IBM WEBSPHERE PARTNER GATEWAY V6.0- LAB EXERCISE

WebSphere Partner Gateway (WPG) Basic Configuration

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NOTE: Education materials and other documentation as applicable including programming manuals, operating guides, physical planning manuals and installation manuals related to the IBM Products may be early versions subject to change.

What this exercise is about

This document describes how to configure WebSphere Partner Gateway to Create trading participants, create EDI, ROD and XML targets, and configure the file gateways for the trading participants.

Lab Requirements

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

- WebSphere MQ 5.3 with CSD 08 installed
- DB2 8.2 Enterprise Server installed
- Data Interchange Services Client 6.0 installed
- WebSphere Partner Gateway V 6.0 (WPG) software installed (This includes the DB loader and the runtime servers)

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 execute 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, for example:

Reference Variable	Windows Location	Linux Location
<wpg_home></wpg_home>	C:\IBM\WPG\bcghub	/opt/IBM/WPG/bcghub
<lab_files></lab_files>	C:\WPGLabfiles	/tmp/WPGLabfiles
<temp></temp>	C:\temp	/tmp

WPG users can be categorized into 3 administrative roles.

Community Operator: The Community Operator is responsible for managing the day-to-day operation of the hub community. Pre-defined user– cannot be deleted. Acts as "sysadmin" for WPG. Defines and maintains the WPG's capabilities. Typically does NOT send or receive documents



Community Participant: External business partners to WPG. Can be as many defined as desired



Community Manager: The Community Manager is the primary driving force within the hub community. Also a participant, but is the principle one. Can only have one Community Manager in WPG. Operational manager for the community



Part 1: Starting MQ Components and WPG Servers

Note: Make sure that the database server is started

Starting the required MQ services:

Open a command window and issue the following commands.

1. Start MQ queue manager

strmqm bcg.queue.manager

2. Start MQ Broker

strmqbrk -m bcg.queue.manager

3. Start services on the Queue manager

strmqcsv bcg.queue.manager

4. Run MQ listener (9999 is the default port used by the installer)

runmqlsr -t tcp -p 9999 -m bcg.queue.manager

Starting WPG Servers

Open a command window and change directories to <WPG_HOME>/bin

1. Starting Console

bcgstartserver bcgconsole

2. Starting Receiver

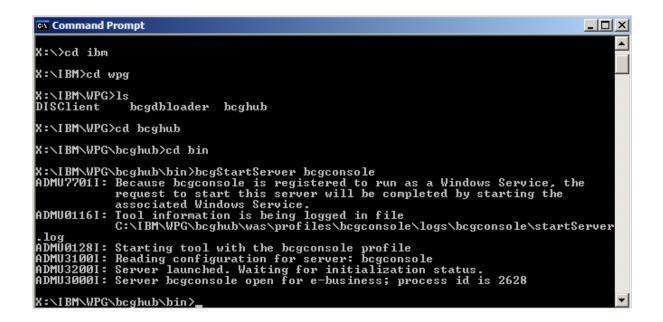
bcgstartserver bcgreceiver

3. Starting Doc. Manager

bcgstartserver bcgdocmgr

Once each of the servers is started, you will notice a process id corresponding to the server.

Starting WDC Sonw



You can also check the three java processes (corresponding to bcgconsole, bcgdocmgr, bcgreceiver) in the windows task manger panel.

For UNIX use the following command

ps --ef | grep java

The above command displays all the java processes. You should notice the three entries for the three WPG servers (bcgconsole, bcgdocmgr, bcgreceiver)

For Windows Platform:

During the install process, you would be given an option to run the bcgconsole, bcgdocmgr and bcgreceiver servers as windows services. If you have selected the option, you would notice three entries in your Services window. You can start or stop servers form the services window by selecting the entry, right clicking and selecting start or stop option

Services					
File Action View	Help				
	, 2 → → ■ □ ■>				
Services (Local)	🍇 Services (Local)				
		Name 🔺	Description Status	Startup Type	Log On As
	Select an item to view its description.				
		BIBM WebSphere Application Server V6 - bcgconsole	Controls th Started		Local Syst
		BIBM WebSphere Application Server V6 - bcgdocmgr	Controls th	Manual	Local Syst
		BM WebSphere Application Server V6 - bcgreceiver	Controls th	Manual	Local Syst
		MAPI CD-Burning COM Service	Manages C	Manual	Local Syst
		andexing Service	Indexes co	Manual	Local Syst

Part 2: Logging into the Community Console

- 1. Logging into Community Console for the first time after Install
 - ____a. Type the following Console url into the browser http://<hostname>:58080/console

Where <hostname> is to be replaced by the hostname of the system you installed WPG, Example: http://localhost:58080/console

b. If you are logging in the console for the 1st time, use the following default authentication information when the product is installed:

User Name: hubadmin

Password: Pa55word

Company Name: Operator

Enter the information in the login screen and click Login

- _ c. The next screen prompts you to change the default password. Enter hub1admin as the new password. Click Save.
- 2. If you have already logged into the Community console previously and followed the instructions in step 1, use the following authentication information

User Name: hubadmin

Password: hub1admin

Company Name: **Operator**

Part 3: Creating Targets

Targets or Receivers are used to receive incoming documents. It supports various transport protocols, like HTTP, HTTPs, FTP, FTPs, File directories and so on. In this tutorial, we use simple File directory as the input mechanism for incoming documents into the hub.

Only Community Operators have authority to create new Targets.



1. Creating EDI Target (Used for EDI to ROD and EDI to XML tutorials)

____a. Go to Hub Admin -> Hub Configuration -> Targets panel

- ____1) Click "Create Target" located at the right most corner
 - ____a) Select "File directory" from the Transport dropdown menu.
 - ____b) Provide the Target name and target location in the file system as shown below.

Target Name: EDIFileTarget

Document Root Path: C:\WPGLabs\edifiletarget

Create a directory C:\WPGLabs in your file system

Note: One important thing to remember is that the whole directory path except the "edifiletarget" should already exist in your file system. WPG does not create the directory structure. WPG only creates the "edifiletarget" directory and other directories needed under the already existing "WPGLabs" directory. So make sure that "WPGLabs" exists in C:\

Target Details	
Target Name	EDIFileTarget *
Status	● Enabled C Disabled
Description	
Transport	File Directory 💌 *
Target Configuration	
Default Gateway Type:	
Document Root Path:	C:\WPGLabs\edifiletarget *
Poll Interval:	5 seconds
File Unchanged Interval:	3 seconds
Thread Nbr:	1
Handlers	
Configuration Point Handlers:	Select One
Save Cancel	

2. Creating ROD Target (Used for the ROD to EDI tutorial)

1) Click "Create Target" located at the right most corner

- a) Select File directory from the **Transport** dropdown menu.
- b) Provide the target name and target location in the file system.

Target Name: **RODFileTarget**

Document Root Path: C:\WPGLabs\rodfiletarget

Note: One important thing to remember is that the whole directory path except the "edifiletarget" should already exist in your file system. WPG does not create the directory structure. WPG only creates the "rodfiletarget" directory and other directories needed under the already existing "WPGLabs" directory. So make sure that "WPGLabs" exists in C:\

____a) Select preprocess for Configuration Point Handlers drop down menu

____b) Select **com.ibm.bcg.edi.receiver.preprocesshandler.RODSplitterHandler** from Available list and add it to Configured list by clicking the **Add**.

c) Select **com.ibm.bcg.edi.receiver.preprocesshandler.RODSplitterHandler** on **Configured list** and press the **Configure** button

Target Details	Welcome, Hub Adminis	strator
	• List	• Help
Target Name RODFileTarget * Status © Enabled C Disabled Description		
Transport File Directory *		
Target Configuration		
Default Gateway Type: Production Methods in the second se		
Handlers		
Configuration Point Handlers: preprocess		
Handler Selection		
Available List Selected handler: com.ibm.bcg.edi.receiver.preprocesshandler.XMLSplitterHandler com.ibm.bcg.edi.receiver.preprocesshandler.EDISplitterHandle com.ibm.bcg.edi.receiver.preprocesshandler.XMLSplitterHandle	Configured List Selected handler: com.ibm.bcg.edi.receiver.preprocesshandler.RODSplitterHandler com.ibm.bcg.edi.receiver.preprocesshandler.RODSplitterHandl	
com.ibm.bcg.edi.receiver.preprocesshandler.GenericDocumen		love Up
Add View Details	Remove View Details	
	Save Cancel	

_____d) The values to be entered are shown in the picture below. After entering the values, press **Set values** which takes you back to creating Target screen.

Note: Unlike EDI and XML formats, there is no simple way for an ROD splitter to understand the ROD format. Hence ROD splitter requires additional values like the package, protocol, process, meta data from where it can determine the ROD format. These meta data and other values are will come from the imported ROD to EDI map which is performed in the ROD to EDI tutorial

FromPackagingName	None	
FromPackagingVersion	N/A	
FromProtocolName	ADF-TO-EDI_DICT	
FromProtocolVersion	ALL	
FromProcessCode	DTADF-TO-EDI_ADF	
FromProcessVersion	ALL	
METADICTIONARY	ADF-TO-EDI_DICT	
METADOCUMENT	DTADF-TO-EDI_ADF	
METASYNTAX	rod	
ENCODING	ascii	
BCG_BATCHDOCS	ON	
SetValues	Cancel	

Note:

FromProtocolName and METADICTIONARY correspond to the name of the Dictionary name used when creating the transformation map

FromProcessCode and METADOCUMENT correspond to the name of the Document Definition name used when creating the transformation map

Since ROD format is not a standard, the splitter needs the Dictionary name and the Document Definition name to understand the format of the input file it receives.

One more important thing is that one target can only be configured for one ROD type. If you want to use different ROD formats, then you would need to configure independent targets each corresponding to one ROD format.

____e) Press Save in the next screen.

3. Creating XML Target (Used for the XML to EDI tutorial)

____a. Go to Hub Admin → Hub Configuration → Targets panel

1) Click "Create Target" located at the right most corner

- ____a) Select "File directory" from the Transport dropdown menu.
- ____b) Provide the Target name and target location in the file system as shown below.

Target Name: XMLFileTarget

Document Root Path: C:\WPGLabs\xmlfiletarget

- Note: One important thing to remember is that the whole directory path except the "edifiletarget" should already exist in your file system. WPG does not create the directory structure. WPG only creates the "xmlfiletarget" directory and other directories needed under the already existing "WPGLabs" directory. So make sure that "WPGLabs" exists in C:\
 - ____ c) Select preprocess for Configuration Point Handlers
 - ____d) Select **com.ibm.bcg.edi.receiver.preprocesshandler.XMLSplitterHandler** from available list and add it to Configured list clicking the Add button.
 - ____e) Press Save

Part 4: Creating Participants

New Participants can be created only by Community Operators.



We need to create two participants. This document uses Manager and TP1 as the two participants. TP1 will be the source of the EDI document and Community Manager will be the receiver (target) of the generated XML document.

Creating the 1st trading participant which is the Manager.

Note:A community can only have one Community Manager

____a. Go to Account Admin → Profiles → Community Participant

- ____b. Click "Create" located on the right most corner of the screen to create new participant
- ___ c. For Manager profile, provide

Company Login Name: ComManager

Participant Name: Manager

Select "Community Manger" as "Participant Type" and "Other" as "Vendor Type"

- __ d. Click New for Business ID and provide 123456789 as the identifier and Type of "Freeform". Make sure you select business id as Freeform and not DUNS.
- ____e. Click New for Business ID and provide **01-123456789** as the identifier and Type of "**Freeform**". Make sure you select business id as **Freeform** and not **DUNS**.

Note: All EDI IDs that have qualifiers need to be specified as freeform IDs in the format of <qualifier-businessid> Note that the qualifier and the business ID must be separated by a hyphen (-). For example, if a participant's EDI qualifier is "ZZ" and the business ID is "123456789" the corresponding freeform ID is ZZ-123456789.

____f. Click Save.

____g. In the next screen, you would be provided with a password. Save the password.

Note: The password can be used to login as that particular participant. To Login as Manager that you created now, Logout of the console and use the following

Username: admin

Password : (the password that is displayed after creation of participant.)

Company Login Name: ComManager

Profile > New Participant		
Image: Status ComManager * Participant Display Name Manager * Participant Type Community Manager * Status © Enabled © Disabled Vendor Type Other Image: Status Status Save Cancel		
Business ID		
Type Identifier Remove Freeform 123456789 Image: Comparison of the second		
IP Address or Host Name		
Gateway Type IP Address or Host Name Remove Production ▼ wpgdemo □ New ■ ■ ■		

Create the 2nd Trading Partner, TP1.

- ____a. Go to Account Admin → Profiles → Community Participant.
- ____b. Click "Create" located on the right most corner of the screen to create new participant

Login Name: TP1

Participant Name: TP1

Select "Community Participant" as "Participant Type" and "Other" as "Vendor Type".

- ____ c. Click New for Business ID and provide **987654321** as the identifier and Type of "**Freeform**". Make sure you select business id as **Freeform** and not DUNS.
- _____d. Click New for Business ID and provide **01-987654321** as the identifier and Type of "**Freeform**". Make sure you select business id as **Freeform** and not DUNS.

Note: All EDI IDs that have qualifiers need to be specified as freeform IDs in the format of <qualifier-businessid> Note that the qualifier and the business ID must be separated by a hyphen (-). For example, if a participant's EDI qualifier is "ZZ" and the business ID is "123456789" the corresponding freeform ID is ZZ-123456789.

____e. Click Save

_____f. In the next screen, you would be provided with a password. Save the password.

Note: The password can be used to login as that particular participant. To Login as Manager that you created now, Logout of the console and use the following

Username: admin

Password : (the password that is displayed after creation of participant.)

Company Login Name: TP1

Profile • New Participant			
8	Company Lo	qin Name	TP1 *
Pa	articipant Disp	-	TP1 *
	Partici	pant Type	Community Participant 💌 *
		Status	© Enabled O Disabled
	Ver	ndor Type	Other 💌
		Web Site	
			Save Cancel
			Save Carlos
	ness ID	- 1	
_	Гуре	Identifier	
-	Freeform 💌	987654321	
	Freeform -	01-9876543	321
	New		
IP Ad	ddress or Host	Name	
	Gateway Typ	e IP/	Address or Host Name Remove
	Production	wpg	gdemo 🗖
	New		

You have successfully created the required participants for the scenario

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Part 5: Creating Gateways for the Participants

Gateways are hub exit points for outgoing document.

Users who have the privilege for creating Gateways are Community Operator, Community Manager and Community Participant

D munit erator	y Community Participant	Communit Manager	
	Community Op	erator:	Can create gateways for all the participants including the Community
			Manager profiles
	Community Ma	nager:	Can create gateways for its own profile
	Community Pa	rticipant:	Can create gateways for its own profile

Creating Gateways For Manager Profile

We need to create two file gateways for the manager profile

Creating the first gateway for Manager:

- 1. Go to Account Admin → Profiles → Community Participant and click on Search button. This should list all the Participants created
 - ___a. Select the Manager profile by clicking on the \swarrow icon. This makes the "Manager" profile active.
- _____2. Click on the Gateways menu. You should see "Profile Manager Gateway List".
 - ____a. Click Create to create a new gateway
 - ____b. In the Gateway Configuration section of the panel, for the **Transport** value, from the drop down menu, select "File Directory".
 - ____1) Provide the values as shown below (and also in the figure below):

Gateway Name: ManagerFileGateway

Transport: File Directory

Address: file://C:\WPGLabs\Manager\filegateway

Note: Address field specifies the location in the file system where you want your gateway to be configured to. One important thing to remember is that the whole directory path should already exist in your file system. WebSphere Partner Gateway does not create the directory structure.

Profile • Manager • Gateway List	
Gateway Name Status Online/Offline Description	ManagerFileGateway * © Enabled © Disabled © Online © Offline
Gateway Configuration	
Transport	File Directory
Address	file://C:/WPGLabs/Manager/filegateway
Retry Count	3
Retry Interval	300 seconds
Number of Threads	3 🔽
Validate Client IP	⊙ No O Yes
Auto Queue	⊙ No C Yes
Use Unique File Name	
Handlers	
Configuration Point Handlers	Select One
	Save Cancel

- ____ 2) Click Save.
- ____3) In the next screen, go to the right corner of the WPG console and Click on List. This screen lists all the Gateways configured for **Manager**.
- ____4) Click on View Default Gateways located on the top right corner of the screen.
- __ 5) Select the gateway you created from the **Production** drop down menu which is the **ManagerFileGateway**
- ____6) Click Save.

Creating the second gateway for Manager:

- 1. Go to Account Admin → Profiles → Community Participant and click on Search button. This should list all the Participants created
 - ____a. Select the Trading Partner, **Manager**, by clicking on the \swarrow icon.
 - 2. Click on the Gateways menu. You should see Profile Manager Gateway List
 - ____a. Click **Create** to create a new gateway
 - b. In the Gateway Configuration section of the panel, for the Transport value, from the drop down menu, select "File Directory".
 - ____1) Provide the values as shown in the figure.

Gateway Name: ManagerFileGateway2

Transport: File Directory

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Address: file://C:\WPGLabs\Manager\filegateway2

____2) Click Save.

Note: Address field specifies the location in the file system where you want your gateway to be configured to. One important thing to remember is that the whole directory path should already exist in your file system. WebSphere Partner Gateway does not create the directory structure.

Profile • Manager • Gateway List • ManagerFileGateway2		
Status Status Online/Offline Description	ManagerFileGateway2 * © Enabled © Disabled © Online © Offline	
Gateway Configuration		
Transport	File Directory 🔽	
Address	file://C:\WPGLabs\Manager\filegateway2 *	
Retry Count	3	
Retry Interval	300 seconds	
Number of Threads	3 💌	
Validate Client IP	⊙ _{No} C _{Yes}	
Auto Queue	⊙ _{No} C _{Yes}	
Use Unique File Name		
Handlers		
Configuration Point Handlers:		
	Save Cancel	

Creating Gateway For TP1 Profile

Now, we will create the Gateway for Trading partner TP1. This activity can be done by the Community Operator or the Community participant TP1. For sake of simplicity, we are doing this activity as Community Operator.

- 1. Go to Account Admin → Profiles → Community Participant and click on Search button. This should list all the Participants created
 - ____a. Select the Trading Partner, TP1, by clicking on the \swarrow icon. This should activate the TP1 profile
- 2. Click on the Gateways menu. You should see Profile **5TP1 3Gateway List**
 - ____a. Click **Create** to create a new gateway

- _b. In the Gateway Configuration section of the panel, for the Transport value, from the drop down menu, select "File Directory".
 - ____1) Provide the values as shown in the figure.

Gateway Name: TP1FileGateway

Transport: File Directory

Address: file://C:\WPGLabs\TP1\filegateway

Note: Address field specifies the location in the file system where you want your gateway to be configured to. One important thing to remember is that the whole directory path should already exist in your file system. WebSphere Partner Gateway does not create the directory structure.

Profile , TP1 , Gateway List	
Gateway Name Status Online/Offline Description	TP1FileGateway ★ ● Enabled ○ Disabled ● Online ○ Offline
Gateway Configuration	
Transport Address Retry Count Retry Interval Number of Threads Validate Client IP	No O Yes
Handlers	
Configuration Point Handlers:	Select One Cancel

- ___ 2) Click Save.
- __ 3) In the next screen, go to the right corner of the WPG console and Click on List. This screen lists all the Gateways configured for TP1.
- _____4) Click on **View Default Gateways** located on the top right corner of the screen.
- __ 5) Select the gateway you created from the **Production** drop down menu which is the **TP1FileGateway**
- ___ 6) Click Save.

You have successfully created the file gateways for the Manger and TP1 trading participants

Part 6: Creating Envelope Profiles

Community Operator has the privilege for Creating Envelope Profiles.



Envelope Segments refers to the segments which are automatically inserted before and after messages, these segments do not ordinarily contain transaction data, they serve as envelope segments to the data segments. These segments are generally known as Service Segments or Envelope Segments. Envelope segments are responsible for containing Interchange & message reference numbers, count of contents (such as; Segments within Message and Messages within Interchange), Identification values and control data.

Envelope profiles are used to provide the values for the fields in the Envelope Segments. Attribute values can be specified for General, Interchange, Group and Message levels.

For the Labs, we need to create two Envelope profiles

Creating the First Envelope Profile

- 1. Go to Hub Admin → Hub Configuration → EDI → Envelope Profile.
 - ____a. Click Create located on the right most corner to create a new Envelope Profile
 - ____b. In the next screen, provide the following values.
 - Envelope profile name: EnvProfile 1

Type a unique name for the new envelope profile. This is a required field.

- *Description:* Optionally, type a brief description of the envelope profile.
- EDI Standard: X12

(For EDI Standard, X12 can be selected from the drop down menu)

____ c. Click on the Radio button next to General and provide the following values.

General

INTCTLLEN: 9

Defines a specific length for the interchange control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

GRPCTLLEN: 9

Defines a specific length for the group control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

TRXCTLLEN: 9

Defines a specific length for the transaction control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

ENVTYPE: X12

This attribute is not set by the Hub Admin but is derived from the envelope profile type being created. Specifies Envelope Type

MAXDOCS: 1000

Maximum number of transactions in an envelope. Must be an integer

CTLNUMFLAG: NO

"Yes" indicates that separate sets of control numbers are kept based on the EDI transaction type. "No" indicates that a common set of control numbers for any EDI transaction type should be used.

 _____ d. Click on the Radio button next to Interchange attributes and provide the following values in bold text

Interchange

ISA01: Authorization Information Qualifier:	01
ISA02: Authorization Information:	ISA000002
ISA03: Security Information Qualifier:	02
ISA04: Security Information:	ISA0000004
ISA05: Interchange Sender Qualifier:	-
ISA06: Interchange Sender Id:	-
ISA07: Interchange Receiver Qualifier:	-
ISA08: Interchange Receiver Id:	-
ISA09: Interchange Date:	-
ISA10: Interchange Time:	-
ISA11: Interchange Standards Id:	U
ISA12: Interchange Version Id:	00204
ISA13: Interchange Control number:	-
ISA14: Acknowledge Requested:	0
ISA15: Test Indicator:	т
ISA16: Subelement Separator:	-

___e. Click Save

Creating the Second Envelope Profile

- 1. Go to Hub Admin → Hub Configuration → EDI → Envelope Profile.
 - ____a. Click Create located on the right most corner to create a new Envelope Profile
 - ____b. In the next screen, provide the following values.
 - Envelope profile name: EnvProfile 2

Type a unique name for the new envelope profile. This is a required field.

- *Description:* Optionally, type a brief description of the envelope profile.
- EDI Standard: X12

(For EDI Standard, X12 can be selected from the drop down menu)

___ c. Click on the Radio button next to General and provide the following values.

General

INTCTLLEN: 9

Defines a specific length for the interchange control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

GRPCTLLEN: 9

Defines a specific length for the group control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

TRXCTLLEN: 9

Defines a specific length for the transaction control number. If you enter a value, it must be an integer. If no value is entered, the default length is used.

ENVTYPE: X12

This attribute is not set by the Hub Admin but is derived from the envelope profile type being created. Specifies Envelope Type

MAXDOCS: 1000

Maximum number of transactions in an envelope. Must be an integer

CTLNUMFLAG: NO

"Yes" indicates that separate sets of control numbers are kept based on the EDI transaction type. "No" indicates that a common set of control numbers for any EDI transaction type should be used.

____d. Click on the Radio button next to Interchange attributes and provide the following values in bold text

Interchange

ISA01: Authorization Information Qualifier:	01
ISA02: Authorization Information:	ISA2222222
ISA03: Security Information Qualifier:	02
ISA04: Security Information:	ISA4444444
ISA05: Interchange Sender Qualifier:	-
ISA06: Interchange Sender Id:	-
ISA07: Interchange Receiver Qualifier:	-
ISA08: Interchange Receiver Id:	-
ISA09: Interchange Date:	-
ISA10: Interchange Time:	-
ISA11: Interchange Standards Id:	U
ISA12: Interchange Version Id:	00204
ISA13: Interchange Control number:	-
ISA14: Acknowledge Requested:	0
ISA15: Test Indicator:	т
ISA16: Subelement Separator:	-

___ e. Click Save

You have successfully created the envelope profiles

What you did in this exercise

In this exercise, you have created participants, targets, participant gateways, envelope profiles and connection profiles which are used later for the labs.

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