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Quote Management API Conformance Profile

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INTRODUCTION - API DESCRIPTION

This document is the REST API conformance profile for Quote Management REST API (TMF 648).

The customer Quote API provides a standardized mechanism for placing a customer quote with all of the necessary quote parameters. The API consists of a simple set of operations that interact with CRM/Order Negotiation systems in a consistent manner.

A customer quote is created based on a product offer that is defined in a catalog. The quote identifies the product or set of products that are available to a customer, and includes characteristics such as pricing (eventually special pricing for the customer described in the quote), product options and agreement

RESOURCE MODEL CONFORMANCE

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
quote	M	Quote versioning management is an optional feature.

Quote MANDATORY AND OPTIONAL ATTRIBUTES

The table below summarizes mandatory and optional attributes for resource "Quote"

Attribute Name	Mandatory or Optional	Comments
id	M (in response messages) O (otherwise)	Initially generated by the server and provided in the response upon resource creation. Not available in POST request
href	M (in response messages) O (otherwise)	Initially generated by the server and provided in the response upon resource creation Value in response must be the same as the one set in Location header provided upon entity creation Not available in POST request
category	O	
description	O	
effectiveQuoteCompletionDate	O/M	Must be provided once quote has been completed
expectedFulfillmentStartDate	O	
expectedQuoteCompletionDate	O	
externalId	O	
instantSyncQuote	O	By default value to false.

quoteDate	M (in response messages)	Not available in POST request
requestedQuoteCompletionDate	O	
version	O/M	Must be provided if Quote API versioning is used else optional and V1 always considered by default
state	M (in response messages) O (otherwise)	Only required in response messages from the server when providing the Quoteing entity contents (responses to create-POST and read-GET the entity)
@baseType	O	
@type	O	
@schemaLocation	O	
validFor (for quote)	O/M	A validity period must be managed for priced quote.
endDateTime	M	
startDateTime	M	
agreement	O	Array of agreement
id	M	
href	O	
name	O	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
billingAccount	O	zero or one billing account same rule applies for billingAccount structure nested in quoteItem and in tariff
id	M	
href	O	
name	O	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
contactMedium	O	
mediumType	M	
preferred	O	
validFor	O	<i>Business Required</i>

@schemaLocation	O	
@type	O	
@referredType	O	
characteristic (for contact Medium)		
city	O/M M if street valued	<i>Business Required</i>
country	O	<i>Business Required</i>
emailAddress	O	<i>Business Required</i>
faxNumber	O	
phoneNumber	O	<i>Business Required</i>
postCode	O/M M if street valued	<i>Business Required</i>
socialNetworkId	O	<i>Business Required</i>
stateOrProvince	O	<i>Business Required</i>
street1	O	<i>Business Required</i>
street2	O	<i>Business Required</i>
@schemaLocation	O	
@type	O	
@referredType	O	
note	O	Array of note(s)
id	O	
date	O	
author	O	
text	M	
@baseType	O	
@schemaLocation	O	
@type	O	
productOfferingQualification	O	Array of Product Offering Qualification
id	M	
href	O	
name	O	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
quoteAuthorization	O	Array of quote authorization (same rule applies for authorization at item level)
authorizationGivenDate	M	
authorizationName	M	
authorizationRequestedDate	O	
authorizationSignatureRepresentation	O	

	authorizationState	M	
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	approver	O	Array of authorization approver(s)
	id	M	
	href	O	
	name	O	
	role	M	
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	@referredType	O	
	relatedParty	O/M	Array of structures same rule applies for relatedParty structure nested in product RelatedParty are mandatory to at least indicate requester except specific UC
	id	M	
	href	O	
	role	M/O	The role is mandatory if the id is referring a party resource. The role is optional is the id is referring a partyRole resource.
	name	O	
	@referredType	M	It allows to get id type : partyRole or Party or Party specialization: individual or organization
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	quoteTotalPrice quoteItemPrice	O/M	Array of quoteTotalPrice, quoteItemPrice At least quoteItem or quoteTotal must be provided in priced quote
	description	O	
	name	O	
	priceType	M	

	recurringChargePeriod	M if price type is recurring – must not be filled else	
	unitOfMeasure	O	
	@basetype	O	
	@schemaLocation	O	
	@type	O	
	price	M	zero or 1 for each orderPrice and priceAlteration
	percentage	O	
	taxRate	O	
	dutyFreeAmount	M if price taxIncludedAmount not provided. Exception: : if price is used in priceAlteration dutyFreeAmount and taxIncludedAmount could be null if a percentage is provided	see amount for internal structure
	taxIncludedAmount	M if dutyFreeAmount not provided Exception: if price is used in priceAlteration dutyFreeAmount and taxIncludedAmount could be null if a percentage is provided	see amount for internal structure
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	amount	M for amount	Structure used to describe amount in the API
	unit	M	
	value	M	
	priceAlteration	M	Array of price(s) <i>Business Required</i>
	applicationDuration	O	
	description	O	
	name	O	
	priceType	M	
	priority	O	

		Exception: if several priceAlteration with same type applied on a same priceItem priority must be valued	
	recurringChargePeriod	M if price type is recurring – must not be filled else	
	unitOfMeasure	O	
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	productOfferingPrice	O	zero or 1 for priceAlteration or itemPrice
	id	M	
	href	O	
	name	O	
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	@referredType	O	
	quoteItem	M	Array of item – At least one must be provided
	id	M	
	quantity	O	by default '1' if not provided
	action	M	
	state	M (in response messages) O (otherwise)	Only required in response messages from the server when providing the Quoteing entity contents (responses to create-POST and read-GET the entity)
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	appointment	O	Array of appointment(s)
	id	M	
	href	O	
	description	O	
	@baseType	O	
	@schemaLocation	O	
	@type	O	
	@referredType	O	
	attachment	O	Array of attachment(s)

id	O/M mandatory if attachment provided by ref	
href	O	
attachmentType	O/M must be provided if attachment provided by value	
content	O	
description	O	
contentType	O/M must be provided if attachment provided by value	
name	O	
url	O	
@schemaLocation	O	
@type	O	
@referredType	O	
@baseType	O	
size	O	
amount	M	
unit	M	
validFor (for attachment)	O	
endDateTime	O	
startDateTime	M	
product	O/M Must be provided if not productOffering provided	0 or 1
id	M id product referred	Best practice: Mandatory for any action different from add
href	O	
isBundle	O By default: false	
name	O	
@type	O	
@schemaLocation	O	
@baseType	O	
productCharacteristic		Array of product characteristic(s) Capability to provide characteristic valued is mandatory if

			<ul style="list-style-type: none"> Characteristic defined in catalog for this productSpec and targetProductSchema no provided
name	M		
valueType	O string is considered by default		
value	M		This attribute type is any in the swagger
@baseType	O		
@schemaLocation	O		
@type	O		
productRelationship			Array of product relationship(s)
relationshipType	M		
product	M		A referred or valued product must be present
@baseType	O		
@schemaLocation	O		
@type	O		
productSpecification	O/M if quoteItem.action = add a productOffering or a productSpecification must be provided		0 or 1
id	M		
href	O		
version	O		
name	O		
targetProductSchema			0 or 1
@baseType	O		
@schemaLocation	O		
@type	M		
realizingResource	O		an array of resource realizing this product
id	M		
href	O		
name	O		
value	O		
@baseType	O		
@schemaLocation	O		
@type	O		
@referredType	O		

realizingService	O	an array of service realizing this product
id	M	
href	O	
name	O	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
relatedPlace	O/M	Array of place(s) Required for any quote used to price product requiring installation/shipping
id	M if place passed by ref	
href	O	
name	O	
role	M	
@referredType	M	Because place could be a geographicAddress, geographicLocation or a geographicSite, a type must be provided.
@schemaLocation	O	
@baseType	O	
@type	O	
productOffering	O/M if orderItem.action = add a productOffering or a productSpecification must be provided	0 or 1
id	M	
href	O	
name	O	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
productOfferingQualificationItem	O	0 or 1 Product Offering Qualification Item used to qualified previously this product order item
id	M	This is an id of a POQ item (not a POQ id)

href	O	
name	O	
productOfferingQualificationHref	O	
productOfferingQualificationName	O	
productOfferingQualificationId	M	
@baseType	O	
@schemaLocation	O	
@type	O	
@referredType	O	
quoteItem	O	An array of quoteItem(s) embedded
quoteItemRelationship	O	Array of Item relationship
id	M	
relationshipType	M	
@baseType	O	
@schemaLocation	O	
@type	O	

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.

Quote MANDATORY AND OPTIONAL NOTIFICATIONS

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

Here's an example of a request for registering a listener:

Notification Name	Mandatory or Optional	Comments
quoteCreateEvent	O	
quoteStateChangeEvent	O	
quoteDeleteEvent	O	
quoteInformationRequiredEvent	O	

All attributes of the resource associated with the notification are mandatory.

API OPERATIONS CONFORMANCE

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

Quote MANDATORY AND OPTIONAL OPERATIONS

The following table indicates which ones are mandatory and which ones are optional for Quote resource:

Uniform API Operation	Mandatory/Optional	Comments
GET	M/O	GET must be used to retrieve a representation of a resource This operation could be optional for implementation where quoting is provided on the fly in POST response.
POST	M	POST must be used to create a new resource If quote versioning is provided, the POST must be able to get id attribute in input and create a new resource version of an existing one.
PATCH	O	PATCH must be used to partially update a resource
DELETE	O	DELETE must be used to remove a resource

The capability to manage versioning on quote (and using POST with an id in the request to create a new version) is tagged as an optional feature for conformance.

API GET FILTERING OPERATION CONFORMANCE

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

Definitions

Filtered Search: A filtered search can be applied using query parameters in order to obtain only the resource entities 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.:?category=<value> &state=<value>)

Attribute selection (Filtered Response Data): In order to apply a filter and limit the number of attributes included in the response, the GET request can include the “?fields=” query parameter. Several elements can be applied to the filter. In that case, a logical AND is applied to combine the values (e.g.:?fields=category,state) will provide in the response only the values assigned to attributes category and state. Attribute selection capabilities are the same for collections retrieval and individual resource queries

All the GET operations in this API share the state status code pattern:

GET	M	
Response Status Code 200	M	With JSON appointment objects as body response.
Response Status Code 404	M	When resource can't be found
Other Status Codes	N/A	

/quoteManagement/v4/quote?fields=...&{filtering}

Filtered Search:

Providing filtering criteria is mandatory to avoid too many answers retrieved. See example below:

- category
- description
- effectiveQuoteCompletionDate
- state + effectiveQuoteCompletionDate interval (effectiveQuoteCompletionDate > 11/4/2018 & effectiveQuoteCompletionDate > 11/9/2017)
- ...

Filtered Data: A filtered response can be requested for the following attributes using the “?fields=” query parameter

- Any of the attributes in the first level of Quote resource definition

`/quoteManagement/v4/quote/{ID}?fields=...`

Filtered Search: A filtered response can be requested for the following attributes using the “?fields=” query parameter

- Any of the attributes in the first level of Quote resource definition

API POST OPERATION CONFORMANCE

/quoteManagement/v4/quote/

This Uniform Contract operation is used to create a Quote resource in the server.

The response to this operation must include a Location header set to /quoteManagement /v4/quote/{ID} where {ID} indicates the identifier assigned by the server to the new quote resource created

POST	M	
Response Status Code 201	M	
Other Status Codes	NA	

The following table indicates attributes that are required to be sent when creating a new Quote as well as attributes with special considerations:

Attribute name	Mandatory	Default	Rule
id	NA/M		Must not be in POST request except if a new version of an existing quote is r
href	NA		Must not be in POST request
category	O		
description	O		
effectiveQuoteCompletionDate	NA		Must not be in POST request
expectedFulfillmentStartDate	NA		
expectedQuoteCompletionDate	NA		
externalId	O		
instantSyncQuote	O	false	
quoteDate	NA		Must not be in POST request
requestedQuoteCompletionDate	O		
version	O	1	
state	NA		Must not be in POST request
validFor	NA		Must not be in POST request
agreement	O		If present an id must be provided.
billingAccount	O		If present an id must be provided
contactMedium	O		If present mediumType must be valued and then contactMedium.characteristic must be filled accordingly.
note	O		If present a text must be provided. id is optional but very helpful for modification via JSON/PATCH
productOfferingQualification	O		If present an id must be provided.
quoteAuthorization	NA		Must not be in POST request

Attribute name	Mandatory	Default	Rule
quoteTotalPrice/quoteItemPrice	NA		Must not be in POST request
price	NA		Must not be in POST request
amount	NA		Must not be in POST request
priceAlteration	NA		Must not be in POST request
productOfferingPrice	O		If present an id must be provided.
relatedParty	O		If present an id must be provided. If id is not a partyRole, the role is mandatory. @referredType is mandatory
quoteItem	M		At least one item required. id and action are mandatory. quantity is by default set to 1. At least one productOffering or one product must be provided
appointment	NA		Must not be in POST request
attachment	O		Id if attachment is referred else all relevant information must be supplied to provide the attachment by value
product	O		...Mandatory if productOffering not provided if the product is referred by reference (id) , this one is mandatory
productCharacteristic	O		name and value are mandatory. by default, valueType as 'string' value.
productRelationship	O		relationshipType and a product target must be provided
productSpecification	O		if present an id must be provided. if targetProductSchema used @baseType or @type must be provided.
realizingResource	O		If present an id must be provided.
realizingService	O		If present an id must be provided.
relatedPlace	O		If provided, role is mandatory.
productOffering	O		...Mandatory if product not provided If present an id must be provided.
quoteItem embedded in quoteItem	O		
quoteItemRelationship	O		If present an id & relationshipType must be provided.
productOfferingQualificationItem	O		If present an id must be provided.
quoteItemAuthorization	O		Must not be in POST request

The response from the server must include a BODY with the contents of the new resource created, filled with at least the same information elements that were included in the request and are supported by the server. Notice

that the value stored by the server may be different than the one set in the request (e.g.: productSpecification.Name)

If the POST request includes optional parameters (as per the model resource definition) that are not supported by the server, then the server must reject the request (replying with a 4xx error response) indicating the parameter not supported.

The BODY of the response from the server must include attribute “href” set to the same value as the one in the Location header.

The server must include in the BODY of the response, even if they are not included in the request, the following attributes that are mandatory in the definition of a Quote as per the resource model defined

- id
- href
- state
- quoteDate
- quoteItem.state

We must note that some attributes must not be sending in the POST request and could be not valued in the POST answer:

- expectedQuoteCompletionDate
- effectiveQuoteCompletionDate
- validFor

The BODY of the response from the server could include attribute “href” (or “reference”) under each one of the entities within the Quote model that can be addressed individually and were included in the response. This applies to any of the following entities

- relatedParty
- productSpecification
- place
- product
- supportingService
- supportingResource
- productOfferingQualification
- billingAccount
- attachment
- payment
- etc...

API PATCH OPERATION CONFORMANCE

This section defines which attributes are patchable.

Since PATCH operation is optional and not included in the basic CONNECT certification this is not applicable in this conformance document.

API DELETE OPERATION CONFORMANCE

This section defines what operations can be used to delete a Quote resource.

Since DELETE operation is optional and not included in the basic CONNECT certification this is not applicable in this conformance document

API CONFORMANCE TEST SCENARIOS

This section describes the test scenarios required for the basic CONNECT certification of Quote API.

Test Cases must be executed in the order defined for each resource because the result from one of the scenarios will be input for the next one.

Requests must be addressed to the endpoint provided for certification, specifically they must be addressed to the URI defined by the concatenation of the {apiRoot} and the specific resource, where the {apiRoot} is defined as {serverRoot}/tmf-api/quoteManagement/v4, being {serverRoot} defines the certification endpoint

Quote resource TEST CASES

Nominal Scenarios

TC_Quote_N1 – Create new Quote with minimum required information

Send a POST message to {apiRoot}/quote/ with the following contents in the BODY

```
{
  "category": "BSBSQuote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-21T12:45:12.028Z",
  "externalId": "Q0-tr-89",
  "instantSyncQuote": false,
  "requestedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
  "version": "1",
  "@type": "Quote",
  "@baseType": "Quote",
  "agreement": [
    {
      "id": "7778-jj56",
      "href": "https://host:port/agreementManagement/v4/agreement/7778-jj56",
      "name": "Global Agreement",
      "@baseType": "Agreement",
      "@referredType": "MassAgreement"
    }
  ],
  "billingAccount": [
    {
      "id": "BA4569",
      "href": "https://host:port/accountManagement/v4/billingAccount/BA4569"
    }
  ],
  "contactMedium": [
    {
```



```
    "mediumType": "email",
    "preferred": true,
    "characteristic": {
      "country": "France",
      "emailAddress": "jean.pontus@PerfectCustomer.com"
    },
    "validFor": {
      "startDateTime": "2019-05-06T12:45:12.028Z"
    }
  },
],
"note": [
  {
    "id": "1",
    "author": "Jean Pontus",
    "date": "2019-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call"
  }
],
"productOfferingQualification": [
  {
    "id": "22ds-ty55",
    "href":
"https://host:port/productOfferingQualificationManagement/v4/productOfferingQualification
/22ds-ty55"
  }
],
"quoteItem": [
  {
    "id": "1",
    "action": "add",
    "quantity": 10,
    "@type": "QuoteItem",
    "product": {
      "productCharacteristic": [
        {
          "name": "Voice Bundle",
          "valueType": "string",
          "value": "unlimited"
        },
        {
          "name": "Data Bundle",
          "valueType": "object",
          "value": {
            "volume": 50,
            "unit": "Gb/month"
          }
        }
      ]
    }
  }
],
```

```
    "productSpecification": {
      "id": "ssp7-ty89",
      "href":
"https://host:port/productCatalogManagement/v4/productSpecification/ssp7-ty89",
      "name": "TMF Tariff Plan"
    }
  },
  "productOffering": {
    "id": "54gg-zza1",
    "href": "https://host:port/productCatalogManagement/v4/productSpecification/54gg-
zza1",
    "name": "TMF Tarif Plan 25"
  }
},
{
  "id": "2",
  "action": "add",
  "quantity": 10,
  "@type": "QuoteItem",
  "attachment": [
    {
      "attachmentType": "brochure",
      "description": "handset brochure",
      "mimeType": "pdf",
      "name": "Handset commercial brochure.pdf",
      "url": "www.tmf_hanset/contentMangement/brochure.pdf",
      "size": {
        "amount": 3.7,
        "units": "Mb"
      },
      "validFor": {
        "startDateTime": "2019-05-06T12:45:12.031Z"
      }
    }
  ],
  "product": {
    "productSpecification": {
      "id": "qq45-ytr7",
      "href":
"https://host:port/productCatalogManagement/v4/productSpecification/qq45-ytr7",
      "name": "Handset",
      "@type": "ProductSpecification",
      "version": "1"
    }
  },
  "productOffering": {
    "id": "z789-78ga",
    "href": "https://host:port/productCatalogManagement/v4/productOffering/z789-
78ga",
```

```
        "name": "TMF handset T9+",
        "@type": "ProductOffering"
    }
},
{
    "id": "3",
    "action": "add",
    "quantity": 1,
    "@type": "QuoteItem",
    "productOffering": {
        "id": "ssdd-4dfd",
        "href": "https://host:port/productCatalogManagement/v4/productOffering/ssdd-4dfd",
        "name": "Gold Support"
    }
},
"relatedParty": [
    {
        "name": "Jean Pontus",
        "id": "qsdd-9888",
        "role": "Buyer Contact",
        "@type": "RelatedParty",
        "@referredType": "Individual"
    },
    {
        "name": "Joe Doe",
        "id": "45gh-gh89",
        "role": "Seller Contact",
        "@type": "RelatedParty",
        "@referredType": "Individual"
    }
]
}
```

Wait for a response from the server with the following characteristics

- Response Code 201-Created
 - Include a location header in the body set to `/{apiRoot}/quote/{IDQ1}` where `{IDQ1}` indicates the identifier assigned by the server to the new Quote resource
 - The response message includes all mandatory parameters (**including id, state, quoteItem.state and quoteDate that were not sent in the original request**)
 - The body of the response matches the values set in the original request
- Send a GET message to `/{apiRoot}/quote/{IDQ1}`

- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource with ID set to {IDQ1}, the same identifier as assigned by the server to the new resource created
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier {IDQ1} matches the values set in the original request

TC_Quote_N2 – Create new Quote with minimum set of parameters supported by server

- Send a POST message to {apiRoot}/quote/ with the following contents in the BODY

```
{
  "category": "BSBSQuote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-24T12:45:12.028Z",
  "externalId": "Q0001",
  "instantSyncQuote": false,
  "requestedQuoteCompletionDate": "2019-05-23T12:45:12.028Z",
  "version": "1",
  "@type": "Quote",
  "@baseType": "Quote",
  "quoteItem": [
    {
      "id": "1",
      "action": "add",
      "quantity": 1,
      "@type": "QuoteItem",
      "product": {
        "productCharacteristic": [
          {
            "name": "Voice Bundle",
            "valueType": "string",
            "value": "unlimited"
          },
          {
            "name": "Data Bundle",
            "valueType": "object",
            "value": {
              "volume": 50,
              "unit": "Gb/month"
            }
          }
        ]
      }
    }
  ]
}
```

```

    }
  },
  ],
  "productSpecification": {
    "id": "ssp7-ty89",
    "href":
"https://host:port/productCatalogManagement/v4/productSpecification/ssp7-ty89",
    "name": "TMF Tariff Plan",
    "@type": "ProductSpecification"
  }
},
"productOffering": {
  "id": "54gg-zza1",
  "href": "https://host:port/productCatalogManagement/v4/productSpecification/54gg-
zza1",
  "name": "TMF Tarif Plan 25",
  "@type": "ProductOffering"
}
}
],
"relatedParty": [
  {
    "name": "Jean-Luc Thymen",
    "role": "Buyer Contact",
    "id": "45gh-gh66",
    "@type": "RelatedParty",
    "@referredType": "Individual"
  },
  {
    "name": "Joe Doe",
    "role": "Seller Contact",
    "id": "45gh-gh89",
    "@type": "RelatedParty",
    "@referredType": "Individual"
  }
]
}

```

- Wait for a response from the server with the following characteristics
 - Response Code 201-Created
 - Include a location header in the body set to `/{apiRoot}/quote/{IDQ2}` where `{IDQ2}` indicates the identifier assigned by the server to the new Quote resource
 - The response message includes all mandatory parameters (including `quoteDate` and `state` that were not sent in the original request)

- The body of the response matches the values set in the original request
- Send a GET message to `/{apiRoot}/quote/{IDQ2}`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource with ID set to `{IDQ2}`, the same identifier as assigned by the server to the new resource created
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier `{IDQ2}` matches the values set in the original request

TC_Quote_N3 – Search for Quote with specific characteristics

- Send a GET message to `/{apiRoot}/quote?category=BSBSQuote`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes at least two Quote resources referring to `{IDQ1}` and `{IDQ2}`
 - The body of the response for the resource with each identifier matches the values in the corresponding original request
- Send a GET message to `/{apiRoot}/quote?externalId= QO-tr-89`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource referring to `{IDQ1}` and there is no reference to Quote resource `{IDQ2}`
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier `{IDQ1}` matches the values in the original request

- Send a GET message to `/{apiRoot}/quote?externalId=Q0001`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource referring to `{IDQ2}` and there is no reference to Quote resource `{IDQ1}`
 - The response message includes all mandatory parameters
 - The body of the response for the resource with identifier `{IDQ2}` matches the values in the original request

TC_Quote_N4 – Filtered retrieval of Quote

- Send a GET message to `/{apiRoot}/quote/{IDQ2}?fields=id,href,externalId,version,state`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource referring to `{IDQ2}` and including only attributes `id,href,externalId,priority` and `state`:

```
{
  "id": "IDQ2",
  "href": "https://host:port/quotegManagement/v4/quote/IDQ2",
  "externalId": "Q0001",
  "version": "1",
  "state": "acknowledged"
}
```

- Send a GET message to `/{apiRoot}/quote/{IDQ1}?fields=id,state,quoteItem.id,quoteItem.state,quoteItem.action`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK

- The body of the response includes one Quote resource referring to {IDQ1} and including only attributes id, state, and an array of order item with attributes: id, state, and action matching the values in the original request:

```
{
  "id": " IDQ1",
  "quoteItem": [
    {
      "id": "1",
      "action": "add",
      "state": "acknowledged",
    },
    {
      "id": "2",
      "action": "add",
      "state": "acknowledged",
    },
    {
      "id": "3",
      "action": "add",
      "state": "acknowledged",
    }
  ],
  "state": "acknowledged",
}
```

Notice that this test case is using parameters "state", "id", "orderItem.id", "quoteItem.state" and "quoteItem.action" to filter the data included in the response but any other quote parameter could be used

TC_Quote_N5 – Filtered Search and Filtered data response

- Send a GET message to `{apiRoot}/quote?externalId=QO-tr-89&fields=id,state,category,description`
- Wait for a response from the server with the following characteristics
 - Response Code 200-OK
 - The body of the response includes one Quote resource referring to {IDQ1} and there is no reference to Quote resource {IDQ2}

- The body of the response for the resource includes only attributes id, state and category matching the values in the corresponding original request:

```
{
  "id": "IDQ1",
  "category": "BSBSQuote",
  "description": "Quote illustration",
  "state": "acknowledged",
}
```

Notice that this test case is using the parameters id,state,category, and description to filter the data included in the response but any otherquote parameter could be used

Error Scenarios

TC_Quote_E1 – Unknown Trouble Quote identifier

- Send a GET message to `{apiRoot}/quote/{IDQ3}`, where `{IDQ3}` does not match any of the identifiers previously created in the server
- Wait for a response from the server with the following characteristics
 - Response Code 404-Not Found

TC_Quote_E2 – Invalid Request – unexpecting parameter

- Send a POST message to `{apiRoot}/Quote/` with the following contents in the BODY.

```
{
  "category": "BSBSQuote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-24T12:45:12.028Z",
  "externalId": "Q0001",
  "instantSyncQuote": false,
  "requestedQuoteCompletionDate": "2019-05-23T12:45:12.028Z",
  "quoteDate": "2019-05-23T12:45:12.028Z",
  "version": "1",
  "state": "acknowledged",
  "quoteItem": [
    {
      "id": "1",
```

```
"action": "add",
"quantity": 1,
"state": "acknowledged",
"product": {
  "productCharacteristic": [
    {
      "name": "Voice Bundle",
      "valueType": "string",
      "value": "unlimited"
    },
    {
      "name": "Data Bundle",
      "valueType": "object",
      "value": {
        "volume": 50,
        "unit": "Gb/month"
      }
    }
  ],
  "productSpecification": {
    "id": "ssp7-ty89",
    "href":
"https://host:port/productCatalogManagement/v1/productSpecification/ssp7-ty89",
    "name": "TMF Tariff Plan"
  }
},
"productOffering": {
  "id": "54gg-zza1",
  "href":
"https://host:port/productCatalogManagement/v1/productSpecification/54gg-zza1",
  "name": "TMF Tarif Plan 25"
}
],
"relatedParty": [
  {
    "name": "Jean-Luc Thymen",
    "role": "Buyer Contact",
    "id": "45gh-gh66",
    "@referredType": "Individual"
  },
  {
    "name": "Joe Doe",
    "role": "Seller Contact",
    "id": "45gh-gh89",
    "@referredType": "Individual"
  }
]
}
```

Notice that this request features unaccepting parameters as state, quoteItem.state and quoteDate.

- Wait for an error response from the server indicating the unexpected parameters in the request

TC_Quote_E3 – Invalid Request – Missing parameter mandatory in context

- Send a POST message to {apiRoot}/quote/ with the following contents in the BODY.

```
{
  "category": "BSBSQuote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-24T12:45:12.028Z",
  "externalId": "Q0001",
  "instantSyncQuote": false,
  "requestedQuoteCompletionDate": "2019-05-23T12:45:12.028Z",
  "version": "1",
  "quoteItem": [
    {
      "id": "1",
      "action": "add",
      "quantity": 1,
      "product": {
        "productCharacteristic": [
          {
            "name": "Voice Bundle",
            "valueType": "string",
            "value": "unlimited"
          },
          {
            "name": "Data Bundle",
            "valueType": "object",
            "value": {
              "volume": 50,
              "unit": "Gb/month"
            }
          }
        ],
        "productSpecification": {
          "name": "TMF Tariff Plan"
        }
      },
      "productOffering": {
        "name": "TMF Tarif Plan 25"
      }
    }
  ],
  "relatedParty": [
```

```
{
  "id": "45gh-gh66",
  "name": "Jean-Luc Thymen",
  "role": "Buyer Contact",
  "@referredType": "Individual"
},
{
  "id": "45gh-gh89",
  "name": "Joe Doe",
  "role": "Seller Contact",
  "@referredType": "Individual"
}
]
```

Notice that this request is missing a product specification id and/or a productOffering id in the order item described.

- Wait for an error response from the server indicating the mandatory parameter is missing in the request

Document History

Version History

Version Number	Date	Release led by:	Description
1.0.0 Release 18.0	06/12/2017	Ludovic Robert	First Release of the Document.
1.0.1	12/04/2018	Ludovic Robert	Corrected following Andreas Schlüter
2.0.0 Release 19.0	24-May-2019	Ludovic Robert	Corrected for R19.0

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