TM Forum Specification

Resource Catalog Management Conformance Profile

TMF634B

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NOTICE

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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

Mandatory attribute when parent is present		Rule
id		M
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)		

Mandatory attribute when parent is present		Rule
	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

Mandatory attribute when parent is present		Rule
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

Mandatory attribute when parent is present		Rule
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
attachment	
category	
description	
featureSpecification	
isBundle	
lastUpdate	
lifecycleStatus	
name	
relatedParty	
resourceSpecCharacteristic	
resourceSpecRelationship	
targetResourceSchema	
validFor	
version	

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

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Pre-production	18-Nov-2020	Alan Pope	Final edits prior to publication

VERSION HISTORY

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