

# Address Validation API Reference Guide

Revision 02

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## **About This Guide**

### Introduction

This guide describes the Connectbase Application Program Interface (API) Address Validation v4 and v5.

### Accessing the Portal

Using any standard web browser, you can access the Connectbase API portal by entering the following URL: *https://developer.connectbase.com*.

- If this is your first time visiting the site, click *Sign up* to register as a new API user.
- If you are already a registered user, Sign in using your API login and password.

### **Related Documentation**

Refer to the following documents for detailed information about each of the supported Connectbase API products:

- Address Autocomplete API Reference Guide
- Advanced CPQ API Reference Guide
- Building Competitive Rating API Reference Guide
- Connectbase Developer Portal Overview Guide
- Connected World Availability API Reference Guide
- Connected World Account API Reference Guide
- Connected World Building API Reference Guide
- Connected World Building Lists API Reference Guide
- Connected World Contacts API Reference Guide
- Connected World Distributions API Reference Guide
- CPQ API Reference Guide
- CPQ Components Management API Reference Guide
- Demand Engine API Reference Guide
- Geocode API Reference Guide
- International Processor API Reference Guide
- Locations Intelligence API Reference Guide
- Network Intelligence API Reference Guide
- Network Path API Reference Guide
- NNI Management API Reference Guide
- Rate Card Management API Reference Guide
- Route Management API Reference Guide
- Tenant API Reference Guide

## Acronym List

This document uses the following acronyms.

Acronym	Description
API	Application Program Interface
HTTP	Hyper Text Transfer Protocol
JSON	JavaScript Object Notation
N/A	Not applicable
URL	Uniform Resource Locator
USPS	United States Postal Service

### **Contact Customer Support**

If you require technical assistance or wish to report an issue to the Connectbase Support team, please log into the Connectbase Customer Support portal at *https://support.connectbase.com* and log a ticket.

For other general information, you can contact Customer Support by email at *support@connectbase.com* or by phone at (508) 202-1807 between the hours of 8:00 a.m. and 5:00 p.m. EST.

## **About Address Validation API v4**

The Address Validation API v4 is used to validate a complete USPS address inclusive of a secondary address line (IE Apt, Ste, FL) and to obtain more detailed information about the address location, such as the latitude and longitude for a given address. However, this version also includes Timezone, UTC offset, Census Block, Building Location Type and Global ID. This version of the API will also determine the validity and requirement of a secondary address line.

If you do not know the complete address, you can use the Address Autocomplete API v2 to narrow your search. Then use the returned address as input for validation.



A newer version of *Adress Validation API v5* is available. For better results, you are recommended to switch to v5 of the Address Validation API.

## Address Validation API v4

### GET validate?address v4

This API call is used to validate addresses.

**Requirements and Special Considerations** 

This API requires the address and appropriate subscription key.

While not required by the API, for best results Connectbase recommends that you provide the complete street, city, and state in your search criteria.

https://api.connected2fiber.com/address/v4/validate[?address]

Request parameters	Characteristic	Description/Requirements
address	string	Enter the address (street, city and state) to be validated and conformed.
address2	string	Enter the secondary address (ste, fl, apt and number) to be validated and conformed.

<b>Request headers</b>	Characteristic	Description/Requirements
Ocp-Apim- Subscription-Key	string	The subscription key that provides access to this API, which can be found in your Profile.

#### Success Response Example

```
{
  "status": "success",
 "inputs": {
   "inputAddress": "7009 S Potomac St, Centennial, CO"
 },
  "data": {
   "primary_number": "7009",
   "street_name": "Potomac",
    "address2_designator": "",
    "address2_number": "",
    "street_predirection": "S",
   "street_postdirection": "",
    "street_suffix": "St",
    "addressLine": "7009 S Potomac St",
    "city_name": "Centennial",
   "default_city_name": "Englewood",
   "state_abbreviation": "CO",
    "state_name": "Colorado",
    "fullAddressLine": "7009 S Potomac St Centennial CO 80112-4037",
   "zipcode": "80112",
    "plus4_code": "4037",
    "latitude": 39.58921,
    "longitude": -104.83271,
    "time_zone": "Mountain",
    "utc_offset": "-7",
    "country": "USA",
    "footnotes": "H#",
    "census_block": "080050068563016",
   "building_location_types": [],
   "global_location_id": "",
    "address2_status": "required"
 }
}
```

#### **Response Attributes and Data Types**

Response Attribute	Attribute Description	Data Type
primary_number	The primary number for the location address, such as <b>134</b> Flanders Road.	int
street_name	The name of the street	string
address2_designator	Designation of the unit of the address, such as a suite number, apartment, etc.	string
address2_number	Identifier for a secondary address number, such as an apartment, suite floor number, room number, etc.	int
street_predirection	An address element that indicates geographic location such as N, S, E, W, NE, NW, SE, and SW that is placed to the left of (before) the street name such as E HOOVER ST.	string
street_postdirection	An address element that indicates geographic location such as N, S, E, W, NE, NW, SE, and SW that is placed to the right of (after) the street name such as BAY DRIVE W.	string

Response Attribute	Attribute Description	Data Type
street_suffix	Identifies the type of roadway in abbreviated format, such as St., Blvd., etc.	string
addressLine	The full address including street, city, state, and postal.	string
city_name	The name of the city in which the location resides.	string
default_city_name	The name of the city.	string
state_abbreviation	The abbreviated state name, such as MA for Massachusetts.	string
state_name	The name of the state in which the location resides.	string
fullAddressLine	The complete address including street, city, state, zip, country	string
zipcode	The zip code where the building or specified location resides.	int
plus4_code	US format: zip code plus four, for example 12345-6789	int
latitude	The angular distance of a place north or south of the earth's equator, or of a celestial object north or south of the celestial equator, usually expressed in degrees and minutes.	string
longitude	The angular distance of a place east or west of the meridian at Greenwich, England, or west of the standard meridian of a celestial object, usually expressed in degrees and minutes.	string
time_zone	The time zone in which the location resides.	string
utc_offset	The difference in hours and minutes from Coordinated Universal Time (UTC) for a particular place and date.	int
country	The name of the country in which the location resides.	string
footnotes	Refer to https://www.smartystreets.com/ docs/ cloud/us-street-api#footnotes for a description of the possible footnotes responses.	string
census_block	The smallest geographic unit used by the United States Census Bureau for tabulation of 100-percent data (data collected from all houses, rather than a sample of houses).	string
building_location_types	object header	array
global_location_id	Connectbase's proprietary ID system that provides a unique identification code for every location within the seven continents.	string

## About Address Validation API v5

The Address Validation API v5 is an enhancement of v4 with improved address validation logic. V5 validation results are better aligned with CPQ address standardization. Address validation API v5 uses different request parameter structure, endpoint url and response attributes structure, as comapred to v4 of this API. The details are available in *Get validate?address v5* section of this document.



If you do not know the complete address, you can use the Address Autocomplete API v2 to narrow your search. Then use the returned address as input for validation.

## Address Validation API v5

### GET validate?address v5

This API call is used to validate addresses.

#### **Requirements and Special Considerations**

This API requires the address and appropriate subscription key.

While not required by the API, for best results Connectbase recommends that you provide the complete street, city, and state in your search criteria.

#### **Request URL**

https://api.connectbase.com/address/v5/validate[?address]

Request parameters	Characteristic	Description/Requirements
address	string	Enter the complete address (street, city, state, zip and country) to be validated and conformed.

Request headers	Characteristic	Description/Requirements
Ocp-Apim- Subscription-Key	string	The subscription key that provides access to this API, which can be found in your Profile.

#### Success Response Example

```
HTTP/1.1 200 OK
```

```
cache-control: no-store, must-revalidate, no-cache
content-length: 739
content-type: application/json; charset=utf-8
date: Fri, 10 Nov 2023 11:14:41 GMT
etag: W/"2e3-gej/WdzriUXXGhS4w2klyXcWHtU"
expires: Fri, 10 Nov 2023 11:14:41 GMT
pragma: no-cache
x-request-id: 7278848843971283567
{
    "status": "success",
    "data": {
        "input_address": "134 Flanders Road, Suite 375, Westborough, MA, 01581, USA",
        "address_key": "134 FLANDERS RD|WESTBOROUGH|MA|USA",
        "address": "134 Flanders Rd",
        "city": "Westborough",
        "state": "Massachusetts",
        "zipcode": "01581",
        "country": "USA",
        "latitude": 42.276468,
        "longitude": -71.570728,
        "primary_number": "134",
        "street_name": "Flanders",
        "street_predirection": "",
        "street_postdirection": "",
        "street_suffix": "Rd",
        "secondary_designator": "Ste",
        "secondary_number": "375",
        "default_city_name": "Westborough",
        "county_name": "Worcester",
        "state_abbreviation": "MA",
        "plus4_code": "",
        "full_zipcode": "01581-1023",
        "glid": "US87JC7CGH+HPRPB",
        "rdi": "Commercial",
        "time_zone": "Eastern",
        "utc_offset": "-5"
    }
}
```

#### **Response Attributes and Data Types**

Response Attribute	Attribute Description	Data Type
input_address	User input address.	string
address_key	Input address converted into standardized address key	string
address	Address without city, state and zip	string
city	The name of the city in which the location resides.	string
state	The name of the state in which the location resides.	string
zipcode	The zip code where the building or specified location resides.	int
country	The name of the country in which the location resides.	string
latitude	The angular distance of a place north or south of the earth's equator, or of	string

Response Attribute	Attribute Description	Data Type
	a celestial object north or south of the celestial equator, usually expressed in degrees and minutes.	
longitude	The angular distance of a place east or west of the meridian at Greenwich, England, or west of the standard meridian of a celestial object, usually expressed in degrees and minutes.	string
primary_number	The primary number for the location address, such as <b>134</b> Flanders Road.	int
street_name	The name of the street	string
street_predirection	An address element that indicates geographic location such as N, S, E, W, NE, NW, SE, and SW that is placed to the left of (before) the street name such as E HOOVER ST.	string
street_postdirection	An address element that indicates geographic location such as N, S, E, W, NE, NW, SE, and SW that is placed to the right of (after) the street name such as BAY DRIVE W.	string
street_suffix	Identifies the type of roadway in abbreviated format, such as St., Blvd., etc.	string
secondary_designator	Designation of the unit of the address, such as a suite number, apartment, etc.	string
secondary_number	Identifier for a secondary address number, such as an apartment, suite floor number, room number, etc.	int
default_city_name	The name of the city in which the location resides.	string
county_name	The name of the county in which the location resides.	string
state_abbreviation	The abbreviated state name, such as MA for Massachusetts.	string
plus4_code	US format: zip code plus four, for example 12345-6789	int
full_zipcode	The full zip code where the building or specified location resides.	int
glid	Connectbase's proprietary ID system that provides a unique identification code for every location within the seven continents.	string
rdi	"Residential Delivery Indicator" is a data tool from the United States Postal Service that tells whether a certain address is residential or commercial.	string
time_zone	The time zone in which the location resides.	string

Response Attribute	Attribute Description	Data Type
utc_offset	The difference in hours and minutes from Coordinated Universal Time (UTC) for a particular place and date.	int

"Not found" response example		
{	"status": "not found", "data": {}	
}		

## **Revision History**

Revision	Date	Description
00	January 20, 2023	The information in this guide was extracted from the original "Connected World Address Processor API Reference Guide" to act as a standalone reference guide going forward.
01	September 25, 2023	New publication of the document with minor editorial updates.
02	November 17, 2023	Added new version v5 of Address Validation API.