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Geographic Site Management API Conformance Profile

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INTRODUCTION

The following document is the REST API Conformance for the GeographicSite Management API.

API DESCRIPTION

This API covers the operations to manage (create, read, delete) sites that can be associated to a customer, an account, a service delivery or other entities.

This API defines a Site as a convenience class that allows to easily refer to places important to other entities, where a geographic place is the entity that can answer the question “where?”, allowing to determine where things are in relation to the earth's surface, and can be represented either in a textual structured way (geographic address) or as a geometry referred to a spatial reference system (geographic location)

This API relates with the following two APIs also covering SID GeographicPlace entity

- Address Management API, specific to manage places defined in a structured textual way (street name, street number, ...) and validate existence of given address definition.
- GeoLocation API specific for management of places defined as a geometry in the spatial reference regarding the surface of the Earth (coordinates, ...) and the relationship between different geolocations (distance, proximity, ...)

This API allows the following operations

- Create a new site
- Retrieve a list of sites stored in a server filtered by a given criteria
- Retrieve a specific site

RESOURCE MODEL CONFORMANCE

GepgraphicSite Management API MANDATORY AND OPTIONAL RESOURCES

Resource Name	Mandatory or Optional	Comments
GeographicSite	M	

GeographicSite resource MANDATORY AND OPTIONAL ATTRIBUTES

Attribute Name	Mandatory or Optional	Comments
id	M in response messages O otherwise	Only valid in request if the server allows the client to define the id for the resource to be created
href	M in response messages O otherwise	
name	M	
description	O	
code	O	
Status	M in response messages O otherwise	
address	M if geographicLocation not included at first level	
id	O	
href	O	

Attribute Name		Mandatory or Optional	Comments
	streetNr	M if neither address.id nor address.href are included	
	streetNrSuffix	O	
	streetNrLast	O	
	streetNrLastSuffix	O	
	streetName	M if neither address.id nor address.href are included	
	streetType	M if neither address.id nor address.href are included	
	streetSuffix	O	
	postcode	M if neither address.id nor address.href are included	
	locality	M if neither address.id nor address.href are included	
	city	O	
	stateOrProvince	M if neither address.id nor address.href are included	
	country	M if neither address.id nor address.href are included	
	geographicLocation	O	
	id	O	
	href	O	
	name	O	
	geometryType	M if neither address.geographicLocation.id nor	

Attribute Name		Mandatory or Optional	Comments
		address.geographicLocation.href are included	
	accuracy	M if neither address.geographicLocation.id nor address.geographicLocation.href are included	
	spatialRef	M if neither address.geographicLocation.id nor address.geographicLocation.href are included	
	geometry	M if neither address.geographicLocation.id nor address.geographicLocation.href are included	Array of structures including at least one entity
	x	M if geometry included	
	y	M if geometry included	
	z	O	
	geographicSubAddress	O	Array of structures including at least one entity
	id	O	
	href	O	
	type	O	
	name	O	
	subUnitType	O	
	subUnitNumber	O	
	levelType	O	

Attribute Name		Mandatory or Optional	Comments
	levelNumber	O	
	buildingName	O	
	privateStreetName	O	
	privateStreetNumber	O	
geographicLocation		M if address not included at first level	
	id	O	
	href	O	
	name	O	
	geometryType	M if neither geographicLocation.id nor geographicLocation.href are included	
	accuracy	M if neither address.geographicLocation.id nor address.geographicLocation.href are included	
	spatialRef	M if neither address.geographicLocation.id nor address.geographicLocation.href are included	
	geometry	M if neither geographicLocation.id nor geographicLocation.href are included	Array of structures including at least one entity
calendar		O	
	status	M if calendar included	
	day	M if calendar included	

Attribute Name		Mandatory or Optional	Comments
	timeZone	O	
	hourPeriod	M if calendar included	
	startHour	M if hourPeriod included	
	endHour	M if hourPeriod included	
relatedParty		O	
	id	M If relatedParty included	
	href	O	
	name	O	
	role	O	
	validFor	O	
siteRelationship		O	
	id	M if siteRelationship included	
	href	O	
	type	M if siteRelationship included	
	role	O	
	validFor	O	

API OPERATIONS CONFORMANCE

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

GeographicSite MANDATORY AND OPTIONAL OPERATIONS

Uniform API Operation	Mandatory/Optional	Comments
GET	M	GET must be used to retrieve a representation of a resource
POST	M	POST must be used to create a new resource
PUT	O	PUT must be used to completely update a resource identified by its resource URI
PATCH	O	PATCH must be used to partially update a resource
DELETE	O	DELETE must be used to remove 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. Several elements can be applied to the filtered search. In that case logic, a logical AND is applied to combine the criteria (e.g.:?name=<value> &owner.id=<value>)

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=name, description will provide in the response only the values assigned to attributes name and description). Attribute selection capabilities are the same for collections retrieval and individual resource queries

Filtering in GeographicSite resource

Attribute name	Filtered search	Filtered search N Level	Response Attribute Selection	Response Attribute Selection
	First Level		First Level	N Level
id	NA	NA	M	NA
href	NA	NA	M	NA
name	O	NA	M	NA
description	NA	NA	M	NA
code	O	NA	M	NA
status	O	O	M	O
address	NA	O (id) (streetNr) (streetName) (streetType) (postcode)	M	NA

Attribute name	Filtered search First Level	Filtered search N Level	Response Attribute Selection First Level	Response Attribute Selection N Level
		(locality) (stateOrProvince)		
address.geographicLocation	NA	O (id) (name)	NA	NA
geographicLocation	NA	O (id) (name)	NA	NA
calendar	NA	NA	M	NA
relatedParty	NA	O (id) (name) (role)	M	NA
siteRelationship	NA	O (id) (type) (role)	M	NA

GET /geographicSiteManagement /v1/geographicSite

Filtered Search: A filtered search can be applied using the following filtering criteria

- code: to obtain the sites assigned a given code
- status: to obtain the sites in a given status

- address.id: to obtain the sites referenced by a given address identified by id
- address.streetNr: to obtain the sites located in a given street number. This is typically used together with other filter such as streetName
- address.streetName: to obtain the sites located in a given street number. This is typically used together with other filter such as streetNr
- address.streetType: to obtain the sites located in a given street type
- address.postcode: to obtain the sites with a given postcode
- address.locality: to obtain the sites located in a given locality. This is typically used together with other filter such as streetName
- address.stateOrProvince: to obtain the sites located in a given state/province. This is typically used together with other filter such as streetName and locality
- address.geographicLocation.id: to obtain the sites located in a given location (linked to an address) identified by id
- address.geographicLocation.name: to obtain the sites located in a given location (linked to an address) identified by name
- geographicLocation.id: to obtain the sites located in a given location identified by id
- geographicLocation.name: to obtain the sites located in a given location identified by name
- relatedParty.id: to obtain the sites related to a given party identified by id
- relatedParty.name: to obtain the sites related to a given party identified by name
- relatedParty.role: to obtain the sites related to a given party with a given role
- siteRelationship.id: to obtain the sites related to another site identified by id
- siteRelationship.type: to obtain the sites related to another site with a given type of relationship
- siteRelationship.role: to obtain the sites related to another site with a given role in the relationship

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 GeographicSite resource definition

GET /geographicSiteManagement /v1/geographicSite /{siteId}

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 GeographicSite resource definition

API POST OPERATION CONFORMANCE

POST /geographicSiteManagement /v1/geographicSite

This Uniform Contract operation is used to create a GeographicSite resource in the server.

The response to this operation must include a Location header set to /geographicSiteManagement /v1/geographicSite {siteId} where {siteId} indicates the identifier assigned by the server to the new GeographicSite resource created

POST	M	
Response Status Code 201	M	
Other Status Codes	NA	

The following table indicates attributes that are required to be sent when creating a new GeographicSite resource defined by an address as well as attributes with special considerations. All other attributes defining the resource are not required to be sent as part of the BODY of the POST request message:

Attribute name	Mandatory	Default	Rule
name	Y		
address	Y		
address.id	N		Mandatory if address is passed by reference and no address.href is provided
address.href	N		Mandatory if address is passed by reference and no address.id is provided
address.streetNr	N		Mandatory if address is passed by value (if neither address.id

Attribute name	Mandatory	Default	Rule
			nor address.href are included)
address.streetName	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)
address.streetType	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)
address.postcode	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)
address.locality	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)
address.stateOrProvince	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)
address.country	N		Mandatory if address is passed by value (if neither address.id nor address.href are included)

The response from the server may optionally include a BODY with the contents of the new resource created

If the POST request includes optional parameters (as per the model resource definition) that are not supported by the server, then the server must reject the request (replying with a 4xx error response) indicating the parameter not supported.

The following parameters must be supported by the server when included in the request to create a new resource

- name
- description
- code
- status
- address and all the attributes defined in the resource model
- calendar and all the attributes defined in the resource model
- relatedParty and all the attributes defined in the resource model
- siteRelationship and all the attributes defined in the resource model

The BODY of the response from the server must include attribute “href” set to the same value as the one in the Location header.

The BODY of the response from the server must include the following attributes that are mandatory in the definition of a GeographicSite as per the resource model defined even if they are not included in the request

- id
- href
- status

API PUT OPERATION CONFORMANCE

This Uniform Contract operation is used to completely update a GeographicSite resource existing in the server.

Since PUT operation is optional and not included in the basic CONNECT certification this is not applicable in this conformance document.

API PATCH OPERATION CONFORMANCE

This section defines which attributes are patchable.

Since PATCH operation is optional and not included in the basic CONNECT certification this is not applicable in this conformance document.

API DELETE OPERATION CONFORMANCE

This section defines what operations can be used to delete a GeographicSite resource.

Since DELETE operation is optional and not included in the basic CONNECT certification this is not applicable in this conformance document

API CONFORMANCE TEST SCENARIOS

This section describes the test scenarios required for the basic CONNECT certification of GeographicSite Management API. These test scenarios cover the management of sites linked to an address, leaving as optional the support of sites linked to a geographic location.

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}/geographicSiteManagement /v1**, being {serverRoot} the certification endpoint

GeographicSite resource TEST CASES

Nominal Scenarios

TC_GeoSite_N1 – Create new single site

- Send a POST message to {apiRoot}/geographicSite/ with the following contents in the BODY


```
{
  "name": "New branch to be open in France ",
  "description": "Refers to the new branch office to be open in
France",
  "status": "planned",
  "address": {
    "streetNr": "1",
    "streetName": "République (de la)",
    "streetType": "Rue",
    "postcode": "13001",
    "locality": "Marseille",
    "stateOrProvince": "Bouches-du-Rhône",
    "country": "France",
  }
}
```
- Wait for a response from the server with the following characteristics
 - Response Code 201-Created
 - Include a location header in the body set to {apiRoot}/geographicSite/{Site01} where {Site01} indicates the identifier assigned by the server to the new GeographicSite resource
 - The response message includes all mandatory parameters
 - The body of the response matches the values in the original request

- Send a GET message to `/{apiRoot}/geographicSite/`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one GeographicSite resource with ID set to `{Site01}`, the same identifier as assigned by the server to the new resource created
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier `{Site01}` matches the values in the original request
- Send a GET message to `/{apiRoot}/geographicSite/{Site01}`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The response message includes all mandatory parameters
 - The body of the response includes a GeographicSite resource structure that matches the values in the original request

TC_ GeoSite _N2 – Search for site with specific characteristics

- Send a POST message to `{apiRoot}/geographicSite/` with the following contents in the BODY


```

{
  "name": "Existing site, headquarters",
  "description": "Refers to a site in an existing address
registered",
  "address": {
    "id": "9912",
    "href":
"host:port/geographicAddressManagement/v1/geographicAddress/9912",
  },
  "calendar": [{
    "status": "open",
    "day": "weekdays",
    "timeZone": "GMT+1",
    "hourPeriod": [
      {
        "startHour": "9:00 am ",
        "endHour": "18:00 pm"
      }
    ]
  }
}

```



```
    }1
  }
```

- Wait for a response from the server with the following characteristics
 - Response Code 201-Created
 - Include a location header in the body set to `{apiRoot}/geographicSite/{Site02}` where `{Site02}` indicates the identifier assigned by the server to the new Permission resource
 - The response message includes all mandatory parameters
 - The body of the response matches the values in the original request
- Send a GET message to `/{apiRoot}/geographicSite`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes two geographicSite resources, referring to `{Site01}` and `{Site02}`
 - The body of the response for the resource with each identifier matches the values in the corresponding original request
- Send a GET message to `/{apiRoot}/geographicSite/?status=planned`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one GeographicSite resource, referring to `{Site01}`
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier `{Site01}` matches the values in the original request
- Send a GET message to `/{apiRoot}/geographicSite/?address.id=9912`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Permission resource, referring to `{Site02}`

- The response message includes all mandatory parameters
- The body of the response for the resource with identifier {Site02} matches the values in the original request

TC_GeoSite_N3 – Filtered retrieval of site data

- Send a GET message to `/{apiRoot}/geographicSite/{Site01}?fields=name,status`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one GeographicSite resource, referring to {Site01} and including only attributes *name* and *status*, matching the values in the original request
- Send a GET message to `/{apiRoot}/geographicSite/{Site02}?fields=id,calendar`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one GeographicSite resource, referring to {Site02} and including only attributes *id* and *calendar*, matching the values in the original request

Notice that this test case is using parameters “name”, “status”, “id” and “calendar” to filter the data included in the response but any other parameter could be used

TC_GeoSite_N4 – Filtered Search and Filtered data response

- Send a GET message to `/{apiRoot}/geographicSite/?address.id=9912&fields=calendar`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one geographicSite resource, referring to {Site02}
 - The body of the response for the resource with each identifier includes only attribute *calendar*, matching the values in the corresponding original request

Notice that this test case is using parameters “calendar” to filter the data included in the response but any other parameter could be used

TC_GeoSite_N5 – Parameter not included in site creation request but provided in response

- Send a POST message to {apiRoot}/geographicSite/ with the following contents in the BODY

```
{
  "name": "Second Building",
  "description": "This site refers to the Second Building of the
company, open in weekends",
  "address": {
    "streetNr": "60",
    "streetName": "Arlington",
    "streetType": "Road",
    "postcode": "W45E02",
    "locality": "London",
    "stateOrProvince": "Great London",
    "country": "England",
  }
},
"calendar": [{
  "status": "open",
  "day": "weekends",
  "timeZone": "GMT+1",
  "hourPeriod": [
    {
      "startHour": "9:00 am ",
      "endHour": "13:00 pm"
    }
  ]
}]
}
```

}

- Wait for a response from the server with the following characteristics
 - Response Code 201-Created
 - Include a location header in the body including the identifier assigned by the server to the new Permission resource
 - The body of the response includes parameters "id", "href" and "status"

Error Scenarios

TC_GeoSite_E1 – Unknown Site

- Send a GET message to `{apiRoot}/geographicSite/{Site04}`, where `{Site04}` does not match any of the identifiers previously created in the server
- Wait for a response from the server with the following characteristics
 - Response Code 404-Not Found

TC_GeoSite_E2 – Invalid Request – Missing mandatory parameter

- Send a POST message to `{apiRoot}/geographicSite/` with the following contents in the BODY.

```
{
  "description": "Refers to the new branch office to be open in
France",
  "address": {
    "streetNr": "1",
    "streetName": "République (de la)",
    "streetType": "Rue",
    "postcode": "13001",
    "locality": "Marseille",
    "stateOrProvince": "Bouches-du-Rhône",
    "country": "France",
  }
}
```

Notice that this request is missing mandatory parameter "name" but any other mandatory parameter could be used

- Wait for an error response from the server indicating the mandatory parameter is missing in the request

TC_GeoSite_E3 – Invalid Request – Missing parameter mandatory in context

- Send a POST message to {apiRoot}/geographicSite/ with the following contents in the BODY.

```

{
  "name": "New branch to be open in France ",
  "description": "Refers to the new branch office to be
open in France",
  "address": {
    "streetNr": "1",
    "streetName": "République (de la)",
    "streetType": "Rue",
    "postcode": "13001",
    "stateOrProvince": "Bouches-du-Rhône",
    "country": "France",
  }
}

```

Notice that this request is missing mandatory parameter “streetName” when parameter “address” is included but any other parameter that becomes mandatory based on the context could be used

- Wait for an error response from the server indicating the mandatory parameter is missing in the request

RELEASE HISTORY

Version / Release Number	Date	Modified By	Description
Release 1.0-1	22/05/2017	Luis Velarde (Telefónica)	First Release of Draft Version of the Document.
Release 1.0-2	24/10/2017	Luis Velarde(Telefónica)	Updated to be aligned with TMF API guidelines 3.0 Updated after review comments in R17.5 (October review cycle)
Release 1.0-3	30/11/2017	Luis Velarde(Telefónica)	Updated after review of related API (TMF675) in R17.5 (October review cycle). New structure defined for GeographicLocation
Version 1.04 Release 17.5.0	22-Jan-2018	Adrienne Walcott	Formatting/style edits prior to publishing