

Informatica Cloud Application Integration

Google Geocode Connector

September 2018

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Copyright:

Please refer the copyright notice [here](#).

Overview:

The [Google Geocoding API](#) converts street addresses into geographic coordinates, such as latitude and longitude and also offers “reverse” geocoding, converting geographic coordinates into human-readable addresses. Geocoding is often used to provide input to identify locations on a mapping service or to calculate routes. The Google Geocode Connector package enables Informatica Intelligent Cloud Services (IICS) developers to easily incorporate Google geocoding and reverse geocoding into their Cloud Application Integration projects.

For example, “1600 Pennsylvania Avenue, Washington DC”, returns the latitude and longitude values of 38.8976633 and -77.0365739, and the full address of "1600 Pennsylvania Ave NW, Washington, DC 20500, USA"

Prerequisites:

- Google Geocode Connector package
- Google Geocode API Key
- Appropriate role/permissions on Informatica Intelligent Cloud Service to perform an IMPORT operation

Use Case: Generate [Plus Codes](#) for a given address

The process is invoked by passing in a single string containing an address, with fields separated by commas or semicolons. Google processes the address and returns longitude and latitude values. Those values are used in a second invocation of the Google Geocode API that generates the Global Code and the Compound Code.

1. Invoke with a valid street address
2. Results of the geocoding address lookup
 - a. Latitude, Longitude
 - b. Compound Code
 - c. Global Code
 - d. Full U.S. Postal Service street address with postal code

Quick Setup

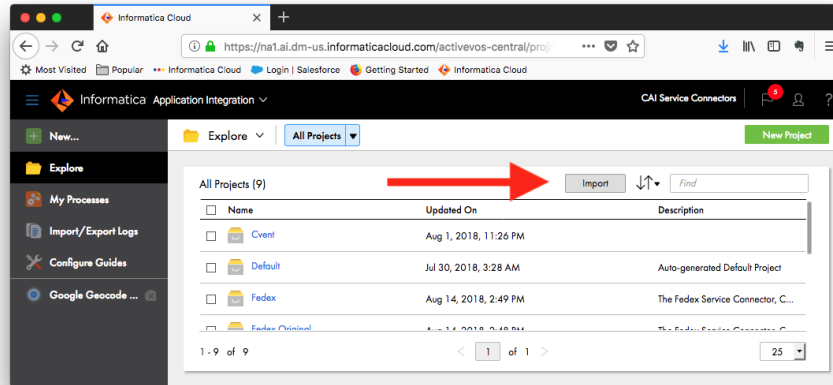
1. Download the [GoogleGeocodeConnectorPackage-0918.zip](#) from the [Informatica CAI GitHub Repository](#).
2. Import the package into your CAI workspace
3. After the import is complete, you will have a project named "Google Geocode" with three assets
 - a. "Google Geocode API" Service Connector
 - b. Google-Geocode-API-actions Connection
 - c. "Generate Plus Codes from street address" Process
4. Publish the "Google Geocode API" Service Connector
5. Open the Google-Geocode-API-actions Connection
 - a. Insert your Geocode API key into the "Value" for the "key" Connection Property under the Properties tab
 - b. Save the Connection
 - c. Publish the Connection
6. Publish the "Generate Plus Codes from street address" Process
7. Test the process in your REST tool of choice (Postman, Insomnia, RESTed, etc.)
 - a. Define a POST operation with a raw body of type "JSON (application/json)"
 - b. Use the service address from the published "Generate Plus Codes from street address" process. Use JSON-encoded input: address_input – comma or semicolon separated street address

```
{
  "address_input": "1600 Pennsylvania Ave, Washington DC"
}
```
 - c. Get a result with latitude and longitude values, a corresponding global code and compound code, and the U.S. Postal Service formatted address with postal code

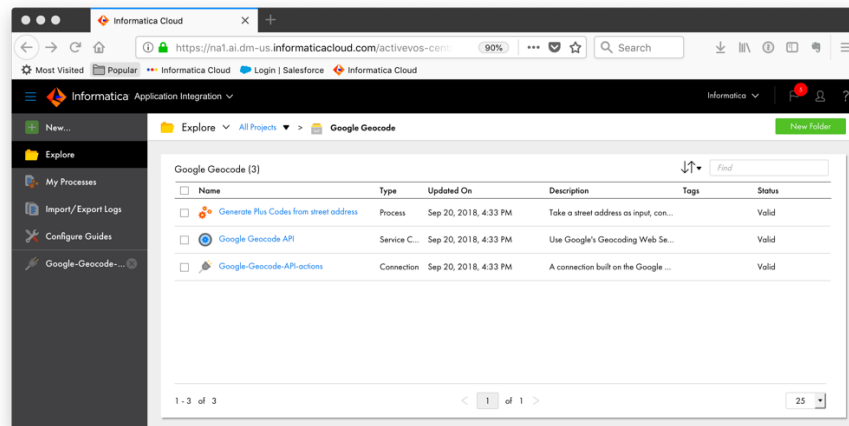
```
{
  "LatLngOUT": "38.8976633, -77.0365739",
  "Longitude_out": -77.0365739,
  "GlobalCodeOUT": "87C4VXX7+39
  "CompoundCodeOUT": "VXX7+39 Washington, DC, USA"
  "StreetAddressOUT": "1600 Pennsylvania Ave NW, Washington, DC
20500, USA"
}
```

Detailed Setup

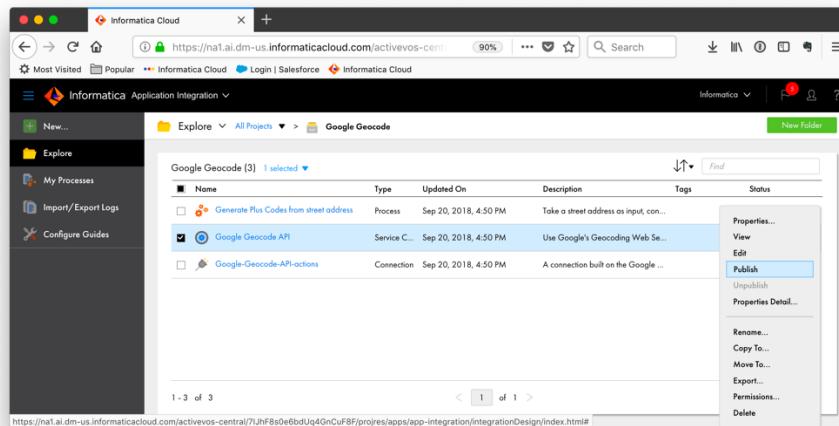
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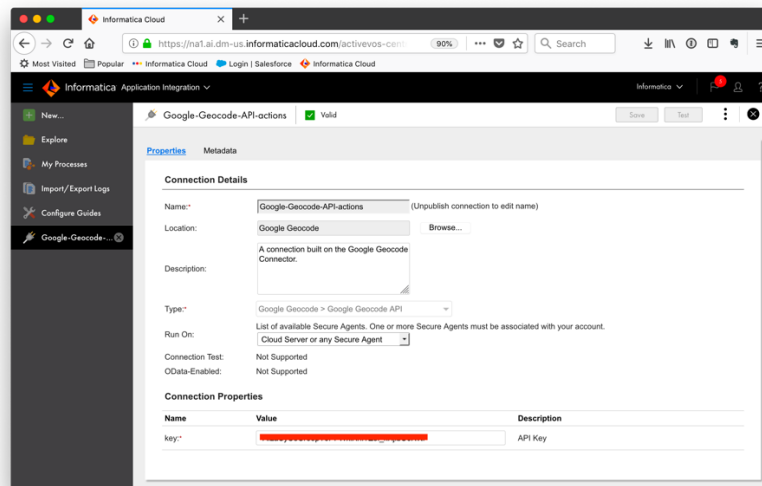


4. Publish the “Google Geocode API” Service Connector



5. Open the “Google-Geocode-API-actions” Connection

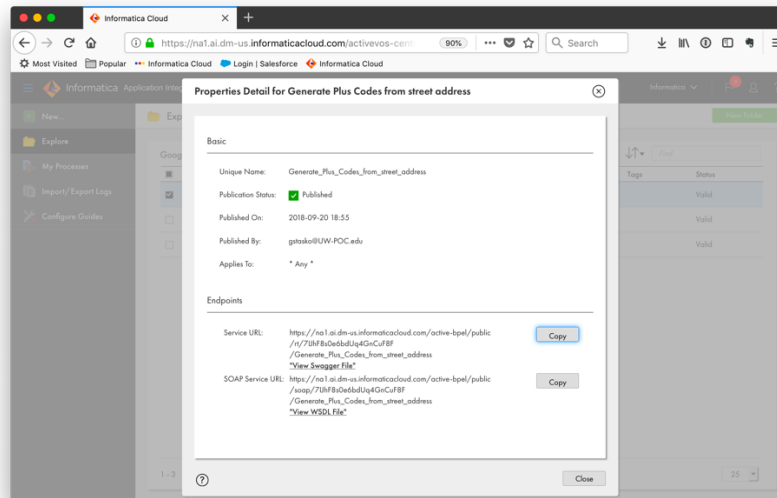
- Insert your Geocode API key into the “Value” for the “key” Connection Property under the Properties tab



- Save the Connection
- Publish the Connection

6. Publish the “Generate Plus Codes from street address” Process

7. Test the process in your REST tool of choice (Postman, Insomnia, RESTed, etc.)
 - a. Define a POST operation with a raw body of type "JSON (application/json)"
 - b. Use the service address from the published "Generate Plus Codes from street address" process.



Use JSON-encoded input: address_input – comma or semicolon separated street address

```
{
  "address_input": "1600 Pennsylvania Ave, Washington DC"
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- c. Get a result with latitude and longitude values, a corresponding global code and compound code, and the U.S. Postal Service formatted address with postal code

```
{
  "LatLngOUT": "38.8976633, -77.0365739",
  "Longitude_out": -77.0365739,
  "GlobalCodeOUT": "87C4VXX7+39",
  "CompoundCodeOUT": "VXX7+39 Washington, DC, USA",
  "StreetAddressOUT": "1600 Pennsylvania Ave NW, Washington, DC 20500, USA"
}
```

