

IBM WebSphere Partner Gateway V6.1– Lab exercise

SOAP with attachments

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What this exercise is about

WebSphere Partner Gateway V6.1 supports SOAP with Attachments. This document describes how to configure WebSphere Partner Gateway to accept a SOAP request which has attachments.

Lab requirements

List of system and software required for the student to complete the lab.

- WebSphere Partner Gateway V6.1 software installed (This includes the DB loader and the runtime servers). For the Lab it is assumed that WebSphere Partner Gateway V6.1 Simple Mode is installed.
- The sample Web Service shipped with Lab is to be installed on an application server. For the Lab, you install the sample Web Service application on the same application server that hosts WebSphere Partner Gateway applications.

What you should be able to do

At the end of this lab you should be able to:

- Configure WebSphere Partner Gateway to be able to accept a SOAP request with attachments and pass it to the installed Web Service

Lab files

The following files are shipped for this exercise

- DWS3_1.1.ear – This is the sample Web Service enterprise application
- dws3_req.txt – This is the sample SOAP Request with an attachment using binary encoding
- DocumentService3.wsdl – The WSDL for the sample Web Service.
- GenericSOAPClient2.class – This is the test client which can be used to send the SOAP w/attachment request to WebSphere Partner Gateway.

Background and introduction

The earlier versions of WebSphere Partner Gateway (V6.0 and earlier) had support for Web Services as pass through. WebSphere Partner Gateway V6.0 and earlier had the ability to send and receive SOAP messages from community participants over HTTP.

With WebSphere Partner Gateway V6.1, this feature is enhanced. WebSphere Partner Gateway V6.1 has the support for SOAP requests **with attachments** with pass through action. This is based on the SOAP with attachment specification 1.1.

Further, with this feature it is also possible to support large files as the attachments can be huge.

WebSphere Partner Gateway V6.1 can receive a SOAP request with attachments from a community Participant (External Partner) and send this request to a Web Service hosted by WebSphere Partner Gateway backend (Internal Partner).

Similarly, WebSphere Partner Gateway V6.1 can receive a SOAP request with attachments from the backend (Internal Partner) and send this request to a Web Service hosted by a community Participant (External Partner).

About the scenario

WebSphere Partner Gateway backend hosts the sample Web Service. The Web service is called "DocumentService". The Web service accepts SOAP with attachment requests and adds the attachment to the local file system.

In the Lab exercise, you will do a scenario in which a community Participant (External Partner) sends SOAP with Attachment Request to WebSphere Partner Gateway.

WebSphere Partner Gateway will "pass through" this request to the backend which hosts the Web service.

Exercise instructions

Some instructions in this lab may be Windows® operating-system specific. If you plan on running the lab on an operating-system other than Windows, you will need to run the appropriate commands, and use appropriate files (.sh vs. .bat) for your operating system. The directory locations are specified in the lab instructions using symbolic references, as follows:

Reference variable	Windows location	Linux® location	Used in this lab
<WPG_HOME>	C:\IBM\WPG61	/opt/IBM/WPG61	C:\IBM\WPG61
<LAB_FILES>	C:\WPG61Labfiles\SOAPwA	/tmp/WPG61Labfiles	C:\WPG61Labfiles
<TEMP>	C:\temp	/tmp	C:\temp
<host_name>	localhost	localhost	localhost
<port>	58080	58080	58080
<WAS_Port>	58090	58090	58090
<WPG61LabFiles>	C:\WPG61LabFiles		C:\WPG61LabFiles

Part 1: Installing document service Web service on an application server

Note: In this exercise it is assumed that you are installing the Web service on the same server which hosts the WebSphere Partner Gateway applications. You can also install the Web service on another application server as well.

- ___ 1. Start the WebSphere Partner gateway profile
 - ___ a. Open the command window. From start menu, click **Programs → Accessories → Command Prompt**
 - ___ b. In the Command Window, run the following commands to create the application tables:
 - Change directory to **C:\IBM\WPG61\wpghubsimple\bin**
 - Run the command, **bcgStartServer.bat**

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\bcguser>cd C:\IBM\WPG61\wpghubsimple\bin

C:\IBM\WPG61\wpghubsimple\bin>bcgStartServer.bat
Starting server server1 in profile bcgprofile1
ADMU0116I: Tool information is being logged in file
          C:\IBM\WPG61\wpghubsimple\wasND\Profiles\bcgprofile1\log
          prtServer.log
ADMU0128I: Starting tool with the bcgprofile1 profile
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server server1 open for e-business; process id is 172

C:\IBM\WPG61\wpghubsimple\bin>
  
```

- ___ 2. Install the supplied **DWS3_1.1.ear** by following the steps. The EAR file is located on <WPG61Labfiles>\SOAPwA\DWS3_1.1.ear
- ___ 3. Login to the administration console
 - ___ a. Open the following WebSphere Application Server Administrative Console URL from the Web browser once the server has started:

<http://localhost:58090/ibm/console>

Note: Replace localhost: 58090 with your <host> :< WAS_Port> if needed

- ___ b. Enter an anonymous **User Id** for example; **bcgadmin**
- ___ c. Click **Log in**
- ___ 4. Locate the application installation wizard in the administrative console
 - ___ a. Expand **Applications** in the left navigation menu
 - ___ b. Click **Install New Application**
- ___ 5. Install the **DWS3_1.1.ear** using the application installation wizard

- ___ a. Select the radio button next to **Local file system** and click the **Browse** button for **Full path** to select <WPG61Labfiles>\SOAPwA\DWS3_1.1.ear and click **Next**
- ___ b. In the following “**Step1: Select installation options**” screen, select the check box next to “**Deploy Web services**”. Click **Next**
- ___ c. Accept the defaults for the following “**Step 2: Map modules to servers**” screen. Click **Next**
- ___ d. Accept the defaults for the following “**Step 3: Map virtual hosts for Web modules**” screen. Click **Next**
- ___ e. Review the “**Step 4: Summary**” screen. Click **Finish**
- ___ f. Wait for the message shown below to appear, indicating that the application installation finished and successful

Application DocumentWebProject3EAR installed successfully.

To start the application, first save changes to the master configuration.

Changes have been made to your local configuration. You can:

- [Save](#) directly to the master configuration.
- [Review](#) changes before saving or discarding.

- ___ g. Click the **Save** link

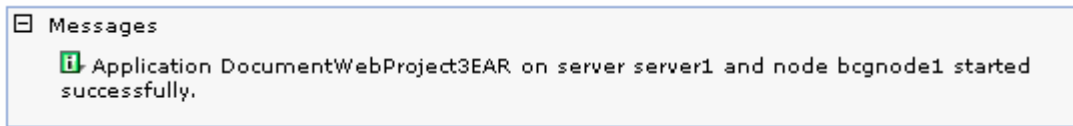
___ 6. Start the application

- ___ a. In the left navigation menu of the administrative console, expand **Applications** and click over the **Enterprise Applications** link
- ___ b. Start the application by selecting the check box next to **DocumentWebProject3EAR** as shown below:

<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Install"/> <input type="button" value="Uninstall"/> <input type="button" value="Update"/> <input type="button" value="Rollout Update"/> <input type="button" value="Remove File"/> <input type="button" value="Export"/> <input type="button" value="Export DDL"/>		
Select	Name	Application Status
<input type="checkbox"/>	BCGBPE	
<input type="checkbox"/>	BCGConsole	
<input type="checkbox"/>	BCGDocMgr	
<input type="checkbox"/>	BCGReceiver	
<input type="checkbox"/>	DefaultApplication	
<input checked="" type="checkbox"/>	DocumentWebProject3EAR	
Total 9		

- ___ c. Click the **Start** button

___ d. Wait for the successful message shown below to appear, indicating that startup has completed



___ e. **Logout** and **Close** the Administrative console

___ 7. Test if the Web Service has been deployed correctly

___ a. From the Web browser, type the following URL:

<http://localhost:58080/DocumentWebProject/services/DocumentService3SOAP>

Note: Replace localhost: 58080 with your <host> :< WAS_Port> if needed.

___ b. You should see the following message displayed on the Web browser:



Part 2: Importing the WSDL file into WebSphere Partner Gateway

Now that you had installed the sample Web Service, you need to configure Partner Gateway (WPG) for the same. The first step is to import the WSDL for the sample Web Service into WebSphere Partner Gateway.

___ 1. Edit the supplied DocumentService3.wsdl for your host name. Check for soap:address location element in the file and change the host name (from "localhost") to the host name you have for your system.

___ a. Launch a Web browser and login to the WebSphere Partner Gateway console, using the following URL:

<http://localhost:58080/console>

___ b. Enter the following credentials:

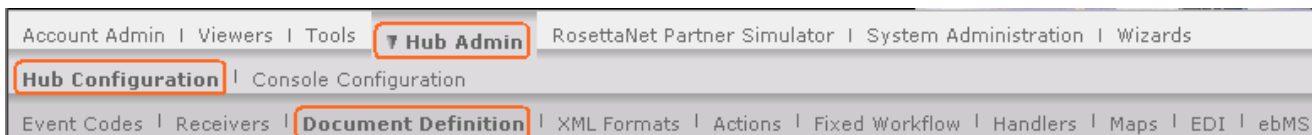
- User Name : **hubadmin**
- Password : **hub1admin**
- Company Login Name : **Operator**

___ c. Click the **Login** button

Note: If prompted for **Password** change, provide a new password of your choice.

___ 2. Upload the **DocumentService3.wsdl** file

___ a. Navigate to the Manage Document Definition screen from **Hub Admin** → **Hub Configuration** → **Document Definition**



___ b. Click the **Upload/Download Packages** link

___ c. In the following **Upload/Download Packages** screen, select "**WSDL or Zip**" for the **Package Type** from the drop down list

Upload/Download Packages

Package Type:

Submit

__ d. Click the **Submit** button

__ e. In the following **Upload/Download Packages** screen, enter the following information:

- Select the radio button next to **Yes** for **WSDL Package**
- File : <WPG61Labfiles>\SOAPwA\DocumentService3.wsdl
- Web Service Public URL : <http://localhost:58080/bcgreceiver/Receiver>

(Note that this URL points to the WebSphere Partner Gateway HTTP receiver (created later in this lab) and is used when exporting (downloading) the WSDL from WebSphere Partner Gateway for consumption by external partners invoking the Web services through the hub. In this lab, you do not export the WSDL file for the external partner, because in the test using the simple Java client, GenericSOAPClient2.java, you will pass this URL as an input. This is done later in the Part 7, running the scenario.

- Select the radio button next to **Yes** for **Commit to database**

Upload/Download Packages

Provide valid xml document in 'zip' format or valid 'wsdl' file for Upload

WSDL Package: Yes No

File:

Web Service Public URL: (required for 'wsdl' file upk)

Commit to database: Yes No

Overwrite data: Yes No

__ f. Click the **Upload** button

__ g. The following successful message must appear on a successful upload:

Messages:

NOTE: To enable this web service you will need to create a Destination for this URL (the web service provider endpoint), through the management console, and set up Partner Connections with it as the destination: 'http://localhost:58080/DocumentWebProject/services/DocumentService3SOAP'

Upload successful. No warnings. Data committed.

Note: To enable this Web service you will need to create a Destination for this URL (the Web service provider endpoint contained in the WSDL file), through the management console, and set up Partner Connections with it as the destination: 'http://localhost:58080/DocumentWebProject/services/DocumentService3SOAP'.

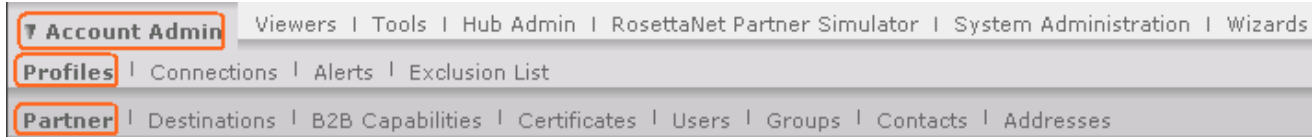
Part 3: Creating participants, destinations and receiver

In this section you will create the participants and their respective destinations. You will also create an HTTP Receiver which will accept the SOAP with attachment requests.

Create Partners

___ 1. Create an Internal Partner

___ a. Navigate to Partner Search screen. **Account Admin** → **Profiles** → **Partner**



___ b. Click the **Create** link on the **Partner Search** screen

___ c. In the following **Profile > New Partner** screen, enter the following information :

- Company Login Name : **Manager**
- Partner Display Name : **Manager**
- Partner Type : **Internal Partner** (Select from the dropdown list)

Profile > New Partner

Business ID		
Type	Identifier	Remove
New		

___ d. Click the **New** button under the Business ID section to add an Identifier and enter the following information:

- Type : **DUNS** (Select from the drop down list)
- Identifier : **987654321**

Business ID		
Type	Identifier	Remove
DUNS	987654321	<input type="checkbox"/>
New		


__ e. Click the **New** button to add another Identifier

- Type : **Freeform** (Select from the drop down list)
- Identifier : **01-987654321**

Business ID		
Type	Identifier	Remove
DUNS	987654321	<input type="checkbox"/>
Freeform	01-987654321	<input type="checkbox"/>
New		

__ f. The final **Profile > New Partner** screen looks like as show below:

Profile > New Partner

	Company Login Name	Manager *
	Partner Display Name	Manager *
	Partner Type	Internal Partner *
	Admin User Name	
	Status	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
	Vendor Type	Select a vendor type
	Web Site	

Business ID		
Type	Identifier	Remove
DUNS	987654321	<input type="checkbox"/>
Freeform	01-987654321	<input type="checkbox"/>
New		

__ g. Click the **Save** button at the bottom of the **Profile > New Partner** screen

____ 2. Create an External partner

__ a. Navigate to Partner Search screen. **Account Admin** → **Profiles** → **Partner**

Account Admin	Viewers Tools Hub Admin RosettaNet Partner Simulator System Administration Wizards
Profiles	Connections Alerts Exclusion List
Partner	Destinations B2B Capabilities Certificates Users Groups Contacts Addresses

__ b. Click the **Create** link on the **Partner Search** screen

__ c. In the following **Profile > New Partner** screen, enter the following information :

- Company Login Name : **Partner**
- Partner Display Name : **Partner**
- Partner Type : **External Partner** (Select from the dropdown list)

Profile > New Partner

Company Login Name: Partner *

Partner Display Name: Partner *

Partner Type: External Partner *

Admin User Name: []

Status: Enabled Disabled

Vendor Type: Select a vendor type []

Web Site: []

Business ID

Type	Identifier	Remove
[New]		

__ d. Click the **New** button under the Business ID section to add an Identifier and enter the following information:

- Type : **DUNS** (Select from the drop down list)
- Identifier : **123456789**

Business ID

Type	Identifier	Remove
DUNS []	123456789	<input type="checkbox"/>

[New]

__ e. Click the **New** button to add another Identifier

- Type : **Freeform** (Select from the drop down list)
- Identifier : **01-987654321**


Business ID

Type	Identifier	Remove
DUNS []	123456789	<input type="checkbox"/>
Freeform []	01-123456789	<input type="checkbox"/>

[New]

__ f. The final **Profile > New Partner** screen looks like as show below:

Profile > New Partner

 **Company Login Name** *

Partner Display Name *

Partner Type *

Admin User Name

Status Enabled Disabled

Vendor Type

Web Site

Business ID


Type	Identifier	Remove
<input type="text" value="DUNS"/>	<input type="text" value="123456789"/>	<input type="checkbox"/>
<input type="text" value="Freeform"/>	<input type="text" value="01-123456789"/>	<input type="checkbox"/>





__ g. Click the **Save** button at the bottom of the **Profile > New Partner** screen

Note: Remember the Business IDs in the above. These IDs will be used when running the scenario.

Create Destinations

You will need to create the Destinations for both the partners that you created above. For the scenario, when a Partner makes a Web Service request, the Web service is hosted by WebSphere Partner Gateway backend

- ___ 1. Create a **HTTP destination** for the Internal Partner (the HTTP destination points to the hosted Web service)
- __ a. Navigate to Partner Search screen, **Account Admin → Profiles → Partner**
- __ b. Accept the defaults and click the **Search** button
- __ c. Click the () icon next to **Manager** (Internal Partner). You are directed to the **Profile > Manager** screen

	Partner Name	Partner Type	Status
	Hub Operator	Hub Administrator	Enabled
	Manager	Internal Partner	Enabled
	Partner	External Partner	Enabled 

__ d. While the **Profile > Manager** screen is selected, navigate to **Destination List** page. **Account Admin → Profiles → Destinations**

__ e. In the following **Profile > Manager > Destination List** screen, click the **Create** link

__ f. In the following **Profile > Manager > Destination Details** screen, enter the following information:

- Destination Name : **webservice_destination**
- Status : **Enabled** (select the radio button)
- Online/Offline : **Online** (select the radio button)
- Description : **Document Service Definition**
- Transport : **HTTP/1.1** (select from the drop down list)
- Destination Configuration : **User default forward proxy** (select from the drop down list)
- Address : <http://localhost:58080/DocumentWebProject/services/DocumentService3SOAP>
- Accept the defaults for the remaining entries

Profile > Manager > Destination Details

Destination Name	<input type="text" value="webservice_destination"/>	*
Status	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Online/Offline	<input checked="" type="radio"/> Online <input type="radio"/> Offline	
Description	<input type="text" value="Document Service Defenition"/>	
Transport	<input type="text" value="HTTP/1.1"/>	
Destination Configuration		
Forward Proxy List	<input type="text" value="Use default forward proxy"/>	
Address	<input type="text" value="8080/DocumentWebProject/services/DocumentService3SOAP"/>	* **
User Name	<input type="text"/>	
Password	<input type="password"/>	
Retry Count	<input type="text" value="3"/>	
Retry Interval	<input type="text" value="300"/> seconds	
Number of Threads	<input type="text" value="3"/>	
Validate Client IP	<input checked="" type="radio"/> No <input type="radio"/> Yes	
Auto Queue	<input checked="" type="radio"/> No <input type="radio"/> Yes	
Connection Timeout	<input type="text" value="120"/> seconds	

__ g. Click the **Save** button

___ 2. Set the **HTTP destination for the Internal Partner** you created as the default destination

__ a. Navigate to **Destination List** page. **Account Admin → Profiles → Destinations**

Profile > Manager > Destination List

Welcome, Hub Administrator

- Create
- Forward Proxy Support
- Global Transport Attributes
- Manage Transport Types
- **View Default Destinations**

__ b. Click “**View Default Definitions**” link

__ c. In the following **Profile > Manager > Default Destination List** screen, select the following entries:

- Production : **webservice_destination** (select from the drop down list)
- Test : **webservice_destination** (select from the drop down list)

Profile > Manager > Default Destination List

Operation Mode	Current Default Destination
Production	webservice_destination
Test	webservice_destination
RN Simulator External Partner	No Destination selected
RN Simulator Internal Partner	No Destination selected

__ d. Click the **Save** button

___ 3. Similarly, Create a **File Directory destination** for the External Partner

__ a. Navigate to Partner Search screen, **Account Admin → Profiles → Partner**

__ b. Accept the defaults and click the **Search** button

__ c. Click the (🔍) icon next to **Partner** (External Partner). You are directed to the **Profile > Partner** screen

	Partner Name	Partner Type	Status
🔍	Hub Operator	Hub Administrator	Enabled
🔍	Manager	Internal Partner	Enabled
🔍	Partner	External Partner	Enabled X

__ d. While the **Profile > Manager** screen is selected, navigate to **Destination List** page. **Account Admin → Profiles → Destinations**

Profile > Partner > Destination List

Welcome, Hub Administrator

- **Create**
- Forward Proxy Support
- Global Transport Attributes
- Manage Transport Types
- View Default Destinations

__ e. In the following **Profile > Partner > Destination Details** screen, enter the following information:

- Destination Name : **WS_FileGW**
- Status : **Enabled** (select the radio button)

- Online/Offline : **Online** (select the radio button)
- Transport : **File Directory**
- Address : file:///temp/WS_FileGW
- Accept the default for the remaining entries

Profile > Partner > Destination Details

Destination Name WS_FileGW *

Status Enabled Disabled

Online/Offline Online Offline

Description

Transport File Directory

Destination Configuration

Address file:///temp/WS_FileGW * **

Retry Count 3

Retry Interval 300 seconds

Number of Threads 3

Validate Client IP No Yes

Auto Queue No Yes

Use Unique File Name

__ f. Click the **Save** button

___ 4. Set the **File Directory** destination for the External Partner you created as the default destination

__ a. Navigate to **Destination List** page. **Account Admin** → **Profiles** → **Destinations**

Profile > Partner > Destination List

Welcome, Hub Administrator

- Create
- Forward Proxy Support
- Global Transport Attributes
- Manage Transport Types
- **View Default Destinations**

__ b. Click "**View Default Definitions**" link

__ c. In the following **Profile > Partner > Default Destination List** screen, select the following entries:

- Production : **WS_FileGW** (select from the drop down list)
- Test : **WS_FileGW** (select from the drop down list)

Profile » Partner » Default Destination List

Operation Mode	Current Default Destination
Production	WS_FileGW
Test	WS_FileGW
RN Simulator External Partner	No Destination selected
RN Simulator Internal Partner	No Destination selected

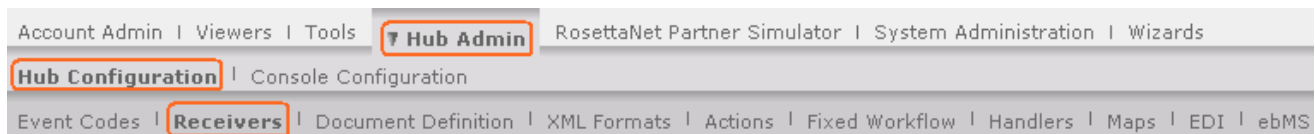
Save Cancel

__ d. Click the **Save** button

Create HTTP Receiver

___ 1. Create a HTTP Receiver

__ a. Navigate to **Hub Admin** → **Hub Configuration** → **Receivers**



__ b. In the following **Receiver List** screen, click the **Create Receiver** link

__ c. In the following **Receiver Details** screen, enter the following information:

- Receiver Name : **http_rcvr**
- Transport : **HTTP/S**
- Operation Mode : **Production**
- URI : **/bcgreceiver/Receiver**
- Configuration Point Handlers : **Sync Check**

Receiver Details

Receiver Name: *

Status: Enabled Disabled

Description:

Transport: *

Receiver Configuration

Operation Mode: *

URI: * **

Sync Routing: *Global Http/S Transport Attributes*

Maximum Synchronous Timeout (Seconds)	300
Max Sync Sim Conn	100

Handlers

Configuration Point Handlers:

Note: The Web Service is a synchronous scenario. For this, set the SOAP Sync Check Handler for this receiver.

- ___ d. The Web Service is a synchronous scenario. For this, set the SOAP Sync Check Handler for this receiver. From the **Configuration Point Handlers**, select “**syncCheck**” and from the Available list of handlers, select **SoapSyncHdr** handler and add that to the configured list, as shown below:

Handlers

Configuration Point Handlers:

Handler Selection

Available List	Configured List
<p>Selected handler:</p> <p>com.ibm.bcg.server.sync.SoapSyncHdr</p> <ul style="list-style-type: none"> com.ibm.bcg.server.sync.As2SyncHdr com.ibm.bcg.server.sync.XmlSyncHdr com.ibm.bcg.server.sync.RnifSyncHdr com.ibm.bcg.server.sync.DefaultAsynchronousSyncCheckHandler com.ibm.bcg.server.sync.DefaultSynchronousSyncCheckHandler com.ibm.bcg.server.sync.EBMSSyncCheckHandler com.ibm.bcg.server.sync.SoapSyncHdr <p><input type="button" value="Add"/></p> <p><input type="button" value="View Details"/></p>	<p>Selected handler:</p> <div style="border: 1px solid gray; height: 100px; width: 100%;"></div> <p><input type="button" value="Remove"/></p> <p><input type="button" value="View Details"/></p> <p><input type="button" value="Move Up"/></p> <p><input type="button" value="Move Down"/></p> <p><input type="button" value="Configure"/></p>

- ___ e. Click the **Save** button

Part 4: Create interactions and enabling business-to-business capabilities

Next step is to enable the partner’s business-to-business capabilities and create interactions.

Enable business-to-business Capabilities for the Internal and External Partners

___ 1. For the **Internal Partner**, enable the document flow definitions

Enable the **DocumentService** document definition. There are two activities for this Web service. For this lab, you need to enable the “**addDocument**”

___ a. Navigate to Partner Search screen, **Account Admin** → **Profiles** → **Partner**

___ b. Accept the defaults and click the **Search** button

___ c. Click the (🔍) icon next to **Manager** (Internal Partner). You are directed to the **Profile > Manager** screen

	Partner Name	Partner Type	Status	
🔍	Hub Operator	Hub Administrator	Enabled	
🔍	Manager	Internal Partner	Enabled	
🔍	Partner	External Partner	Enabled	✗

___ d. While the **Profile > Manager** screen is selected, navigate to **Account Admin** → **Profiles** → **B2B Capabilities** to enable the document flow definitions

Account Admin | Viewers | Tools | Hub Admin | RosettaNet Partner Simulator | System Administration | Wizards | Profiles | Connections | Alerts | Exclusion List | Partner | Destinations | **B2B Capabilities** | Certificates | Users | Groups | Contacts | Addresses | Language Locale: en_US | Format Locale:

Profile > Manager > B2B Capabilities

Set Source	Set Target	Enabled	Edit	Document Definition					
				0	1	2	3	4	All
📄*	📄*			⋮	Package: AS				
📄*	📄*			⋮	Package: None ←				
📄*	📄*			⋮	Package: Backend Integration (1.0)				
📄*	📄*			⋮	Package: N/A				
📄*	📄*			⋮	Package: ebMS (2.0)				

___ e. In the following **Profile > Manager > B2B Capabilities** screen, click on the (📄*) icon to enable the document definition, **Package: None** for both the **Set Source** and **Set Target** columns as shown below:

Profile > Manager > B2B Capabilities

Welcome, Hub Administrator

• Help

Set Source	Set Target	Enabled	Edit	Document Definition						
				0	1	2	3	4	All	
									Package: AS
		Enabled								Package: None
									Package: Backend Integration (1.0)
									Package: N/A
									Package: ebMS (2.0)

___ f. Click on the folder () icon next to the document definition, **Package: None** to expand it. The **Profile > Manager > B2B Capabilities** screen must look like as shown below:

Set Source	Set Target	Enabled	Edit	Document Definition						
				0	1	2	3	4	All	
									Package: AS
		Enabled								Package: None
									Protocol: Binary (1.0)
									Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)
									Protocol: Web Service (1.0)
									Protocol: cXML (1.2.009)
									Protocol: EDI-Consent (ALL)
									Protocol: EDI-EDIFACT (ALL)
									Protocol: EDI-X12 (ALL)
									Package: Backend Integration (1.0)
									Package: N/A
									Package: ebMS (2.0)

___ g. Click on the () icon to enable the document definition, **Protocol: Web Service** for both the **Set Source** and **Set Target** columns as shown below:

Set Source	Set Target	Enabled	Edit	Document Definition						
				0	1	2	3	4	All	
									Package: AS
		Enabled								Package: None
									Protocol: Binary (1.0)
									Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)
		Enabled								Protocol: Web Service (1.0)
									Protocol: cXML (1.2.009)
									Protocol: EDI-Consent (ALL)
									Protocol: EDI-EDIFACT (ALL)
									Protocol: EDI-X12 (ALL)
									Package: Backend Integration (1.0)
									Package: N/A
									Package: ebMS (2.0)

___ h. Click on the folder () icon next to the document definition, **Protocol: Web Service** to expand it. The **Profile > Manager > B2B Capabilities** screen must look like as shown below:

Set Source	Set Target	Enabled	Edit	Document Definition							
				0	1	2	3	4	All		
				Package: AS							
		Enabled		Package: None							
				Protocol: Binary (1.0)							
				Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)							
		Enabled		Protocol: Web Service (1.0)							
				Document Type: {http://tempuri.org/DocumentService3/}							
				Protocol: cXML (1.2.009)							
				Protocol: EDI-Consent (ALL)							
				Protocol: EDI-EDIFACT (ALL)							
				Protocol: EDI-X12 (ALL)							
				Package: Backend Integration (1.0)							
				Package: N/A							
				Package: ebMS (2.0)							

__ i. Click on the () icon to enable, **Document Type** :{.....} for both the **Set Source** and **Set Target** columns as shown below:

Set Source	Set Target	Enabled	Edit	Document Definition							
				0	1	2	3	4	All		
				Package: AS							
		Enabled		Package: None							
				Protocol: Binary (1.0)							
				Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)							
		Enabled		Protocol: Web Service (1.0)							
		Enabled		Document Type: {http://tempuri.org/DocumentService3/}							
				Protocol: cXML (1.2.009)							
				Protocol: EDI-Consent (ALL)							
				Protocol: EDI-EDIFACT (ALL)							
				Protocol: EDI-X12 (ALL)							
				Package: Backend Integration (1.0)							
				Package: N/A							
				Package: ebMS (2.0)							

__ j. Click on the folder () icon next to the document definition, **Document Type** :{.....} to expand it. The **Profile > Manager > B2B Capabilities** screen must look like as shown below:

Set Source	Set Target	Enabled	Edit	Document Definition							
				0	1	2	3	4	All		
				Package: AS							
		Enabled		Package: None							
				Protocol: Binary (1.0)							
				Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)							
		Enabled		Protocol: Web Service (1.0)							
		Enabled		Document Type: {http://tempuri.org/DocumentService3/};!							
		Enabled		Activity: addDocument (1.0)							
		Enabled		Activity: {http://tempuri.org/DocumentService3/};get							
				Protocol: cXML (1.2.009)							
				Protocol: EDI-Consent (ALL)							
				Protocol: EDI-EDIFACT (ALL)							
				Protocol: EDI-X12 (ALL)							
				Package: Backend Integration (1.0)							
				Package: N/A							
				Package: ebMS (2.0)							

2. Similarly for the **External Partner**, enable the document flow definitions as shown below:

a. Navigate to Partner Search screen, **Account Admin** → **Profiles** → **Partner**

b. Accept the defaults and click the **Search** button

c. Click the icon next to **Partner** (External Partner). You are directed to the **Profile > Partner** screen

	Partner Name	Partner Type	Status
	Hub Operator	Hub Administrator	Enabled
	Manager	Internal Partner	Enabled
	Partner	External Partner	Enabled

d. While the **Profile > Partner** screen is selected, navigate to **Account Admin** → **Profiles** → **B2B Capabilities** to enable the document flow definitions

Account Admin | Viewers | Tools | Hub Admin | RosettaNet Partner Simulator | System Administration | Wizards

Profiles | Connections | Alerts | Exclusion List

Partner | Destinations | **B2B Capabilities** | Certificates | Users | Groups | Contacts | Addresses

Language Locale: en_US | Format Locale:

Profile > Partner > B2B Capabilities

Set Source	Set Target	Enabled	Edit	Document Definition							
				0	1	2	3	4	All		
				Package: AS							
				Package: None							
				Package: Backend Integration (1.0)							
				Package: N/A							
				Package: ebMS (2.0)							

- ___ e. Enable the **DocumentService** document definition as shown below. There are two activities for this Web service. For this lab, you need to enable the “**addDocument**”

Note: Follow the steps implemented for the Internal Partner (Manager) **Document Server** enablement for “addDocument”

Set Source	Set Target	Enabled	Edit	Document Definition							
				0	1	2	3	4	All		
				⋮							Package: AS
		Enabled		⋮							Package: None
				⋮							Protocol: Binary (1.0)
				⋮							Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)
		Enabled		⋮							Protocol: Web Service (1.0)
		Enabled		⋮							Document Type: { http://tempuri.org/DocumentService3/ };!
		Enabled		⋮							Activity: addDocument (1.0)
		Enabled		⋮							Activity: { http://tempuri.org/DocumentService3/ };ge!
				⋮							Protocol: cXML (1.2.009)
				⋮							Protocol: EDI-Consent (ALL)
				⋮							Protocol: EDI-EDIFACT (ALL)
				⋮							Protocol: EDI-X12 (ALL)
				⋮							Package: Backend Integration (1.0)
				⋮							Package: N/A
				⋮							Package: ebMS (2.0)

Create Interaction

Next you will need to create the interaction between the document definitions. Note that WebSphere Partner Gateway supports only Passthrough for webservices.

- ___ 1. Navigate to **Hub Admin** → **Hub Configuration** → **Document Definition**
- ___ 2. In the following **Manage Document Definition** screen, click the **Manage Interactions** link



- ___ 3. In the following **Manage Interactions** screen, click the **Create Interaction** link



- ___ 4. The following **Create Interaction** screen looks like as shown below:

Create Interaction


Welcome, Hub Administrator

[Manage Interactions](#) [Help](#)

Select one Document Definition each from the Source and Target column, and then fill in the data fields.

Source *						Target *					
0	1	2	3	4	All	0	1	2	3	4	All
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Package: AS						Package: AS					
Package: None						Package: None					
Package: Backend Integration (1.0)						Package: Backend Integration (1.0)					
Package: N/A						Package: N/A					
Package: ebMS (2.0)						Package: ebMS (2.0)					
Transform map											
Select Transform Map ▾											
Action *											
Select an action ▾											
Save				Cancel				Reset			

5. Create an interaction for the DocumentService WebService as shown below:

Note: Click on the folder icons () marked and select the radio button next to **Action: addDocument** in the Source and Target.

Create Interaction

Welcome, Hub Administrator

Select one Document Definition each from the Source and Target column, and then fill in the data fields.

Source *						Target *					
0	1	2	3	4	All	0	1	2	3	4	All
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Package: AS						Package: AS					
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>					
Package: None						Package: None					
Protocol: Binary (1.0)						Protocol: Binary (1.0)					
Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)						Protocol: &FUNC_ACK_METADATA_DICTIONARY (ALL)					
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>					
Protocol: Web Service (1.0)						Protocol: Web Service (1.0)					
Document Type:						Document Type:					
{http://tempuri.org/DocumentService3/}:DocumentService3 (1.0)						{http://tempuri.org/DocumentService3/}:DocumentService3 (1.0)					
<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>					
Activity: addDocument (1.0)						Activity: addDocument (1.0)					
<input checked="" type="radio"/>						<input checked="" type="radio"/>					
Action: addDocument (1.0)						Action: addDocument (1.0)					
Activity:						Activity:					
{http://tempuri.org/DocumentService3/}:getDocument (1.0)						{http://tempuri.org/DocumentService3/}:getDocument (1.0)					
Protocol: cXML (1.2.009)						Protocol: cXML (1.2.009)					
Protocol: EDI-Consent (ALL)						Protocol: EDI-Consent (ALL)					
Protocol: EDI-EDIFACT (ALL)						Protocol: EDI-EDIFACT (ALL)					

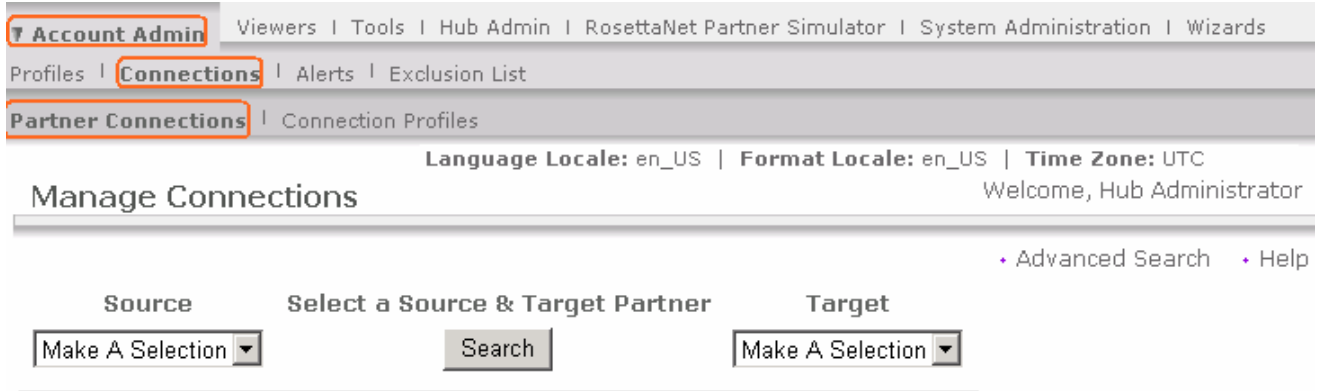
6. Scroll to the bottom of the **Create Interaction** screen and select **Pass Through** from the drop down list for the **Action** field

7. Click the **Save** button to save the interaction

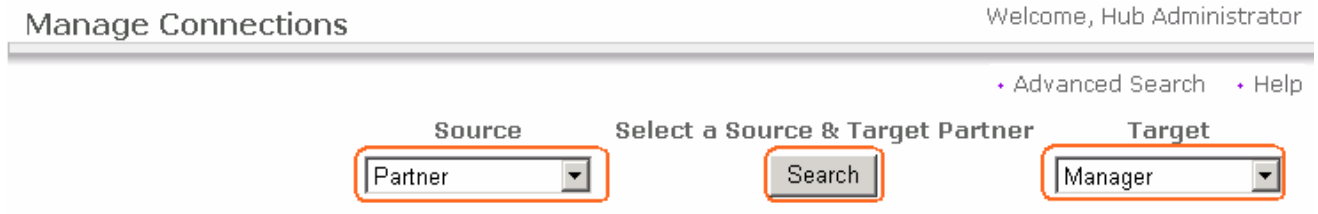
Part 5: Creating participant connections

The next step is to create Participant Connections.

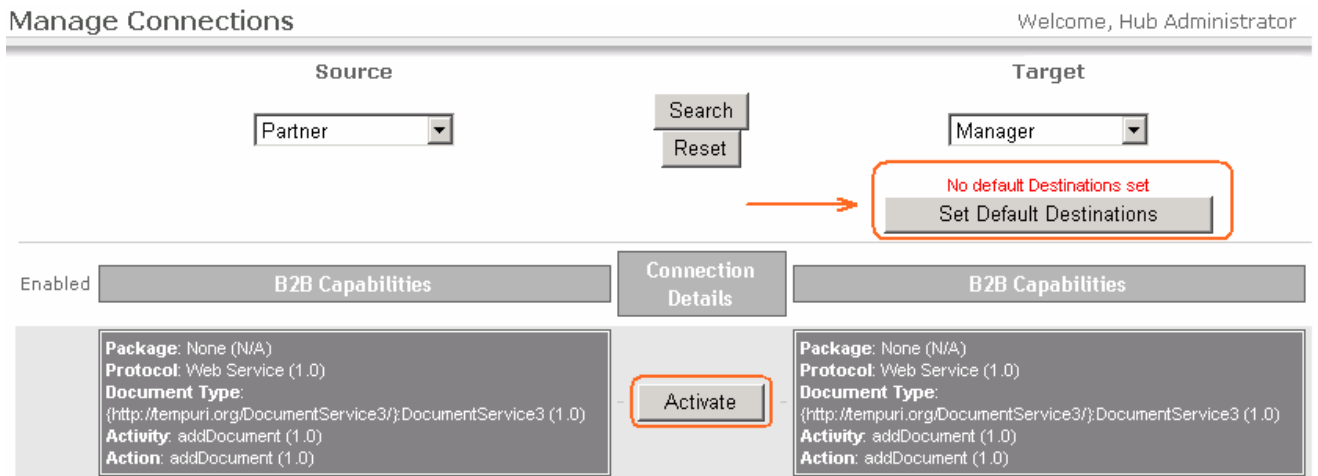
1. Navigate to the Manage Connections screen. **Account Admin** → **Connections** → **Partner Connections**



2. In the following **manage Connections** screen, select the **Partner** (External Partner) as **Source** and **Manager** (Internal Partner) as **Target** as shown below:



3. Click the **Search** button. The Manage Connections screen look like as shown below:








Note: If there is no default definition is set as shown in the picture above, click the **Set Default Destination** button and select the **webservice_destination** and continue to active the connections.

4. Click the **Activate** button

Part 6: Create a user for external partner

Finally for the configuration, you will need to create a User for the External Partner. This is used for authenticating the incoming Web Service request.


- ___ 1. Select External Partner
 - ___ a. Navigate to Partner Search screen, **Account Admin** → **Profiles** → **Partner**
 - ___ b. Accept the defaults and click the **Search** button
 - ___ c. Click the () icon next to **Partner** (External Partner). You are directed to the **Profile > Partner** screen

	Partner Name	Partner Type	Status
	Hub Operator	Hub Administrator	Enabled
	Manager	Internal Partner	Enabled
	Partner	External Partner	Enabled 

- ___ 2. While the **Profile > Partner** screen is selected, navigate to **Account Admin** → **Profiles** → **Users**
- ___ 3. In the following **Profile > Partner > User List** screen, click the **Create** link
- ___ 4. In the following **Profile > Partner > User Detail** screen, enter the following mandatory information:
 - User name : **admin**
 - Password : **test1234**
 - Re-enter Password : **test1234**

Note: The password must be 8 characters.

Profile » Partner » User Detail »

 **User Name** *

Status Enabled Disabled

Given Name

Family Name

E-Mail

Telephone

Fax Number

Language Locale

Format Locale

Time Zone

Alert Status Enabled Disabled

Subscribed

Visibility Global Local

Password *

Re-enter Password *

____ 5. Click the **Save** button

Part 7: Running the scenario

The sample Web Service adds the document in a local directory. The directory name is hard coded within the Web Services.

- ___ 1. Create the following directory before running the scenario
 - ___ a. On a UNIX[®] System **create** directory **/tmp/swa/DWS6/documents**
 - ___ b. On a Windows System **create** directory **C:\temp\swa\DWS6\documents**
- ___ 2. You need to have the following to run the scenario:
 - ___ a. GenericSOAPClient2.class – This is a test client which sends the Web Service request to WebSphere Partner Gateway

Note: The **GenericSOAPClient2.class** file is located at **<WPG61Labfiles>\SOAPwA**

- ___ b. WebSphere Partner Gateway receiver URL: <http://localhost:58080/bcgreceiver/Receiver>
- ___ c. External Partner Business ID – Duns Identifier or freeform identifier : **123456789**
- ___ d. User ID and Password for basic authentication (the one you created in Part 6).
 - User Name : **admin**
 - Password : **test1234**
- ___ e. **dws3_req.txt** - The file to send. This is a binary encoded request document. It has a single attachment. Note the <name> and <author> elements in the SOAP body. The name element is the name of the document; the author is the author who created the document. To run this test multiple times, you will have to change the value of the <name> element (explained later)

Note: The **dws3_req.txt** file is located at **<WPG61Labfiles>\SOAPwA**

- ___ f. Java™ runtime – For this lab, you will use the Java runtime provided by the WebSphere Application Server V6.1 (on which runs WebSphere Partner Gateway V6.1). The directory is **C:\IBM\WAS61\java\bin\java**, denoted by **<JAVA_DIR>**
- ___ 3. The Usage for the GenericSOAPClient2 is as follows:

```
java GenericSOAPClient2 <url> <file to send > <external partner businessid> <user> <pwd>
```
- ___ 4. Start a command line window and run the following commands:

```
cd C:\WPG61Labfiles\SOAPwA  
C:\IBM\WAS61\java\bin\java GenericSOAPClient2 http://localhost:58080/bcgreceiver/Receiver dws3_req.txt 123456789 admin test1234
```
- ___ 5. Here is an example output of the above command:

```
java GenericSOAPClient2 http://localhost:58080/bcgreceiver/Receiver dws3_req.txt 987654321 admin test1234
```

```
May 17, 2007 1:51:52 PM GenericSOAPClient2 send
```

```
INFO: Connection created  
sun.net.www.protocol.http.HttpURLConnection:http://localhost:58080/bcgreceiver/Receiver
```

May 17, 2007 1:51:52 PM GenericSOAPClient2 send

INFO: Request written.

May 17, 2007 1:51:52 PM GenericSOAPClient2 send

INFO: Reading response...

May 17, 2007 1:51:53 PM GenericSOAPClient2 send

INFO: Response written to file C:\WPG61Labfiles\SOAPwA\swa_resp_29504.txt

Note: The **response** (swa_resp_*.txt) file is created under <WPG61Labfiles>\SOAPwA

Results of the test

___ 6. After running the test, review the response file:

- ___ a. For the above check the response file, **swa_resp_*.txt**. The response from Web Service is written to this file. Note that the response is also SOAP with Attachment. In this case, the Web service returns a Boolean indicating that the document was added successfully

-----=_Part_1_1182942850.1173996872031

Content-Type: text/xml; charset=UTF-8

Content-Transfer-Encoding: binary

Content-Id: <75515382968.1173996872031.IBM.WEBSERVICES@ aimpc091>

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"><soapenv:Header/><soapenv:Body><p517:addDocumentResponse
xmlns:p517="http://tempuri.org/DocumentService3/"/></soapenv:Body></soapenv:Envelope>
```

-----=_Part_1_1182942850.1173996872031

Content-Type: application/octet-stream









Content-Transfer-Encoding: binary

Content-Id: <isAdded=74323883854.1173996872031.IBM.WEBSERVICES@aimpc091>

true

-----=_Part_1_1182942850.1173996872031—

- ___ b. Check the file system if the document has been added
- ___ c. Finally check the **Document Viewer** in WebSphere Partner Gateway console by navigating Viewers → Document Viewer. WebSphere Partner Gateway Console should show the request and response documents

Document ID: -					
Doc Time Stamp: -					
	<input type="checkbox"/> Source: Community Manager	In: 2/15/07 8:42:15 AM	 (1.152 kb)	None (N/A) Web Service (1.0) {http://tempuri.org/DocumentService3/}:DocumentService3(1.0)	
<input type="checkbox"/>	Target: Partner	Out: 2/15/07 8:42:16 AM	 (0.014 kb)	None (N/A) Web Service (1.0) {http://tempuri.org/DocumentService3/}:DocumentService3(1.0)	Production
Document ID: -					
Doc Time Stamp: -					
	<input type="checkbox"/> Source: Partner	In: 2/15/07 8:42:15 AM	 (1.233 kb)	None (N/A) Web Service (1.0) {http://tempuri.org/DocumentService3/}:DocumentService3(1.0)	
<input type="checkbox"/>	Target: Community Manager	Out: 2/15/07 8:42:15 AM	 (0.924 kb)	None (N/A) Web Service (1.0) {http://tempuri.org/DocumentService3/}:DocumentService3(1.0)	Production
Document ID: -					

Note: The document in the second row is the Request document. The document in the first row is the Response document.

Running test multiple times:

If you need to send the document again, make sure to change the name element of the input request document, ***dws3_req.txt***. The value of the name element is `<name>helloworld1.txt</name>`. Change the counter every time you send a new request. The reason is once a document is added to the file system, on subsequent invocation, the Web service will not be able to overwrite the file. Modify name element to `<name>helloworld2.txt</name>` and so on.

Some troubleshooting tips

___ 7. Check java version. It should be 1.5

```
java version "1.5.0"
```

```
Java(TM) 2 Runtime Environment, Standard Edition (build pwi32dev-20061002a (SR3))
```

```
IBM J9 VM (build 2.3, J2RE 1.5.0 IBM J9 2.3 Windows XP x86-32 j9vmwi3223-2006100
```

Note: You can use the Java 1.5 provided by WebSphere Application Server V6.1.

___ 8. Always change the `<name>` element value. The reason is once a document is added to the file system, on subsequent invocation, the Web service will not be able to overwrite the file

___ 9. As of now the “boundary” value has been hard coded in the test client. Do not change the boundary in the request document

___ 10. This scenario makes use of the Basic Authorization header for authenticating a user. Do not forget to create a user as mentioned in Part 6

___ 11. Do not forget to create a temporary directory, `C:\temp\swa\DWS6\documents`, for the Web Service to store documents

Note: The directory name is hard coded and you will have to create this directory before running the scenario:

On a Unix System create `/tmp/swa/DWS6/documents`.

Encoding information

SOAP with attachment document is an encoded request document as defined by the “Content-Transfer-Encoding” MIME Header.

WebSphere Partner Gateway supports the following encoding

- 7bit
- 8bit
- binary
- quoted-printable
- base64

However, not all application servers will support all of the above. Example WebSphere Application Server supports 7 bit, 8 bit and binary types only. The sample request document uses binary encoding.

What you did in this exercise

You have successfully configured WebSphere Partner Gateway 6.1 for the SOAP with attachment feature.

You worked on a scenario in which, WebSphere Partner Gateway backend hosts a Web service which a community participant invokes