**TM Forum Specification**

Resource Catalog Management

Conformance Profile

TMF634B

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| --- | --- |
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# INTRODUCTION - API DESCRIPTION

The Resource Catalog Management API allows management of resource specifications, together with other entities that make up catalogs of resources.

# RESOURCE MODEL CONFORMANCE

## API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

| Resource Name | | | | | | | | | | | | | | | | | | | | | Comment |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ResourceSpecification | | | | | | | | | | | | | | | | | | | | |  |

## General Notes on Resource Attribute Conformance

There are three situations that could occur for an attribute:

* Mandatory attribute,
* Mandatory attribute if the optional parent attribute is present,
* 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.

## ResourceSpecification Resource Mandatory Attributes

| Mandatory attribute when parent is present | | | | | | | | | | | | | | | | | | | | | Rule |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| href | | | | | | | | | | | | | | | | | | | | | M  M in response messages O otherwise |
| id | | | | | | | | | | | | | | | | | | | | | M  M in response messages O otherwise |
| isBundle | | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
| lastUpdate | | | | | | | | | | | | | | | | | | | | | M  This is a change from previous version. In version 4.x, lastUpdate is mandatory |
| lifecycleStatus | | | | | | | | | | | | | | | | | | | | | M |
| name | | | | | | | | | | | | | | | | | | | | | 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 |
| targetResourceSchema (if present) | | | | | | | | | | | | | | | | | | | | |  |
|  | @schemaLocation | | | | | | | | | | | | | | | | | | | | M |
|  | @type | | | | | | | | | | | | | | | | | | | | M |
| attachment (if present) | | | | | | | | | | | | | | | | | | | | | Array of AttachmentRefOrValue |
|  | attachmentType | | | | | | | | | | | | | | | | | | | | M in response messages, or in request messages for new attachment O in request messages for existing attachment |
|  | id | | | | | | | | | | | | | | | | | | | | M if the resource is a ref object O if the resource is a value object |
|  | mimeType | | | | | | | | | | | | | | | | | | | | M in response messages, or in request messages for new attachment O in request messages for existing attachment |
| attachment.size (if present) | | | | | | | | | | | | | | | | | | | | |  |
|  | amount | | | | | | | | | | | | | | | | | | | | M (in response messages) O (otherwise) |
|  | units | | | | | | | | | | | | | | | | | | | | M (in response messages) O (otherwise) |
| resourceSpecCharacteristic (if present) | | | | | | | | | | | | | | | | | | | | | Array of ResourceSpecificationCharacteristic |
|  | configurable | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | extensible | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | isUnique | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | name | | | | | | | | | | | | | | | | | | | | M |
| resourceSpecCharacteristic.resourceSpecCharacteristicValue (if present) | | | | | | | | | | | | | | | | | | | | | Array of CharacteristicValueSpecification |
|  | isDefault | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | value | | | | | | | | | | | | | | | | | | | | M |
| resourceSpecCharacteristic.resourceSpecCharRelationship (if present) | | | | | | | | | | | | | | | | | | | | | Array of ResourceSpecificationCharacteristicRelationship |
|  | characteristicSpecificationId | | | | | | | | | | | | | | | | | | | | M |
|  | relationshipType | | | | | | | | | | | | | | | | | | | | M |
|  | resourceSpecificationHref | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | resourceSpecificationId | | | | | | | | | | | | | | | | | | | | M |
| resourceSpecRelationship (if present) | | | | | | | | | | | | | | | | | | | | | Array of ResourceSpecificationRelationship |
|  | href | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | id | | | | | | | | | | | | | | | | | | | | M |
|  | relationshipType | | | | | | | | | | | | | | | | | | | | M |
| resourceSpecRelationship.characteristic (if present) | | | | | | | | | | | | | | | | | | | | | Array of ResourceSpecificationCharacteristic  See conditions for ResourceSpecificationCharacteristic at resourceSpecCharacteristic |
| resourceSpecRelationship.characteristic.resourceSpecCharacteristicValue (if present) | | | | | | | | | | | | | | | | | | | | | Array of CharacteristicValueSpecification  See conditions for CharacteristicValueSpecification at resourceSpecCharacteristic.resourceSpecCharacteristicValue |
| resourceSpecRelationship.characteristic.resourceSpecCharRelationship (if present) | | | | | | | | | | | | | | | | | | | | | Array of ResourceSpecificationCharacteristicRelationship  See conditions for ResourceSpecificationCharacteristicRelationship at resourceSpecCharacteristic.resourceSpecCharRelationship |
| featureSpecification (if present) | | | | | | | | | | | | | | | | | | | | | Array of FeatureSpecification |
|  | id | | | | | | | | | | | | | | | | | | | | M |
|  | isBundle | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | isEnabled | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | name | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
| featureSpecification.constraint (if present) | | | | | | | | | | | | | | | | | | | | | Array of ConstraintRef |
|  | href | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | id | | | | | | | | | | | | | | | | | | | | M |
| featureSpecification.featureSpecRelationship (if present) | | | | | | | | | | | | | | | | | | | | | Array of FeatureSpecificationRelationship |
|  | featureId | | | | | | | | | | | | | | | | | | | | M |
|  | relationshipType | | | | | | | | | | | | | | | | | | | | M |
| featureSpecification.featureSpecCharacteristic (if present) | | | | | | | | | | | | | | | | | | | | | Array of FeatureSpecificationCharacteristic |
|  | configurable | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | extensible | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | isUnique | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | name | | | | | | | | | | | | | | | | | | | | M |
| featureSpecification.featureSpecCharacteristic.featureSpecCharacteristicValue (if present) | | | | | | | | | | | | | | | | | | | | | Array of CharacteristicValueSpecification  See conditions for CharacteristicValueSpecification at resourceSpecCharacteristic.resourceSpecCharacteristicValue |
| featureSpecification.featureSpecCharacteristic.featureSpecCharRelationship (if present) | | | | | | | | | | | | | | | | | | | | | Array of FeatureSpecificationCharacteristicRelationship |
|  | characteristicId | | | | | | | | | | | | | | | | | | | | M |
|  | featureId | | | | | | | | | | | | | | | | | | | | M |
|  | relationshipType | | | | | | | | | | | | | | | | | | | | M |
|  | resourceSpecificationHref | | | | | | | | | | | | | | | | | | | | M in response messages O otherwise |
|  | resourceSpecificationId | | | | | | | | | | | | | | | | | | | | M |

# API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

## ResourceSpecification Mandatory Operations

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

| Uniform API Operation | | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| GET | | | | | | | | | | | | | | | | | | | | |
| POST | | | | | | | | | | | | | | | | | | | | |
| PATCH | | | | | | | | | | | | | | | | | | | | |
| DELETE | | | | | | | | | | | | | | | | | | | | |

# 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 /resourceSpecification?fields=...&{filtering}

This operation list or find ResourceSpecification 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 /resourceSpecification/{id}?fields=...&{filtering}

This operation retrieves a ResourceSpecification 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 /resourceSpecification

This operation creates a ResourceSpecification entity.

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

| Mandatory Attributes | | | | | | | | | | | | | | | | | | | | | Rule |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| name | | | | | | | | | | | | | | | | | | | | |  |

# API PATCH OPERATION CONFORMANCE

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

The mandatory application context is JSON Merge.

|  |  |
| --- | --- |
| PATCH | Mandatory/Optional |
| Status Code 200 if resource modified | M |

## PATCH /resourceSpecification/{id}

This operation updates partially a ResourceSpecification entity.

| Patchable Attributes | | | | | | | | | | | | | | | | | | | | | Rule |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| isBundle | | | | | | | | | | | | | | | | | | | | |  |
| lifecycleStatus | | | | | | | | | | | | | | | | | | | | |  |
| name | | | | | | | | | | | | | | | | | | | | |  |

# API DELETE OPERATION CONFORMANCE

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

|  |  |
| --- | --- |
| DELETE | Mandatory/Optional |
| Status Code 204 if resource deleted | M |

## DELETE /resourceSpecification/{id}

This operation deletes a ResourceSpecification entity.

# ACKNOWLEDGEMENTS

## Release History

|  |  |  |  |
| --- | --- | --- | --- |
| **Release Number** | **Date** | **Release led by:** | **Description** |
|  |  |  |  |
|  |  |  |  |

## Version History

|  |  |  |  |
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| **Version Number** | **Date** | **Modified by** | **Description** |
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