# Personator Identity Verification: Programmer's Quick Start

Overview

The Personator Identity Verification Web Service makes it easy to check and verify your data in real time. Using trusted reference and national databases, the service can verify a person's name, address, phone, email, date of birth and national ID. As a cloud web service, it can be integrated into applications and services that need to maintain trust in their data as well as detect and prevent fraud globally such as in shopping/eCommerce platforms or other applications involving financial transactions.
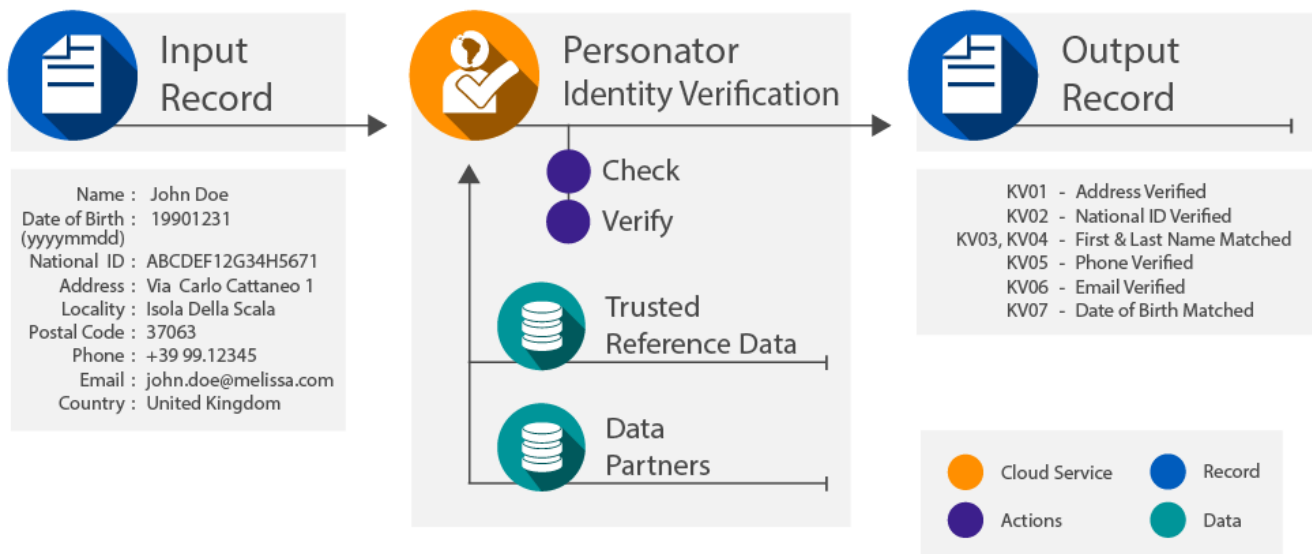
Actions

The web service features 2 different selectable actions, each of which is a separate level of subscription:

Check

The Check Action cleans and standardizes your names, addresses, phones and emails. During this stage, the web service validates and determines whether:

- Name is in a valid format
- Address is deliverable
- Email address exists
- Phone number is callable

Verify

The Verify Action takes the standardized name, phone, email and address from the Check Action and performs ID verification. Additional input such as the individuals National ID and date of birth can be verified as well depending on the country. Result codes are returned indicating what matches were found for the given input (address match, email match, last name match, first name match, etc.)

Screen

This screens the provided input against various government sanctions and watchlists and returns back a list of matches.

Requests

The web service supports the following methods for sending a request:

- GET – by forming a REST URL
- POST – by forming a JSON request

Options

The web service has options that can be set in order to configure how it should parse or standardize data. These options can be set accordingly for the name, phone, email and address individually. For a full list of these options, please consult the wiki page: Personator Identity Verification Options.

Fields Input and Output from the Service

Input Field (POST)	URL Parameter (REST)	Description
TransmissionReference	t	A unique string value identifying the request
CustomerID	id	License string from Melissa
Actions	act	Comma separated list of actions you can specify. Available actions: • Check • Verify
AddressOptions	addrOpt	Comma delimited options for address checking
NameOptions	nameOpt	Comma delimited options for name checking
EmailOptions	emailOpt	Comma delimited options for email checking
PhoneOptions	phoneOpt	Comma delimited options for phone checking
Options	opt	Comma delimited options for miscellaneous settings
NationalID	nat	National ID – Differs by country. In the US for example, the Social Security Number (SSN) would be used here
FullName	full	Full name of the individual
Company	comp	Optional input company/organization name
PhoneNumber	phone	Input phone number
Email	email	Input mail address
DateOfBirth	dob	Input date of birth
AddressLine1	a1	Input address line
AddressLine2	a2	Input address line
AddressLine3	a3	Input address line
AddressLine4	a4	Input address line
AddressLine5	a5	Input address line
AddressLine6	a6	Input address line
AddressLine7	a7	Input address line
AddressLine8	a8	Input address line
Locality	loc	Input locality (city)

AdministrativeArea	admarea	Input administrative area (state, municipality, province)
PostalCode	postal	Input postal code
Country	ctry	Input country code or name
CountryOfOrigin	ctryOrg	Input country of origin where mail is sent from

Output

Response (Base) Level Output Fields

Output Field	Description
TransactionID	This is a string value that serves as a unique identifier for this record. A unique transaction ID generated for every record
TransmissionReference	Echoes the transmission reference set in the input request
Results	Returns GE** or SE01 for internal web service exceptions or transmission errors
Version	Web service version number

Identity (Verification) Output Fields

Output Field	Description
Results	Results (result codes indicating which ID info has been verified)
Confidence	If the Verify action was turned on, returns back one of the 3 possible string values: 1. High – Passing or high quality score 2. Medium – Possible pass with multiple matching elements 3. Low – No or minimal match rate
Datasources	Contains an array of data sources where a match is found against the input
Watchlists	Codes indicating which watchlists the individual was found on
WatchlistPersons	Individuals that have been matched to the corresponding watchlists
NationalID	Echoes the input national ID set in the input request
DateOfBirth	Echoes the input date of birth set in the input request

Name Check Output Fields

Output Field	Description
Results	Results (status of the name checking and validation)
Company	Standardized company name
NamePrefix	Parsed name prefix
NameFirst	Parsed first name
NameMiddle	Parsed middle name
NameLast	Parsed last name
NameSuffix	Parsed name suffix
Gender	Gender
NamePrefix2	Parsed name prefix of second name if multiple names entered
NameFirst2	Parsed first name of second name if multiple names entered
NameMiddle2	Parsed middle name of second name if multiple names entered
NameLast2	Parsed last name of second name if multiple names entered
NameSuffix2	Parsed name suffix of second name if multiple names entered
Gender2	Gender of second name if multiple names entered

Address Check Output Fields

Output Field	Description
Results	Results (status of the address checking and validation)
FormattedAddress	Full address in one field. Mailing label format
Organization	Output organization
AddressLine1-8	Output address lines in 8 separate fields
DoubleDependentLocality	Parsed double dependent locality
DependentLocality	Parsed dependent locality
SubAdministrativeArea	Output subadministrative area
AdministrativeArea	Output administrative area
PostalCode	Output postal code
AddressType	Output address type
AddressKey	Output address key
SubNationalArea	Output subnational area
CountryName	Output country name
CountryCode	Output country ISO 3166-1 Alpha 2 code (e.g. US, CA)
CountryISO3	Output country ISO 3166-1 Alpha 3 code (e.g. USA, CAN)
CountryNumber	Output country ISO 3166-1 Numeric code
CountrySubdivisionCode	Output ISO 3166-2 country subdivision code
Thoroughfare	Output standardized thoroughfare
ThoroughfarePreDirection	Parsed thoroughfare pre directional
ThoroughfareLeadingType	Parsed thoroughfare leading type
ThoroughfareName	Parsed thoroughfare name
ThoroughfareTrailingType	Parsed thoroughfare trailing type
ThoroughfarePostDirection	Parsed thoroughfare post directional
DependentThoroughfare	Output standardized dependent thoroughfare
DependentThoroughfarePreDirection	Parsed dependent thoroughfare pre directional
DependentThoroughfareLeadingType	Parsed dependent thoroughfare leading type
DependentThoroughfareName	Parsed dependent thoroughfare name
DependentThoroughfareTrailingType	Parsed dependent thoroughfare trailing type
DependentThoroughfarePostDirection	Parsed dependent thoroughfare post directional
Building	Output building
PremisesType	Parsed premises type
PremisesNumber	Parsed premises number
SubPremisesType	Parsed subpremises type
SubPremisesNumber	Parsed subpremises number
PostBox	Parsed postal box
Latitude	Geographic latitude coordinate
Longitude	Geographic longitude coordinate

Email Check Output Fields

Output Field	Description
Results	Results (status of the email checking and validation)
EmailAddress	Full standardized email address
MailboxName	Parsed mailbox name (before the @ sign)
DomainName	Parsed domain name (yahoo)
TopLevelDomain	Parsed top level domain (com)

Output Field	Description
TopLevelDomainName	Name of top level domain (commercial)
DateChecked	Date when email address was last verified by Melissa Data

Phone Check Output Fields

Output Field	Description
Results	Results (status of the phone checking and validation)
Carrier	Assigned carrier phone number
CallerID	The name or association registered to the phone number during the time of activation, if available
PhoneNumber	Full standardized phone number
InternationalPhoneNumber	The full phone number to dial when calling abroad
PhoneInternationalPrefix	International exit digits (replaces '+')
PhoneNationPrefix	Nation prefix (if dialing within same country as the inputted phone number, dial these digits before the national destination code)
PhoneCountryDialingCode	Country dialing code (digits after the international prefix)
PhoneNationalDestinationCode	National destination code (numbering area within a country, group of countries, an/or network/services)
PhoneSubscriberNumber	Subscriber Number (significant leading digits that further define local exchange area and/or service)
Locality	City
AdministrativeArea	State
CountryName	Name of the country
CountryAbbreviation	The ISO2 abbreviation of the country
DST	Daylight savings time (Y if area observes daylight savings; N if area does not)
UTC	Universal Time Code (+/-HH:MM)
Language	Predominant language of number's detected geographical location
Latitude	Latitude of geographically identifiable service area of exchange
Longitude	Longitude of geographically identifiable service area of exchange

License Key

You should have been provided an encrypted and unique License Key from Melissa. This is necessary for including with each request to the Personator Identity Verification Web Service. This value should be put into the License Key element in each Web service request.

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

Sample GET Request

https://globalpersonator.melissadata.net/v1/doContactVerify?t={TransmissionReference}&id={LicenseKey}&act={Actions}&addrOpt={AddressOptions}&emailOpt={EmailOptions}&nameOpt={NameOptions}&nat={NationalID}&full={FullName}&comp={CompanyName}&phone={PhoneNumber}&email={EmailAddress}&dob={DateOfBirth}&a1={AddressLine1}&a2={AddressLine2}&a3={AddressLine3}&a4={AddressLine4}&a5={AddressLine5}&a6={AddressLine6}&a7={AddressLine7}&a8={AddressLine8}&loc={Locality}&admarea={AdministrativeArea}&postal={PostalCode}&ctry={Country}&ctryorg={CountryOfOrigin}

Note: One thing to remember when creating a GET request is to make sure that the values set to the URL parameters are URL encoded. For example, any spaces ' ' should be replaced with the '+' character.

Sample POST Request

Header
ContentType: application/json

Body
```
{
  "TransmissionReference": "",
  "CustomerID": ""
  "Actions": "",
  "AddressOptions": "",
  "EmailOptions": "",
  "PhoneOptions": "",
  "NameOptions": "",
  "Options": "",
  "NationalID": "",
  "FullName": "",
  "Company": "",
  "PhoneNumber": "",
  "Email": "",
  "DateOfBirth": "",
  "AddressLine1": "",
  "AddressLine2": "",
  "AddressLine3": "",
  "AddressLine4": "",
  "AddressLine5": "",
  "AddressLine6": "",
  "AddressLine7": "",
  "AddressLine8": "",
  "Locality": "",
  "AdministrativeArea": "",
  "PostalCode": "",
  "Country": "",
  "CountryOfOrigin": ""
}
```

Sample JSON Response

```
{
  "Name": {
    "Results": "",
    ...
  },
  "Address": {
    "Results": "",
    ...
  },
  "Email": {
    "Results": "",
    ...
  },
  "Phone": {
    "Results": "",
    ...
  },
  "Identity": {
    "Results": "",
    ...
  },
  "TransactionID":"",
  "TransmissionReference": "",
  "Results": "",
  "Version": ""
}
```

Personator Identity Verification Web Service URLs

Personator Identity Verification Web Service Endpoint URLs

Choosing a Cloud Service Protocol

The Personator Identity Verification Web Service supports REST and JSON. For the undecided, here are some Pros and Cons of one Cloud Service protocol over the other.

<u>**REST**</u>

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.

<u>**JSON**</u>

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 License Key with your License Key.
4. Select you desired action to perform.
5. Add input info to the "Records" array with anywhere from 1 to 100 records.
6. Call the method and pass in the request to the service using the WEB endpoint for JSON requests.
7. Examine and parse the response from the reply object back from the service.
8. Interpret the results.

Interpreting Results

The Personator Identity Verification Web Service uses Result codes to determine the status of the check and verify.

The Personator Identity Verification Web Service uses the following Results conventions:

1. CLOUD SERVICE ERRORS: SExx
2. CLOUD TRANSMISSION ERRORS: GExx
3. ADDRESS STATUS CODES: ASxx
4. ADDRESS ERROR CODES: AExx
5. NAME STATUS CODES: NSxx
6. NAME ERROR CODES: NExx
7. PHONE STATUS CODES: PSxx
8. PHONE ERROR CODES: PExx
9. EMAIL STATUS CODES: ESxx
10. EMAIL ERROR CODES: EExx
11. GEOCODE STATUS CODES: GSxx
12. GEOCODE ERROR CODES: GExx

For Example: An AS01 Result Code means that a deliverable address was found in the data. A PS01 code indicates that a 10-digit validated phone number was found.

Please check the documentation for any additional information on Results.

Results Codes

The service returns a series of result codes to tell you of the status of the check and verification.

For a full list of the Results Codes returned by the Personator Identity Verification Web Service, see Personator Identity Verification Result Codes.

Sample Code

Fully working examples are available on the wiki pages:

Click here to go to the Personator Identity Verification 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 Personator Identity Verification 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.