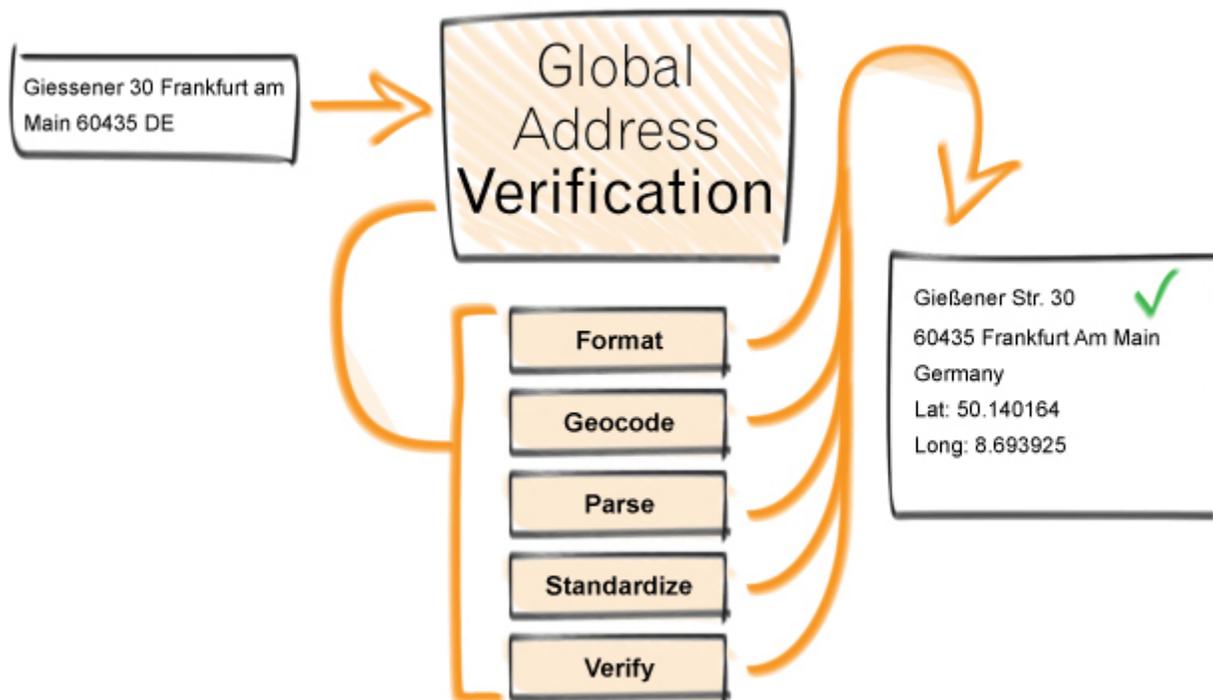


## Global Address Cloud Service: Programmer's Quick Start

### Overview

The Global Address Cloud Service is a real time address validation and correction service. Covering over 240+ different countries and territories around the world, this service allows you to ensure your address data is clean and accurate. Additionally, you can also parse the data and append latitude and longitude.



### You can use Global Address to:

- Verify and correct addresses.
  - Return the address parsed into individual components.
  - Append latitude and longitude.
  - Transliterate the address from or into the native language of the input country.
  - Get the address formatted for mailing labels.
-

## FIELDS INPUT AND OUTPUT FROM THE SERVICE

<b>INPUTs</b>	<b>Description</b>
Transmission Reference	A unique string value identifying the request
Customer ID	License String from Melissa Data
Options	Configuration Options for the Cloud Service
Record ID	Unique ID if processing multiple records
Organization	Optional organization name
AddressLine1	Input address line
AddressLine2	Input address line
AddressLine3	Input address line
AddressLine4	Input address line
AddressLine5	Input address line
AddressLine6	Input address line
AddressLine7	Input address line
AddressLine8	Input address line
Locality	Input locality (city)
AdministrativeArea	Input Administrative Area (state, municipality)
PostalCode	Input Postal Code
Country	Input Country code or name

<b>OUTPUTs</b>	<b>Description</b>
Transmission Reference	A unique string value identifying the request
Transmission Results	Results of the transmission (success/fail)
Record ID	Unique ID if processing multiple records
Results	Results (status of the validation)
FormattedAddress	Full address in one field. Mailing label format.
Organization	Output organization
AddressLine1-8	Output address lines in 8 separate fields
Locality	Output locality (city)
AdministrativeArea	Output Administrative Area (state, municipality)
PostalCode	Output Postal Code
CountryName	Output Country Name
CountryISO3166_1_Alpha2	Output Country 2 letter code
Thoroughfare	Output delivery thoroughfare (street address)
Building	Building name
PremiseNumber	House number
SubPremiseNumber	Suite number
SubPremiseType	Suite name
Postbox	Post office box
Latitude	Geographic latitude coordinate
Longitude	Geographic longitude coordinate

## License String

You should have been provided an encrypted and unique license string or Customer ID from Melissa Data. This is necessary for including with each request to the Global Address 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 Data sales representative at 1-800-MELISSA (1-800-635-4772).

## Sample REST Requests

1. <https://address.melissadata.net/V3/WEB/GlobalAddress/doGlobalAddress?id=12345678&a1=22382%20avenida%20empresa&loc=rancho%20santa%20margarita&admarea=CA&postal=92688&ctry=USA>
2. <https://address.melissadata.net/V3/WEB/GlobalAddress/doGlobalAddress?id=12345678&opt=DELIVERYLINES:ON&a1=22382%20avenida%20empresa&loc=rancho%20santa%20margarita&admarea=CA&postal=92688&ctry=USA>

You can test using REST simply by filling in your license in the "id" field and putting the link into a browser URL bar.

\*NOTE\* Internet explorer is known to have issues with putting non-ascii values in the URL. Google chrome works as expected in our tests.

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## Sample JSON Request

```
{"CustomerID":"12345678",
"Options":"DELIVERYLINES:ON",
"Records":
  [{"RecordID":"1",
    "AddressLine1":"22382 Avenida Empresa",
    "Locality":"Rancho Santa Margarita",
    "AdministrativeArea":"CA",
    "PostalCode":"",
    "Country":"USA"}]}
```

\*You must have "Accept: application/json" in the http header.

---

## Sample XML Request

```
<?xml version="1.0" encoding="utf-8"?>
<Request>
  <TransmissionReference />
  <CustomerID>XXXXXXXX</CustomerID>
  <Options/>
  <Records>
    <RequestRecord>
      <RecordID>1</RecordID>
      <Organization>Melissa Data</Organization>
      <AddressLine1>22382 Avenida Empresa</AddressLine1>
      <AddressLine2 />
      <AddressLine3 />
      <AddressLine4 />
      <AddressLine5 />
      <AddressLine6 />
      <AddressLine7 />
```

```
<AddressLine8 />
<DoubleDependentLocality />
<DependentLocality />
<Locality>Rancho Santa Margarita</Locality>
<SubAdministrativeArea />
<AdministrativeArea>CA</AdministrativeArea>
<PostalCode>92688</PostalCode>
<SubNationalArea />
<Country>USA</Country>
<RecordOptions/>
</RequestRecord>
</Records>
</Request>
```

\*You can have "Accept: application/xml" in the http header, or leave it blank. "application/xml" is the default.

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## 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 a single record or 100 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 XML Request

```
<?xml version="1.0" encoding="utf-8"?>
<Request>
  <TransmissionReference />
  <CustomerID>12345678</CustomerID>
  <Options/>
  <Records>
    <RequestRecord>
      <RecordID>1</RecordID>
      <Organization>Melissa Data</Organization>
      <AddressLine1>22382 Avenida Empresa</AddressLine1>
      <Locality>Rancho Santa Margarita</Locality>
      <AdministrativeArea>CA</AdministrativeArea>
      <PostalCode>92688</PostalCode>
      <Country>USA</Country>
      <RecordOptions/>
    </RequestRecord>
    <RequestRecord>
      <RecordID>2</RecordID>
      <Organization>Microsoft</Organization>
      <AddressLine1>15010 Northeast 36th Street</AddressLine1>
      <Locality>Redmond</Locality>
      <AdministrativeArea>WA</AdministrativeArea>
      <PostalCode>98052</PostalCode>
      <Country>USA</Country>
      <RecordOptions/>
    </RequestRecord>
  </Records>
</Request>
```

```
<RequestRecord>...</RequestRecord>
<RequestRecord>...</RequestRecord>
<RequestRecord>...</RequestRecord>
</Records>
</Request>
```

---

## Global Address Cloud Service URLs [Global Address Cloud Service Endpoint URLs](#)

### Choosing a Web Service Protocol

The Melissa Data Global Address Cloud Service supports REST, JSON, XML, and SOAP. 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 an XML or JSON document.

#### **XML**

**Pros:** XML allows record set structures of more than one record at a time and has very good support with most languages and browsers. Supports namespaces.

**Cons:** Developers need to use tools to serialize/de-serialize the XML structure.

#### **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.

#### **SOAP**

**Pros:** SOAP (using a WSDL) is a heavy-weight XML standard that is centered around document passing. The advantage with this is that your requests and responses can be very well structured.

**Cons:** SOAP documents are very verbose and hard to consume without a SOAP toolkit and generally carry more overhead.

### Basic Order of Operations (Pseudo Code)

1. Create a request using the pre-defined structure in SOAP, XML, or JSON.
  2. Fill in the request with your license or customer ID.
  3. Add address records to the <Records> array with anywhere from 1 to 100 <RequestRecord> items.
  4. Send the request to the service using the SOAP endpoint for SOAP requests and the WEB endpoint for XML or JSON requests and receive a response back.
  5. Parse the response and the results.
-

## Interpreting Results

Melissa Data's Global Address Service uses Results Codes to determine if an address is good or bad. The Melissa Data Cloud Services use the following Results conventions:

1. CLOUD SERVICE ERRORS: SExx
2. CLOUD TRANSMISSION ERRORS: GExx
3. ADDRESS STATUS CODES: AVxx
4. ADDRESS ERROR CODES: AExx
5. ADDRESS CHANGE CODES: ACxx

The most important codes are the AV codes. They will tell you if the address we give back to you is good (and how good) or bad. The first digit can be a 1 (partially validated) or 2 (fully validated). The 2nd digit is to what level the address is validated to. The possible values are:

- 1 - administrative area
- 2 - locality
- 3 - thoroughfare
- 4 - premises
- 5 - subpremise

For a country with good reference data like the US, a fully good address would be AV24 (a house) or AV25 (an apartment). Not every country has house number or subpremise data available. For a country with thoroughfare level data only, the maximum verification status is AV23 (thoroughfare).

For more details, see the [Global Address Cloud Service Wiki](#).

## Results Codes

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

For a full list of the Results Codes returned by the Global Address Cloud Service, see [Global Address Result Codes](#).

## Sample Code

Fully working examples are available on the wiki pages:

[Click here to go to the Global Address Cloud Service Wiki Page](#)

- [Click here for SOAP in C#](#)
- [Click here for XML in JAVA](#)
- [Click here for REST in VBScript](#)

## 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 Global Address 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](#).

### **Country Verification Levels**

Each country may have a different precision level of source data available. The address verification level as well as the geocoding level for each country is listed on the Address Coverage by Country page.

For a full list of Country Verification Levels, see [Country Verification Levels](#).

### **Country required**

The country input is required by the service. You must either put the country name, the ISO-3166 2 character code, 3 character code, or 2 digit country number.