

# Description of Partner Interface Process<sup>®</sup> for 3B12

**Validated 11.04.00**

	<b>Specification Information</b>
<b>Name</b>	Request Shipping Order
<b>Cluster</b>	Order Management
<b>Segment</b>	Transportation and Distribution
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# 1 Document Management

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## 1.4 Acknowledgments

This document has been prepared by RosettaNet (<http://www.rosettanet.org/>) from requirements gathered during the Milestone Program and in conformance with the methodology.

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### 1.5 Related Documents

- Associated PIP Message Schemas (included within the PIP Specification package only)
- Description of 3B12 Message
- Messages Structure
- XML instance of ebXML BPSS for PIP 3B12

### 1.6 Document Version History

<u>Version</u>	<u>Date</u>	<u>Description</u>
Validated 11.00.00	29 July 2006	Validated Version
Validated 11.01.00	10 August 2006	Validated Version
Validated 11.02.00	23 October 2007	Milestone Program – Schema2Market
Validated 11.03.00	3 February 2010	Foundational Program – MCC
Validated 11.04.00	18 May 2012	Updated Version

### 1.7 Document Structure

A Partner Interface Process (PIP) Specification is comprised of the following two parts:

1. **Business Process.** Captures the semantics of the business process and the flow of the message exchange between roles as they perform business activities.
2. **Network and Implementation Specification.** Specifies the network protocol message formats and communications requirements between peer-protocols supported by network components in the RosettaNet Implementation Framework.

## 2 Business Process

### 2.1 Business Process Definition

This PIP is designed to enable the communication of shipping orders from a manufacturer or distributor with outsourced logistics operations to its third-party logistics provider.

For example, a manufacturer of semiconductor components may store completed products at a warehouse operated by another company and need to request a third-party to ship the components to its customer whenever a sales order is received. Some third-party logistics providers operate the warehouse for the shipper in addition to transporting the products. Shipping orders may also be used to replenish supplies at the warehouse when stocks reach an agreed upon level.

#### 2.1.1 Business Process Description

All businesses that sell products existing as physical goods, such as raw materials, components and finished goods, must deliver them from their manufacturing or storage location to the customer's location. This physical movement of products may involve several parties. The first party to the shipment is usually the seller, which initiates the shipping of the products. The second party is usually the buyer, as the consignee to which the products are shipped. Additionally, there may be third-party logistics (3PL) and even fourth-party logistics (4PL) providers, offering services to the shipper such as outsourced light manufacturing, product warehousing, routing and tracking, in addition to physically transporting the products.

The "Request Shipping Order" Partner Interface Process™ (PIP) supports a process between two of these parties, in which a Shipper authorizes a Shipping Provider to ship products from one location to another. The Shipper is the organization responsible for the supply of products to its customers, i.e. the first party described above. The Shipping Provider is a third-party that performs the shipping logistics on behalf of the Shipper.

The Shipper uses this PIP to send the Shipping Provider a shipping order and request a confirmation that it is valid. The shipping order specifies which products to ship, how to ship them, the origin and destination locations, and other related information. This is typically triggered by the Shipper receiving a sales order, a return order, a replenishment order or a transfer order for the products. However, it cannot be instigated directly by the receipt of a purchase order.

The Shipper transmits a Shipping Order Request business document to the Shipping Provider. The Shipping Provider responds with a Shipping Order Confirmation business document, which either confirms that the shipping order is valid or rejects it, giving an indication of why it is invalid.

This PIP authorizes the Shipping Provider only to make the shipment as described in the shipping order. However, the Trading Partner Agreement may authorize the Shipping Provider to make partial shipments if insufficient inventory is available. If this is known in advance, the Shipping Order Confirmation business document must specify any reduced quantities of product that are confirmed for delivery. The Shipping Provider must not deviate from the shipping order in any other way. If the Shipping Provider cannot complete the shipping order as requested, the shipping order must be rejected.

Only one shipping order is issued per transaction. If more than one authorization to ship products is required, or if the products are to be shipped via one or more intermediate locations, multiple shipping orders must be sent.

While a shipping order is typically used to initiate the pick-and-pack and shipment of products by the Shipping Provider for delivery to the customer, there are several other ways in which it may be used. For example, it may be a response to a replenishment order from a third-party warehouse, whereby the Shipping Provider is asked to transport an additional supply of products from a factory to the warehouse. Another example might be where defective goods have been returned to a distribution center, and the Shipper issues a shipping order to the Shipping Provider to move them to another location. Note that in this situation, the "Request Shipping Order" PIP is not intended to manage the process of negotiating the return from the customer, but can be used to move products once they have been returned to a distribution center.

For international shipments it is necessary to use PIP 3B18, "Notify of Shipping Documentation" to request the necessary shipping documents, such as Commercial Invoices and Export Declarations. However, 3B12 may contain sufficient information for the Shipping Provider to generate all the necessary documents for simple domestic shipments, without requiring the use of 3B18.

Should this transaction not complete successfully, the requesting partner executes PIP0A1, "Notification of Failure."

## 2.2 PIP Business Document

Business Document are generated and exchanged by roles performing activities in this PIP. Business Document is listed and defined in Table 1.

<b>Table 1: PIP Business Document</b>	
<b>Business Document</b>	<b>Description</b>
Shipping Order Request	Contains information requesting the shipment of a product or products.
Shipping Order Confirmation	Contains either an acceptance or rejection of the shipping order request, with status information to support this.

### 2.3 PIP Business Process Flow Diagram

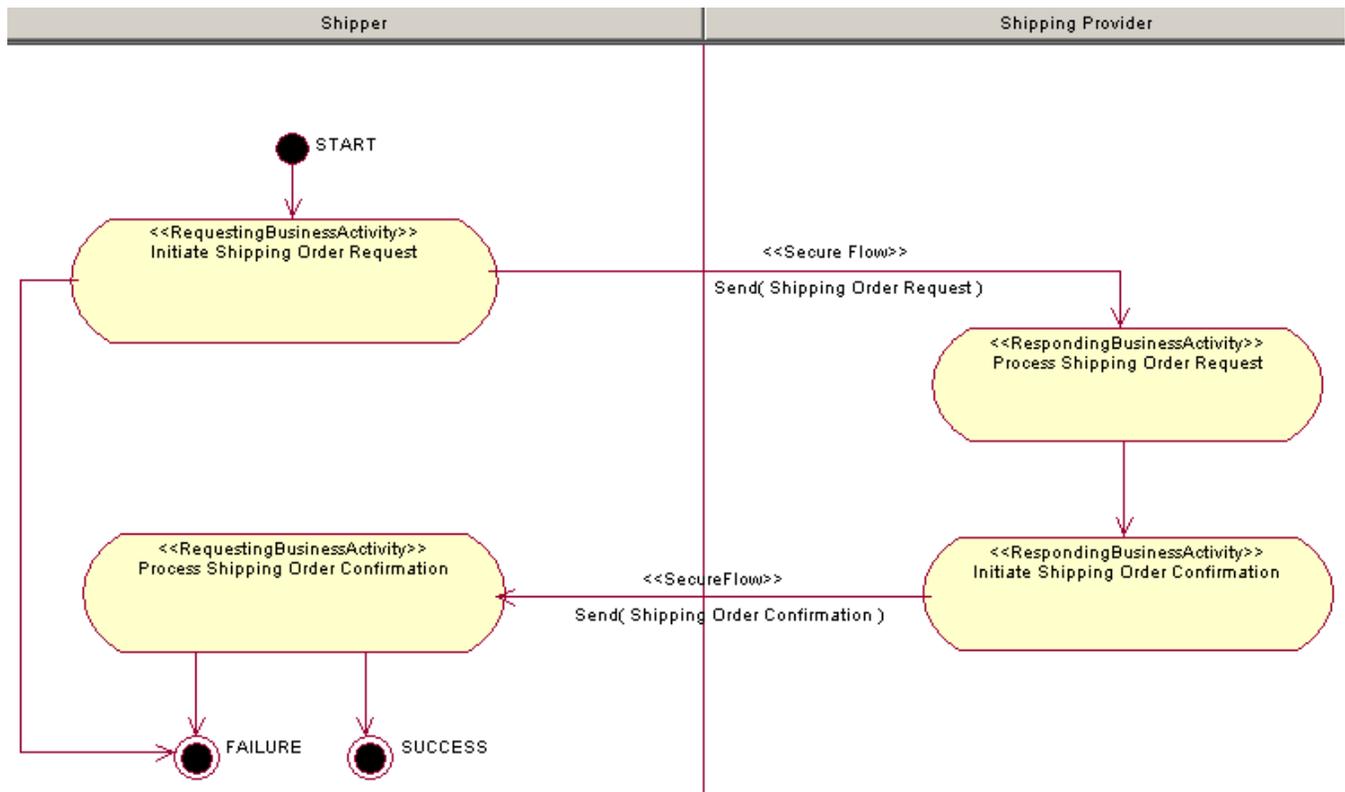


Figure 1: Activity Diagram of Request Shipping Order

### 2.4 PIP Start State

The start state is comprised of the following conditions:

Table 2: PIP Start State							
	Approved	Exist		Valid	Non-Repudiated	Retry Count	Authorized
		Party	In Backend System				
TPA	✓		✓				
Sending Partner		✓		✓			
Receiving Partner		✓					
Business Document			✓	✓	✓		✓

## 2.5 PIP End States

The end state is comprised of the following conditions:

Table 3: PIP End State							
	Approved	Exist		Valid	Non-Repudiated	Retry Count	Authorized
		Party	In Backend system				
Acknowledgment of Receipt			✓	✓	✓		
Receiving Partner							✓

The PIP failure state is comprised of one or more of the following conditions:

Table 4: PIP Failure State		
	NO	Exceeded
Success	✓	
Retry Count		✓

## 2.6 Partner Role Descriptions

Table 5 describes the partner roles in this PIP.

Table 5: Partner Role Description	
Role Name	Role Description
Shipper	The organization responsible for authorizing a Shipping Provider to ship products from one location to another.
Shipping Provider	The organization responsible for performing the shipping logistics for the Shipper.

## 2.7 Business Process Activity Controls

Table 6 describes the interaction between roles performing business activity in this PIP.

<b>Table 6: Business Activity Description</b>		
<b>Role Name</b>	<b>Activity Name</b>	<b>Activity Description</b>
Shipper	Initiate Shipping Order Request	A Shipper sends a Shipping Order Request business document to a Shipping Provider.
Shipping Provider	Initiate Shipping Order Confirmation	A Shipping Provider sends a Shipping Order Confirmation business document to a Shipper.

Table 7 details the security, audit and process controls relating to activity performed in the PIP.

<b>Table 7: Business Activity Performance Control</b>							
<b>Role Name</b>	<b>Activity Name</b>	<b>Acknowledgment of Receipt</b>		<b>Time to Perform</b>	<b>Retry Count</b>	<b>Is Authorization Required?</b>	<b>Non-Repudiation of Origin and Content?</b>
		<b>Non-Repudiation Required?</b>	<b>Time to Acknowledge</b>				
Shipper	Initiate Shipping Order Request	Y	2 hrs	4 hrs	3	Y	Y
Shipping Provider	Initiate Shipping Order Confirmation	Y	2 hrs	N/A	3	Y	Y

### 3 Network and Implementation Specification

Each network component maps into a role of the PIP model. Table 8 specifies the mapping between roles and network components.

Table 8: Network Component Specification		
Network Component	Classification	Maps to Role in Business Process
Shipper Service	Business Service	Shipper
Shipping Provider Service	Business Service	Shipping Provider

#### 3.1 Business Action and Business Signal Specifications

Each business action maps to a Business Document of the PIP model. Table 9 specifies the mapping between Business Documents and business actions.

Table 9: Business Action – Business Document Mapping		
Business Action	Business Document	Document Function
Shipping Order Request Action	Shipping Order Request	Request
Shipping Order Confirmation Action	Shipping Order Confirmation	Respond

#### 3.2 Business Transaction Dialog Specification

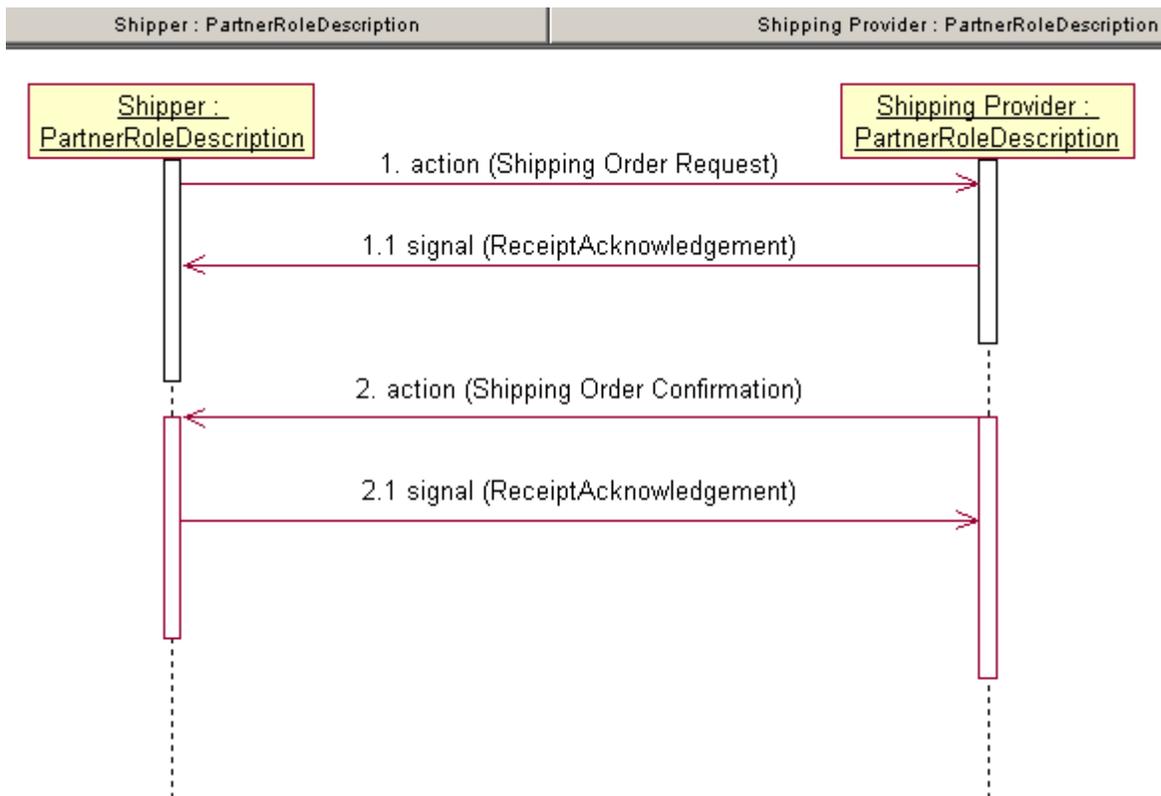


Figure 2: Sequence Diagram of Request Shipping Order

**3.2.1 Message Exchange Controls**

<b>Table 10: Message Exchange Control</b>							
<b>#</b>	<b>Name</b>	<b>Time to Acknowledge Receipt Signal</b>	<b>Time to Respond to Action</b>	<b>Included in Time to Perform</b>	<b>Is Authorization Required?</b>	<b>Is Non-Repudiation Required?</b>	<b>Is Secure Transport Required?</b>
1.	Shipping Order Request Action	2 hrs	4 hrs	Y	Y	Y	Y
1.1.	Receipt Acknowledgment	N/A	N/A	N/A	Y	Y	Y
2.	Shipping Order Confirmation Action	2 hrs	N/A	N/A	Y	Y	Y
2.1.	Receipt Acknowledgment	N/A	N/A	N/A	Y	Y	Y

**3.2.2 Communications Specification**

<b>Table 11: Dialog: Service-Service</b>			
<b>#</b>	<b>Business Message</b>	<b>Digital Signature Required?</b>	<b>SSL Required?</b>
1.	Shipping Order Request	Y	Y
1.1.	Receipt Acknowledgment	Y	Y
2.	Shipping Order Confirmation	Y	Y
2.1.	Receipt Acknowledgment	Y	Y