



Locator RESTful API

Developer Guide

February, 2020



Important Information

UPS Developer Kit APIs

Your development of an application using UPS Developer Kit APIs is governed by the UPS Technology Agreement you entered into with UPS. The following are key legal requirements from these agreements for the UPS Developer Kit APIs. For more information on all requirements for the UPS Developer Kit APIs, please refer to the UPS Technology Agreement.

Defined terms used but not defined in this document have the meaning set forth in the UPS Technology Agreement.

Key Legal Requirements for UPS Developer APIs

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This document can only be used in the countries of the Permitted Territory as defined in the UPS Technology Agreement, as applicable.

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Chapter 1: Introduction

This document contains implementation instructions for integrating the Locator RESTful API into your application, service, or system.

In this guide, you will find:

- Locator functionality and business rules
- Header, URL, URL Parameters, request and response elements
- Error response code descriptions
- Sample request, response and error response
- Country code references

Intended Audience

- This guide is intended for developers who will be integrating with the Locator RESTful API into their application, service, or system.

Required Knowledge & Skills

This guide assumes you have a basic understanding of the following:

- Concepts and instructions in the *Introduction to the UPS Developer Kit* guide.
- Web APIs
- Software development

How to Use this Guide

- If this is your first time working with the UPS Developer Kit, begin with the Introduction to the UPS Developer Kit guide. This guide serves as the foundation for all API-specific developer guides.
- Chapter 3: Customer Integration Environment (CIE) contains information on UPS integration environments.
- Chapter 4: Locator RESTful API Elements and Details contains Header, Request and Response details along with examples.
- All reference tables and error codes are located in the [Appendices](#).

Chapter 2: Understanding the Locator RESTful API

The Locator RESTful API indicates if a given country has an access point location.

Business Processes and Rules

- UPS expects schema as defined in the request structure i.e., no spelling or structural deviations. Elements that are not defined in the data request will result in request being rejected.
- Only users that plan to ship packages manifested, tendered, and delivered by UPS can use the API.
- Any customers/developers abusing or data mining the API will have their access revoked.
- To access RESTful API documentation the user must have or create a My UPS profile.
- To access testing and production sites the user must have an Access Key. To get an Access Key you must have a My UPS profile and an associated shipping account. For additional information, refer to the [UPS Developer Kit User Guide](#).

Chapter 3: Customer Integration Environment (CIE)

The Customer Integration Environment allows customers to test their application prior to launch. This environment is intended for integration testing of customer applications with the UPS servers.

Once your application has been thoroughly tested, you should redirect the application to the UPS Production Environment.



No stress testing should ever be performed by customers against any UPS systems.

To access testing and production sites the user must have an Access Key. You can request an Access Key after establishing a UPS profile and associating your shipping account.

Test your Rate and Service selections using valid and invalid data elements including postal codes, weights, and package types. This will ensure that your application has the ability to process success and error responses correctly.

System Availability

The Customer Integration Environment is available 24 hours a day, 7 days a week. Note the system is occasionally down for server maintenance.

Integration Testing and Production URLs

| | |
|--------------------|---|
| Testing: | https://wwwcie.ups.com/locator/v2/locations/accesspoints/availabilites/country/{country-code} |
| Production: | https://onlinetools.ups.com/locator/v2/locations/accesspoints/availabilites/country/{country-code} |

Chapter 4: Locator RESTful API Elements and Details

Element Constraints

The Header, URL, Parameters, Request and Response tables contain the full hierarchy of the API elements.

Element constraints are defined as follows:

Name

The element or container name.

Constraints

Required

- Yes - indicates the element must be present in the request or response.
- Yes* - indicates the element must be present in the request if the parent container is present in the request.
- No - indicates the element is optional and may be used if it applies to the request.
- Cond – indicates the element is required under certain conditions.

Type

- Container - holds a group of related elements.
- String - consists of alphanumeric characters, spaces, and decimals.
- Array - collection of values that allows to provide a list of values. An array begins with [(left bracket) and ends with] (right bracket). Its values are separated by , (comma).
- Header – header parameter
- Path – URL path parameter
- Query – URL query parameter

Length

- The maximum number of characters that can be present in a String. Length is not applicable (N/A) to Containers.

Max Allowed

- The maximum number of elements or containers that can be present in the parent container.

Description

A description of the element or container. Also any validation rules associated with the element/container.

Header

| Name | Constraint | Description |
|---------------------|--|---|
| transId | Required: Yes Type: String Length: 32 | An identifier unique to the request. |
| transactionSrc | Required: Yes Type: String Length: 215 | An identifier of the client/source application that is making the request |
| AccessLicenseNumber | Required: Yes Type: String Length: 16 | The UPS Access Key associated with the UPS account. |
| Username | Required: Yes Type: String Length: 16 | The username associated with your My UPS account. |
| Password | Required: Yes Type: String Length: 26 | The password associated with your My UPS account. |

URL

<https://onlinetools.ups.com/locator/v2/locations/accesspoints/availabilites/country/{country-code}>

URL Parameters

| Name | Constraint | Description |
|--------------|--|---|
| country-code | Required: Yes Type: Path Length: 5 | Country Code signifies the country for which the UPS Access Point search request is submitted |

Response

| Name | Constraint | Description |
|--|--|--|
| { "transactionReference" : {} } | | |
| transactionReference | Required: Cond Type: Container Max Allowed: 1 Length: N/A | Container that describes the transactions between the client and the server |
| { "transactionReference" : { "transId" : "" } } | | |
| transId | Required: Yes* Type: String Max Allowed: 1 Length: 10 | A unique identifier for the transaction |
| { "transactionReference" : { "clientId" : "" } } | | |
| clientId | Required: Yes* Type: String Max Allowed: 1 Length: 8 | Identifies the client |
| { "transactionReference" : { "version" : "" } } | | |
| version | Required: Yes Type: String Max Allowed: 1 Length: 1...3 | Version of the application |
| { "country" : "" } | | |
| country | Required: Yes Type: String Max Allowed: 1 Length: 2 | Country of accesspoint availability |
| { "activeAccessPointIndicator" : "" } | | |
| activeAccessPointIndicator | Required: Yes Type: String Max Allowed: 1 Length: 5 | Indicates if there is an active accessPoint for the country. Valid values: true false |

API Sample Scenario

Scenario:

Client application is submitting an availability request for county code US

| | |
|-------------------------------|---|
| Method | GET |
| Header Elements | Accept: application/json Username: username Password: password AccessLicenseNumber: accesslicensenumbr transId: transaction id transactionSrc: transaction source |
| Path Parameter | country-code: US |
| Example URL | https://onlinetools.ups.com/locator/v2/locations/accesspoints/availabilites/country/US |
| Example Response | Response: <pre>{ "transactionReference": { "transId": "transId", "clientId": "clientId", "version": "v1.0" }, "country": "US", "activeAccessPointIndicator": "true" }</pre> |
| Example Error Response | <pre>{ "response": { "transactionReference": { "transId": "5d833267-bdaa-4dde-9377-ed3f0940af5d", "clientId": "SCL_TEST", "version": "v2.0" }, "errors": [{ "code": "2002", "message": "Country code contains invalid or special characters ~ US1" }] } }</pre> |

Appendices

Error Codes

When the UPS system is unable to respond to a request, be it from a malformed request, an illegal or invalid value, or other issues, the API generates an error response.

HTTP Status Codes

| Code | Message | Description |
|------|-----------------------------------|--|
| 200 | OK | Success: Everything is working |
| 400 | Bad Request | The request was invalid or cannot be served. The exact error should be explained in the error payload. E.g. The JSON is not valid" |
| 401 | Unauthorized | The request requires authentication |
| 404 | Not found | URL does not exist or resource not found |
| 405 | Method not allowed | Method not allowed |
| 417 | Expectation failed | Returned when there is an issue with the data – it passes initial validation but fails further downstream |
| 500 | An internal server error occurred | An internal server error occurred; API developers should avoid this error. If an error occurs in the global catch blog, the stracktrace should be logged and not returned as response. |
| 503 | Internal Server Error | The service/resource is not available. There are external component DOWN issues that the client will not be able to resolve |

Common Error Codes

| Code | HTTP Status | Description |
|--------|-------------|--|
| 100001 | 400 | Missing transId in the request header |
| 100002 | 400 | Missing transactionSrc in the request header |
| 250002 | 401 | Invalid Authentication Information. |
| 250003 | 401 | Invalid Access License number. |
| 250050 | 500 | License system not available. |
| 10004 | 500 | Service Temporarily Unavailable. |

Locator API Error Codes

| Error Code | HTTP Status | Description |
|------------|-------------|---|
| 1023 | 400 | SERVICE RETRY CALL FAILED |
| 1024 | 400 | ERROR OCCURRED WHILE PROCESSING JSON RESPONSE |
| 1039 | 400 | EXCEPTION OCCURRED WHILE PROCESSING REQUEST |
| 2000 | 400 | MISSING COUNTRY IN THE REQUEST |

| Error Code | HTTP Status | Description |
|------------|-------------|---|
| 2002 | 400 | COUNTRY CODE MUST BE TWO CHARACTERS |
| 2002 | 400 | INVALID LOCALE VALUE |
| 2002 | 400 | INVALID LOCALE AND COUNTRY CODE COMBINATION |
| 2002 | 400 | INVALID ACCESSPOINT REQUEST |
| 2003 | 400 | DATABASE EXCEPTION OCCURRED |
| 5000 | 400 | NO RECORDS FOUND |
| UJ0004 | 401 | JWT TOKEN IS EXPIRED |
| UJ0006 | 401 | JWT TOKEN IS INVALID |

Country or Territory Codes

Locator API Supported Countries or Territories

UPS country or territory code abbreviations generally follow the recommendations of the International Standards Organization (ISO), which publishes a list of country or territory abbreviations in ISO Standard 3166.

The following table lists the country or territory codes defined by ISO at the time of this publication. The latest information is available from the ISO web site: <http://www.iso.org/>.



NOTE: Not all UPS services are available in every country or territory. Refer to the [UPS Rate and Service Guide](#) at UPS.com for more information on UPS services.

| Destination Country or Territory Name | Country or Territory Code |
|---------------------------------------|---------------------------|
| Albania | AL |
| Algeria | DZ |
| Argentina | AR |
| Australia | AU |
| Austria | AT |
| Azerbaijan | AZ |
| Bahamas | BS |
| Bahrain | BH |
| Belgium | BE |
| Bermuda | BM |
| Bolivia | BO |
| Bosnia and Herzegovina | BA |
| Brazil | BR |
| Canada | CA |
| Cayman Islands | KY |
| Chile | CL |
| Colombia | CO |
| Costa Rica | CR |
| Croatia | HR |
| Czech Republic | CZ |
| Denmark | DK |
| Dominican Republic | DO |
| Ecuador | EC |
| Egypt | EG |
| El Salvador | SV |
| Finland | FI |

| Destination Country or Territory Name | Country or Territory Code |
|---------------------------------------|---------------------------|
| France | FR |
| Germany | DE |
| Ghana | GH |
| Gibraltar | GI |
| Guatemala | GT |
| Honduras | HN |
| Hungary | HU |
| Indonesia | ID |
| Ireland, Republic of | IE |
| Italy | IT |
| Kazakhstan | KZ |
| Kenya | KE |
| Kuwait | KW |
| Kosovo | KV |
| Luxembourg | LU |
| Malaysia | MY |
| Malta | MT |
| Mauritius | MU |
| Mexico | MX |
| Moldova | MD |
| Morocco | MA |
| Netherlands | NL |
| New Zealand | NZ |
| Nicaragua | NI |
| Nigeria | NG |
| Norway | NO |
| Oman | OM |
| Pakistan | PK |
| Panama | PA |
| Paraguay | PY |
| Peru | PE |
| Philippines | PH |
| Poland | PL |

| Destination Country or Territory Name | Country or Territory Code |
|---------------------------------------|---------------------------|
| Portugal | PT |
| Puerto Rico | PR |
| Qatar | QA |
| Saudi Arabia | SA |
| Serbia | RS |
| Singapore | SG |
| South Africa | ZA |
| Spain | ES |
| Sweden | SE |
| Switzerland | CH |
| Thailand | TH |
| U.S. Virgin Islands | VI |
| United Arab Emirates | AE |
| United Kingdom | GB |
| United States | US |
| Uruguay | UY |
| Venezuela | VE |

