

Technical Implementation Reference Guide

V3 API

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

US Version



Technical Implementation Reference Guide

Table of Contents

Overview	
1.1. APIs	2
1.2. Getting Started	2
1.3. Security / Authentication	3
Insurance Service - APIs	5
2.1. Create Quote	6
2.2. Coverage	13
Error Messages	24
3.1 Error Messages Matrix	25
3.2 Field Validations	30



Technical Implementation Reference Guide

Overview



Technical Implementation Reference Guide

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



Technical Implementation Reference Guide

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 OAUTH tokens for service authentication. During the customer onboarding process, the customer procures credentials for accessing the Token API. Any calls to the REST API endpoints (excluding Token API) should be made with bearer tokens in the request headers. The token can be retrieved from the Token API specified below. The token will be usable for 4 hours. It is refreshed after 4 hours and it is required to be updated to a new token once refreshed..

TOKEN API

Endpoint: https://onlinetoolsuat.ups.com/ent-services/security/v1/oauth/token **Request Parameters**

No request body

Request Headers

Username Password

Token API (Response)

```
{
    "token_type": "Bearer",
    "issued_at": "1747851532915",
    "client_id": "",
    "access_token": ",
    "expires_in": "14399",
    "status": "approved"
}
```



Technical Implementation Reference Guide

Token type String

Indicates token type

Issued at String

Indicates the time token was requested in Epoch format.

Client_id String

Indicates a unique identifier of customer (same as

username).

Access_token String

Indicates token to be used for calling other APIs

Expires_in String

Indicates the time token will expire in Epoch format.

Status_ String

Indicates if token retrieval is approved.



Technical Implementation Reference Guide

Insurance Service - APIs



Technical Implementation Reference Guide

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://onlinetoolsuat.ups.com/ent-services/caponinsurance/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

Authorization: Bearer: < secure token>

Model:

Coverage



```
partnerId
                         String
                         Indicates Partner Id, assigned by UPS Capital to the
                         Channel Partner ex: XXX001
       ShipperId
                        Indicates customer shipper identifier. Value should be
                         unique for each shipper account
                         number ($double)
      insuredvalue
                         Required
                         Indicates insured value of shipment
                         String
      commodityCode
                         Required
                         Indicates numeric commodity code of item in the
      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:
{
    "partnerId": "XXXX001",
    "insuredValue": "500",
    "shipperId": "W230499252",
    "shipmentType": "1",
    "commodityCode": "400",
    "originCountry": "US",
    "destinationCountry": "FR"
}
```



Technical Implementation Reference Guide

Response

-	se Headers ent type : application/json		
Code	Description		
200	Successful Operation		
	QuoteReturn quoteId	string(\$UUID)	
			uely generated QuoteId by UPS stomer requested shipment
	premiumAmount	<pre>number(\$double) Indicates the insur</pre>	cance premium value for the
			ommodity in the quote request
	quoteDateTime	<pre>string(\$datetime) Indicates the date generation by UPS C</pre>	& time of the QuoteId Capital
	quoteValidTo	<pre>string(\$datetime)</pre>	
	quoteInfo	Indicates the date & customer to purchase QuoteInfo{	time the QuoteId is Valid for shipment coverage
	_	partnerID	string
		status	string
		ShipmentInfo:	{
		insuredValue	number(\$double)
		commodityCode	string
		shipmentType	int



```
countryCode string
}
destinationAddress:{

countryCode string

countryCode string
```



```
"errors": [
{
    "code":"250002",
    "message":"Invalid
Authentication Information."
}

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": ""
        }
    ]
401 - Authentication Error
"response": {
   "errors": [
        "code":"250002",
        "message": "Invalid Authentication Information."
```



Technical Implementation Reference Guide

2.2. Coverage

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

Post

https://onlinetoolsuat.ups.com/ent-services/caponinsurance/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

Authorization: Bearer: < secure token>

Model:

Coverage



Technical Implementation Reference Guide

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



Technical Implementation Reference Guide

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 indicate 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



Technical Implementation Reference Guide

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

sed 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



Technical Implementation Reference Guide

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/ a location to where the insured package is shipped address1 String Required address2 String String city Required String state postalCode String countryCode String Required payablesAttentionTo String Required Indicates the shipper payable information, usually used for claims payment payablesAddress address1 String Required address2 String String Required city state String Required postalCode String Required Required countryCode String Indicates the shipper payables address information, usually used for claims payment shipperPrincipal String Required Indicates Shipper's Name that will be used or Office of Foreign Assets Control (OFAC) screening



Technical Implementation Reference Guide

shipperAddress

address1 String Required address2 String

city String Required state String Required postalCode String Required countryCode String Required String Required

Indicates the shipper address/location used

for OFAC screening

referenceFields String

Merchants use for description or data to

appear on CSV invoice.



Technical Implementation Reference Guide

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.

Exa	am	p	le:



Technical Implementation Reference Guide

```
"quoteId": "3446c4c812d3482885d10b183bc1b96d",
 "status": "CONFIRMED",
  "productId": "1",
   "locationId": "111156106",
   "transactionID": "9810002",
   "partnerId": "XXX001",
   "upscCustomerID": "XXX",
   "quoteShipmentInfo":{
      "shipperId": "W230499252",
      "shipperName": "VIACHEMO",
      "shipDate": "2023-08-17",
      "bo1": "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":".",



Technical Implementation Reference Guide

```
"city":"Athens",
   "postalCode":"11133",
   "countryCode": "US",
   "state":"GA"
}
```

Response

```
Response
      Content Type: application/json
         Description
Code
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
            "errors": [
                   "errorCode": "400",
                   "errorMessage": ""
           ]
404
         Resource not found
        ApiResponseFault { code
             integer($int32)
             message string
             description string
             errors
                        [errors { code
                                          string
                              field
                                         string
                             message
                                          string
                         }]
```



Technical Implementation Reference Guide

Error Messages



Technical Implementation Reference Guide

3.1 Error Messages Matrix

API	Scenario	Error Code	Error Messages
Token API	Invalid credentials for Token API	10401	Client credentials are invalid
All APIs (excluding token API)	Token has timed out	250002	Invalid Authentication Information
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.
			alphanument 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



			Please enter a valid destination US State
Coverage	Destination State error	400	Code for US, CA or PR country Code
			Please enter a valid destination Postal Code, only alphanumerical characters
Coverage	Destination Postal Code Error	400	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



Technical Implementation Reference Guide

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