

TPN Live Import and Export

Specification Document

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Contents

Contents.....	3
Introduction.....	4
Test Site.....	4
Web Service Definitions.....	4
ConsignmentImport.....	4
Input Values.....	4
Return Values.....	14
CustomersImportFromOldTPN.....	14
FindConsignmentsToExport.....	15
Input Values.....	15
Return Values.....	15
ConsignmentExport.....	15
Input Values.....	15
Return Values.....	15
ThirdPartyConsignmentExport.....	15
Input Values.....	15
Return Values.....	16
TrackingExport.....	16
Input Values.....	16
Return Values.....	16
ThirdPartyTrackingExport.....	16
Input Values.....	16
Return Values.....	16
FindPoDsToExport.....	16
Input Values.....	17
Return Values.....	17
FindPoDsForOldImplant.....	17
Input Values.....	17
Return Values.....	17
PODExport.....	17
Input Values.....	17
Return Values.....	18
ThirdPartyPODExport.....	18

<u>Input Values.....</u>	<u>18</u>
<u>Return Values.....</u>	<u>18</u>
<u>CheckService.....</u>	<u>18</u>
<u>Input Values.....</u>	<u>18</u>
<u>Return Values.....</u>	<u>19</u>
<u>ServiceExport.....</u>	<u>19</u>
<u>Input Values.....</u>	<u>19</u>
<u>Return Values.....</u>	<u>19</u>
<u>EditConsignment.....</u>	<u>19</u>
<u>Input Values.....</u>	<u>19</u>
<u>Return Values.....</u>	<u>20</u>
<u>EditPallet.....</u>	<u>20</u>
<u>Input Values.....</u>	<u>20</u>
<u>Return Values.....</u>	<u>21</u>
<u>GetDepotFromPostcode.....</u>	<u>21</u>
<u>Input Values.....</u>	<u>21</u>
<u>Return Values.....</u>	<u>21</u>
<u>Appendix.....</u>	<u>22</u>
<u>ConsignmentImport.....</u>	<u>22</u>

Introduction

This document outlines the method for importing and exporting data to and from the TPN Live system using web services. It defines the web service methods, their input parameters, their format, acceptable values, and expected returns.

Test Site

There is a test web service set up at <http://www.tpntest.net/TPNImportExport/Service.aspx> which has all of the individual web methods listed below present. These web services interact with a dummy database and can therefore be used without repercussion with regard to data integrity and correct input, and is simply there for testing.

Web Service Definitions

ConsignmentImport

This web method accepts consignment data and adds it to the TPN Live system.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
ImportData	See below	string	2GB*	See below
CompanyName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"

*This is the theoretical limit based the limitations of the language, but the practical limit would likely be much lower as server resources, connection timeouts, and using web services as the transport method, would make large data transfers difficult.

ImportData

This parameter is a single string which holds all the consignment data to be passed to the TPN Live system. This string is in a CSV file format with the data format, with each record being separated by a new line. The table below shows the individual fields and their attributes. Any non-mandatory fields can be passed as blank strings.

Field Name	Max Length	Mandatory	Notes
Docket	8	No	Leave blank as this will be issued
Old Docket		No	Leave blank unless it comes from a legacy depot system
Third Party ID		Yes	Unique identifier from third party system TPN Live uses this field in conjunction with the company name and program name to map one third party ID to a TPN Live global ID
Customer Ref	50	No	
Depot Ref	50	No	

Created Date	20	Yes	Format is "DD/MM/YYYY HH:MM:SS"
Requesting Depot Number	3	Yes	
Collection Depot Number	3	Yes	
Delivery Depot Number	3	Yes	Depot must cover the delivery postcode (see GetDepotFromPostcode web method)
Consignee Name	50	Yes	
Consignee Address 1	50	Yes	
Consignee Address 2	50	No	
Consignee Address 3	50	No	
Consignee Address 4	50	No	
Consignee Postcode	15	Yes	
Consignee Contact Name	50	No	
Consignee Telephone	50	No	
Consignee Email	100	No	
Consignor Name	50	Yes	
Consignor Address 1	50	Yes	
Consignor Address 2	50	No	
Consignor Address 3	50	No	
Consignor Address 4	50	No	
Consignor Postcode	15	Yes	
Consignor Contact Name	50	No	
Consignor Telephone	50	No	
Consignor Email	100	No	
Delivery Service Code	4	Yes	
Collection Service Code	4	Yes	Enter "EC" if unknown
Delivery Date/Time/Date & Time		No	Either Date, Time, Date & Time depending on delivery service
Consignment Public Note	200	No	
Delivery Charge		No	Currently unused
Collection Charge		No	Currently unused
Hub Charge		No	Currently unused
Customer Account Code	50	No	
Customer Name	50	No	
Customer Contact name	50	No	
Customer Telephone	50	No	
Customer Own Paperwork	5	No	Either the string "true" or "false", defaults to "false"
Number of Quarter Pallets		No	Defaults to "0"
Weight of Quarter Pallets		No	Defaults to "0"
Number of Half Pallets		No	Defaults to "0"
Weight of Half Pallets		No	Defaults to "0"
Number of Half OS Pallets		No	Defaults to "0"
Weight of Half OS Pallets		No	Defaults to "0"
Number of Full Pallets		No	Defaults to "0"
Weight of Full Pallets		No	Defaults to "0"
Number of Full OS Pallets		No	Defaults to "0"
Weight of Full OS Pallets		No	Defaults to "0"
Sum Insured		Yes	Put "0" if not required
Premium Payable		No	
Insured in Name Of	50	No	
Insured Email Address	50	No	

Entered By	50	No	
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Return Values

This method returns a string detailing the success or failure of each individual consignment, separated by a new line. Where possible, the reason for failures will be given, and individual record failures will not stop other records from being processed.

CustomersImportFromOldTPN

This web method is for internal use only and can be ignored.

FindConsignmentsToExport

This web method finds a list of unique consignment ID's from the TPN Live system.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
DateFrom	Format is "DD/MM/YYYY"	string	10	"21/01/2010"
DateTo	Format is "DD/MM/YYYY"	string	10	"28/01/2010"
ReqColDel	Returns consignments where the depot is the requester, collector, or deliverer, or any of the above.	integer		"1" = requester "2" = collector "3" = deliverer "4" = all

Return Values

This method returns TPN Live unique consignment ID in a string array. If an error occurs, a string error with one element will be passed back containing the error message.

ConsignmentExport

This web method is for exporting consignment details from the TPN Live system using TPN Live unique consignment identifiers.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
DocketNumbers	TPN Live identifiers	string array	255*	["1234", "5678", "91011"]

*The individual elements of the array are strings that are limited to 255 characters. The overall number of elements, that is to say the length of the array, is only limited by system resources at both the client and server end, but using several smaller transactions should be considered if errors are encountered when transferring large amounts of data.

Return Values

This method returns a string containing the consignment details. The string is in CSV file format. Consignments that could not be found will have an error message on their line.

ThirdPartyConsignmentExport

This web method is for exporting consignment details from the TPN Live system using third party consignment identifiers. The third party identifiers passed to the method will only find a match if the consignment has previously been imported into the TPN Live system as this is the point at which the third party identifier is stored.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
CompanyName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"
DocketNumbers	Third party identifiers	string array	255*	["1234", "5678", "91011"]

*The individual elements of the array are strings that are limited to 255 characters. The overall number of elements, that is to say the length of the array, is only limited by system resources at both the client and server end, but using several smaller transactions should be considered if errors are encountered when transferring large amounts of data.

Return Values

This method returns a string containing the consignment details. The string is in CSV file format. Consignments that could not be found will have an error message on their line.

TrackingExport

This method returns a list of tracking events for a particular consignment via its TPN Live unique identifier. These tracks show what has happened to a consignment and its pallets at certain times, such as time and location of barcode scans etc.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
DocketNumber	TPN Live identifier	string	255	"1234"

Return Values

This method returns a string of tracking details in CSV file format, with each track record being separated a new line. If an error occurs, the error message is passed back in the string.

ThirdPartyTrackingExport

This method returns a list of tracking events for a particular consignment via its third part identifier. The third party identifier passed to the method will only find a match if the consignment has previously been imported into the TPN Live system as this is the point at which the third party identifier is stored. These tracks show what has happened to a consignment and its pallets at certain times, such as time and location of barcode scans etc.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"

Password	TPN supplied password	string	255	"MyPassword"
CompayName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"
DocketNumber	TPN Live identifier	string	255	"1234"

Return Values

This method returns a string of tracking details in CSV file format, with each track record being separated a new line. If an error occurs, the error message is passed back in the string.

FindPoDsToExport

This method returns TPN unique identifiers for consignments that have a proof-of-delivery (PoD) attached to them, between a date range.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
DateFrom	Format is "DD/MM/YYYY"	string	10	"21/01/2010"
DateTo	Format is "DD/MM/YYYY"	string	10	"28/01/2010"

Return Values

This returns a string array of TPN unique identifiers for consignments. If there is an error, a single element string array is returned containing the error message.

FindPoDsForOldImplant

This method returns third party unique identifiers for consignments that have a proof-of-delivery (PoD) attached to them, between a date range.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
CompayName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"
DateFrom	Format is "DD/MM/YYYY"	string	10	"21/01/2010"
DateTo	Format is "DD/MM/YYYY"	string	10	"28/01/2010"

Return Values

This returns a string array of third party unique identifiers for consignments. If there is an error, a single element string array is returned containing the error message.

PODExport

This method returns the proof-of-delivery (PoD) associated with a consignment obtained via its TPN Live unique identifier.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	50	"JohnSmith"
Password	TPN supplied password	string	50	"MyPassword"
DocketNumber	Unique consignment docket	string	255	09876543

Return Values

Returns a string of pods in a CSV file format. It is important to note that if the record has a PoD image (the fifth column in the record) in it, it will be returned as a base64 string. This will decode into the binary file data. PoDs that have been added via the TPN Live system are in png format, whilst images from the TPN system are in tiff format, meaning that the binary data will need to be written appropriately.

ThirdPartyPoDExport

This method returns the proof-of-delivery (PoD) records for a consignment found via its third party identifier. The third party identifier passed to the method will only find a match if the consignment has previously been imported into the TPN Live system as this is the point at which the third party identifier is stored. It is possible to have multiple PoD records for a single consignment.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	255	"JohnSmith"
Password	TPN supplied password	string	255	"MyPassword"
CompayName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"
ThirdPartyID	Third party identifier	string	255	"12345"

Return Values

This returns a string in CSV file format, with each record separated by a new line. It is important to note that if the record has a PoD image (the fifth column in the record) in it, it will be returned as a base64 string. This will decode into the binary file data. PoDs that have been added via the TPN Live system are in png format, whilst images from the TPN system are in tiff format, meaning that the binary data will need to be written appropriately.

CheckService

This method obtains a TPN Live service identifier. This can then be used in conjunction with the [ServiceExport](#) method.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Postcode	Postcode, spaces and hyphen are automatically removed	string	15	"AB1 2CD"
Service	Service code	string	50	"ND"
FromCountryID	The country the consignment	integer		1

	is coming from			
ToCountryID	The country the consignment is being delivered to	integer		2

There are currently two countries in the TPN system at the moment, these are:

Country	ID
United Kingdom	1
Ireland	2

Please note - Later versions of this method will enable searches using country ISO codes.

Return Values

This return a TPN Live service identifier as an integer. If an error occurs, -1 will be returned.

ServiceExport

This web method is used to export a details about a given service record from the TPN live system.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	50	"JohnSmith"
Password	TPN supplied password	string	50	"MyPassword"
ServiceID	ServiceID as obtained using the CheckService method	integer		12345678

Return Values

This returns a string of the service record details with each field separated by a hat symbol (^). If an error occurs, the string "False" will be returned.

EditConsignment

This web method is used to edit details of a consignment.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	50	"JohnSmith"
Password	TPN supplied password	string	50	"MyPassword"
ThirdPartyID	The ID from external system	string	255	"CONS123456"
FieldToEdit	The pallet field to edit	string	255	"PALLETATTRIBUTES"
NewData	The edited data to insert	string	255	"FULL PALLET"
CompanyName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"

This process will edit pre-imported pallets by matching the TPN pallet with the 'ThirdPartyID', company name, program name and username.

Input Values

Parameter	Notes
FieldToEdit	Allowed fields: "CONSIGNEENAME" "CONSIGNEEADDRESS1" "CONSIGNEEADDRESS2" "CONSIGNEEADDRESS3" "CONSIGNEEADDRESS4" "CONSIGNEECONTACT" "CONSIGNEETELEPHONE" "CONSIGNEEMAIL" "CONSIGNORNAME" "CONSIGNORADDRESS1" "CONSIGNORADDRESS2" "CONSIGNORADDRESS3" "CONSIGNORADDRESS4" "CONSIGNORCONTACT" "CONSIGNORTELEPHONE" "CONSIGNOREMAIL" "CUSTOMERREF" "DEPOTREF" "ACTIVE"
NewData	The "ACTIVE" field can only be set to 'false'

Return Values

If the edit is successful then a string such as "The consignment with a third party ID of: "CONS123456" was successfully edited" will be returned. If unsuccessful then either 'null' or an error message will be passed back.

EditPallet

This web method edits the details of a pallet belonging to a consignment.

Input Values

Parameter	Description	Type	Max Size	Example Entry
Username	TPN supplied username	string	50	"JohnSmith"
Password	TPN supplied password	string	50	"MyPassword"
ThirdPartyID	The ID from external system	string	255	"CONS123456"
PalletNumber	The number of the pallet	integer		1
FieldToEdit	The pallet field to edit	string	255	"PALLETATTRIBUTES"
NewData	The edited data to insert	string	255	"FULL PALLET"
CompanyName	Your company name	string	255	"ACompanyLTD"
ProgramName	Your program name	string	255	"MyProgram"

This process will edit pre-imported pallets by matching the TPN pallet with the 'ThirdPartyID', company name, program name and username.

Input Values

Parameter	Notes
FieldToEdit	Allowed fields: "PALLETTYPE" "PALLETWEIGHT" "ACTIVE"
NewData	"PALLETTYPE" allows: "QUARTER" "HALF PALLET" "FULL PALLET" "HALF OS" "FULL OS" The "ACTIVE" field can only be set to 'false'

Return Values

If the edit is successful then a string such as "The pallet with a pallet number of: "2" for third party ID: "CONS123456" was successfully edited" will be returned. If unsuccessful then either 'null' or an error message will be passed back.

GetDepotFromPostcode

This web method gets the associated depot number from the postcode input.

Input Values

Parameter	Description	Type	Max Size	Example Entry
InputPostcode	Postcode, spaces and hyphens are removed automatically	string	15	"AB1 2CD"

Return Values

This method returns a TPN Live depot identifier. If an error occurs, -1 is returned.

Consignor Address 2	"Another Town"
Consignor Address 3	"Another City"
Consignor Address 4	"Another County"
Consignor Postcode	"LN5 9ED"
Consignor Contact Name	""
Consignor Telephone	""
Consignor Email	""
Delivery Service Code	"ND"
Collection Service Code	"ND"
Delivery Date/Time/Date & Time	""
Consignment Public Note	""
Delivery Charge	""
Collection Charge	""
Hub Charge	""
Customer Account Code	""
Customer Name	""
Customer Contact name	""
Customer Telephone	""
Customer Own Paperwork	""
Number of Quarter Pallets	"0"
Weight of Quarter Pallets	"0"
Number of Half Pallets	"0"
Weight of Half Pallets	"0"
Number of Half OS Pallets	"0"
Weight of Half OS Pallets	"0"
Number of Full Pallets	"1"
Weight of Full Pallets	"150.00"
Number of Full OS Pallets	"0"
Weight of Full OS Pallets	"0"
Sum Insured	"0"
Premium Payable	""
Insured in Name Of	""
Insured Email Address	""
Entered By	""

Second Record	
Field	Data
Docket	""
Old Docket	""
Third Party ID	"CON02"
Customer Ref	""
Depot Ref	""
Created Date	"25/06/2010 12:45:38"
Requesting Depot Number	"99"
Collection Depot Number	"99"
Delivery Depot Number	"86"
Consignee Name	"Import Test Consignee"
Consignee Address 1	"ZipZap Computers Ltd"

Consignee Address 2	"Weaver Road"
Consignee Address 3	"Lincoln"
Consignee Address 4	"Lincolnshire"
Consignee Postcode	"LN6 3QN"
Consignee Contact Name	"A Person"
Consignee Telephone	"0123456789"
Consignee Email	"APerson@APlace.co.uk"
Consignor Name	"Import Test Consignee"
Consignor Address 1	"48 Another Street"
Consignor Address 2	"Another Town"
Consignor Address 3	"Another City"
Consignor Address 4	"Another County"
Consignor Postcode	"LN1 1PZ"
Consignor Contact Name	""
Consignor Telephone	""
Consignor Email	""
Delivery Service Code	"ND"
Collection Service Code	"ND"
Delivery Date/Time/Date & Time	""
Consignment Public Note	""
Delivery Charge	""
Collection Charge	""
Hub Charge	""
Customer Account Code	""
Customer Name	""
Customer Contact name	""
Customer Telephone	""
Customer Own Paperwork	""
Number of Quarter Pallets	"0"
Weight of Quarter Pallets	"0"
Number of Half Pallets	"1"
Weight of Half Pallets	"50.00"
Number of Half OS Pallets	"0"
Weight of Half OS Pallets	"0"
Number of Full Pallets	"2"
Weight of Full Pallets	"220.00"
Number of Full OS Pallets	"0"
Weight of Full OS Pallets	"0"
Sum Insured	"0"
Premium Payable	""
Insured in Name Of	""
Insured Email Address	""
Entered By	""