

TM Forum Specification

Customer Management Conformance Profile

629B

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INTRODUCTION - API DESCRIPTION

The following document is the REST API Conformance for the Customer Management API (TMF629).

The Customer Management API provides a standardized mechanism for customer and customer account management such as creation, update, retrieval, deletion and notification of events. Customer can be a person, an organization or another service provider who buys products from an enterprise. Customer management API allows management of identification and financial information about him.

Customer management API manages the following data resources:

- Customer

- o Customer represents a person or organization that buys products and services from the enterprise or receives free offers or services. Customers can also be other service providers who resell the enterprises products, other service providers that lease the enterprise's resources for utilization by the other service provider's products and services, and so forth.

- o Customer resource contains information about the customer. Main attributes are its identifier, name, status and validity, description, characteristics, contact medium, related customer account, related party, customer credit profile information

The customer management API performs the following operation on customer:

- Retrieval, creation, full or partial update and deletion of customers.

RESOURCE MODEL CONFORMANCE

API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
Customer	

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.

CUSTOMER RESOURCE MANDATORY ATTRIBUTES

Mandatory attribute when parent is present		Rule
@type		<p>M (in response messages) M (in request in polymorphic context: see comment) O (otherwise)</p> <p>@type is mandatory if we create a user-specific sub-class via polymorphism mechanism.</p>
href		<p>M (in response messages) O (otherwise)</p> <p>Value in response must be the same as the one set in location header provided upon entity creation</p>
id		<p>M (in response messages)</p> <p>Id is auto generated at creation time</p>
name		<p>M (for resource creation) O (otherwise)</p>
engagedParty		M
	@referredType	M
	id	M
@baseType		@baseType is mandatory if we create a user-specific sub-class via polymorphism mechanism.
@schemaLocation		@schemaLocation is mandatory if we create a user-specific sub-class via polymorphism mechanism.
account (if present)		Array of AccountRef
	name	M
agreement (if present)		Array of AgreementRef
	id	M
paymentMethod (if present)		Array of PaymentMethodRef
	id	M
characteristic (if present)		Array of Characteristic

Mandatory attribute when parent is present		Rule
	name	M
	value	M
contactMedium (if present)		Array of ContactMedium
	characteristic	M
	mediumType	M
creditProfile (if present)		Array of CreditProfile
	creditProfileDate	M
	validFor	M
relatedParty (if present)		Array of RelatedParty See conditions for RelatedParty at engagedParty

API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

CUSTOMER MANDATORY OPERATIONS

The following table indicates which ones are mandatory for the Customer 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 /CUSTOMER?FIELDS=...&{FILTERING}

This operation list or find Customer 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 /CUSTOMER/{ID}?FIELDS=...&{FILTERING}

This operation retrieves a Customer 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 /CUSTOMER

This operation creates a Customer entity.

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

Mandatory Attributes	Rule
Other Status Codes	
Response Status Code 201	
engagedParty	
engagedParty.@referredType	
engagedParty.id	
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 /CUSTOMER/{ID}

This operation updates partially a Customer entity.

Patchable Attributes	Rule
Other Status Codes	NA
Response Status Code 200	M
engagedParty	
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 /CUSTOMER/{ID}

This operation deletes a Customer entity.

ACKNOWLEDGEMENTS**RELEASE HISTORY**

Release Number	Date	Release led by:	Description

VERSION HISTORY

Version Number	Date	Modified by	Description