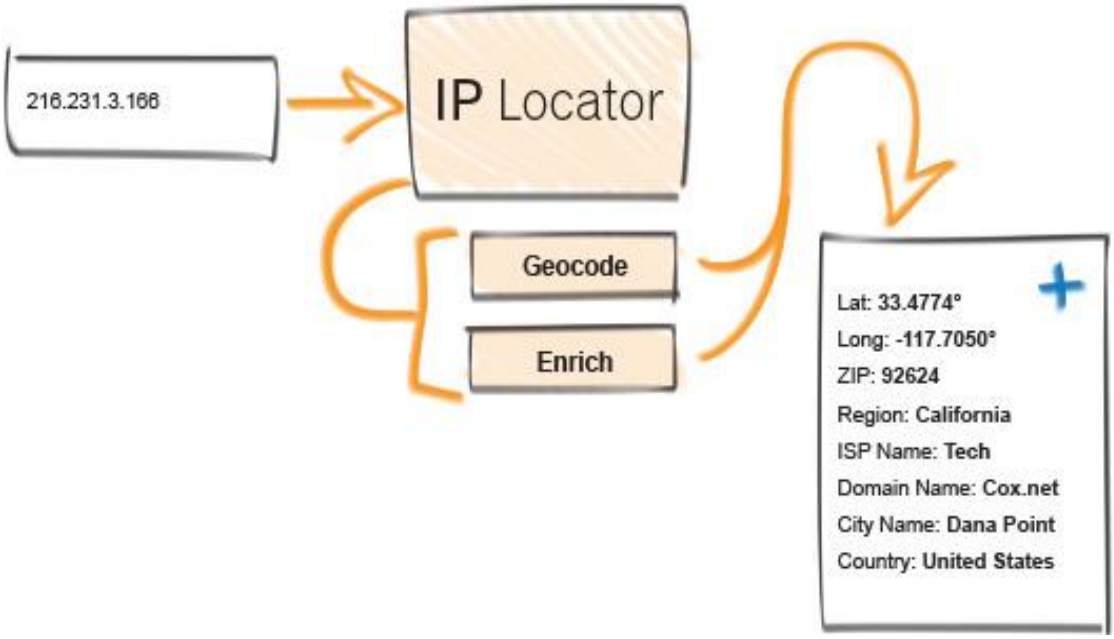
IP Locator Cloud Service: Programmer's Quick Start

Overview

The IP Cloud Service is able to validate IPv4 addresses and give you geographic information for it. This geographical data can place an IP address within a city and postal code. It can also tell you the connection type and speed.



You can use IP Locator to:

- Verify that an IP address is valid.
- Associate a physical location with an IP address.
- Determine connection type and speed.
- Associate an ISP with an IP address

FIELDS INPUT AND OUTPUT FROM THE SERVICE

INPUTs	Description
Transmission Reference	A unique string value identifying the request
Customer ID	License String from Melissa Data
Record ID	Unique ID if processing multiple records
IP Address	IP Address to validate

OUTPUTs	Description
Transmission Reference	A unique string value identifying the request
Transmission Results	Results of the transmission (success/fail)
Version	The version number of the service
Record ID	Unique ID if processing multiple records
IP Address	IP Address that was validated

Latitude	Geographic coordinate
Longitude	Geographic coordinate
Postal Code	Postal Code
ISP Name	The ISP associated with the IP
Domain Name	The domain name associated with the IP
City	The city the IP is in
Country Name	The full name of the country the IP is in
Country Abbreviation	The two character code for the country
Connection Speed	The speed of the connection
Connection Type	The type of connection
UTC	The UTC offset
Continent	The continent
ProxyType	The type of proxy for an IP Address
ProxyDescription	Additional Details for the Proxy Type returned
Result	Result codes indicating whether the IP was validated or not

License String

You should have been provided an encrypted and unique license string or Customer ID from Melissa. This is necessary for including with each request to the IP Locator Cloud Service. This value should be put into the CustomerID element in each Web service request.

If you do not have a license string, please contact your Melissa sales representative at 1-800-MELISSA (1-800-635-4772).

Sample REST Request

https://globalip.melissadata.net/v4/WEB/iplocation/doiplocation?ip=123.30.128.21&opt=&id=[CUSTOMERID]&t=RestJson

---

Sample JSON Response


```
{
        "Version": "4.0.0.16",
        "TransmissionReference": "RestJson",
        "TransmissionResults": "",
        "Records": [
                {
                        "RecordID": "1",
                        "IPAddress": "123.30.128.21",
                        "Latitude": "21.0170",
                        "Longitude": "105.8670",
                        "PostalCode": "100000",
                        "Region": "Ha Noi",
                        "ISPName": "Vietnam Post And Telecom Corporation",
                        "DomainName": "vdc.vn",
                        "City": "Hanoi",
                        "CountryName": "Viet Nam",
```

```
                        "CountryAbbreviation": "VN",
                        "ConnectionSpeed": "broadband",
                        "ConnectionType": "wired",
                        "UTC": "+07:00",
                        "Continent": "Asia",
                        "Result": "IS01"
                }
        ]
}
```

Single vs. Batch

Melissa Data cloud services are capable of both single record real-time processing and batch processing. The difference is simply in the number of records sent in each request. Melissa Data cloud services take an array of records. This array can contain anything from one to one hundred records. For a real-time process like a web form entry or a call center application, send in a request with one record. For a batch processing scenario like a database, send requests of up to 100 records until all the records are processed. Note: Make sure each record in the request has a unique Record ID.

Sample Batch JSON Response


```
{
        "Version": "4.0.0.16",
        "TransmissionReference": "RestJson",
        "TransmissionResults": "",
        "Records": [{
                        "RecordID": "1",
                        "IPAddress": "123.30.128.21",
                        "Latitude": "21.0170",
                        "Longitude": "105.8670",
                        "PostalCode": "100000",
                        "Region": "Ha Noi",
                        "ISPName": "Vietnam Post And Telecom Corporation",
                        "DomainName": "vdc.vn",
                        "City": "Hanoi",
                        "CountryName": "Viet Nam",
                        "CountryAbbreviation": "VN",
                        "ConnectionSpeed": "broadband",
                        "ConnectionType": "wired",
                        "UTC": "+07:00",
                        "Continent": "Asia",
                        "ProxyType":  "",
                        "ProxyDescription":  "",
                        "Result": "IS01"
                },
                {
                        "RecordID": "2",
                        "IPAddress": "221.30.128.21",
                        "Latitude": "35.7563",
                        "Longitude": "136.9700",
                        "PostalCode": "501-4221",
                        "Region": "Gifu",
```

```
                "ISPName": "Softbank Bb Corp.",
                "DomainName": "bbtec.net",
                "City": "Gujo",
                "CountryName": "Japan",
                "CountryAbbreviation": "JP",
                "ConnectionSpeed": "broadband",
                "ConnectionType": "wifi",
                "UTC": "+09:00",
                "Continent": "Asia",
                "ProxyType":  "",
                "ProxyDescription":  "",
                "Result": "IS01"
        }]
}
```

IP Locator Cloud Service URLs [IP Locator Cloud Service Endpoint URLs]

Choosing a Web Service Protocol

The Melissa IP Locator Cloud Service supports REST and JSON. For the undecided, here are some Pros and Cons of one Web Service protocol over the other.

REST

Pros: REST is lightweight and relies upon HTTP to do its work. If you don't need a strict API definition, this is the way to go. REST is also format-agnostic so you can use XML or JSON as responses.

Cons: REST can only be used for sending of single records and doesn't support strict contracts or more involved security. The Response is a JSON document.

JSON

Pros: JSON relies on simple object serialization based on JavaScript's object initialization. It is very simple to use with JavaScript and easily parsed and understood by developers.

Cons: No support for formal definitions. No namespace support. Not much support in Web Service clients with some platforms.

Basic Order of Operations (Pseudo Code)

1. Choose JSON or REST service.
2. Create an instance of the request object.
3. Populate the request element CustomerID with your product license.
4. Add input IP addresses to the "Records" array with anywhere from 1 to 100 records.
5. Call the method and pass in the request to the service using the WEB endpoint for JSON requests.
6. Examine and parse the response from the reply object back from the service.
7. Interpret the results.

Interpreting Results

Melissa's IP Locator service uses Result codes to determine if the IP address is good or bad.
The Melissa Cloud Services use the following Results conventions:

1. CLOUD SERVICE ERRORS: SExx
2. CLOUD TRANSMISSION ERRORS: GExx
3. IP ADDRESS STATUS CODES: ISxx
4. IP ADDRESS ERROR CODES: IExx

For Example: An IS01 Results Code means that the IP address is valid and been matched to an entry in our database. An IE01 code indicated an invalid IP address.

Please check the documentation for any additional information on Results.

Results Codes

The service returns a series of results codes to tell you of the status of the IP address and any errors found during the verification process.

For a full list of the Results Codes returned by the IP Locator Cloud Service, see IP Locator Result Codes.

Sample Code

Fully working examples are available on the wiki pages:
Click here to go to the IP Locator Cloud Service Wiki Page

Wiki Page

A product support Wiki is available for your convenience. In the Wiki, you will find documentation about the service in more detail.
Click here to go to the IP Locator Cloud Service Wiki Page

Misc. Considerations

Firewall

If you are behind a firewall, you may need to allow specific IP addresses access in order to communicate with the service. For a full list of IP Addresses, see IP Address Information.