CUSTOMER API CONFORMANCE TEMPLATE

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# Introduction

The following document is the template for the REST API Conformance.

# Introduction

<Standard Intro Text to be added to each specification>

# RESOURCE MODEL CONFORMANCE

## Customer API MANDATORY AND OPTIONAL RESOURCES

For the Resources defined by the API fill the following table and indicate which ones are mandatory and which ones are optional.

|  |  |  |
| --- | --- | --- |
| Resource Name | Mandatory or Optional | Comments |
| Customer | M |  |

## Customer MANDATORY AND OPTIONAL ATTRIBUTES

For every single resource managed by the API provide a table indicating which attributes are mandatory and which ones are optional. Add documentation on the required format (date for example) as required.

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute Name | | Mandatory or Optional | Comments |
| id | | M |  |
| href | | M |  |
| externalId | | O |  |
| description | | O |  |
| state | | M |  |
| orderDate | | M |  |
| requestedStartDate | | O |  |
| completionDate | | M | For orders in “Completed” state |
| requestedCompletionDate | | O |  |
| expectedCompletionDate | | O |  |
| priority | | O |  |
| category | | O |  |
| notificationContact | | O |  |
| note | | O |  |
| relatedParty | | M | At least one with a “customer” role |
|  | id | M |  |
|  | href | O |  |
|  | role | M |  |
|  | name | O |  |
| orderItem | | M | At least one order item within an order |
|  | id | M |  |
|  | action | M |  |
|  | state | M |  |
|  | billingAccount | O |  |
|  | appointment | O |  |
|  | productOffering | M/O | Mandatory for “add” actions  Optional otherwise |
|  | product | M/O | Optional for “add” actions  Mandatory otherwise |

# NOTIFICATION MODEL CONFORMANCE

The Pub/Sub models are common and described in the TMF REST Design Guidelines. Use the following templates to describe the Hub Mandatory and Optional attributes and filtering support.

## CUSTOMER API MANDATORY AND OPTIONAL NOTIFICATIONS

For the Notifications defined by the API fill the following table and indicate which ones are mandatory and which ones are optional.

|  |  |  |
| --- | --- | --- |
| Resource Name | Mandatory or Optional | Comments |
| CustomerCreationNotification | O | . |
| CustomerRemoveNotification | O |  |
| CustomerStateChangeNotification | O |  |
| CustomerValueChangeNotification | O |  |
| CustomerInformationRequiredNotification | O |  |

## <Notification Name> MANDATORY AND OPTIONAL ATTRIBUTES

For every single notification supported by the API provide a table indicating which attributes are mandatory and which ones are optional. Add documentation on the required format (date for example) as required.

|  |  |  |
| --- | --- | --- |
| Attribute Name | Mandatory or Optional | Comments |
| id | M | . |
| eventTime | M |  |
| eventType | M |  |
| resourcePath | M/O | Mandatory for CustomerInformationRequiredNotification only  NA otherwise |
| fieldPath | M/O | Mandatory for CustomerInformationRequiredNotification only  NA otherwise |
| event | M | Filled with the Customer info  Refer to the detailed mandatory/optional data regarding each notification below. |

*CustomerCreationNotification*

* Customer mandatory/optional data as described in the first chapter

*CustomerRemoveNotification*

* Customer id or href is the only mandatory piece of data

*CustomerStateChangeNotification*

* Customer id or href and state are the only mandatory pieces of data

*CustomerValueChangeNotification*

* Customer id or href and the changed value are the only mandatory pieces of data

*CustomerInformationRequiredNotification*

* Customer id or href is the only mandatory piece of data

# API OPERATIONS CONFORMANCE

For every single resource use the following templates and define what operations are optional and what operations are mandatory.

## Customer MANDATORY AND OPTIONAL OPERATIONS

Fill the following table and indicate which ones are mandatory and which ones are optional.

|  |  |  |
| --- | --- | --- |
| Uniform API Operation | Mandatory/Optional | Comments |
| GET | M | GET must be used to retrieve a representation of a resource |
| POST | M | POST must be used to create a new resource |
| PATCH (JSON-MERGE) | O | PATCH must be used to partially update a resource |
| JSON PATCH (JSON+PATCH) | O | JSON PATCH must be used to update multi-valued attributes |
| PUT | O | PUT must be used to completely update a resource identified by its resource URI |
| DELETE | O | DELETE must be used to remove a resource |

# API GET OPERATION CONFORMANCE

For every single resource use the following template to specify the mandatory and optional features supported by the GET operation.

## GET Customer/{ID}

This Uniform Contract operation is used to retrieve the representation of a managed entity or a task. Describe what attributes are filterable and to what level. Describe what attribute can be selected and to what level.

Describe if the API supports non equality based operator.

Collections can be retrieved via GET <RESOURCE> with no {ID}.

Attribute selection capabilities are the same for collections retrieval and individual resource queries.

|  |  |  |
| --- | --- | --- |
| Filtering First Level (equality) | O |  |
| Filtering N level (equality) | O |  |
| Filtering First Level (other operators) | O |  |
| Filtering First Level (other operators) | O |  |
| Attribute Selection First Level ?fields= | M |  |
| Attribute Selection N level  ?fields=a. | O |  |
| Status Code 200 | M |  |
| Other Status Codes | O |  |

Use the following to indicate which attributes can be used for filtering purpose and attribute selection :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Attribute name | Filter  First Level = | Filter  N Level = | Filter  First Level  Other operators | Filter  N Level  Other operators | Attribute Selection First Level | Attribute Selection N  Level |
| externalId | O | NA | NA | NA | M | O |
| state | O | NA | O | NA |  |  |
| xxxDate (all dates) | O | NA | O | NA |  |  |
| priority | O | NA | O | NA |  |  |
| category | O | NA | O | NA |  |  |
| notificationContact | O | NA | NA | NA |  |  |
| relatedParty.xxx | NA | O | NA | NA |  |  |
| orderItem.xxx | NA | O | NA | O |  |  |

# API POST OPERATION CONFORMANCE

For every single resource use the following template to specify the mandatory and optional features supported by the POST operation.

## POST API/Customer

This Uniform Contract operation is used to create a managed entity or a task.

ID Management :

Specify the ID Management Rule POST without specifying the ID must result in the system generating the ID for the <Entity>. In a specific case, the ID can also be included in the POST (optional)

|  |  |  |
| --- | --- | --- |
| POST | M |  |
| Status Code 201 | M |  |
| Other Status Codes | NA |  |

Specify the attributes required when an entity is created (and their default values if not):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | | | Mandatory | Default | Rule |
| id | | | N |  | Maybe provided if system supports it |
| externalId | | | N |  |  |
| state | | | N | “Acknowledged” |  |
| description | | | N |  |  |
| requestedStartDate | | | N | “Now” |  |
| requestedCompletionDate | | | N | “ASAP” |  |
| priority | | | N | 4 |  |
| category | | | N | “uncategorized” |  |
| notificationContact | | | N |  |  |
| note | | | N |  |  |
| relatedParty | | | Y |  |  |
|  | id | | Y/N |  | Mandatory if href is not present |
|  | href | | Y/N |  | Mandatory if id is not present |
|  | name | | N |  |  |
|  | role | | Y |  |  |
| orderItem | | |  |  |  |
|  | id | | Y |  |  |
|  | action | | Y |  |  |
|  | billingAccount | | N |  | If billingAccount is present, its id must be filled |
|  | appointment | | N |  |  |
|  | productOffering | | Y/N |  | Mandatory for “add” action, optional otherwise  if productOffering is given, its id or href must be filled |
|  |  | bundledProductOffering | N |  | Only useful for bundled offers |
|  | product | | Y/N |  | Optional for “add” action, mandatory otherwise  if product is given, its id or href must be filled |
|  |  | productRelationship | N |  | Only useful for bundled products |
|  |  | productCharacteristic | N |  | Only useful for configurable products |

* Further specify any rules on the creation of the entity

|  |  |
| --- | --- |
| Rule name | Rule |
|  |  |
|  |  |

# API PUT OPERATION CONFORMANCE

## PUT API/Customer/{ID}

This Uniform Contract operation is used to completely update the representation of a managed entity or a task.

|  |  |  |
| --- | --- | --- |
| PUT | O | THIS PUT OPERATION |
| Status Code 201 | M |  |
| Other Status Codes | NA |  |

# API PATCH OPERATION CONFORMANCE

## PATCH Customer/{ID}

This Uniform Contract operation is used to partially update the representation of a managed entity or a task.

|  |  |  |
| --- | --- | --- |
| PATCH | O | THIS PATCH OPERATION |
| Status Code 201 | M |  |
| Other Status Codes | NA |  |

|  |  |  |
| --- | --- | --- |
| JSON+PATCH | O | PATCHING ARRAYS |
| JSON+PATCH | O | CREATING MULTIPLE RESOURCES |

Specify which attributes are patchable using the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute Name | | Patchable ? (Y/N) | Rule |
| id | | N |  |
| href | | N |  |
| externalId | | N |  |
| description | | Y |  |
| state | | Y | in respect of the state diagram in the spec |
| orderDate | | N |  |
| requestedStartDate | | Y | If the order is not already “In progress” |
| completionDate | | N |  |
| requestedCompletionDate | | Y | If the order is not already “Completed” |
| expectedCompletionDate | | N |  |
| priority | | Y |  |
| category | | N |  |
| notificationContact | | Y |  |
| note | | Y |  |
| relatedParty | | Y/N | Yes for adding a new related party (PATCH list)  No for changing an already related party |
| orderItem | | Y |  |
|  | id | N |  |
|  | action | N |  |
|  | state | Y | in respect of the state diagram in the spec |
|  | billingAccount | N |  |
|  | appointment | Y |  |
|  | productOffering | N |  |
|  | product | Y |  |

Further document any rules that must be implemented when patching attributes for example:

|  |  |
| --- | --- |
| Rule name | Rule |
|  |  |

# API JSON+PATCH OPERATION CONFORMANCE

For every single resource use the following template to specify the mandatory and optional features supported by the PATCH (JSON+PATCH) operation.

## PATCH API/{RESOURCE} JSON+PATCH

This Uniform Contract operation is used to create a managed entity or a task.

Description :

* Provide an overall description of the Operation
* Describe the input representation of the <resource> instance.
* Describe if the resource represents a managed entity or a task.
* Describe the structure of the identifier.
* Describe what are the mandatory attributes that must be provided when you create the entity.

Behavior :

* What status and exception codes are returned.
* Returns HTTP/1.1 status code 201 if the request was successful.
* Any other special return and/or exception codes.

ID Management :

Specify the ID Management Rule POST without specifying the ID must result in the system generating the ID for the <Entity>. In a specific case, the ID can also be included in the POST (optional)

|  |  |  |
| --- | --- | --- |
| PATCH | M | THIS POST OPERATION |
| Status Code 201 | M |  |
| Other Status Codes | NA |  |

Specify the attributes required when an entity is created (and their default values if not):

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute name | Mandatory | Default | Rule |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* Further specify any rules on the creation of the entity

|  |  |
| --- | --- |
| Rule name | Rule |
|  |  |
|  |  |

# API DELETE OPERATION CONFORMANCE

## DELETE API/{RESOURCE}/{ID}

This Uniform Contract operation is used to delete a managed entity or a task.

|  |  |  |
| --- | --- | --- |
| DELETE | M | THIS POST OPERATION |
| Status Code 200 | M |  |
| Other Status Codes | NA | WHY FOR EACH OTHER CODE |

## Hub MANDATORY AND OPTIONAL OPERATIONS

Fill the following table and indicate which ones are mandatory and which ones are optional.

|  |  |  |
| --- | --- | --- |
| Uniform API Operation | Mandatory/Optional | Comments |
| GET | <M|O> | GET must be used to retrieve a representation of a Hub |
| POST | <M|O> | POST must be used to create a new Hub. |
| PATCH | <M|O> | PATCH must be used to partially update a Hub |
| DELETE | <M|O> | DELETE must be used to remove a Hub |

## Hub MANDATORY AND OPTIONAL ATTRIBUTES

|  |  |  |
| --- | --- | --- |
| Attribute Name | Mandatory or Optional | Comments |
| callback | <M|O> | . |
| query | <M|O> |  |

## POST /hub

Specify if Hub is acting on whole set of resources or can be attached

|  |  |  |
| --- | --- | --- |
| POST | M | THIS POST OPERATION |
| Hub on API | M |  |
| Hub on Specific Collections managed by the API | O |  |
| Hub on Specific Resources  Managed by the API | O |  |
| Status Code 201 | M |  |
| Other Status Codes | NA |  |

Specify the attributes required when the Hub is created (and their default values if not):

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute name | Mandatory | Default | Rule |
| callback | M |  |  |
| query | M/O/NA |  |  |

Specify what type of event filtering is supported if the query parameter is supported in the Hub

## DELETE hub/{id}

Description :

Clears the communication endpoint address that was set by creating the Hub.

Behavior :

Returns HTTP/1.1 status code 204 if the request was successful.

Returns HTTP/1.1 status code 404 if the resource is not found.

|  |
| --- |
| **REQUEST** |
| DELETE /api/hub/{id}  Accept: application/json |
| **RESPONSE** |
| 204 |

|  |  |  |
| --- | --- | --- |
| DELETE | M | THIS DELETE OPERATION |
| Status Code 200 | M |  |
| Other Status Codes | NA | WHY FOR EACH OTHER CODE |

## Release History

|  |  |  |  |
| --- | --- | --- | --- |
| **Release Number** | **Date** | **Release led by:** | **Description** |
| Release 1.0 | 07/15/2015 | Pierre Gauthier  TM Forum  [pgauthier@tmforum.org](mailto:pgauthier@tmforum.org) | First Release of Draft Version of the Document. |