Technical Implementation Reference Guide

V2 CP

Two-call API
Does not require shipment-level detail for quote

US Version

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Overview

1.1. APIs

The acronym "API" stands for "Application Programming Interface".

APIs in their simplest form allow the transmission of data. APIs are an industry standard interface designed for external/internal software programs to accomplish specific tasks, usually for retrieving or modifying data in applications. In more advanced approaches, APIs are deployed to deliver streaming video, audio, and telephony services via smartphones, televisions, or internet-enabled kiosks.

The most popular approach to APIs is the open-data movement. Using APIs, data owners can easily expose information from data silos, allowing public or private access to large and small datasets.

UPS Capital APIs provide methods to interact/perform operations on their client transactional data within the UPS Capital network.

Programmers use the APIs to make interactive applications, websites and other projects. These programs will talk to the UPS Capital IT systems over industry standard network protocols. APIs are built using existing web technology, specifically the HTTP/HTTPS protocol that the World Wide Web employs to deliver content around the globe.

We conform to the design principles of Representational State Transfer (REST). Typically, we use a RESTful design for our APIs. The concept of REST is to separate the API structure into logical resources.

We use the HTTP methods GET, DELETE, POST and PUT to operate with the resources.

- Methods to retrieve data from the API require a GET request.
- Methods that create data require a POST request.
- Methods that update data require a PUT request.
- Methods that delete data require a DELETE request.

The API presently supports the JSON format only.

APIs require a particular HTTP method to return an error response if the request is not made with the correct payload (aka input).

1.2. Getting Started

The first step is to ensure all the contractual agreements between UPS Capital (UPSC) and the new Channel Partner (CP) are completed. Once the agreements are finalized, the UPSC IT API integration team will setup a sandbox environment for the new Channel Partner with sample rates to enable the API interactions. The CP IT team will reach out to the UPSC API team for user credentials and other information for enabling secure REST API- based interactions with UPS Capital IT systems.

1.3. Security / Authentication

UPS Capital APIs use secure JWT tokens for service authentication. Any calls to the REST API endpoint should be made bearer tokens in the request headers in addition to using the secured JWT tokens provided by the UPS Capital API Integration team.

During the customer onboarding process, the customer procures a unique Secure Token with certain customer credentials generated by the API Integration team for enabling communication between provider (UPS Capital) and consumer (Customer).

1.4. Insurance Service Workflow Overview
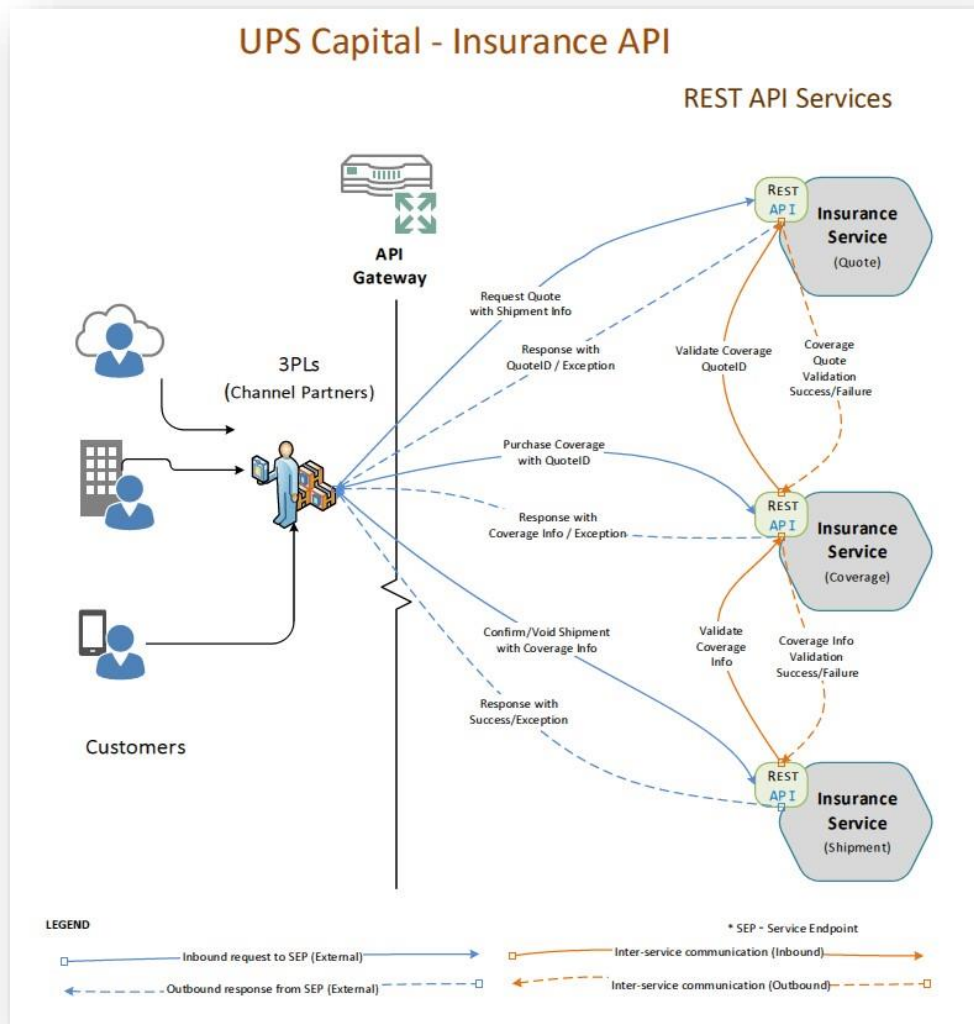
Insurance Service - APIs

2. Insurance Service - URLs UPS

Capital Insurance Coverage API

The API's purpose is to allow customers to get quotes and purchase insurance coverage for safe and timely package/cargo delivery.

2.1. Create Quote

Customer's request for a new insurance quote by providing the necessary shipment information.

Post

https://upscapi-rzd.ams1907.com/apis/list-extstg/v3/quotes

This method creates a quote in the system for insurance coverage.

Request

Request Parameters

body * (required)

Quote object needs to be sent to the API as a request payload...

Request Headers
Content-Type : application/json
Bearer : < secure token issued by API integration team >
X-IBM-Client-Id : <provided by API integration team>
X-IBM-Client-Secret : <provided by API integration team>

Model :

Create Quote

```
{



        partnerId               String
                                Required
                                Indicates Partner Id, assigned by UPS Capital to the
                                Channel Partner ex: XXX001


        shipperId               String
                                Indicates customer shipper identifier. Value should be
                                unique for each shipper account

        insuredValue            number($double)
                                Required
                                Indicates Insured Value of the shipment

        commodityCode           String
                                Required
                                Indicates numeric commodity code of item in the shipment

        shipmentType            Int
                                Required
                                Indicates the type of shipment the quote is for
                                1- FTL/FCL
                                2- LTL/LCL
                                3- Small Package
                                4- Ground Freight Pricing
                                5- Ocean
                                6- Air
                                7- Mail or Parcel Post

destinationcountryCode          String
                                Required
                                Indicates the package destination country code

origincountryCode               String
                                Required
                                Indicates the package origin country code
```

Example:

```json
{
    "partnerId": "XXX001",
    "insuredValue": "500",
    "shipperId": "W230499252",
    "shipmentType": "1",
    "commodityCode": "400",
    "originCountry": "US",
    "destinationCountry": "FR"
}
```

Response

Response Headers content type : application/json	

Code	Description
200	**Successful Operation** **QuoteReturn**{ quoteId `string`($UUID) Indicates the uniquely generated QuoteId by UPS Capital for the customer requested shipment information

premiumAmount	**number**`($double)`	
	Indicates the insurance premium value for the Shipment Value & commodity in the quote request	
quoteDateTime	**string**`($datetime)`	

	Indicates the date & time of the QuoteId generation by UPS Capital	
quoteValidTo	**string**`($datetime)`	
	Indicates the date & time the QuoteId is Valid for customer to purchase shipment coverage	
quoteInfo	**QuoteInfo**{	
	partnerID string	
	status string	
	ShipmentInfo: {	
	insuredValue number`($double)`	
	commodityCode string	
	shipmentType int	
	}	
	originAddress: {	
	countryCode string	
	}	
	destinationAddress:{	
	countryCode string	
}		

400	**Invalid payload format**
	ApiResponseFault{ code `integer($int32)`
	message `string`
	description `string`
	errors **[errors{ code** `String`
	Indicates the internal indiv
	field `string`
	message `string`
	}]
	}

401	**Invalid payload data**
	ApiResponseFault{ code `integer($int32)`
	message `String`
	description `String`
	errors **[errors{ code** `string`
	field `string`
	message `string`
	}]
	}

404	**Resource not found**
	ApiResponseFault{ code `integer($int32)`

	message `String`
	description `String`
	errors **[errors{**
	code `string`

		field	string	
		message	string	
		}]		
	}			

Example:

```
200 – Successful Operation
{
 "quoteId": "5c8bcsdgf-91cc-4cc9-bd20-d885b6c175e0",
 "premiumAmount": "270.40",
 "quoteDateTime": "2017-09-11T09:54:29.521",
 "quoteValidTo": "2017-10-11T09:54:29.521",
 "quoteInfo": {
     "partnerId": "XXX001",
     "status": "UNCONFIRMED",
 "shipmentInfo": {
     "insuredValue": "130120.00
     "commodityCode": "400",
     "shipmentType" : "1"

   }
   "originAddress": {
     "countryCode": "US"

   },
   "destinationAddress": {
     "countryCode": "US"
   }
 }
}
```

```
400 - Invalid Payload format

{
   "errors": [
      {
         "errorCode": "400",
         "errorMessage": "Error.Product.Id.Invalid.or.Null"
      }
   ]
}

401 - Invalid Payload data

{
   "errors": [
      {
         "errorCode": "401",
         "errorMessage": "The Token issued is not valid."
      }
   ]
}
```

2.2. Coverage

Customer's purchase of a previously requested insurance quote by providing the necessary shipment and quote information.

Post https://upscapi-rzd.ams1907.com/apis/list-extstg/v3/confirmQuote

This method places an order for purchasing a previously requested insurance quote.

Request

Request Parameters

   body * (required)

   Quote object needs to be sent to the API as a request payload...

Request Headers
   Content-Type : application/json
   Bearer : < secure token issued by API integration team >
   X-IBM-Client-Id : <provided by API integration team>
   X-IBM-Client-Secret : <provided by API integration team>

Model :

Coverage

```
{
        QuoteId              String($UUID)
                             Required
                             Indicates the UPSC QuoteId(from Quote Response) by UPS
                             Capita corresponding customer requested quote.

         Status              String
                             Required
                             Indicates status of the Package that is being insured by the
                             Channel Partner


        productid            String
                             Required
                             Same as in the original quote request

        locationID           String
                             Required
                             Same as in the original quote request

       transactionID         String
                             Required
                             Indicates a unique identifier of the customer transaction
                             from the Channel Partner IT System
```

partnerId	**String**	
	Required	
	Same as in the original quote request	
upscCustomerID	**String**	
	Required	
	Same as in the original quote request	
policyRateType	**String**	
	Required	
	Indicates policy according to rate for commodity	
quoteShipmentInfo		

shipperId	**String**	
	Required	
	Indicates Customer shipper identifier. Value should be unique for each shipper account.	
shipperName	**String**	
	Indicates Customer shipper name	
shipDate	**String**($date)	
	Required	
	Indicates package shipment date.	
	Fmt: YYYY-MM-DD	
	Eg: "2017-10-20"	
bol	**String**	
	Required	
	Indicates Bill of Lading number for the shipment	
insuredValue	**number**($double)	
	Required	
	Indicates Insured Value of the shipment	
commodityCodeType	**String**	
	Indicates type of the Commodity Code that is being shipped ex: UPSC	
commodityCode	**String**	
	Required	
	Indicates numeric commodity code of item in the shipment	
carrier	**String**	
	Indicates transportation carrier.	
Oversize	**Boolean**	
	Required	
	Indicates if the shipment package is over normal size limits. Y or N	
usedGoods	**Boolean**	
	Required	
	Indicates if the shipment content is new or	

```
                                    used goods N or U

           modeOfTransport String
                           Required
                           Indicates the Mode of
                           Transportation.
                           1- Air
                           2- Ground
                           3- Ocean

       consigneeName String
                           Indicates the Name of Consignee


         description String
                           Indicates detailed information of the shipment
                           goods

         shipmentType Int
                           Required
                           Indicates the type of shipment the quote is
                           for
                           1- FTL/FCL
                           2- LTL/LCL
                           3- Small Package
                           4- Ground Freight Pricing
                           5- Ocean
                           6- Air
                           7- Mail or Parcel Post


 destinationAddress          Indicates the package destination
                             address/location to where the insured package is
                             shipped

              address1      String    Required
              address2      String
              city          String    Required
              state         String
              postalCode    String    Required
              countryCode   String    Required



 originAddress

                             Indicates the package origin
                             address/location to where the insured package is
                             shipped
              address1      String    Required
              address2      String
              city          String    Required
              state         String
              postalCode    String
```

```
                        countryCode    String    Required


payablesAttentionTo String
                    Required
                    Indicates the shipper payable information, usually used
                    for claims payment
payablesAddress
                    address1       String    Required
                    address2       String
                    city           String    Required
                    state          String    Required
                    postalCode     String    Required
                    countryCode    String    Required


                    Indicates the shipper payables address information,
                    usually used for claims payment


shipperPrincipal    String
                    Required
                    Indicates Shipper's Name that will be used for Office of
                    Foreign Assets Control (OFAC) screening

shipperAddress
                    address1       String    Required
                    address2       String
                    city           String    Required
                    state          String    Required
                    postalCode     String    Required
                    countryCode    String    Required


                    Indicates the shipper address/location used for OFAC
                    screening


referenceFields    String
                   Merchants use for description or data to appear on CSV invoice.
```

ShipmentStatus

```
Enum:
[ UNCONFIRMED, CONFIRMED, VOID ]
For Confirm Shipment request, "CONFIRMED" & "VOID" are the only
value allowed.
```
- **UNCONFIRMED** status can change to **CONFIRMED** or **VOID**.
- **CONFIRMED** status can change to **VOID** if within 180 minutes of status being **CONFIRMED**.

VOID status cannot be changed. To purchase valid coverage, one need to start over by submitting a new create quote request again.

Example:

```
  {
"quoteId": "3446c4c812d3482885d10b183bc1b96d",
"status": "CONFIRMED",
  "productId":"1",
  "locationId":"111156106",
  "transactionID":"9810002",
  "partnerId": "XXX001",
  "upscCustomerID": "XXX",
  "quoteShipmentInfo":{
     "shipperId":"W230499252",
     "shipperName":"VIACHEMO",
     "shipDate":"2023-08-17",
     "bol":"866030730023",
     "insuredValue":"2700.00",
     "commodityCodeType":"UPSC",
     "commodityCode":"400",
     "usedGoods":"N",
     "modeOfTransport":"2",
     "consigneeName":"Dan",
     "insuranceAuthorization":"",
     "description":"Big pallet of goods",
     "shipmentType": "1",
     "carrier":"UPS",
     "oversize":"N"
  },
  "destinationAddress":{
     "address1":"30520 SE 84th St.",
     "address2":".",
     "city":"Wombat",
     "state":"WA",
     "postalCode":"98010",
      "countryCode": "FR"
  },
```

```
    "originAddress":{
        "address1":"5003 Lionsgate Rd",
        "address2":".",
        "city":"Preston",
        "state":"GA",
        "postalCode":"30290",
        "countryCode": "US"
    },
    "payablesAttentionTo":"Carter",
    "payablesAddress":{
        "address1":"100 N Central Expressway",
        "address2":"Ste 720",
        "city":"Atlanta",
      "postalCode":"10101",
      "countryCode": "US",
        "state":"GA"
    },
    "shipperPrincipal":"VIACHEMO",
    "shipperAddress":{
        "address1":"5003 Right Rd",
        "address2":".",
        "city":"Athens",
      "postalCode":"11133",
      "countryCode": "US",
        "state":"GA"
    }
}
```

Response

Response	
Content Type : application/json	

Code	Description

200	**Successful Operation**
	
	{
	    "quoteId": "d84116da312648889949ceef1d139169",
	    "payablesAttentionTo": "Andy Dulin",
	    "premiumAmount": "8.00",
	    "quoteInfo": {
	        "17roductid": "1",
	        "locationId": "1111561065",
	        "transactionID": "9810",
	        "partnerId": "TESTCP002",
	        "shipperPrincipal": "VIACHEMO",
	        "status": "UNCONFIRMED",
	        "upscCustomerId": "TES",
	        "shipmentInfo": {
	            "shipperId": "W230499252",
	            "shipperName": "VIACHEMO",

```
                "carrier": "RLCA",
                "shipDate": "2022-08-24",
                "bol": "86603073",
                "insuredValue": "600.00",
                "commodityCodeType": "UPSC",
                "commodityCode": "400",
                "oversize": "N",
                "usedGoods": "N",
                "modeOfTransport": "2",
                "consigneeName": "Test 002",
                "shipmentType": "1",
                "description": "Big pallet of stuff"
            },
            "originAddress": {
                "address1": "5003 Wrightsboro Rd",
                "address2": ".",
                "city": "Preston",
                "state": "GA",
                "postalCode": "30290",
                "countryCode": "US"
            },
            "destinationAddress": {
                "address1": "30520 SE 84th St.",
                "address2": ".",
                "city": "Wombat",
                "state": "WA",
                "postalCode": "98010",
                "countryCode": "US"
            },
            "payablesAddress": {
                "address1": "100 N Central Expressway",
                "address2": "Ste 720",
                "city": "Atlanta",
                "state": "GA",
                "postalCode": "10101",
                "countryCode": "us"
            },
            "shipperAddress": {
                "address1": "5003 Wrightsboro Rd",
                "address2": ".",
                "city": "Taylor",
                "state": "GA",
                "postalCode": "11133",
                "countryCode": "us"
            }
        }
    }
}
```

400	Invalid payload format **ApiResponseFault**{ code **integer**($int32)

```
         message        string

         description    string

         errors              [errors{ code
                                        string
                             field      string

                             message    string

   }                        }]
```

404   **Resource not found**

ApiResponseFault{ code
    integer($int32)
```
         message        string

         description    string

         errors              [errors{ code
                                        string
                             field      string

                             message    string

                             }]

   }
```

Error Messages

3.1 Error Messages Matrix

API	Scenario	Error Code	Error Messages
Create Quote	Invalid Partner ID	401	Token does not match assigned PartnerID. Please verify with IT resource.
Create Quote	Shipper ID is missing or invalid	400	Shipper ID is missing or invalid. Please enter alphanumeric characters only, no special characters. *ShipperID indicates customer shipper identifier. Value should be unique for each shipper account.*
Create Quote	Insured Value is missing or Invalid	400	Insured Value is invalid. Please provide a numeric value with two decimal places. ex: 100.00
Create Quote	Commodity Code is missing or Invalid	400	Commodity Code is missing or invalid. *CommodityCode indicates numeric commodity code of item in the shipment.*
Create Quote	Origin Country Error	400	Please enter a valid origin Country, only alphabetical characters allowed
Create Quote	Destination Country Error	400	Please enter a valid destination Country, only alphabetical characters allowed
Coverage	Ship Date field is missing or invalid	400	Ship Date is invalid. Please enter date in YYYY-MM-DD format. Ex: 2022-07-06
Coverage	Commodity Code is missing or invalid	400	Commodity Code is missing or invalid. *CommodityCode indicates numeric commodity code of item in the shipment.*
Coverage	Over Size field is missing or invalid	400	Oversized indicator is missing or in the incorrect format. Please provide "Y" or "N" response. *Oversize field indicates if the shipment package is over normal size limits.*
Coverage	Product ID field is missing	400	Product ID is missing. This field only accepts numeric characters. *ProductID indicates product ID value assigned by UPS Capital, by default "1" for Channel Partners.*
Coverage	Product ID is invalid	400	Invalid Product ID. This field only accepts numeric characters.

			ProductID indicates product ID value assigned by UPS Capital, by default "1" for Channel Partners.
Coverage	Location ID field is missing or invalid	400	Location ID field is missing or NULL. *LocationID indicated the ID Channel Partner assigns to their customer*
Coverage	Shipper Principle is missing or invalid	400	Shipper Principle is missing or invalid, Please enter alphanumeric characters; only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * ' *ShipperPrinciple indicates Shipper's Name that will be used for Office of Foreign Assets Controle (OFAC) screening.*
Coverage	Payable Attention to is missing or invalid	400	Payable Attention to is missing or invalid. Please enter alphanumeric characters; only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * ' *PayableAttentionTo indicates the shipper payable information, usually used for claims payment.*
Coverage	Partner ID field is missing or invalid	401	Partner ID field is invalid
Coverage	UPSC Customer ID is invalid or NULL	400	UPSC Customer ID is missing or invalid, Please enter alphanumeric characters only, remove all special characters. *UPSCCustomerID indicates franchise identifier assigned by UPS Capital ex: XXX*
Coverage	Transaction ID is Invalid or Null	400	Transaction ID is missing or invalid. Please enter alphanumeric value not exceeding 31 characters. *Transaction ID indicates a unique identifier of the customer transaction from the Channel Partner IT System*
Coverage	Status is Invalid or Null	400	Status must be set to UNCONFIRMED
Coverage	Shipper Name is missing or Invalid	400	Shipper Name is invalid. Please enter alphanumeric characters; only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * ' *ShipperName indicates customer shipper name*.
Coverage	Carrier is Invalid	400	Carrier field is invalid. Please enter alphanumeric characters only.

Coverage	BOL is invalid	400	BOL is invalid. Please enter alphanumeric characters only. ***BOL indicates the Bill of Lading for shipments***
Coverage	BOL is missing	400	BOL is missing
Coverage	Insured Value is missing or Invalid	400	Insured Value is invalid. Please provide a numeric value with two decimal places. ex: 100.00
Coverage	Used field is missing or invalid	400	Used Goods field missing or invalid. Please enter "N" (New) or "U" (Used) ***UsedGoods indicates if the shipment content is new or used goods.***
Coverage	Destination Address1 error	400	Please enter a valid destination address. Please enter alphanumeric characters; Only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * '
Coverage	Destination Address2 error	400	Please enter a valid destination address. Please enter alphanumeric characters; Only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * '
Coverage	Destination city error	400	Please enter a valid destination City, only alphabetical characters allowed
Coverage	Destination State error	400	Please enter a valid destination US State Code for US, CA or PR country Code
Coverage	Destination Postal Code Error	400	Please enter a valid destination Postal Code, only alphanumerical characters allowed
Coverage	Destination Country	400	Please enter a valid destination Country, only alphanumerical characters allowed
Coverage	Origin Address1 error	400	Please enter a valid origin address. Please enter alphanumeric characters; Only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * '
Coverage	Origin Address2 error	400	Please enter a valid origin address. Please enter alphanumeric characters; Only the following special characters are allowed: - + & ( ) / , ~ ` # . : ; " * '
Coverage	Origin city error	400	Please enter a valid origin City, only alphabetical characters allowed

Coverage	Origin State error	400	Please enter a valid origin US State Code for US, CA or PR country Code
Coverage	Origin Postal Code Error	400	Please enter a valid origin Postal Code, only alphanumerical characters allowed
Coverage	Origin Country	400	Please enter a valid origin Country, only alphanumerical characters allowed
Coverage	Payables Attention To Address1 error	400	Please enter a valid Payable Address 1
Coverage	Payables Attention To Address2 error	400	Please enter a valid Payable Address 3
Coverage	Payables Attention To city error	400	Please enter a valid Payables City
Coverage	Payables Attention To State error	400	Please enter a valid State Code for Payables State
Coverage	Payables Attention To Code Error	400	Please enter a valid Payables Country Code
Coverage	Payables Attention To Country	400	Please enter a valid Payable Postal Code
Coverage	Shipper Principle Address1 error	400	Shipper Address 1 is missing or invalid. Please enter Alphanumeric characters; only the following special characters are allowed: - + & () / , ~ ` # . : ; " * '
Coverage	Shipper Principle Address2 error	400	Shipper Address 2 is missing or invalid. Please enter Alphanumeric characters; only the following special characters are allowed: - + & () / , ~ ` # . : ; " * '
Coverage	Shipper Principle city error	400	Please enter a valid Shipper City
Coverage	Shipper Principle State error	400	Shipper State is missing or invalid. Please enter a valid US State Code for US, CA, or PR Country Code
Coverage	Shipper Principle Postal Code Error	400	Please enter a valid Shipper Posta Code
Coverage	Shipper Principle Country	400	Please enter a valid Shipper Country Code

3.2 Field Validations

Field Name	Validations
All Address Fields - Name	Alphanumeric; Only the following special characters are allowed: **- + & () / , ~ ` # . : ; " * '**
All Address Fields - City	Alphabetical
All Address Fields- Address 1,2	Alphanumeric; Only the following special characters are allowed: **- + & () / , ~ ` # . : ; " * '**
All Address Fields - State	Valid US State Code for US, CA, or PR Country Code
All Address Fields - Country	Alphabetical
ProductId	Numeric
Location	Alphanumeric
Shipper Principle	Alphanumeric; Only the following special characters are allowed: **- + & () / , ~ ` # . : ; " * '**
Payables Attention To	Alphanumeric; Only the following special characters are allowed: **- + & () / , ~ ` # . : ; " * '**
PartnerId	Alphanumeric
UpscCustomerID	Alphanumeric
TransactionId	Numeric
Status	Confirmed/Unconfirmed/Void
ShipperId	Alphanumeric
ShipperName	Alphanumeric; Only the following special characters are allowed: **- + & () / , ~ ` # . : ; " * '**
Carrier	Alphanumeric
ShipDate	Date/Validation
Bol	Numeric
InsuredValue	Decimal
CommodityCodeType	Alphanumeric
CommodityCode	Numeric
Oversize/usedGoods	Y/N
ModeOfTransport	Numeric

ConsigneeName	Alphanumeric; Only the following special characters are allowed: **- + & ( ) / , ~ ` # . : ; " * '**
TrackingNumber	Numeric
Description	None
TransactionType	Numeric
ShipmentType	Numeric
Contact First Name	Alphanumeric; Only the following special characters are allowed: **- + & ( ) / , ~ ` # . : ; " * '**
Contact Last Name	Alphanumeric; Only the following special characters are allowed: **- + & ( ) / , ~ ` # . : ; " * '**
Secondary Contact Name	Alphanumeric; Only the following special characters are allowed: **- + & ( ) / , ~ ` # . : ; " * '**
referenceFields	Alphanumeric