

# How to Set Up Third Party Logistics (3PL)

## Integration in SAP Business ByDesign

Third Party Logistics partners are becoming more mainstream in today's world. SAP Business ByDesign's Third Party Logistics (3PL) integration functionality enables SAP to be directly connected to an external warehouse management system of a third-party logistics provider. In this scenario, SAP Business ByDesign handles purchasing, sales, and fulfillment processes including invoicing, but warehouse execution and logistics are outsourced. Communication is done via B2B interfaces (following UN/EDIFACT standard).

The setup for 3PL has been split into a 2-part series. This 'How To' blog will show you how to do the following:

### Part 1:

- Scope 3PL in Business Configuration
- Create a Warehouse Provider (Supplier)
- Create a 3PL Site in the Organization Structure
- Setup the 3PL site as a Location

### Part 2:

- Create a Transport Lane
- Create Logistics Models
- Create Document Numbering Formats
- Create a Communication Arrangement

## Part Two of Two

### Create a Transport Lane for the New Org Unit

The transport lane defines how products are to be moved between the site and a destination or between 2 sites of the same company. For example, you may determine that only customers in the East can receive products from your 3PL, while customers in the West can only receive products from a west coast warehouse. The transport lane and zone combination will be used in determining the default ship from location when creating sales orders or stock transfer orders.

Go to Supply Chain Design Master Data -> Transport Lanes:

The screenshot shows the SAP Supply Chain Design Master Data - Transport Lanes interface. The left sidebar contains a navigation menu with options like Payables, Supplier Base, Service Entitlements, etc. The main area displays a table of transport lanes with columns for Transport Zone ID, Ship-To Site ID, Ship-From Site ID, Transport Lane ID, Transport Lane Description, and Status. A dropdown menu is open over the table, showing options like Overview, Locations, Storage Control Profiles, Resources, Resource Operating Profiles, SNR Programs, Shift Programs, Shift Templates, Shift Break Templates, Transport Zones, Product Groups, Forecasting Groups, Planning Groups, Production Groups, and Storage Groups. The table lists several transport lanes, including those for Alimka Heating US Cleveland, Alimka Heating US from Central Warehouse to External Warehouse, Innotek US Columbus to ALL, Alimka Heating US Toledo (External Warehouse) to ALL, Third-Party Logistics from Central Warehouse to Outsourcing Warehouse, Third-Party Logistics from Outsourcing Warehouse to Central Warehouse, and Third-Party Logistics from Outsourcing Warehouse to ALL.

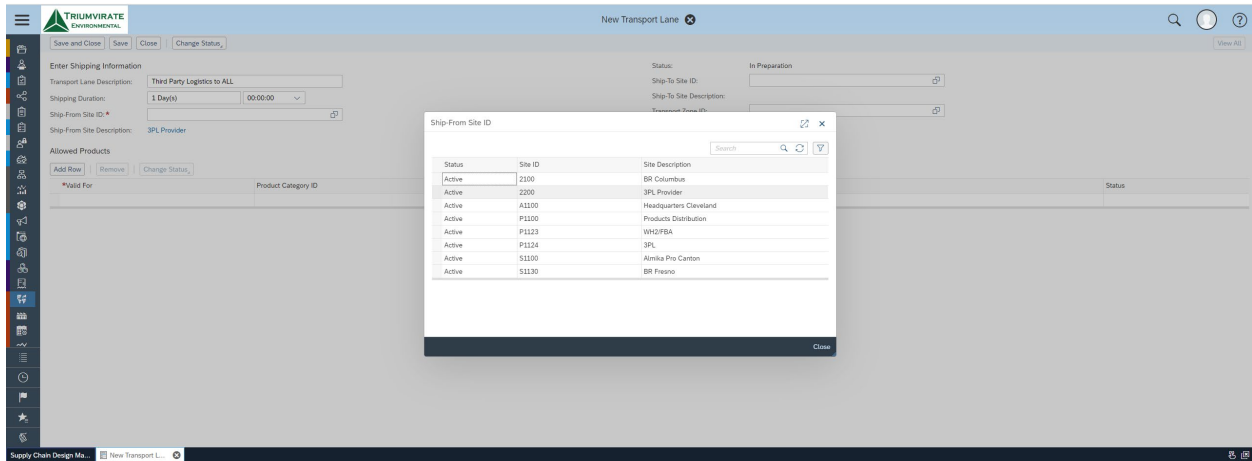
Transport Zone ID	Ship-To Site ID	Ship-From Site ID	Transport Lane ID	Transport Lane Description	Status
GLOBAL_TZ		P1100	2	Alimka Heating US Cleveland (Central Warehouse) to ALL	Active
	P1123	P1100	3	Alimka Heating US from Central Warehouse to External Warehouse	Active
	P1100	P1123	11	Alimka Heating US from External Warehouse to Central Warehouse	Active
GLOBAL_TZ		2100	12	Innotek US Columbus to ALL	Active
GLOBAL_TZ		P1123	21	Alimka Heating US Toledo (External Warehouse) to ALL	Active
	P1124	P1100	31	Third-Party Logistics from Central Warehouse to Outsourcing Warehouse	Active
		P1124	32	Third-Party Logistics from Outsourcing Warehouse to Central Warehouse	Active
		P1124	33	Third-Party Logistics from Outsourcing Warehouse to ALL	Active
		P1123	41	FBA	Active

Click New:

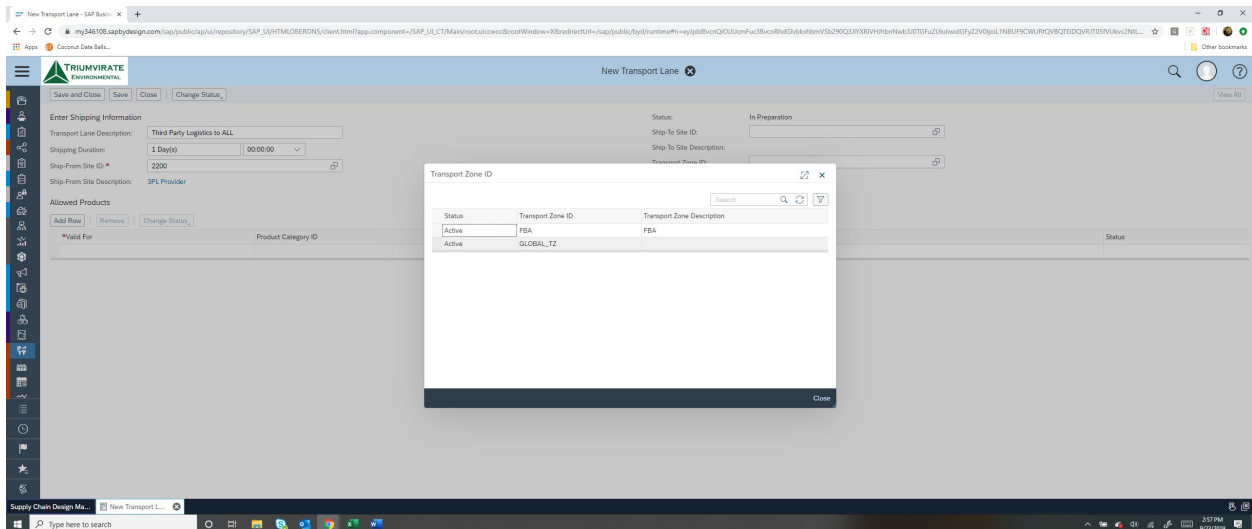
The screenshot shows the SAP Supply Chain Design Master Data - Transport Lanes interface with the 'New' button highlighted in the top toolbar. The main area displays the details for a new transport lane, including the Transport Lane ID, Transport Lane Description, Status, Shipping Duration, and Administrative Data. The details for the new transport lane are as follows:

Field	Value
Transport Lane ID	2
Transport Lane Description	Alimka Heating US Cleveland (Central Warehouse) to ALL
Status	Active
Shipping Duration	1 Day(s) 0 Hour(s)
Created On	11/08/2019 03:44 PM EST
Created By	SAP WORKERUS
Changed On	05/10/2019 03:06 PM EST
Changed By	Eddie Smoke

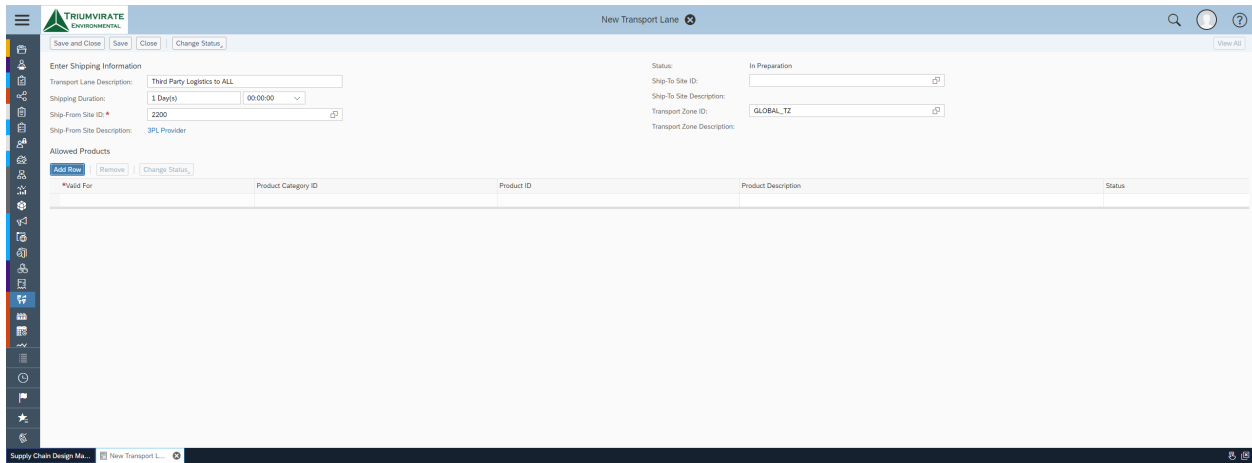
Create a name for the Transport Lane, then click on the window to select the appropriate site as the Ship-From Site ID (in our case our new org unit, 2200):



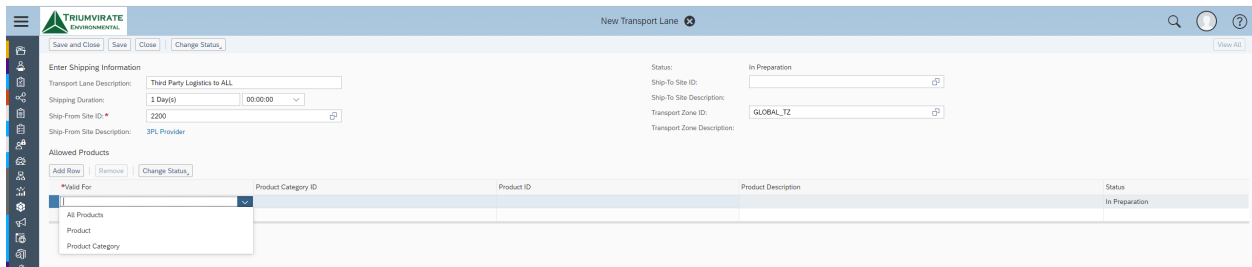
Next select GLOBAL\_TZ as the Transport Zone ID. GLOBAL\_TZ is the default transportation zone where all customers in all regions can receive the products defined in the transportation Lane



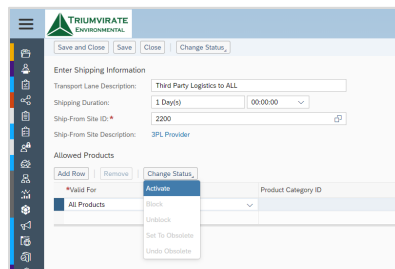
Under Allowed Products, click the Add Row button:



From the drop-down menu, select which product type fits the products for this site to transport:

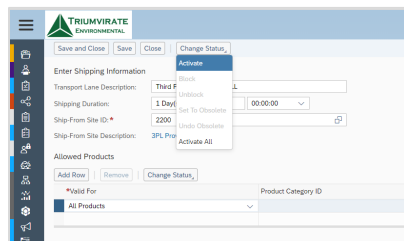


After you've selected your product choice, click Change Status and select Activate:

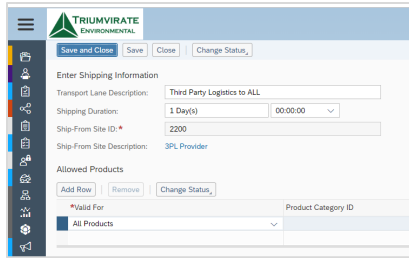


Click Save

Activate the transport lane by selecting 'Activate' under Change Status at the Header Level:

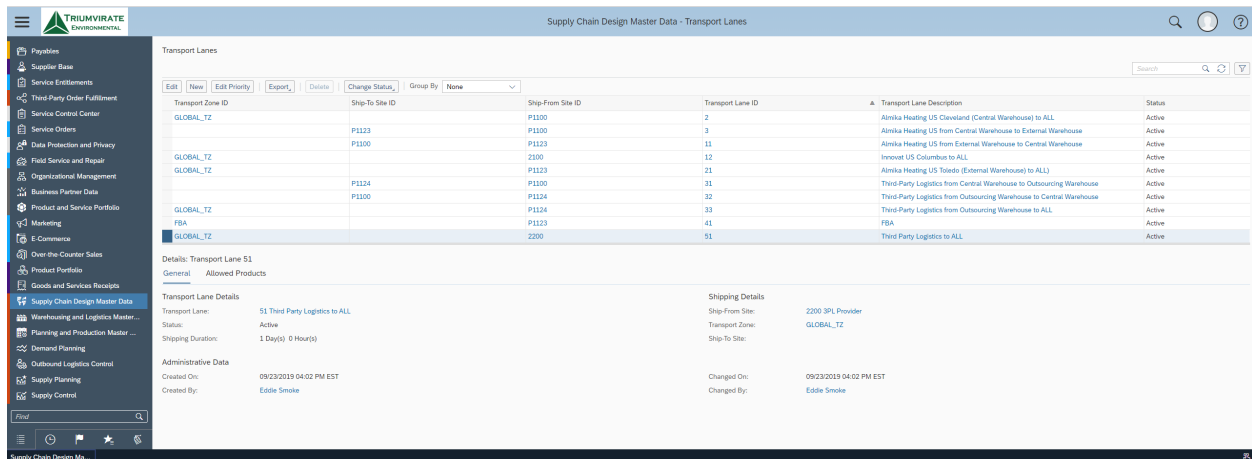


Then click Save & Close:



Note: Once Allowed Products are Activated on the Transport Lane, they cannot be deleted, only Obsolete or Blocked. This operation can be undone, if there are situations where you need to periodically change the products or product categories which can be delivered from a site.

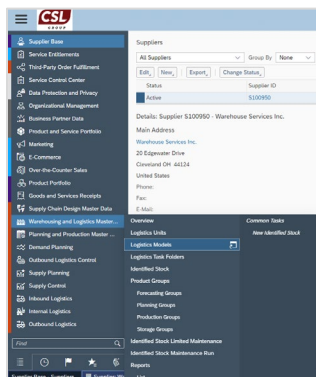
Click 'Refresh' on the Transport Lane screen to see the new transport lane that was just created:



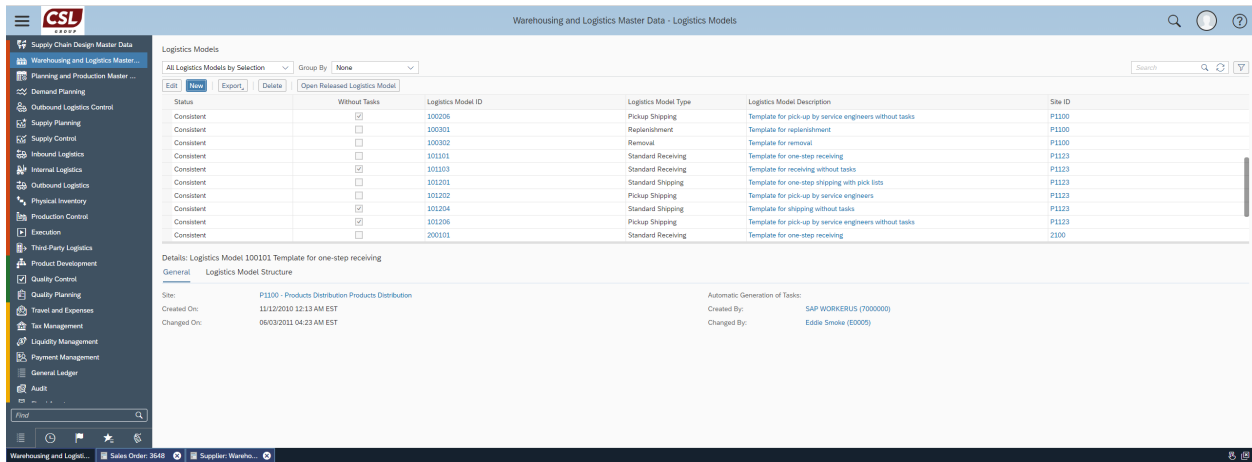
## Create Logistics Models

Logistics models are used to determine the sequence of events which are triggered during warehouse processes. SAP provides pre-defined templates which can be used to set these up quickly. For an Externally Managed Warehouse, it is recommended to set up your logistics models using 'Template for XXX without tasks'

Go to Warehousing and Logistics Master Data -> Logistics Models:

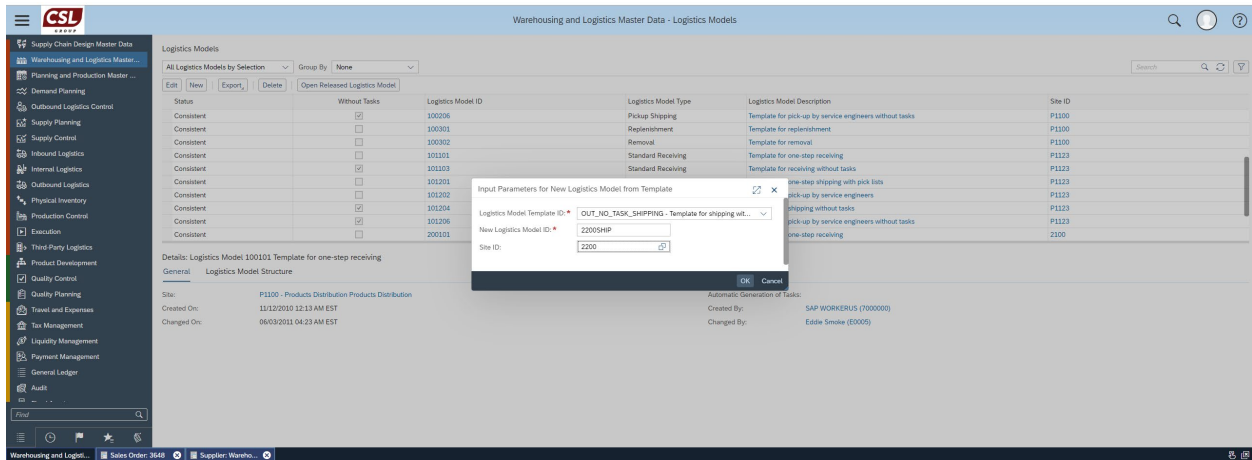


Click New:

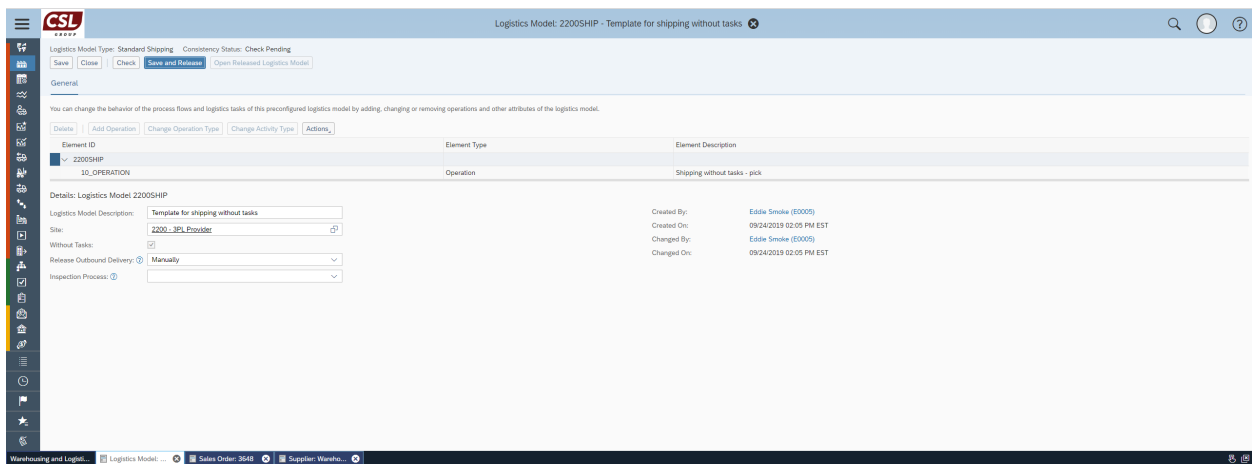
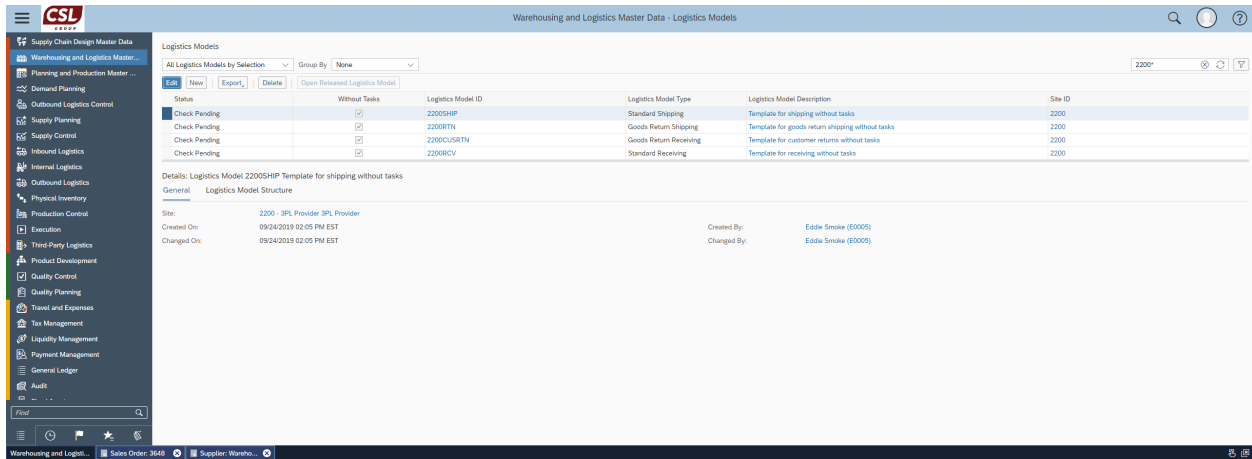


Add the necessary logistics models – you will need the following Logistics models should be configured:

- Shipping
- Receiving
- Customer Returns
- Shipping of Returns to Suppliers



After all of the logistics models have been created, They will be in a Check Pending Status. Select each model, click edit, then select Save and Release, then close:

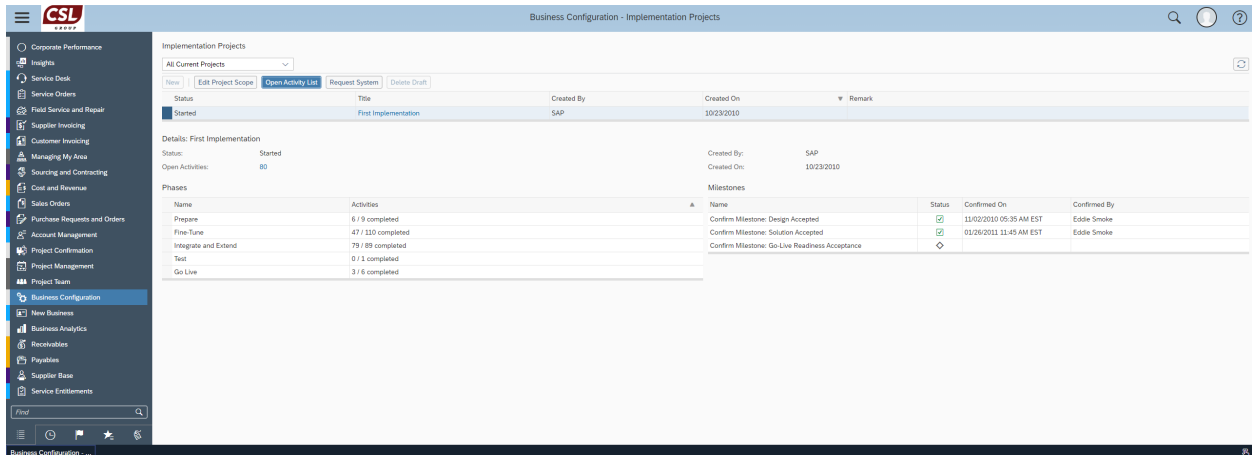


Repeat this step until all the models have been released:

## Create Numbering Format for Communication Documents

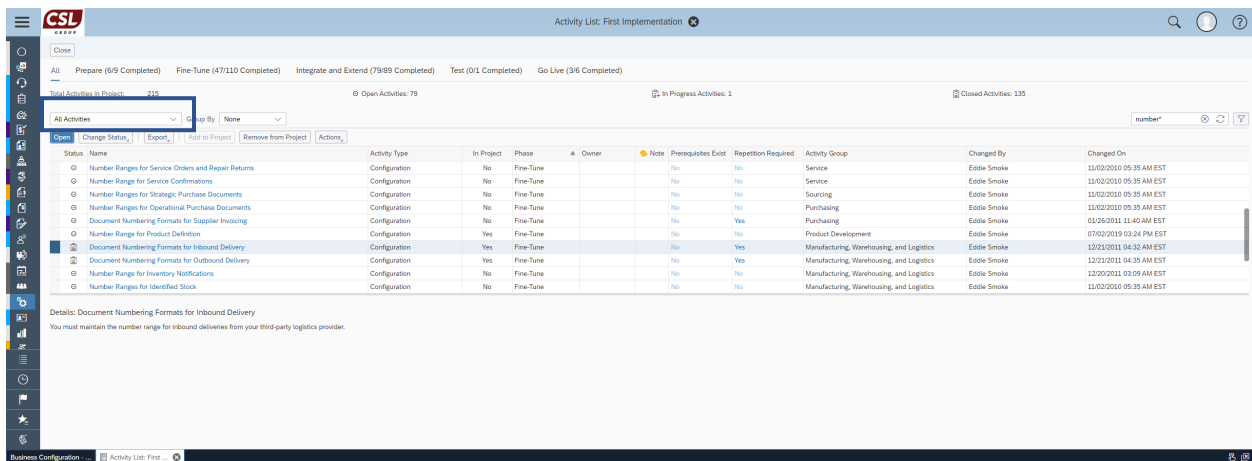
This activity enables you to determine how documents related to outbound logistics (such as for standard deliveries, stock transfers, and return to supplier deliveries) are numbered. The system numbers the documents when you save the document. You can create formats using, for example, prefixes and separators according to your company's requirements. When configuring a 3PL, document number formats must be configured for inbound and outbound deliveries.

Go to Business Configuration -> Implementation Projects. Highlight the Project, select Open Activity List:



Under the 'All' tab, ensure that the worklist selector is set to All Activities

Type 'Document numbering' in the search field and click enter. Find Document Numbering Formats for Inbound Delivery, select the line and click Open :

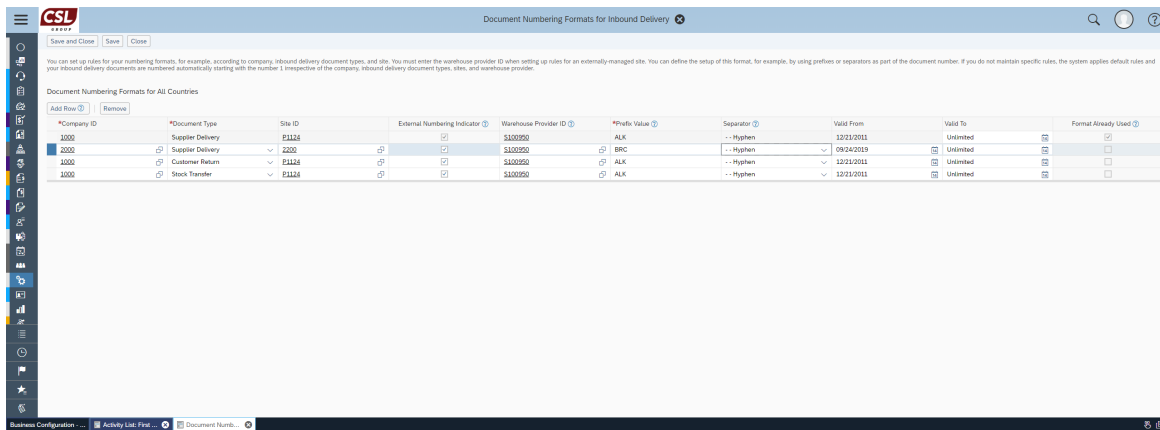


Click Add row. Enter the Company ID, Document Type, Site ID, Click External Numbering Indicator, Select the Warehouse Provider ID (Supplier ID), Prefix Value, Choose the Separator, and update the Valid From date as necessary.

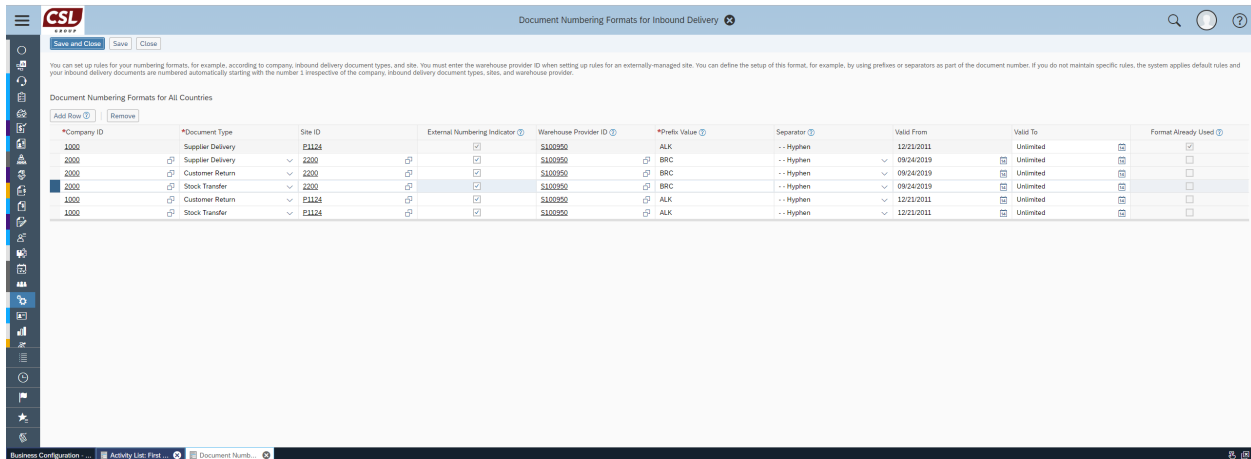
In a third-party logistics business scenario, the warehouse provider creates the inbound delivery and assigns a delivery number. The warehouse provider then sends this inbound delivery to your company (Business ByDesign system). In Business ByDesign, the system creates a Delivery ID for this inbound delivery and displays the inbound delivery number assigned by the warehouse provider as External Delivery ID.



In such a third-party logistics business scenario, the definition of specific rules for each warehouse provider is mandatory. The warehouse provider has to follow this numbering format when assigning the External Delivery ID. The Business ByDesign system checks whether the inbound delivery follows the format specified by the rules. If the check fails, the inbound delivery cannot be created in the Business ByDesign system.



Repeat this step until all the Inbound Document Types have been set up: Supplier Delivery, Customer Return, Third Party (for Drop shipments) and Stock Transfer. Then Click Save & Close.



Repeat for the Outbound Document Types. Click open and add row.

Activity List: First Implementation

Close

All Prepare (6/9 Completed) Fine-Tune (47/110 Completed) Integrate and Extend (79/89 Completed) Test (0/1 Completed) Go Live (3/6 Completed)

Total Activities in Project: 215 0 Open Activities: 79 1 In Progress Activities: 1 135 Closed Activities: 135

All Activities Group By: None number

Open Change Status Export Add to Project Remove from Project Actions

Status	Name	Activity Type	In Project	Phase	Owner	Note	Prerequisites Exist	Repetition Required	Activity Group	Changed By	Changed On
0	Number Ranges for Service Orders and Repair Returns	Configuration	No	Fine-Tune		No	No	No	Service	Eddie Smoke	11/02/2010 05:35 AM EST
0	Number Ranges for Service Confirmations	Configuration	No	Fine-Tune		No	No	No	Service	Eddie Smoke	11/02/2010 05:35 AM EST
0	Number Ranges for Strategic Purchase Documents	Configuration	No	Fine-Tune		No	No	No	Sourcing	Eddie Smoke	11/02/2010 05:35 AM EST
0	Number Ranges for Operational Purchase Documents	Configuration	No	Fine-Tune		No	No	No	Purchasing	Eddie Smoke	11/02/2010 05:35 AM EST
0	Document Numbering Formats for Supplier Invoicing	Configuration	No	Fine-Tune		No	No	Yes	Purchasing	Eddie Smoke	01/26/2011 11:40 AM EST
0	Number Range for Product Definition	Configuration	Yes	Fine-Tune		No	No	No	Product Development	Eddie Smoke	07/02/2019 03:24 PM EST
2	Document Numbering Formats for Inbound Delivery	Configuration	Yes	Fine-Tune		No	Yes	Yes	Manufacturing, Warehousing, and Logistics	Eddie Smoke	12/12/2011 04:32 AM EST
2	Document Numbering Formats for Outbound Delivery	Configuration	Yes	Fine-Tune		No	Yes	Yes	Manufacturing, Warehousing, and Logistics	Eddie Smoke	12/12/2011 04:35 AM EST
0	Number Range for Inventory Notifications	Configuration	No	Fine-Tune		No	No	No	Manufacturing, Warehousing, and Logistics	Eddie Smoke	12/20/2011 03:09 AM EST
0	Number Ranges for Identified Stock	Configuration	No	Fine-Tune		No	No	No	Manufacturing, Warehousing, and Logistics	Eddie Smoke	11/02/2010 05:35 AM EST

Details: Document Numbering Formats for Outbound Delivery

You must maintain the number range for outbound deliveries from your third-party logistics provider.

12 Your entries have been saved.

Repeat this step until all the Outbound Document Types have been set up: Standard, Return to Supplier, and Stock Transfer. Then Click Save & Close.

Document Numbering Formats for Outbound Delivery

Save and Close Save Close

You can set up rules for your numbering formats, for example, according to company, outbound delivery document types, and site. You must enter the warehouse provider ID when setting up rules for an externally-managed site. You can define the setup of this format, for example, by using prefixes or separators as part of the document number. If you do not maintain specific rules, the system applies default rules and your outbound delivery documents are numbered automatically starting with the number 1 irrespective of the company, outbound delivery document types, sites, and warehouse provider.

Document Numbering Formats for All Countries

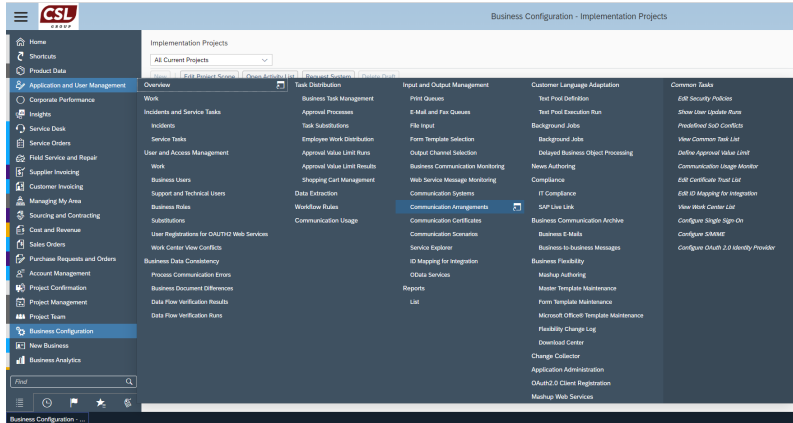
Add Row Remove

*Company ID	*Document Type	Site ID	External Numbering Indicator	Warehouse Provider ID	*Prefix Value	Separator	Valid From	Valid To	Format Already Used
1000	Standard	P1124	<input checked="" type="checkbox"/>	S100950	ALK	--Hyphen	12/12/2011	Unlimited	<input checked="" type="checkbox"/>
2000_Invoqat Inc.	Standard	2200_3PL Provider	<input checked="" type="checkbox"/>	S100950	BRC	--Hyphen	09/24/2019	Unlimited	<input checked="" type="checkbox"/>
2000_Invoqat Inc.	Return to Supplier	2200_3PL Provider	<input checked="" type="checkbox"/>	S100950_Warehouse Servic...	BRC	--Hyphen	09/24/2019	Unlimited	<input checked="" type="checkbox"/>
2000_Invoqat Inc.	Stock Transfer	2200_3PL Provider	<input checked="" type="checkbox"/>	S100950_Warehouse Servic...	BRC	--Hyphen	09/24/2019	Unlimited	<input checked="" type="checkbox"/>
1000	Return to Supplier	P1124	<input checked="" type="checkbox"/>	S100950	ALK	--Hyphen	12/12/2011	Unlimited	<input checked="" type="checkbox"/>
1000	Stock Transfer	P1124	<input checked="" type="checkbox"/>	S100950	ALK	--Hyphen	12/12/2011	Unlimited	<input checked="" type="checkbox"/>

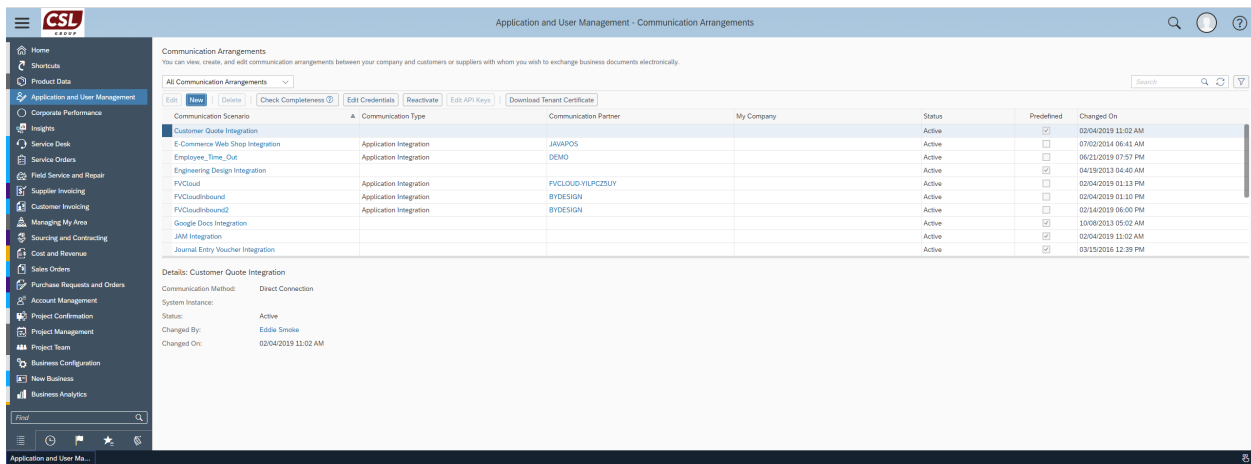
## Create a Communication Arrangement

If choosing to communicate through B2B messages with the 3PL, a communication arrangement must be set up.

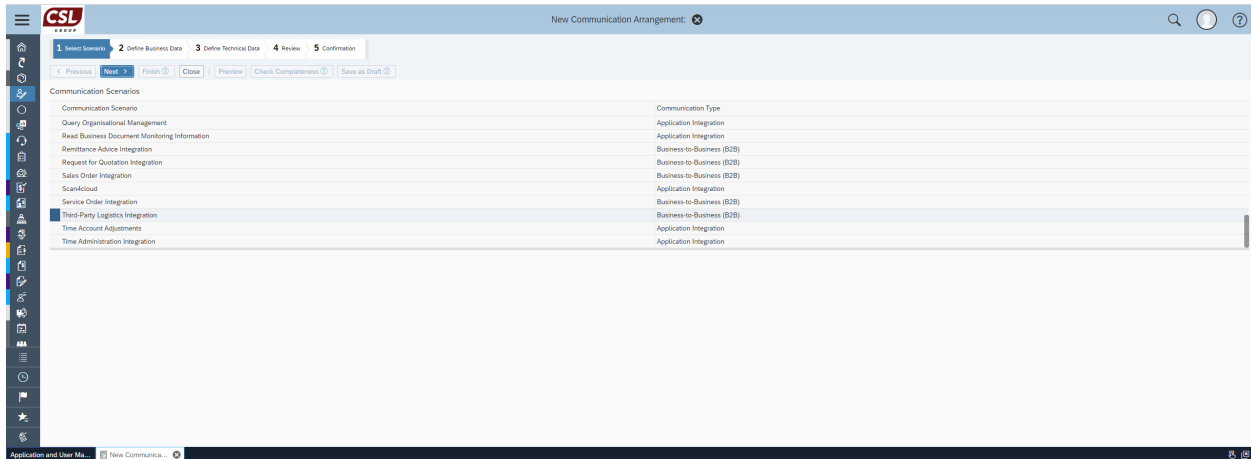
Go to Application and User Management -> Input and Output Management -> Communication Arrangements:



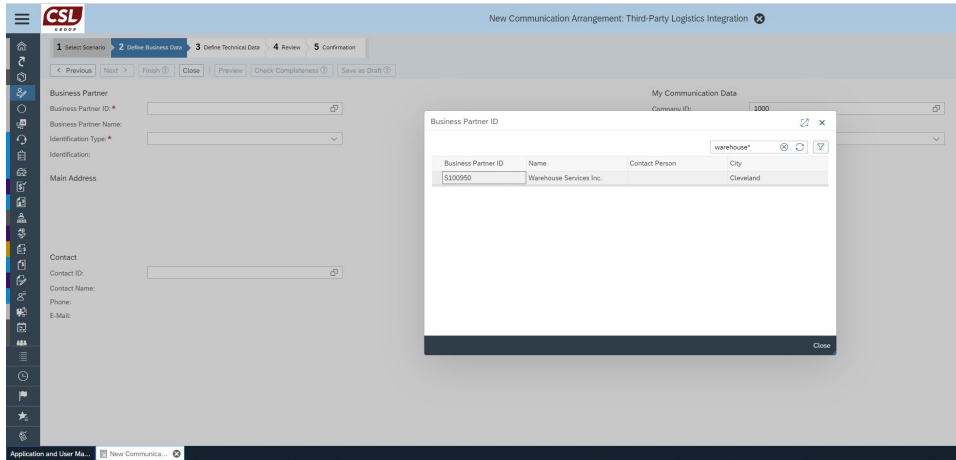
Click New:



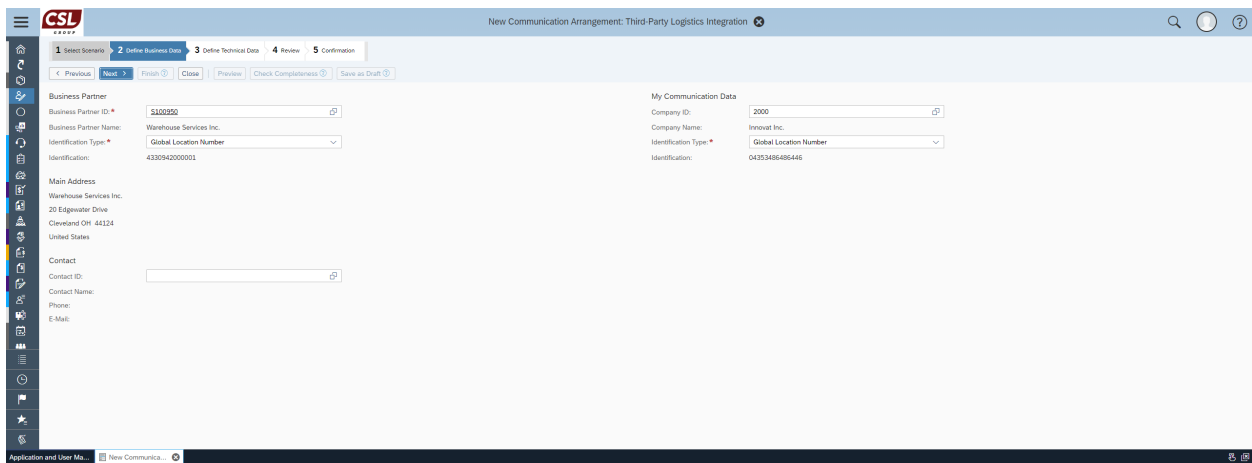
Scroll down until you find Third Party Logistics Integration, highlight it, then click Next:



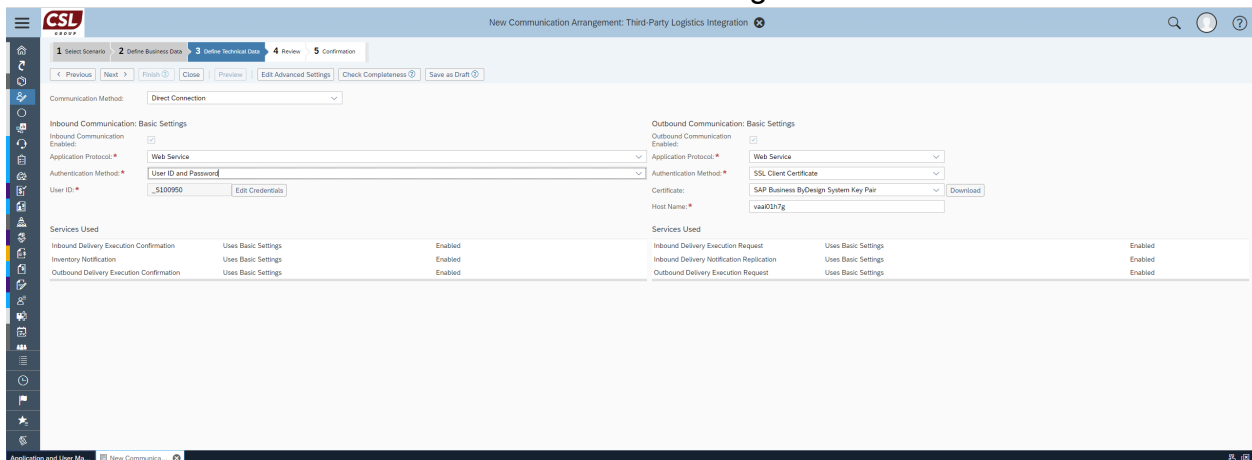
Select the warehouse provider as the business partner:



Select the appropriate company, ensure the identification types are populated upon selection of the business partner and company and click Next:

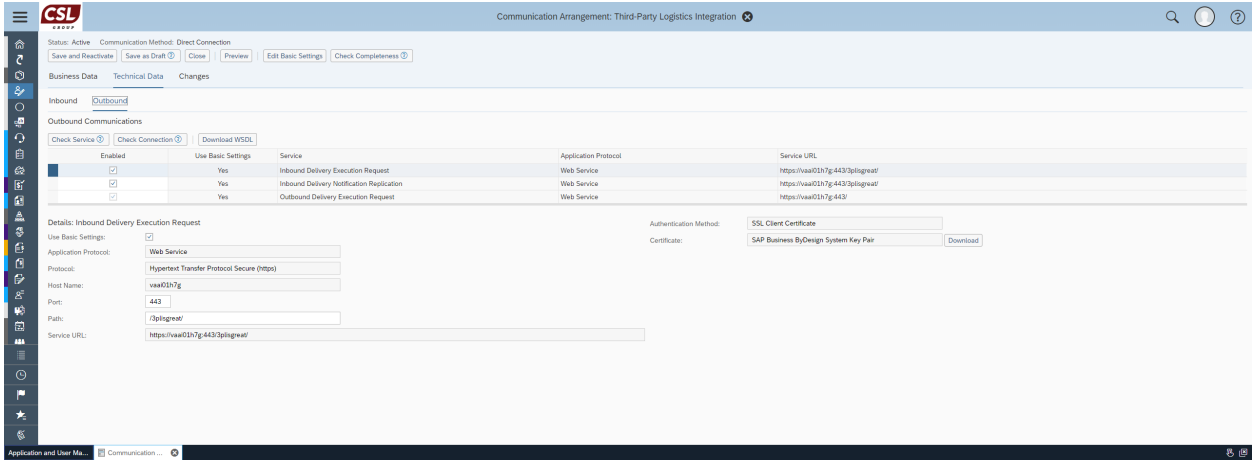


Enter the technical data for the communication arrangement:

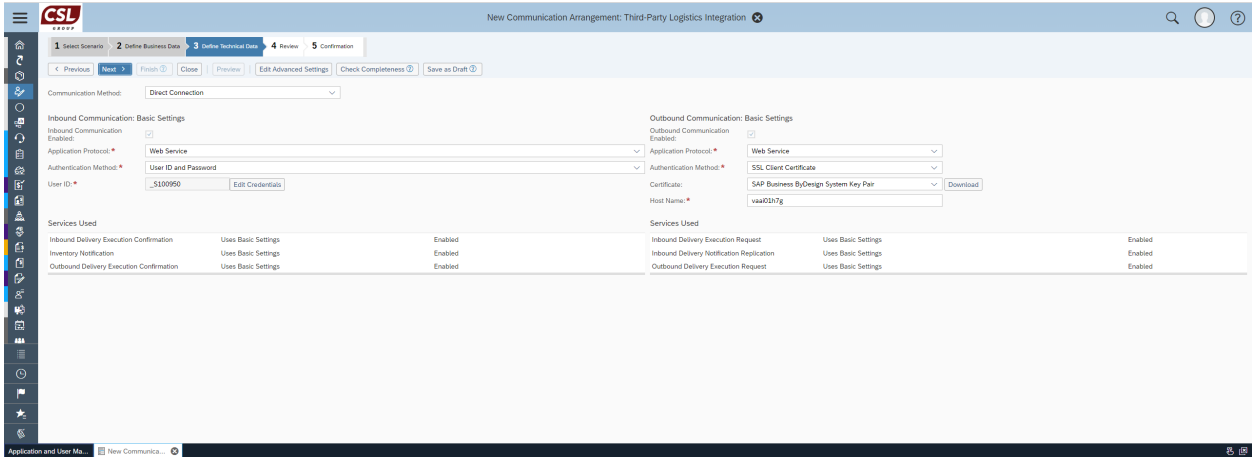


Click Edit Advanced Settings and review the Inbound and Outbound sub tabs. Ensure all of the tasks are ticked on **both** the inbound and outbound sections:

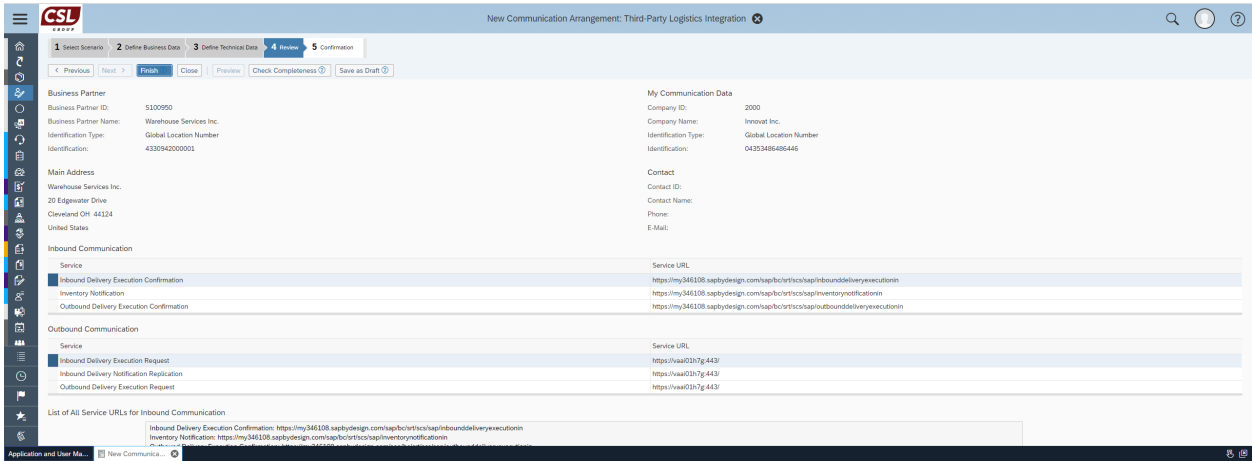




Click Next:



Click Finish:



Related Blogs:

[Third Party Logistics Integration \(3PL\)](#)

[Third Party Logistics in BYD – Top 10 Best Practices](#)

[Third party Logistics overview – part 1](#)

[Third party Logistics overview – part 2v](#)

**Related Content:**

The document 'How-to Guide (For SAP Business ByDesign May 2013)' pretty much covers everything about 3PL scenario: [Click here for the link](#)

SAP Help Portal - SAP Business ByDesign Library: Third Party Logistics