# TM Forum Specification

# Payment Management API Conformance Profile

**TMF676B**

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# Notice

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# INTRODUCTION - API DESCRIPTION

The Payment API can be used to create and retrieve Payment. Complete description of this API is available in the user guide.

# RESOURCE MODEL CONFORMANCE

## API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

| Resource Name | Comment |
|---|---|
| Payment | Only POST and GET operations are mandatory. |

## 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.

## Payment Resource Mandatory Attributes

| Mandatory attribute when parent is present | Rule |
|---|---|
| href | M (in response messages) |

| Mandatory attribute when parent is present | | Rule |
|---|---|---|
| id | | M (in response messages) |
| totalAmount | | M |
| | value | M |
| | unit | M |
| account | | M |
| | id | M |
| paymentMethod | | M<br><br>The payment method could be pass by ref or by value.<br><br>If payment method is pass by reference (@type valued to paymentMethodRef) id & @referredType attributes must be provided. The @referredType must indicate the payment method type.<br><br>If entity is pass by value (@type valued to payment method type). Payment method payload must comply with its own rules. |
| paymentMethod.account (if present) | | Array of AccountRef<br><br>See conditions for AccountRef at account |
| paymentMethod.relatedParty (if present) | | The role attribute is not mandatory because the id could be a partyRole id.<br>In this case @referredType must indicate the partyRole (example User, Customer, etc.).<br><br>If the id is a Party id then a role must be provided. |
| | @referredType | M |
| | id | M |
| channel (if present) | | |
| | id | M |

| Mandatory attribute when parent is present | | Rule |
|---|---|---|
| payer (if present) | | See conditions for RelatedParty at paymentMethod.relatedParty |
| paymentItem (if present) | | Array of PaymentItem |
| | item | M |
| paymentItem.item | | M |
| | id | M |

# API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

## Payment Mandatory Operations

The following table indicates which ones are mandatory for the Payment 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 /payment?fields=…&{filtering}

This operation list or find Payment 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 /payment/{id}?fields=…&{filtering}

This operation retrieves a Payment 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 /payment

This operation creates a Payment entity.

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

| Mandatory Attributes | Rule |
|---|---|
| account | M |
| account.id | M |
| paymentMethod | M<br><br>The payment method could be pass by ref or by value.<br><br>If payment method is pass by reference (@type valued to paymentMethodRef) id & @referredType attributes must be provided. The @referredType must indicate the payment method type.<br><br>If entity is pass by value (@type valued to payment method type). Payment method payload must comply with its own rules. |
| totalAmount | M<br><br>unit & value must be valued |

# ACKNOWLEDGEMENTS

## Release History

| Release Status | Date | Release led by: | Description |
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| Pre-production | 31-Jul-2020 | Grégoire Laurent Orange<br><br>Ludovic Robert Orange | Updated based on schema-library and Design Guideline v4 patterns |

## Version History

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