TM Forum Specification

API Resource Inventory Management API Conformance Profile

TMF639B

Team Approved Date: 31-Jul-2020

Release Status: Pre-production	Approval Status: Team Approved
Version 4.0.0	IPR Mode: RAND

Notice

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INTRODUCTION - API DESCRIPTION

The Resource Inventory API can be used to query the resource instances for a customer via Self Service Portal or the Call Centre operator can query the resource instances on behalf of the customer while a customer may have a complaint or a query.

RESOURCE MODEL CONFORMANCE

API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
Resource	This is the mandatory main resource of the API.

General Notes on Resource Attribute Conformance

There are three situations that could occur for an attribute:

- o   Mandatory attribute,
- o   Mandatory attribute if the optional parent attribute is present,
- o   Non-mandatory/Optional attribute. Those are all the other attributes not mentioned in the following subsections. Please refer to the corresponding API REST Specification for more details.

- The tables in the subsections below indicate which attributes are mandatory including mandatory when an optional parent is present.
- Where a resource is an input into an API (e.g. POST, PATCH), Mandatory means that the attribute value must be supplied by the API consumer in the input (and must not be blank or null).
- Where a resource is an output from an API (e.g. GET, POST), Mandatory means that the attribute value must be supplied by the API provider in the output (and must not be blank or null).
- For a sub-resource that is not an array, Mandatory (cardinality 1..1) means that the sub-resource must be present, while Optional (cardinality 0..1) means that the sub-resource may be absent. Mandatory and Optional on the sub-resource attributes apply to the sub-resource if present.
- For a sub-resource that is an array, Mandatory (cardinality 1..*) means that at least one sub-resource must be present in the array, while Optional (cardinality 0..*) means that the array may be absent. Mandatory and Optional on the sub-resource attributes apply to each of the sub-resources if present.

In this table are listed all mandatory attributes. A mandatory attribute MUST be retrieved in resource representation when no attribute selection is used (e.g. GET /../{id}) without any attribute selection

When an attribute is listed with an indentation (in second column) it means this attribute is mandatory if root (parent) attribute is present.

Resource Resource Mandatory Attributes

Mandatory attribute when parent is present	Rule
href	M (in response messages) Generated by the server and provided in the response upon resource creation. Value in response must be the same as the one set in Location header provided upon entity creation.
id	M (in response messages) Generated by the server and provided in the response upon resource creation
name	M
resourceSpecification (if present)	
id	M
relatedParty (if present)	Array of RelatedParty The role attribute is not mandatory because the id could be a partyRole id. In this case @referredType must indicate the partyRole (example User, Customer, etc.). If the id is a Party id then a role must be provided.
@referredType	M
id	M
resourceCharacteristic (if present)	Array of Characteristic
name	M Must be mandatory bvecaus

Mandatory attribute when parent is present		Rule
		describes the characteristic name of the valueType.
	value	M
place (if present)		The place could be pass by ref or by value. If place is pass by reference (@type valued to PlaceRef) id & @referredType attributes must be provided. The @referredType must indicate the place type (GeographicSite, GeographicLocation or GeographicAddress) If place is pass by value (@type valued to place type used: GeographicSite, GeographicLocation or GeographicAddress). The place payload must comply with place type used.
	@type	M
	id	M
	role	M
activationFeature (if present)		Array of Feature
	name	M
	featureCharacteristic	M Array of Characteristic See conditions for Characteristic at resourceCharacteristic
activationFeature.constraint (if present)		Array of ConstraintRef
	id	M

Mandatory attribute when parent is present	Rule
activationFeature.featureRelationship (if present)	Array of FeatureRelationship
name	M
relationshipType	M
resourceRelationship (if present)	Array of ResourceRelationship
relationshipType	M
resource	M
resourceRelationship.resource	M
href	M
id	M
resourceRelationship.resource.resourceSpecification (if present)	See conditions for ResourceSpecificationRef at resourceSpecification
resourceRelationship.resource.place (if present)	See conditions for RelatedPlaceRefOrValue at place
resourceRelationship.resource.relatedParty (if present)	Array of RelatedParty See conditions for RelatedParty at relatedParty
resourceRelationship.resource.activationFeature (if present)	Array of Feature See conditions for Feature at activationFeature
resourceRelationship.resource.activationFeature.constraint (if present)	Array of ConstraintRef See conditions for ConstraintRef at activationFeature.constraint
resourceRelationship.resource.activationFeature.featureRelationship (if present)	Array of FeatureRelationship See conditions for FeatureRelationship at

Mandatory attribute when parent is present	Rule
	activationFeature.featureRelationship

API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

Resource Mandatory Operations

The following table indicates which ones are mandatory for the Resource resource:

Uniform API Operation
GET
POST

API GET OPERATION CONFORMANCE

All the GET operations in this API share the same status code pattern.

GET	Mandatory/Optional
Response Status Code 200 if successful	M
Response Status Code 404 if not found	M

Definitions for Filter

The following definitions apply to all the GET operations:

- Filtered Search: A filtered search can be applied using query parameters to obtain only the resources 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.:?severity=<value>&status=<value>).
- Attribute selection (Limiting Response Data): In order to limit which attributes are included in the response, the GET request can include the ?fields= query parameter. Only those attributes whose names are supplied in this parameter will be returned. Attribute selection capabilities are the same for collections retrieval and individual resource queries.
- Level: The filtering and attribute selection can apply to the top level properties (attributes) and subproperties. The tables below show which attributes need to be supported in top-level or contained resources.

GET /resource?fields=...&{filtering}

This operation list or find Resource entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /resource/{id}?fields=...&{filtering}

This operation retrieves a Resource entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

API POST OPERATION CONFORMANCE

All the POST operations in this API share the same status code pattern.

POST	Mandatory/Optional
Status Code 201 if resource created	M

POST /resource

This operation creates a Resource entity.

The following table provides the list of mandatory attributes when creating an instance of the Resource resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
name	At least one attribute be present.

ACKNOWLEDGEMENTS

Release History

Release Status	Date	Release led by:	Description
Pre-production	31-Jul-2020	Thomas Braun Deutsche Telekom	Updated based on schema-library and Design Guideline v4 patterns

Version History

Version Number	Date	Modified by	Description
4.0.0	31-Jul-2020	Alan Pope	Final edits prior to publication