IBM WEBSPHERE PARTNER GATEWAY V6.0 - LAB EXERCISE

EDI to ROD 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 accept a EDI document, deenvelope it, validate and translate it to rod

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)

What you should be able to do

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

 Configure WebSphere Partner Gateway to accept a EDI document, de-envelope it, validate and translate it to ROD

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



Lab Files

You would need a copy of the following files in your <LAB_FILES>

MAP File: S DT EDI TO ADF.eif

Input File: edi2adf.inp

Part 1: Introduction

Objective:

The source trading partner sends an EDI ISA document which needs to be converted to ROD and sent to the target trading partner.

Figure-1

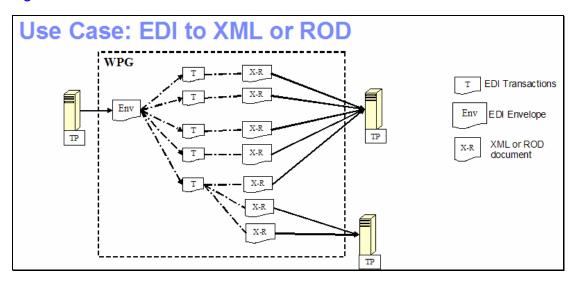


Figure-1 shows the high level representation of the actions that take place in an EDI to ROD or XML flow between 2 trading partners.

Figure-2

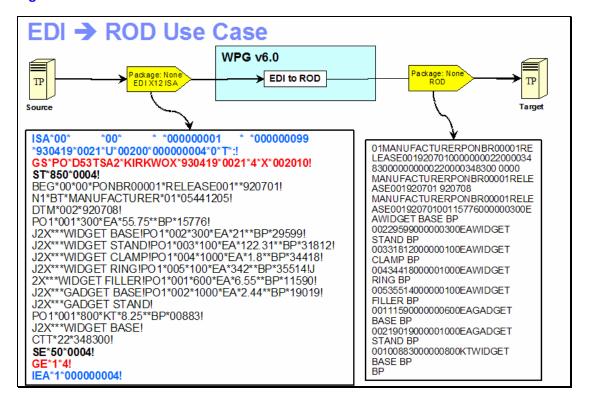


Figure-2 shows the final outcome of the EDI to ROD lab. An incoming EDI X12 ISA with None packaging from the source trading partner passes through the hub where the EDI is translated to ROD and the ROD is sent to the target trading partner.

The 1st step in the hub after receiving the EDI document is de-enveloping where the EDI transactions are extracted from EDI interchange. Each of the EDI transaction is routed back into the document manager to be processed, based on the connection configuration for that transaction.

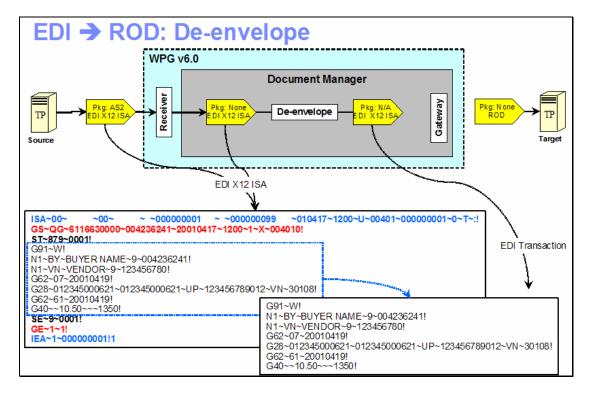
Detailed steps of a simple flow of the incoming EDI document mapped to an outgoing XML or ROD document are as follows.

Step 1:

The target EDI receiver receives the EDI document from Source Trading Partner. If the target needs to process multiple Interchanges in one EDI document file, the target needs to use EDI Splitter. This target can then be used for an EDI file containing multiple EDI Interchanges. The EDI splitter splits the EDI file into individual EDI Interchange envelopes. Each EDI envelope then flows back through the document manager and follows through the next step.

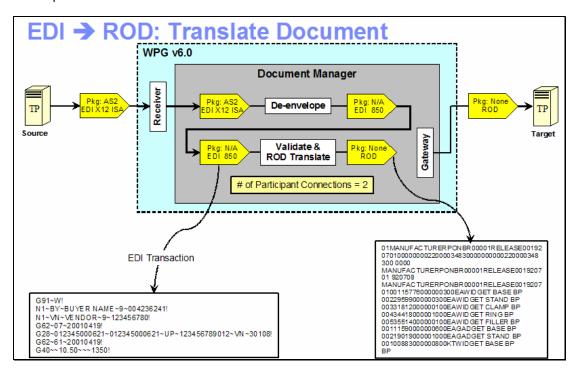
Step 2:

The EDI envelope goes through the EDI de-enveloper action that extracts all the EDI transactions. Each transaction then independently flows through the document manager.



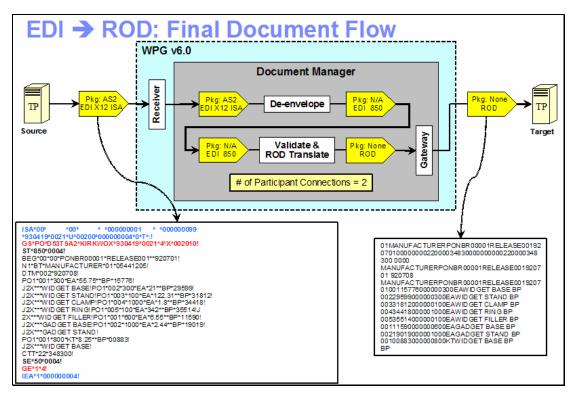
Step 3:

The individual EDI transaction then gets validated and mapped to output XML or ROD. A pre-requisite step is that the map has already been imported using the IBM Data Interchange Services(DIS) client tool or the DIS import function.



Step 4:

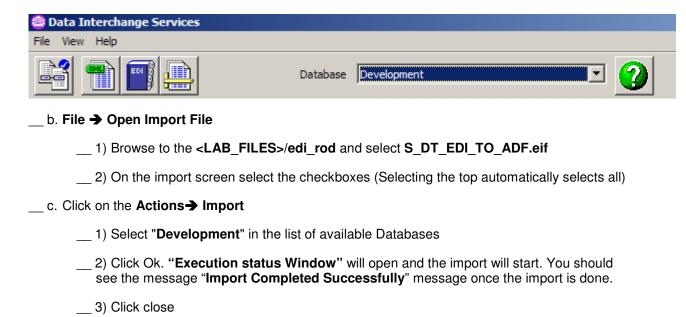
The generated XML or ROD is then sent to the receiver/target Trading partner through the Gateway for that trading partner.



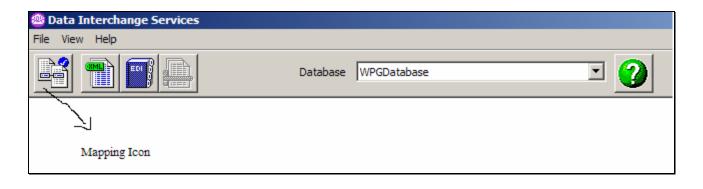
Two participant connections need to be configured, as shown in the diagram. One for the de-enveloper and another for the EDI transaction transformation to ROD or XML.

Part 2: Exporting the Map to WPG Database from DIS Client

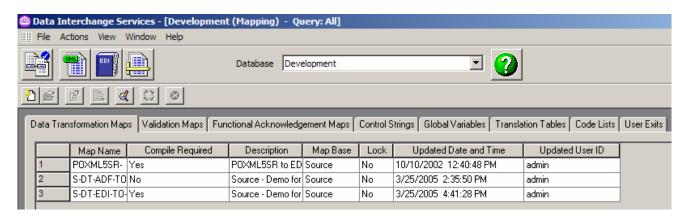
- 1. Launch the DIS Client Application. If you haven't already configured the ODBC data source for the bcgapps DB2 database and created a new database in the DIS Client, refer the lab "Creating DB2 ODBC Data Source Creation and Installation and Configuration of IBM DIS Client V6.0". If you have already finished the configuring ODBC data source and created a new database in DIS Client, follow the instructions below
- 2. Importing the Map into your development database
 - __ a. Select the "Development" database from the Database dropdown menu



____ 3. Click on the icon "Mapping".

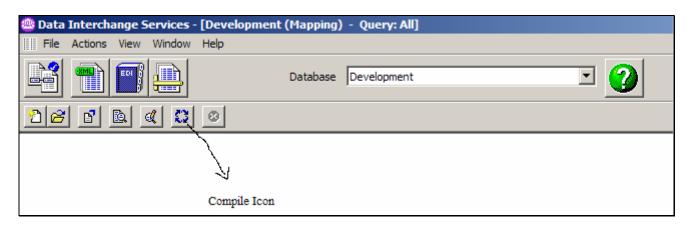


a. A new window is opened



- __ b. Click on the **Data Transformation Maps** tab.
- c. The Map name S DT EDI TO ADF Should be listed with the Compile required option as "Yes".
- __ d. Select this map and click on the Compile Icon. Alternatively go to the top menu. Click **Actions → Compile**
 - "Execution status Window" will open and the import will start. You should see the message "Compile Completed Successfully" message once the import is done.

Click close.



- _____ 4. Importing the compiled map into the WPGDatabase
 - __ a. Go to the "Control Strings" tab
 - __ b. Select the row for the map name "S_DT_EDI_TO_ADF". If you do not see the map, refresh the panel (From the DIS Client menu bar, select View and then select Refresh)
 - __ c. Select Top menu. Click **Actions** → **Export to Other Database**
 - __ 1) Select the **WPGDatabase** from the list and Click **ok**
 - __ 2) If you are prompted for the username and password, provide the DB2 username and password information.

For this Lab, the information is as follows:

User Name: labuser

	Password: lab1user
3)	On the "Export with control string" screen
	a) Click Select All and then Ok.
	b) "Execution status Window" will open and the compilation will start. You should see the message "ExportCompleted Successfully" message once the compiling is done.
	c) Click Close

You have successfully exported the Map into the WPGDatabase

Part 3: Starting MQ Components and WPG Servers

Note: Make sure that the database server is started

Starting the required MQ services:						
Open	Open a command window and issue the following commands.					
1.	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	Open a command window and change directories to <wpg_home>/bin</wpg_home>					
1.	Starting Console					
	bcgstartserver bcgconsole					
2.	Starting Receiver					
	bcgstartserver bcgreceiver					
3.	Starting Doc. Manager					
	bcgstartserver bcgdocmgr					

Part 4: Logging into the Community Console

_____1. If you have already logged into the Community console previously and followed the instructions in wpgv6_basic_configuration lab, use the following authentication information

User Name: hubadmin

Password: hub1admin

Company Name: Operator

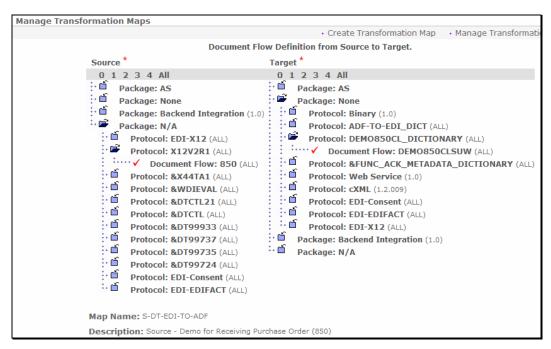
Part 5: Checking the import of maps

Community Operator has the privilege for checking the Map import



1. Checking Map import

- _ a. Hub Admin → Hub Configuration → Maps → Transformation Maps. The map S_DT_EDI_TO_ADF should be listed
- __ b. Click on the view Picon. The Document Flow Definition from Source to Target is listed as



Note:

The values X12V2R1 for the protocol and 850 for the document flow on source side correspond to the **Dictionary Name** and **Document Definition Name** defined in the **Source Document Definition** of the map **S_DT_EDI_TO_ADF** you imported.

The values **DEMO850CL_DICTIONARY** for the protocol and **DEMO850CLSUW** for the document flow on target side correspond to the **Dictionary Name** and **Document Definition Name** defined in the **Target Document Definition** of the map **S_DT_EDI_TO_ADF** you imported.

You have successfully verified that the map S_DT_EDI_TO_ADF has been imported.

Part 6: Creating Targets

Note: You have already created the "edifiletarget" before in the "WPG Basic Configuration" Lab. If not please complete the "WPG Basic Configuration" Lab before you proceed.

Part 7: Creating Participants

Note: You have already created the Manager and TP1 participants before in the "WPG Basic Configuration" Lab. If not please complete the "WPG Basic Configuration" Lab before you proceed.

Part 8: Creating Gateways for the Participants

Note: You have already created the file gateways for the Manager and TP1 profile before in the "WPG Basic Configuration" Lab. If not please complete the "WPG Basic Configuration" Lab before you proceed.

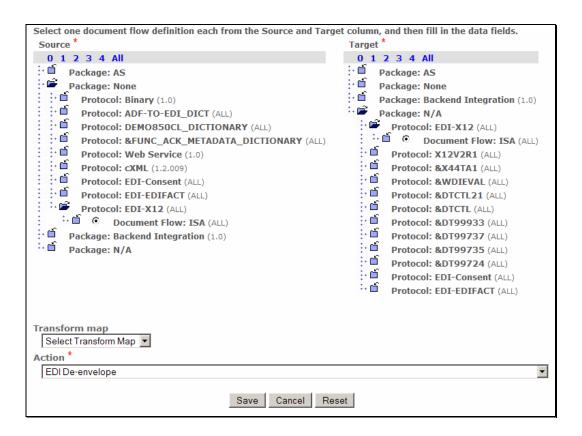
Part 9: Create Interactions

New Interactions can be created only by Community Operators.



For the EDI to ROD Scenario, We need to create 2 interactions. One interaction corresponding to the Deenvelope and the second one corresponds to the transformation of the resultant deenveloped message to ROD

1. Create the Interaction For Deenvelope
a. Go to Hub Admin → Hub Configuration → Document Flow Definition
1) Click Manage Interactions located at right corner of the screen
2) Select "Create Interaction"
3) Create the following source to target interaction
Package: None Protocol: EDI-X12 (ALL) Document Flow: ISA (ALL)
То
Package: N/A Protocol: EDI-X12 (ALL) Document Flow: ISA (ALL)
a) Click on the icon next to Package: None under the Source . This should list all the protocols available under Package: None .
b) Click on the icon next to Protocol: EDI-X12 (ALL) under the Source . This should list all the Document Flows available under Protocol: EDI-X12 (ALL) .
c) Click on the radio button next to Document Flow : ISA (ALL) under the Source .
d) Click on the icon next to Package: N/A under the Target . This should list all the protocols available under Package: N/A .
e) Click on the icon next to Protocol: EDI-X12 (ALL) under the Target . This should list all the Document Flows available under Protocol: EDI-X12 (ALL) .
f) Click on the radio button next to Document Flow: ISA (ALL) under the Target .
g) Select "EDI De-envelope" from the Action drop down menu.
h) Click Save .



2. Create the Interaction For Transformation

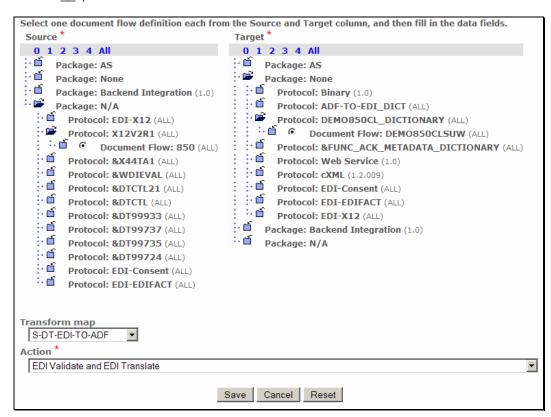
a. Go to Hub Admin → Hub Configuration → Document Flow Definition
1) Click Manage Interactions located at right corner of the screen
2) Select "Create Interaction"
3) Create the following source to target interaction
Package: N/A Protocol: X12V2R1 (ALL) Document Flow: 850 (ALL)
То

Package: None

Protocol: **DEMO850CL_DICTIONARY (ALL)**Document Flow: **DEMO850CLSUW (ALL)**

- __ a) Click on the icon next to **Package: N/A** under the **Source**. This should list all the protocols available under **Package: N/A**.
- __ b) Click on the icon next to **Protocol: X12V2R1 (ALL)** under the **Source**. This should list all the Document Flows available under **Protocol: X12V2R1 (ALL)**.
- __ c) Click on the radio button next to **Document Flow**: **850 (ALL)** under the **Source**.

- __ d) Click on the icon next to **Package: None** under the **Target**. This should list all the protocols available under **Package: None**.
- ___e) Click on the icon next to Protocol: DEMO850CL_DICTIONARY (ALL) under the Target. This should list all the Document Flows available under Protocol: DEMO850CL_DICTIONARY (ALL).
- __ f) Click on the radio button next to **Document Flow**: **DEMO850CLSUW (ALL)** under the **Target**.
- ___g) Select the " **S_DT_EDI_TO_ADF** " from the **Transformation Map** drop down menu
- __ h) Select "EDI Validate and EDI Translate " from the Action drop down menu.
- Click Save.



You have successfully created the interactions required for the EDI to ROD scenario

Part 10: Enabling B2B Capabilities

B2B capabilities can be enabled by Community Operators, Community Manager and Community Participants







Community Operator: Ca

Can enable B2B Capabilities for all the participants including the

Community Manager Profile

Community Manager: Can enable B2B Capabilities for its own profile

Community Participant: Can enable B2B Capabilities for its own profile

Note: Some of the B2B Capabilities for the participants may have already been enabled from previous scenarios.

B2B Capabilities specify what particular Package, Protocol, and Document Flows the Participant Supports. Enabled B2B capabilities for a participant define the types of documents the participant will be allowed to send and/or receive. The B2B capabilities for a partner are a subset of the Package, Protocol, and Document Flows that Hub supports.

1. Enable B2B Capabilities for Source Trading Partner:

- __ a. Go to **Account Admin** → **Profiles** → **Community Participant** and click on **Search** button. This should list all the Participants
 - __ 1) Select the Source Trading Partner, **TP1** and click on the Picon. This activates the **TP1** profile.
- __ b. Click on **B2B Capabilities** menu item.

Since we are enabling the B2B capabilities of the source trading partner, we only need to enable the Package, Protocol and Document Flow for source side.

Enable the following **Package**, **Protocol**, **and Document Flow** by following the instructions below

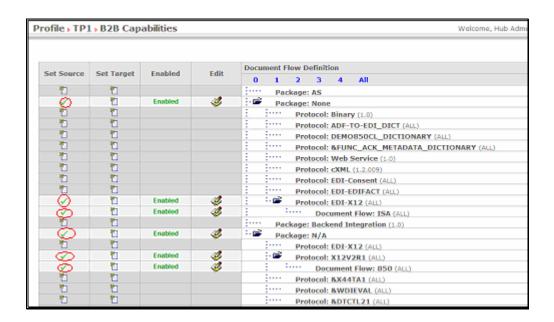
Package: None

Protocol: **EDI-X12 (ALL)**Document Flow: **ISA (ALL)**

Perform the following steps under the "Set Source" column of the B2B Capabilities

- __ 1) Click on the icon in the row corresponding to **Package**: **None**. icon in the row corresponding to **Package**: **None**. icon in the row corresponding to **Package**: **None**.
- __ 2) Click on the icon next to **Package: None**. This should list all the protocols available under **Package: None**.

3) Click on the ¹ in the row corresponding to Protocol : EDI-X12 (ALL). ¹ should be changed to ✓
4) Click on the icon next to Protocol : EDI-X12 (ALL) . This should list all the Document Flows available under Protocol : EDI-X12 (ALL)
5) Click on the ¹ icon in the row corresponding to Document Flow : ISA (ALL). ¹ should be changed to ✓
Enable the following Package , Protocol , and Document Flow by following the instructions below
Package: N/A Protocol: X12V2R1 (ALL) Document Flow: 850 (ALL)
Perform the following steps under the "Set Source" column of the B2B Capabilities
Perform the following steps under the "Set Source" column of the B2B Capabilities 1) Click on the icon in the row corresponding to Package: N/A. is should be changed to v
1) Click on the ¹ icon in the row corresponding to Package : N/A. ¹ should be changed
1) Click on the icon in the row corresponding to Package : N/A. is should be changed to / 2) Click on the icon next to Package : N/A . This should list all the protocols available
 1) Click on the icon in the row corresponding to Package: N/A. is should be changed to √ 2) Click on the icon next to Package: N/A. This should list all the protocols available under Package: N/A. 3) Click on the icon in the row corresponding to Protocol: X12V2R1 (ALL). is should



2. Enable B2B Capabilities for Target Trading Partner:

- __ a. Go to **Account Admin → Profiles → Community Participant** and click on Search button. This should list all the Participants created
 - __ 1) Select the Target Trading Partner you created for this scenario by clicking on the Picon. In this document the Target Trading Partner is "Manager"

b. Click on **B2B Capabilities** menu item

Since we are enabling the B2B capabilities of the target trading partner, we only need to enable the Package, Protocol and Document Flow for target side.

Enable the following **Package**, **Protocol**, **and Document Flow** by following the instructions below

Package: N/A

Protocol: EDI-X12 (ALL)
Document Flow: ISA (ALL)

Perform the following steps under the "Set Target" column of the B2B Capabilities

- __ 1) Click on the icon in the row corresponding to **Package**: **N/A**. should be changed to
- __ 2) Click on the icon next to **Package: N/A**. This should list all the protocols available under **Package: N/A**.
- __ 3) Click on the icon in the row corresponding to **Protocol**: **EDI-X12 (ALL).** should be changed to

- ___4) Click on the icon next to **Protocol**: **EDI-X12 (ALL)**. This should list all the Document Flows available under **Protocol**: **EDI-X12 (ALL)**
- __ 5) Click on the icon in the row corresponding to **Document Flow**: **ISA (ALL).** is should be changed to

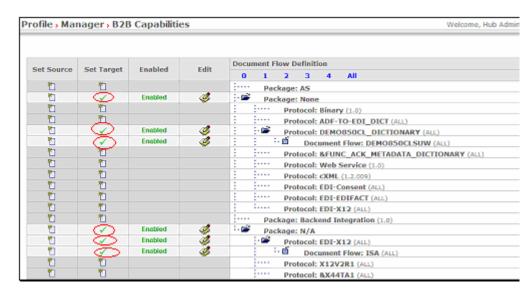
Enable the following **Package**, **Protocol**, **and Document Flow** by following the instructions below

Package: None

Protocol: **DEMO850CL_DICTIONARY (ALL)**Document Flow: **DEMO850CLSUW (ALL)**

Perform the following steps under the "Set Target" column of the B2B Capabilities

- __ 1) Click on the icon in the row corresponding to **Package**: **None.** should be changed to
- __ 2) Click on the icon next to **Package: None**. This should list all the protocols available under **Package: None**.
- __ 3) Click on the icon in the row corresponding to **Protocol**: **DEMO850CL_DICTIONARY** (ALL). should be changed to
- ___ 4) Click on the icon next to Protocol: DEMO850CL_DICTIONARY (ALL). This should list all the Document Flows available under Protocol: DEMO850CL_DICTIONARY (ALL)
- __ 5) Click on the icon in the row corresponding to **Document Flow: DEMO850CLSUW**(ALL). is should be changed to



You have successfully enabled the B2B capabilities for the Manager and TP1 trading participants

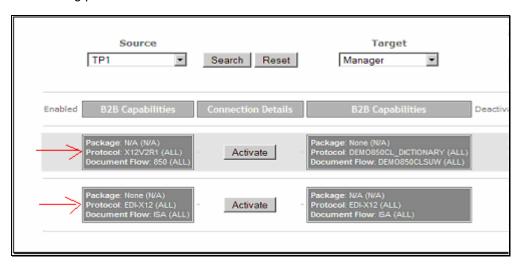
Part 11: Creating Participant Connections

Participant Connections can be enabled by Community Operators and Community Manager



1. Creating Participant connections

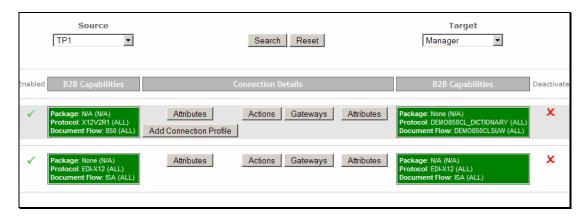
- __ a. Go to Account Admin -> Participant Connections
 - ___ 1) Select **TP1** from the Source drop down menu.
 - ___ 2) Select **Manager** from the Target drop down menu.
 - __ 3) Click on Search.
 - __ 4) De Activate the Connections those are green by clicking on the 💢 icon. The connections should turn to grey when deactivated.
 - ___ 5) You should atleast have the two connections that are pointed to by red arrows in the following picture.



The participant connection None(N/A): EDI-X12(ALL): ISA(ALL) to N/A(N/A): EDI-X12(ALL): ISA(ALL) is used for deenveloping the incoming EDI document.

The participant connection N/A(N/A): X12V2R1(ALL): 850(ALL) to None(N/A): $DEMO850CL_DICTIONARY(ALL)$: DEMO850CLSUW(ALL) is used for transformation of the 850 message to ROD.

__ 6) Click on Activate button corresponding to each connection to activate the connection. It should turn to green indicating it is activated

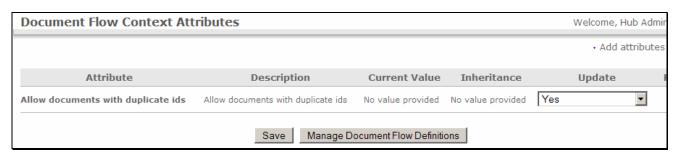


You have successfully completed creating and activating participant connections.

Part 12: Allow Elements With Duplicate IDs

Each enveloped EDI document has a control number associated with it as part of the ISA segment. The control number is used to uniquely identify the incoming document. In order for us to use the same input document more than once, we need to tell the WPG system that it is ok to allow duplicate control numbers. This is done by setting the "Allow documents with Duplicate id's" attribute to Yes. With out the "Allow documents with Duplicate id's" set to Yes, the WPG would not process the document and throw an error saying that it found an duplicate interchange.

- ____ 1. Go to Hub Admin → Hub Configuration → Document Flow Definition
 - __ a. Click on the icon next to **Package: None**. This should list all the protocols available under **Package:None**.
 - __ b. Click on it icon next to Protocol: EDI-X12 (ALL)
 - __ c. Locate the "Allow documents with duplicate ids" attribute listed under the Document Flow Context Attributes and select "Yes" as the value from the drop down menu.
 - d. Click Save



Part 13: Running the Scenario

- _____ 1. Go to <LAB_FILES> directory
 - 2. Open the edi2adf.inp file.
- _____3. The Source and Target participant id's are located at the 7th and 9th fields in the ISA segment. The first id is the source ID(TP1) and the second the target ID(Manager)

```
ISA*00* *00* * *987654321 * *123456789 *930419*0021*U*00200*0000004*0*T*:!
```

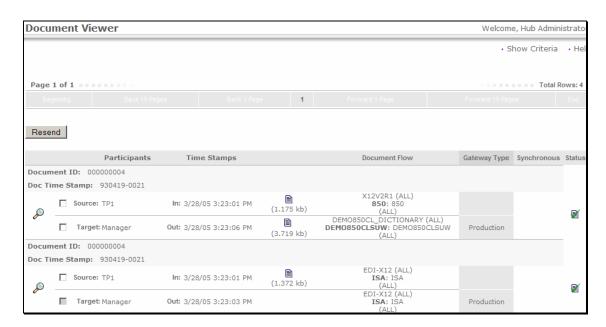
The lab input files are already updated to reflect the Manager and TP1 ids.

- 4. Place the edi2adf.inp in the C:\WPGLabs\edifiletarget\Documents\Production directory.
- 5. The EDI document should be de-enveloped and waiting to be translated to rod
- **6.** After this, the document will be translated to rod document

The status of the document in the system can be viewed by using the Document Viewer

Go to Viewers → Document Viewer

Provide the approximate start time when you actually started this transaction and click on Search



7. The rod document is sent to the destination filegateway

The destination file gateway location is C:\WPGLabs\Manager\filegateway

What you did in this exercise

In this exercise, you have created target, participants, gateways, enabled B2B capabilities and created participant connections necessary for source trading partner to be able to send an EDI document which is which is first deenveloped and then converted into ROD using a map and sent to the target gateway

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IBM

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