

# TM Forum Specification

## Entity Catalog Management API Conformance Profile

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## INTRODUCTION - API DESCRIPTION

The Entity Catalog API is one of the Catalog Management API Family. Entity Catalog is primarily intended to address those specifications which may not be addressed by the Product, Service or Resource catalogs.

## RESOURCE MODEL CONFORMANCE

### API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
EntitySpecification	

### 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.

## ENTITYSPECIFICATION RESOURCE MANDATORY ATTRIBUTES

Mandatory attribute when parent is present	Rule
@type	M
href	M (in response messages) O (otherwise)
id	M (in response messages) O (otherwise)
lastUpdate	M (in response messages) O (otherwise)
name	M
constraint (if present)	Array of ConstraintRef
id	M
entitySpecRelationship (if present)	Array of EntitySpecificationRelationship
relationshipType	M
entitySpecRelationship.associationSpec (if present)	
id	M
relatedParty (if present)	Array of RelatedParty
@referredType	M
id	M
targetEntitySchema (if present)	
@schemaLocation	M
@type	M

## API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

### ENTITYSPECIFICATION MANDATORY OPERATIONS

The following table indicates which ones are mandatory for the EntitySpecification 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 sub properties. The tables below show which attributes need to be supported in top-level or contained resources.

#### GET /ENTITYSPECIFICATION?FIELDS=...&{FILTERING}

This operation list or find EntitySpecification 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 /ENTITYSPECIFICATION/{ID}?FIELDS=...&{FILTERING}

This operation retrieves a EntitySpecification 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 /ENTITYSPECIFICATION

This operation creates a EntitySpecification entity.

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

Mandatory Attributes	Rule
@type	
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 /ENTITYSPECIFICATION/{ID}

This operation updates partially an EntitySpecification entity. The following table shows those resource mandatory attributes (if present) that patchable.

Patchable Attributes	Rule
name	
relatedParty	if present
constraint	if present
targetEntitySchema	if present
entitySpecRelationship	if present
entitySpecRelationship.associationSpec	if present

## 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 /ENTITYSPECIFICATION/{ID}

This operation deletes a EntitySpecification entity.

## ACKNOWLEDGEMENTS

### VERSION HISTORY

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V4.0.0	05-Apr-2021	Kamal Maghsoudlou (Ericsson) <a href="mailto:kamal.maghsoudlou@ericsson.com">kamal.maghsoudlou@ericsson.com</a>	Initial release

### RELEASE HISTORY

Release Status	Date	Modified by	Description
Pre-production	05-Apr-2021	Alan Pope	Final edits prior to publication

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