

UNDERWRITING GATEWAY



CLARETO

API Specification v2.0

Underwriting Gateway

API SPECIFICATION

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OVERVIEW

Clareto (<http://www.Clareto.com>) has created this specification to allow insurance carriers to submit requests with authorizations and retrieve medical documents for individuals that have granted consent to access their health information.

The Underwriting Gateway (UG) is a REST-based web service that allows automated integration of systems. The insurance carrier will start the process by submitting demographic information on an individual along with a copy of a valid, signed consent document. The gateway will then contact health information organizations (HIOs) and retrieve medical documents. Once the gateway has assembled all documents for the request, they will be transmitted to the insurance carrier or available for download and review by the insurance carrier.

Basic Workflow

- 1) The insurance carrier's system submits a person's information via Person Search Request.
- 2) After request validation, Clareto will either return an HTTP Status of 202 if validation pass or will return 400/422 if validation failed.
- 3) Clareto then validates the input parameters against business rules. Errors will be returned for any invalid search requests.
- 4) Clareto then performs a person search on behalf of the carrier to the configured data sources and will push the search status of each data source to the client [endpoint](#).
- 5) If the AutoQuery flag was set to true in step 1 of Person Search, a carrier should not submit DocumentSearch request as one will be generated on their behalf to the data supplier where the person is located.
- 6) If the AutoQuery flag was set to false in step 1 of Person Search, the carrier would use person search results posted to their [endpoint](#) to submit DocumentSearch requests targeting specific data suppliers.
- 7) Clareto will perform the document search request on behalf of the carrier and will push documents to the carrier Document [endpoint](#) as they receive them.
- 8) If the Normalize flag was set to true, Clareto would standardize and consolidate the documents received into a single clinical document.

Security & Networking Requirements

The API is accessible using HTTPS (TLS 1.2 and above) with X509 certificates to encrypt network traffic between systems. Additionally, Clareto may use access control lists (ACLs) to restrict IP addresses from accessing our systems.

In order for insurance carriers to connect to the Underwriting Gateway, they must exchange an X509 certificate with Clareto. If ACLs are used, the customer must also provide an IP address or IP address ranges of their systems that will be calling the Underwriting Gateway so that network routes can be created to allow access.

Additional Headers

Calling applications should provide the User Header to all calls, which can be a system or variable user name requesting data on behalf of the carrier for auditing purposes.

User: John Doe

In addition to User header, calling applications should additionally provide the Content-Type Header with the value “application/json” to all calls.

Content-Type: application/json

Example Code

EXAMPLE .NET CODE

```
var webRequest = WebRequest.Create("https://uat.underwriting.medvirginia.com/v1/pad/status");
webRequest.Headers["Content-Type"] = "application/json";
webRequest.Headers["Content-Type"] = "John Doe";
webRequest.ClientCertificates.Add(myCertificate); //Add for X509 certs
webRequest.Method = "POST";
```

API SPECIFICATION

Entities

Person

Field	Data Type	Size/Format	Description
SSN	string	9 digits	social security number
DOB	date	YYYY-MM-DD	Date of birth
FirstName	string	50 characters	Given Name
LastName	string	50 characters	Family Name
MiddleName	string	50 characters	Middle Name
Gender	string	1 character, valid values: M=Male, F=Female, UN=Undifferentiated,	Gender
Telephone	string	10 digits	Telephone number
Email	string	254 characters	May be required by a search participant

Address

Field	Data Type	Size/Format	Description
Address	string	500 characters	Street address line
City	string	255 characters	City name
State	string	2 characters	State code
Zipcode	string	5 digits	Postal code

AuthDocument

Field	Data Type	Size/Format	Description
Authdocumentdata	String	Source document actual: 10 MB max	Base64 encoded document of the signed person authorization form
Authdocumentname	string	256 characters	name of document
Authdocumenttype	string	Valid values: PDF= pdf document	Type of document for the signed person authorization form

DataSource

Field	Data Type	Size/Format	Description
Id		36 characters	Unique Identifier
Name		100 characters	Name of the Data supplier
Location	DataSourceLocation		
Status	SearchStatus		
SpecialAuth	AuthDocument		If Datasource requires a special authorization form.

DataSourceLocation

Field	Data Type	Size/Format	Description
Id	String	36 characters	Unique Identifier
Name	String	500 characters	Name of the facility
Address	Address		
SpecialAuth	AuthDocument		A special authorization that must be filled by an applicant

SearchStatus

Field	Data Type	Size/Format	Description
Code	int	See next line for possible values	Unique Identifier
Status	string	Possible values are: Pending=101, Found=102, NotFound=103, Error=104, AuthDenied=105, SpecialAuthRequired=106, Expired=107, Complete=108	
Description	String	1000 characters or more	A description of what went wrong if the status is not "found" or "Pending."

Document

Field	Data Type	Size/Format	Description
Id	String	36 characters	Id of the document
Name	string	500 characters	Name of the document
Type	String	100 character	PDF or XML.
Size	Int		Size of the document
Content	string		Base64 encoded document
Datasource	DataSource		Data source information of the document
Status	Status		Status of the document.

Person Search Request

The first step in the request process is to create and send a Person Search Request to the UG. The Person Search request is responsible for initiating a unique case in the system. Upon successful validation, a response of HTTP 202 will be sent along with a SearchId. The SearchId will be unique and can be used to track and correlate different requests/responses throughout the processing workflow.

Request

METHOD

POST

URL

<https://underwriting.clareto.com/api/Search/Person>

Fields

Field	Data Type	Required	Size/Format	Description
AutoQuery	Boolean	Y	True/False	If True, it will trigger the document search automatically. If False, then the carrier will initiate Document Search Request.
DataSourceLimit	Int	Y		If AutoQuery=False, this flag won't have any impact on the result. The flag determines how many data sources you want clareto to Search for Documents.
CaseType		Y	1 digit; valid values: LifeInsurance =0 Disability =1 Treatment=2	
DocumentType	String[]	Y	["PDF", "XML"] or "ALL"	You can specify multiple document formats in an array.
Normalize	Boolean	Y	True/False;	The prerequisite of this flag is AutoQuery=True. If AutoQuery=False, this flag won't have any impact on the result. By default, it's False, which will deliver the documents as it is from data suppliers. If True, all the documents will

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				be consolidated into one.
Broadcast	Boolean	Y	True/False	If set to True we will search person with in all configured data suppliers regardless of the zip code specified in person's address.
Applicantid	string	Y	20 characters	Policy number for additional tracking
Person	Person	Y		Contains person information
person.ssn	string	Y	9 digits	social security number
person.dob	date	Y	YYYY-MM-DD	Date of birth
person.firstname	string	Y	50 characters	Given Name
person.lastname	string	Y	50 characters	Family Name
person.middlename	string	N	50 characters	Middle Name
person.gender	string	Y	1 character, valid values: M=Male, F=Female, U=Undifferentiated,	Gender
person.telephone	string	N	10 digits	Telephone number
person.email	string	Y/N	254 characters	May be required by a search participant
person.addresses	array	Y		List of addresses
person.addresses.address	string	Y	500 characters	Street address line
person.addresses.city	string	Y	255 characters	City name
person.addresses.state	string	Y	2 characters	State code
person.addresses.zipcode	string	Y	5 digits	Postal code
Authdocuments	Array of objects	Y		Authorization documents
Authdocumentdata	String	Y	Source document actual: 10 MB max	Base64 encoded document of the signed person authorization form
Authdocumentname	string	Y	50	name of document
Authdocumenttype	string	Y	Valid values: PDF= pdf document	Type of document for the signed person authorization form

Example

[POST] <https://underwriting.clareto.com/api/Search/Person>

```
{
  "person": {
    "ssn": "1234567890",
    "dob": "1977-01-01",
    "firstname": "John",
```

```

    "lastname": "Doe",
    "middlename": "M",
    "gender": "M",
    "telephone": "8045551212",
    "email": "John.doe@example.com",
    "addresses": [
      {
        "address": "123 street",
        "city": "Richmond",
        "state": "VA",
        "zipcode": "23238"
      }
    ]
  },
  "authdocuments": [
    {
      "authdocumentname": "test.pdf",
      "authdocumenttype": "PDF",
      "authdocumentdata": "0xfsd fasc"
    }
  ],
  "AutoQuery": true,
  "DataSourceLimit": 3,
  "Normalize": true,
  "CaseType": 0
}

```

RESPONSE

Field	Data Type	Size/Format	Description
SearchId	string	36 character	A search Id that tracks the case.
Message	string	2000 characters	A system generated error message

Example Response

```

202 ACCEPTED
{
  "searchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "message": null
}
422 UNPROCESSABLE ENTITY
{
  "message": "Invalid format of SSN"
}

```

Document Search Request

The Document Search Request gives the caller the control to request documents from the data source of its choice based on the results of the Person Search Request. The system upon receiving the payload will validate the payload, and if validation is successful, the system will return an HTTP 202 response.

Clareto will begin the process of searching for and retrieving documents from the data sources specified in the payload. As it receives these documents, it will push documents to the Document [endpoint](#) hosted by the carrier in realtime.

Request

METHOD

POST

URL

<https://underwriting.clareto.com/api/Search/Documents>

Fields

Field	Data Type	Required	Size/Format	Description
SearchId	String	Y	36 characters	An Id that was sent as a response to a person's search request in the acknowledgment.
DataSources	DataSource[]	Y		
DataSource.Id	String	Y	36 characters	
DataSource.Location	DataSourceLocation[]	N		
Location.Id	String	N	36 characters	
Normalize	Boolean	N	True/False	Indicates if you want to normalize the documents.

Example

[POST] <https://underwriting.clareto.com/api/Search/Documents>

```
{
  "SearchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "DataSources": [
    {
      "Id": 111,
      "Location": [
        {
          "Id": "ekYj7PX0y7aYBjcEw4-YsyQ3"
        }
      ]
    }
  ],
}
```

```

    "Id": 121,
    "Location": [
      {
        "Id": "5867"
      },
      {
        "Id": "5837"
      }
    ]
  }
]
}

```

RESPONSE

Field	Data Type	Size/Format	Description
SearchId	string	36 character	A search Id that tracks the case.
Message	string	2000 characters	A system generated error message

Example Response

```

202 ACCEPTED
{
  "searchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "message": null
}
422 UNPROCESSABLE ENTITY
{
  "message": "Invalid format of LocationID"
}

```

Normalize

A carrier may need to standardized/consolidate multiple documents from a single or multiple data sources into one document after reviewing the original documents. The normalization of documents works at three-levels.

1. **Normalization by SearchId:** Normalize all the documents from all the data sources and their locations into one document.
2. **Normalization by DataSource:** Normalize all the documents from one or more data sources and their locations into one document.
3. **Normalization by location:** Normalize all the documents from a facility/location into one document.

You can submit a post request to the Document endpoint specifying the Normalize flag along with searchid.

Example

[POST] <https://underwriting.clareto.com/api/Search/Documents>

```
{
  "SearchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "Normalize": "True",
  "DataSources": [
    {
      "Id": 111,
      "Location": [
        {
          "Id": "ekYj7PX0y7aYBjcEw4-YsyQ3"
        }
      ]
    },
    {
      "Id": 121,
      "Location": [
        {
          "Id": "5867"
        },
        {
          "Id": "5837"
        }
      ]
    }
  ]
}
```

Example Response

```
202 ACCEPTED
{
  "searchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "message": null
}
```

PUSH NOTIFICATIONS

Functionality exists in the Underwriting Gateway (UG) to utilize a Push notification to send documents directly to a customer's system instead of using a polling methodology. The specification allows customer's systems to accept documents directly by hosting a simple web application with an agreed-upon contract that the UG gateway will send documents to.

API Specification

The Underwriting Gateway Push Notification web application utilizes a standard HTTP POST of JSON data to send documents and the status of transactions submitted. The insurance carrier must provide the ability to receive a REST call from Clareto. Due to the sensitivity of the documents being submitted, we require that the network traffic communication be encrypted with TLS 1.2 and X509 certificates. The customer must submit their endpoints to Clareto support so that it can be configured in our system and exchange X509 certificates for security.

Person Search Results

Clareto will push the results of a Person Search Request as it searches individual data sources and as their state changes. For instance, if a carrier is configured to query three data sources, upon receiving the Person Search request, Clareto will start querying those data sources and keep pushing the results until the search is complete.

REQUEST

Method

POST

URL

https://[YourUrl]/Search/Person/Results

Field	Data Type	Size/Format	Description
DataSources	DataSource []		An array of data sources

Example

[POST] https://[YourUrl]/Search/Person/Results

```
{
  "DataSources": [
    {
      "Id": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
      "Name": "Clareto",
      "Status": {
        "StatusCode": 108,
        "Status": "Completed",

```

```
        "Description": ""
      }
    },
    {
      "Id": "111",
      "Name": "Epic",
      "Status": {
        "StatusCode": 102,
        "Status": "Found",
        "Description": ""
      },
      "Location": [
        {
          "Id": "ekYj7PX0y7aYBjcEw4-YsyQ3",
          "Name": "Lakeland Valley Hospital",
          "Address": {
            "City": "MADISON",
            "State": "WI",
            "Zip": 53711,
            "Street": "1000 Healthcare Ave."
          },
          "SpecialAuth": {
            "authdocumentname": "SpecialAuthEpic.pdf",
            "authdocumenttype": "PDF",
            "authdocumentdata": "0xfsdfesc"
          }
        },
        {
          "Id": "kkYj9PX0y7aYBjcEw4-Ysyc3",
          "Name": "River Hills Health System",
          "Address": {
            "City": "MADISON",
            "State": "WI",
            "Zip": 53715,
            "Street": "2000 N University Ave."
          }
        }
      ]
    },
    {
      "Id": "112",
      "Name": "Veradigm",
      "Status": {
        "StatusCode": 102,
        "Status": "Found",
        "Description": ""
      },
      "Location": [
        {
          "Id": "5867",
```

```
"Name": "Milwaukee Recovery Associates",
  "Address": {
    "City": "Mequon",
    "State": "OH",
    "Zip": 53092,
    "Street": "100 Milwaukee Recovery street"
  }
},
{
  "Id": "5837",
  "Name": "Madison Manual Medicine",
  "Address": {
    "City": "Madison",
    "State": "OH",
    "Zip": 23238,
    "Street": "Madison Manual Medicine street"
  }
}
],
{
  "Id": "1133",
  "Name": "NewYork HIE",
  "Status": {
    "StatusCode": 107,
    "Status": "Expired",
    "Description": "Unable to get data within given time"
  }
}
]
```

Response

200 OK

Document Search Result

Clareto will push the status of each data source where it's searching for the document and the status of each search as it changes.

REQUEST

Method

POST

URL

https://[YourUrl]/Search/Document/Results

Fields

Field	Data Type	Size/Format	Description
DataSources	DataSource []		An array of data sources

Example

[POST] https://[YourUrl]/Search/Document/Results

```
"DataSources": [
  {
    "Id": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
    "Name": "Clareto",
    "Status": {
      "StatusCode": 108,
      "Status": "Completed",
      "Description": ""
    }
  },
  {
    "Id": "111",
    "Name": "Epic",
    "Status": {
      "StatusCode": 102,
      "Status": "Found",
      "Description": ""
    },
    "Location": [
      {
        "Id": "ekYj7PX0y7aYBjcEw4-YsyQ3",
        "Name": "Lakeland Valley Hospital",
        "Address": {
          "City": "MADISON",
          "State": "WI",
          "Zip": 53711,
          "Street": "1000 Healthcare Ave."
        }
      }
    ]
  }
]
```

```
    "SpecialAuth": {
      "authdocumentname": "SpecialAuthEpic.pdf",
      "authdocumenttype": "PDF",
      "authdocumentdata": "0xfdsdfesc"
    }
  },
  {
    "Id": "kkYj9PX0y7aYBjcEw4-Ysync3",
    "Name": "River Hills Health System",
    "Address": {
      "City": "MADISON",
      "State": "WI",
      "Zip": 53715,
      "Street": "2000 N University Ave."
    }
  }
]
},
{
  "Id": "112",
  "Name": "Veradigm",
  "Status": {
    "StatusCode": 102,
    "Status": "Found",
    "Description": ""
  },
  "Location": [
    {
      "Id": "5867",
      "Name": "Milwaukee Recovery Associates",
      "Address": {
        "City": "Mequon",
        "State": "OH",
        "Zip": 53092,
        "Street": "100 Milwaukee Recovery street"
      }
    },
    {
      "Id": "5837",
      "Name": "Madison Manual Medicine",
      "Address": {
        "City": "Madison",
        "State": "OH",
        "Zip": 23238,
        "Street": "Madison Manual Medicine street"
      }
    }
  ]
}
]
```

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```
}
```

Response

```
200 OK
```

Document Method

Clareto will push documents as it receives them from the data sources to the endpoints provided by the client.

REQUEST**Method**

POST

URL

[https://\[YourUrl\]/Search/Documents](https://[YourUrl]/Search/Documents)

Fields

Field	Data Type	Size/Format	Description
SearchId	string	36 character	A search Id that tracks the case.
Documents	Documents []		An array of documents

Example

[POST] [https://\[YourUrl\]/Search/Documents](https://[YourUrl]/Search/Documents)

```
{
  "SearchId": "BFFFDDC5-5732-4B92-AA47-2ECB4CC84FF5",
  "Documents": [
    {
      "DocumentId": "123",
      "DocumentName": "CCD",
      "DocumentType": "XML",
      "DocumentSize": "2323",
      "DocumentContent": "0xdfdf",
      "Status": {
        "StatusCode": 102,
        "Status": "Found",
        "Description": ""
      },
      "DataSource": {
        "Id": 122,
        "Name": "Epic",
        "Location": [
          {
            "Id": "ekYj7PX0y7aYBjcEw4-YsyQ3",
            "Address": {
              "City": "MADISON",
              "State": "WI",
              "Zip": 53711,
              "Street": "1000 Healthcare Ave."
            }
          }
        ]
      }
    }
  ]
}
```

Response

200 OK

Note: In case the response is other than 200, we would assume the delivery of the document failed and will try to submit it again.

STATUS REFERENCE CHART

A quick reference guide is noted below which outlines the status codes utilized by both the Person Search and the Document Search APIs.

Status	Code	Description	Person Search	Document Search	Notes
Pending	101	N/A	Yes	Yes	Request is in progress
Found	102	N/A	Yes	Yes	Person/Document was located
NotFound	103	N/A	Yes	Yes	Person/Document was not found
Error	104	Detailed Error Description	Yes	Yes	Search resulted in an error with detail in description field when available.
AuthDenied	105	Detailed Denial Reason	Yes	N/A	Authorization was denied with reason in description field when available.
SpecialAuthRequired	106	N/A	Yes	N/A	Requires submission of special authorization form before proceeding with Person search.
Expired	107	N/A	Yes	Yes	Request exceeded a timeout threshold.
Complete	108	N/A	Yes	Yes	Request is no longer processing.