

# TM Forum Specification

## Federated ID API Conformance Profile

**TMF691B**

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## INTRODUCTION

The following document is the REST API Conformance for the Federated Id API.

## API DESCRIPTION

This API covers the operations required to allow an application (for instance a selfcare mobile app) request identity information about the individual that is making use of the functionality provided by such application (the user), or in general to allow an application to request identity related information about an individual to the system holding such identity information.

This API, instead of defining new operations, relies on the use of industry standard for identity information such as OpenID Connect ([http://openid.net/specs/openid-connect-core-1\\_0.html](http://openid.net/specs/openid-connect-core-1_0.html)) and OAuth2.0 (RFC6749).

A typical use case that can be enabled with this API is the one where an application that is being used by an individual and provides functionality to that individual (i.e.: End user) based on his identity (for instance a selfCare application that greets the user displaying his name on the screen), needs to identify such individual

## RESOURCE MODEL CONFORMANCE

### FederatedId API MANDATORY AND OPTIONAL RESOURCES

Resource Name	Mandatory or Optional	Comments
Userinfo	M	

### Userinfo resource MANDATORY AND OPTIONAL ATTRIBUTES

Attribute Name	Mandatory or Optional	Comments
sub	M	Generated by the server and provided in the response upon resource creation.  Accepted in entity-creation requests if the server supports the incoming identifier as the reference to create new resources
name	M	
given_name	O	
family_name	O	
middle_name	O	
nickname	O	
preferred_username	O	

Attribute Name		Mandatory or Optional	Comments
email		O	
phone_number		O	
gender		O	
birthdate		O	
locale		O	
zoneinfo		O	
profile		O	
picture		O	
website		O	
address		O	See spec doc for details of attributes
legalId		O	Array of structures
	@type	M (if legalId included) O (otherwise)	
	identificationId	M (if legalId included) O (otherwise)	
	country	M (if legalId included) O (otherwise)	
	issuingAuthority	O	

Attribute Name		Mandatory or Optional	Comments
	issuingDate	O	
userAssets		O	Array of structures
	entityType	M (if userAssets included) O (otherwise)	
	assetType	O	
	id	M (if userAssets included) O (otherwise)	
	role	O	
	entitlement	O	
	function	M (if entitlement included) O (otherwise)	
	action	M (if entitlement included) O (otherwise)	
@type		O	
@baseType		O	
@schemaLocation		O	



## API OPERATIONS CONFORMANCE

For every single resource use the following templates and define what operations are optional and what operations are mandatory.

### Userinfo MANDATORY AND OPTIONAL OPERATIONS

Uniform API Operation	Mandatory/Optional	Comments
GET	M	GET must be used to retrieve a representation of a resource

## API GET FILTERING OPERATION CONFORMANCE

### Definitions

**Filtered Search:** A filtered search can be applied using query parameters in order to obtain only the resource entities that meet the criteria defined by the filtering parameters included in the query request.

In this API, since only operation supported is /userinfo to provide user identity related information there is no search operation

**Filtered Response Data (Response Attribute selection):** In order to apply a filter and limit the number of attributes included in the response, the GET request can include the “?fields=” query parameter. Several elements can be applied to the filter. In that case, a logical AND is applied to combine the values (e.g.:?fields=category,channel) will provide in the response only the values assigned to attributes category and channel. Attribute selection capabilities are the same for collections retrieval and individual resource queries

### Filtering in Permission resource

Attribute name	Filtered search	Filtered search	Response Attribute Selection	Response Attribute Selection
	First Level	N Level	First Level	N Level
sub	NO	NA	M	NA
name	NO	NA	M	NA
given_name	NO	NA	M	NA
family_name	NO	NA	M	NA
middle_name	NO	NA	M	NA
nickname	NO	NA	M	NA
preferred_username	NO	NA	M	NA
email	NO	NA	M	NA

Attribute name	Filtered search	Filtered search	Response Attribute Selection	Response Attribute Selection
	First Level	N Level	First Level	N Level
phone_number	NO	NA	M	NA
gender	NO	NA	M	NA
birthdate	NO	NA	M	NA
locale	NO	NA	M	NA
zoneinfo	NO	NA	M	NA
profile	NO	NA	M	NA
picture	NO	NA	M	NA
website	NO	NA	M	NA
address	NA	NO	NA	O
legalId	NA	NO	NA	O
userAssets	NA	NO	NA	O

GET /openid/v1/userinfo

**Filtered Response Data:** A filtered response can be requested for the following attributes using the “?fields=” query parameter

- Any of the attributes in the first level of Permission resource definition

## API CONFORMANCE TEST SCENARIOS

This section describes the test scenarios required for the basic CONNECT certification of FederatedId API.

Test Cases must be executed in the order defined for each resource because the result from one of the scenarios will be input for the next one.

Requests must be addressed to the endpoint provided for certification, specifically they must be addressed to the URI defined by the concatenation of the {apiRoot} and the specific resource, where the {apiRoot} is defined as **{serverRoot}/openid/v1**, being {serverRoot} defines the certification endpoint

### Userinfo resource TEST CASES

Execution of these tests require that a userinfo structure is registered in the system under test.

The following userinfo structure is an example of the values that must be set in order to allow the execution of the tests.

```
{
  "sub": "412d606f-4937-443b-b5e7-a8d0f63ef0bc",
  "name": "John Doe",
  "email": "johndoe@myserver.com",
  "gender": "male",
  "birthdate": "1970-02-20T00:00:00.000Z",
  "legalId": [
    {
      "@type": "passport",
      "country": "England",
      "identificationId": "01234567BBC"
    }
  ],
  "phone_number": "+447123456789",
  "userAssets": [
    {
```

```
"id": "cst123",
"entityType": "customer",
},
{
"id": "acc-ABC",
"entityType": "account",
"assetType": "billingAccount",
},
{
"id": "7123456789",
"entityType": "product",
"assetType": "mobile",
"role": "owner"
}
]
}
```

The specific values in the structure can be modified by others but the response received must be according to the values set

## Nominal Scenarios

### TC\_Openid\_N1 – Retrieval of user identity data

- Send a GET message to `/{apiRoot}/userinfo` providing a valid token in the Authorization header
- Wait for a response from the server with the following characteristics
  - Response Code 200-OK
  - The body of the response includes one Userinfo resource, with attributes date and description, matching the values registered for the user linked to the token provided

**TC\_Openid\_N2 – Filtered retrieval of user identity data**

- Send a GET message to to `/{apiRoot}/userinfo?fields=sub,name,email`
- Wait for a response from the server with the following characteristics
  - Response Code 200-OK
  - The body of the response includes one Userinfo resource, with attributes date and description, including only parameters "sub", "name" and "email" matching the values registered for the user linked to the token provided

Notice that this test case is using parameters "sub", "name" and "email" to filter the data included in the response but any other parameter could be used

**Error Scenarios****TC\_Prmsn\_E1 – Unknown user – Invalid token**

- Send a GET message to `/{apiRoot}/userinfo` providing an invalid token in the Authorization header
- Wait for a response from the server with the following characteristics
  - Response Code 401-Unathorized

**ACKNOWLEDGEMENTS****VERSION HISTORY**

Release Number	Date	Release led by:	Description
1.0	June 2018	Luis Velarde (Telefónica)	First Release of Draft Version of the Document.
1.0.1	29-Jun-2018	Adrienne Walcott	Formatting/style edits prior to R18 publishing.

**RELEASE HISTORY**

Release Number	Date	Release led by:	Description
Release 18.0.0	June 2018	Luis Velarde (Telefónica)	Initial Release