, &wsdl_responsexmldoc,
&wsdl_responsexmldet;
Local array of XmlNode &wsdl_result;
Local number &Char_Pos1, &Char_Pos2;
try
   rem create soap document;
   &wsdl_soapdoc = CreateSOAPDoc();
   rem add envelope;
   &wsdl_soapdoc.AddEnvelope(0);
   &EnvelopeNode = &wsdl_soapdoc.EnvelopeNode;
   rem add namespace alias parameter;
   &EnvelopeNode.AddAttribute("xmlns:web",
"http://www.webserviceX.NET/");
   rem add header;
   &wsdl_soapdoc.AddHeader();
   rem add body;
   &wsdl_soapdoc.AddBody();
   rem add method and parameters;
   &wsdl_soapdoc.AddMethod("web:GetQuote", 1);
   &wsdl_soapdoc.AddParm("web:symbol", AJ_STOCK_QT_WRK.SYMBOLICID);
   rem get the xmldoc from the soap document;
   &wsdl_soapxmldoc = CreateXmlDoc();
   &wsdl_soapxmldoc = &wsdl_soapdoc.XmlDoc;
   rem assign xmldoc to request message;
   &wsdl_request = CreateMessage(Operation.GETQUOTE);
   &wsdl_request.SetXmlDoc(&wsdl_soapxmldoc);

   rem display the request message;
   WinMessage(&wsdl_request.GenXMLString(), 0);
   rem Send request and get response;
   &wsdl_response = %IntBroker.SyncRequest(&wsdl_request);
   rem get xmldoc from response message;
   &wsdl_responsexmldoc = &wsdl_response.GetXmlDoc();
   rem display the response message;
   WinMessage(&wsdl_responsexmldoc.GenXmlString(), 0);

   rem read the response XML tags;
   &wsdl_result =
```

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```
&wsdl_responsexmldoc.GetElementsByTagName("GetQuoteResult");
    If &wsdl_result.Len = 0 Then
        MessageBox(0, "", 0, 0, "GetElementsByTagName Node not found");
    Else
        WinMessage(&wsdl_result [1].NodeValue, 0);
        rem Extract the data elements and assign to fields on the record;
        &XML_Data_String = &wsdl_result [1].NodeValue;

        &field = "Name";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.DESCR = Substring(&XML_Data_String, &Char_Pos1 +
Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) - 2);
        &field = "Last";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.PRICE_CLOSE = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "Change";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.CHANGE_AMT = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "Open";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.OPEN_SUM = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "High";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.SDK_HIGH_TRADE = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "Low";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.SDK_LOW_TRADE = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "Volume";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.VS_SALES_VOLUME = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
        &field = "PercentageChange";
        &Char_Pos1 = Find("<" | &field | ">", &XML_Data_String);
        &Char_Pos2 = Find("</" | &field | ">", &XML_Data_String);
        AJ_STOCK_QT_WRK.CHANGE_PCT = Value(Substring(&XML_Data_String,
&Char_Pos1 + Len(&field) + 2, &Char_Pos2 - &Char_Pos1 - Len(&field) -
2));
    End-If;
```

Made by: Areli Arias

```
catch Exception &e
   WinMessage(&e.ToString(), 0);
end-try;
```

4) Testing online page to get quote for a stock using consumed web service
Navigate to the new page created.

Enter a stock symbol, say GOOG for google and click on the Get Stock Quote button.
You see the request message.

Next you see the response message.

Next you see the details of the data received.

And finally you see the page with all fields populated.

Made by: Areli Arias
Based on: Peoplesoft Technical Notes by Ajay

That completes Consuming 3rd Party Web Services example.
Once you are comfortable with the activity, you could try
1) Have the layout on the page changed from single row to multiple rows in a grid.
2) Save the data with date for historical purposes.
Enjoy and share.