

TM Forum Specification

Quote

TMF648

Maturity Level: TBD	Team Approved Date: TBD
Release Status: TBD	Approval Status: TBD
Version TBD	IPR Mode: RAND

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Introduction

The following document is the specification of the REST API for customer quote management. It includes the model definition as well as all available operations. Possible actions are creating, updating and retrieving customer quotes.

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.

Quote API performs the following operations on customer quote:

- Retrieval of a customer quote or a collection of customer quote depending on filter criteria
- Partial update of a customer quote (including updating rules)
- Creation of a customer quote (including versioning, default values and creation rules)
- Deletion of customer quote (for administration purposes)
- Notification of events on quote such us:
 - Quote creation
 - Quote removal
 - Quote state change
 - Quote value change used to notify that any data in an quote has just changed
 - Quote information required used to notify that some data in the quote need to be filled / are missing
 - Quote is a pending state waiting approval (for the whole quote or only for quote item)
 - Quote is accepted by the customer but there is at least one agreement to be signed

The following Assumptions were considered in the development of this document:

- The customer quote management system has access to the commercial catalog system.
- Supplier Quote is not managed in the scope of this document.

Sample Use Cases

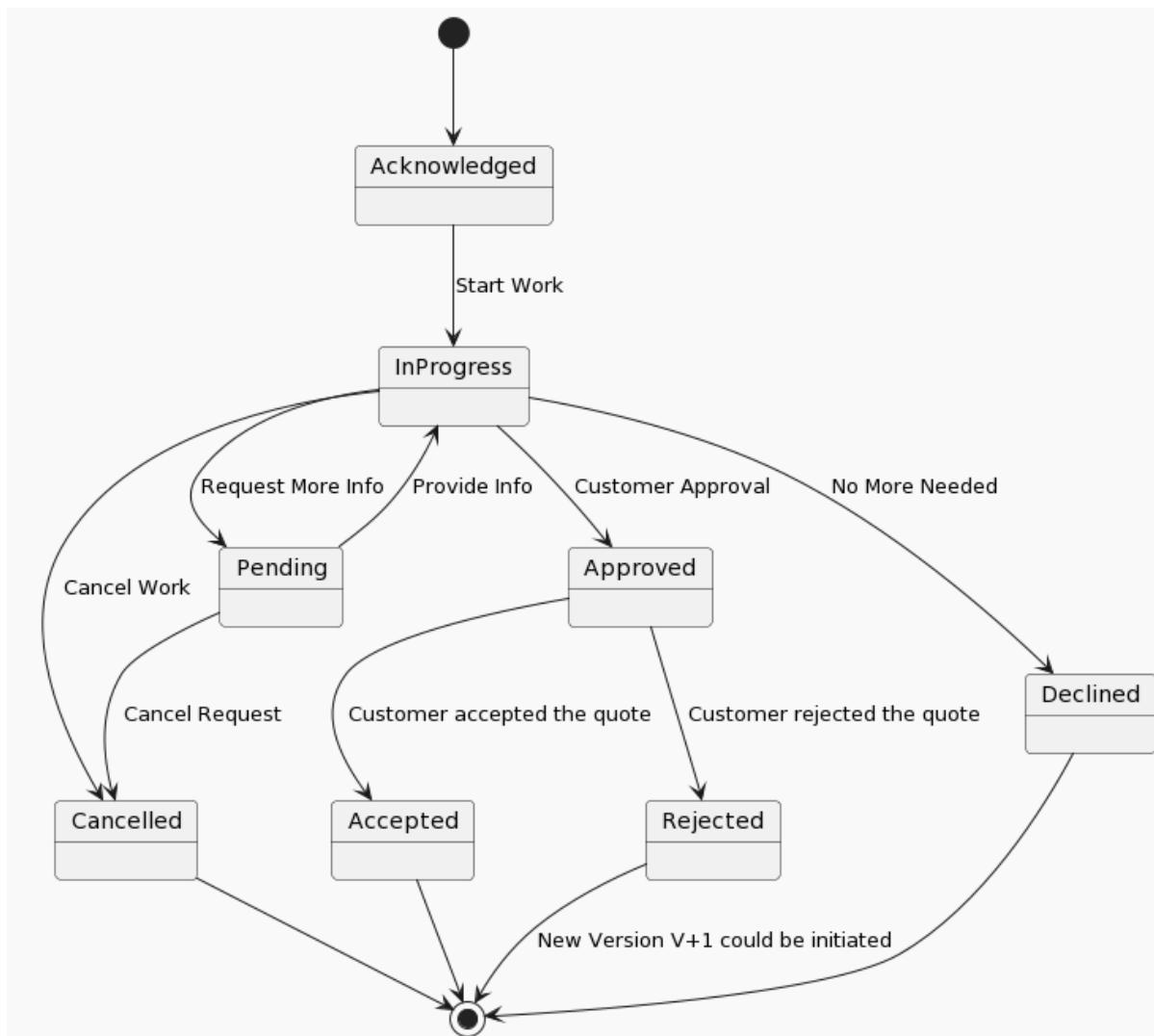
The following table maps out the UC case with Internal/External actors. An internal actor is a representative of the ISP – an external is typically a representative of the prospect/customer.

UC	Actor	Rule
A new quote or a new version of a quote is created	Internal/ External (Customer)	
An existing quote should be updated	Internal/ External (Customer)	Quote in status In Progress or Pending
An existing quote should be validated before to be send to the customer	Internal	Quote in status In Progress or Pending
An existing quote should be updated after submission to the customer	Internal/ External	Only status could be updated
a quote or a collection of quotes should be retrieved	Internal/ External (customer)	For an external access special checks and conditions are required (quote status, fields retrieved)
For technical reason a quote should be removed	Internal	

In order to illustrate JSON message we will use a Quote with following features:

- A global authorization
- 3 quote items:
 - For 10 lines for a TMF Tarif plan – a 10% off catalog price will be awarded
 - For 10 handsets - a commercial brochure will be provided in quote response
 - A free support for the 12 first months.

Quote Life Cycle



State	Definition
Acknowledged	The Acknowledged state represents the stage at which the customer's requirements have been received, but the treatment or processing has not started yet.
In Progress	The In Progress state is when the quote is currently in the hands of the SP sales team to build it regarding customer requirements. The quote is under construction and needs more information. Everything should be updatable in this state.
Pending	The Pending state is used when a quote needs to be validated from the SP perspective for tariff validation or to capture detailed information. The Pending state could be only for some quote items.
Approved	The Cancelled state is when the quote process is stopped from a SP decision. A cancelled quote has never been send to the customer.
Accepted	The Accepted state is used when the customer agreed to commit to the order and signed the quote.

State	Definition
Rejected	The Rejected state is used when the customer does not wish to progress with the quotation. It could be his final decision and no other quote will be initiated from this quote or it could be during negotiation phase and a new quote version is triggered from this quote. This new version of the quote is created with the in Progress state.
Declined	The Declined state indicates that the request or process of the quotation has been stopped, and no further action will be taken.

Support of polymorphism and extension patterns

Support of polymorphic collections and types and schema based extension is provided by means of a list of generic meta-attributes that we describe below. Polymorphism in collections occurs when entities inherit from base entities, for instance a BillingAccount and SettlementAccount inheriting properties from the abstract Account entity.

Generic support of polymorphism and pattern extensions is described in the TMF API Guidelines v3.0 Part 2 document.

The @type attribute provides a way to represent the actual class type of an entity. For example, within a list of Account instances some may be instances of BillingAccount where other could be instances of SettlementAccount. The @type gives this information. All resources and sub-resources of this API have a @type attributes that can be provided when this is useful.

The @referredType can be used within reference entities (like for instance an AccountRef object) to explicitly denote the actual entity type of the referred class. Notice that in reference entities the @type, when used, denotes the class type of the reference itself, such as BillingAccountRef or SettlementAccountRef, and not the class type of the referred object. However since reference classes are rarely sub-classed, @type is generally not useful in reference objects.

The @schemaLocation property can be used in resources to allow specifying user-defined properties of an Entity or to specify the expected characteristics of an entity.

The @baseType attribute gives a way to provide explicitly the base of class of a given resource that has been extended.

RESOURCE MODEL

Managed Entity and Task Resource Models

Quote resource

Quote can be used to negotiate service and product acquisition or modification between a customer and a service provider. Quote contain list of quote items, a reference to customer (partyRole), a list of productOffering and attached prices and conditions.

Resource model

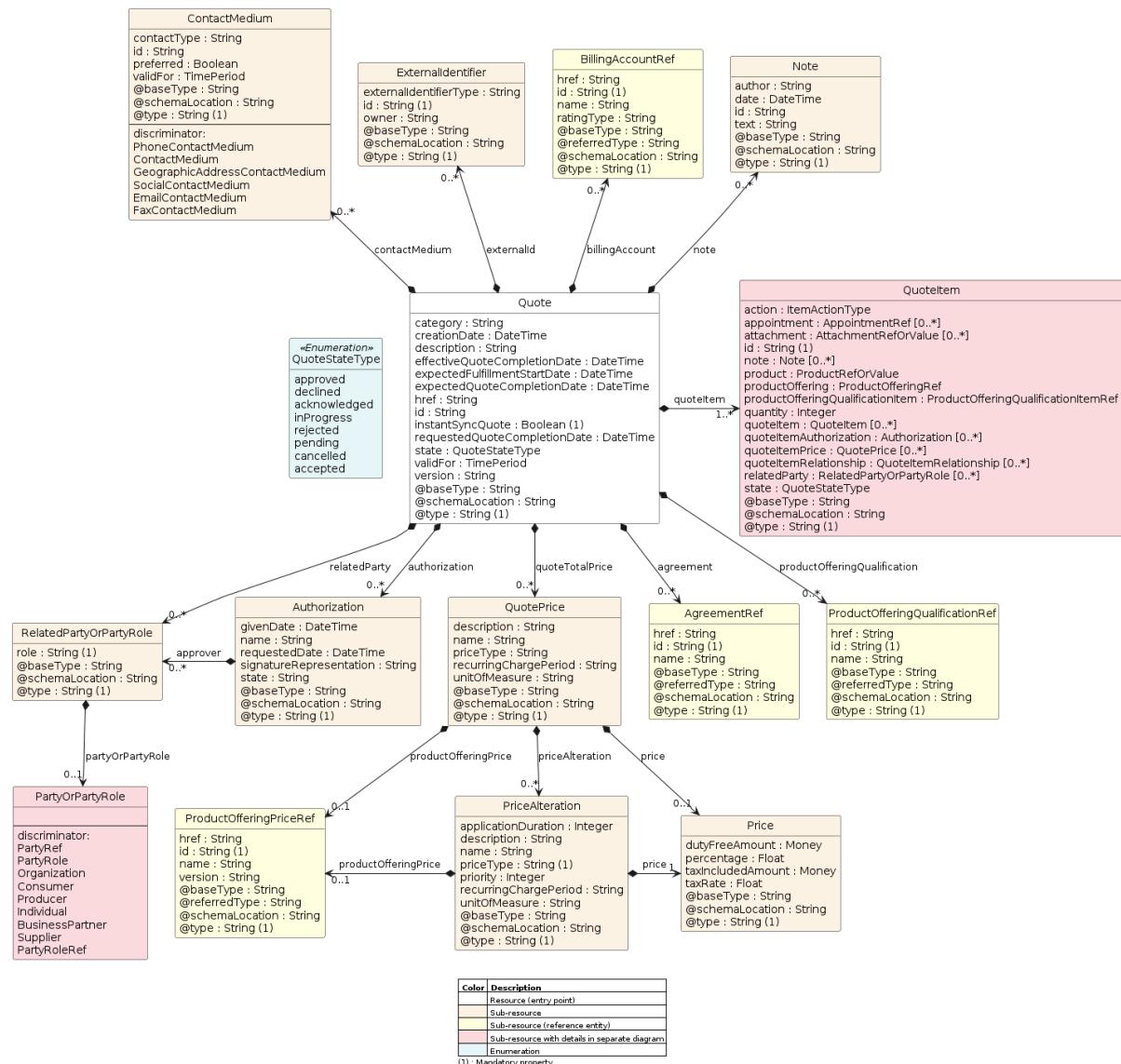


Figure 1 - Quote

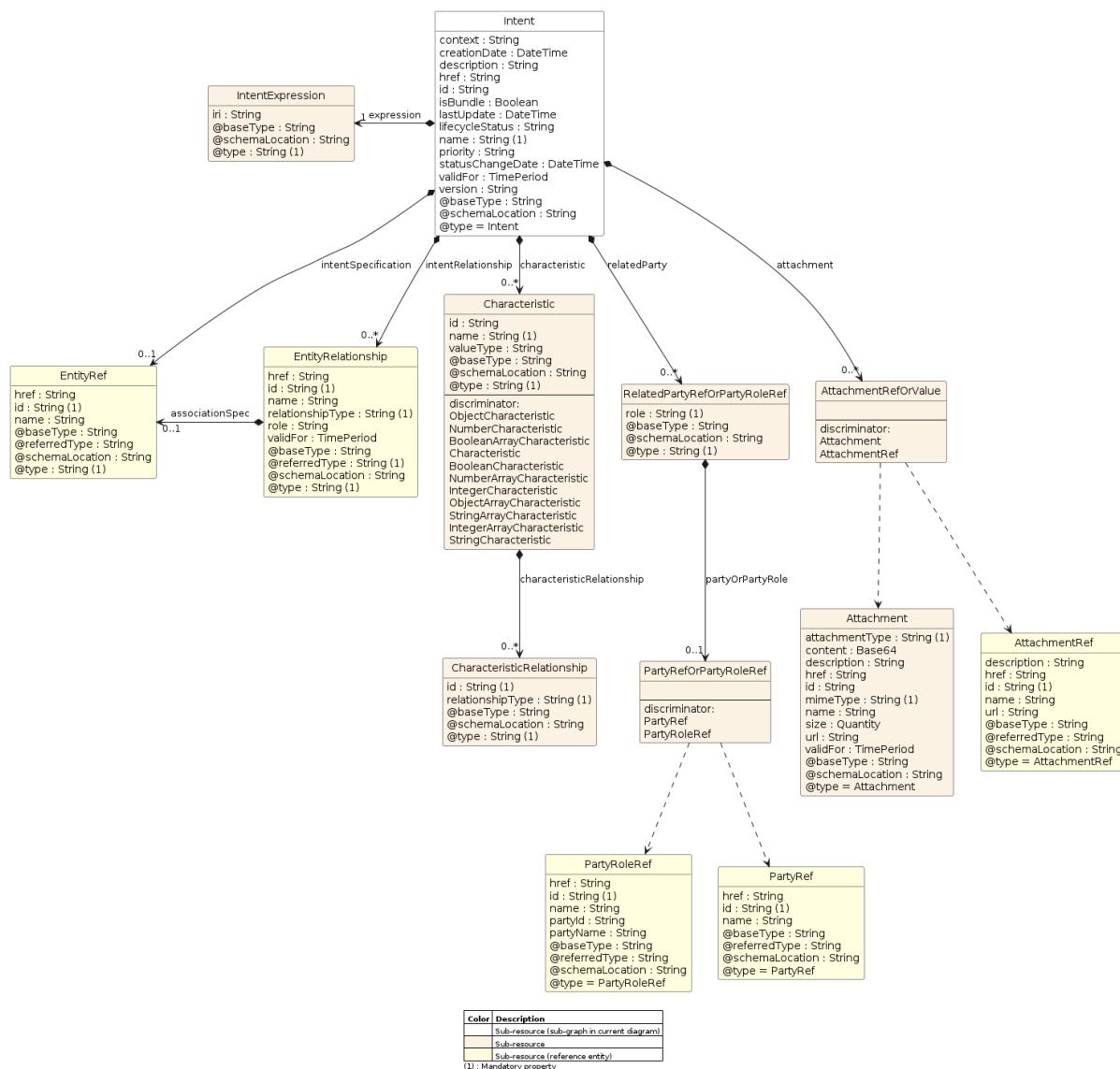


Figure 2 - Intent

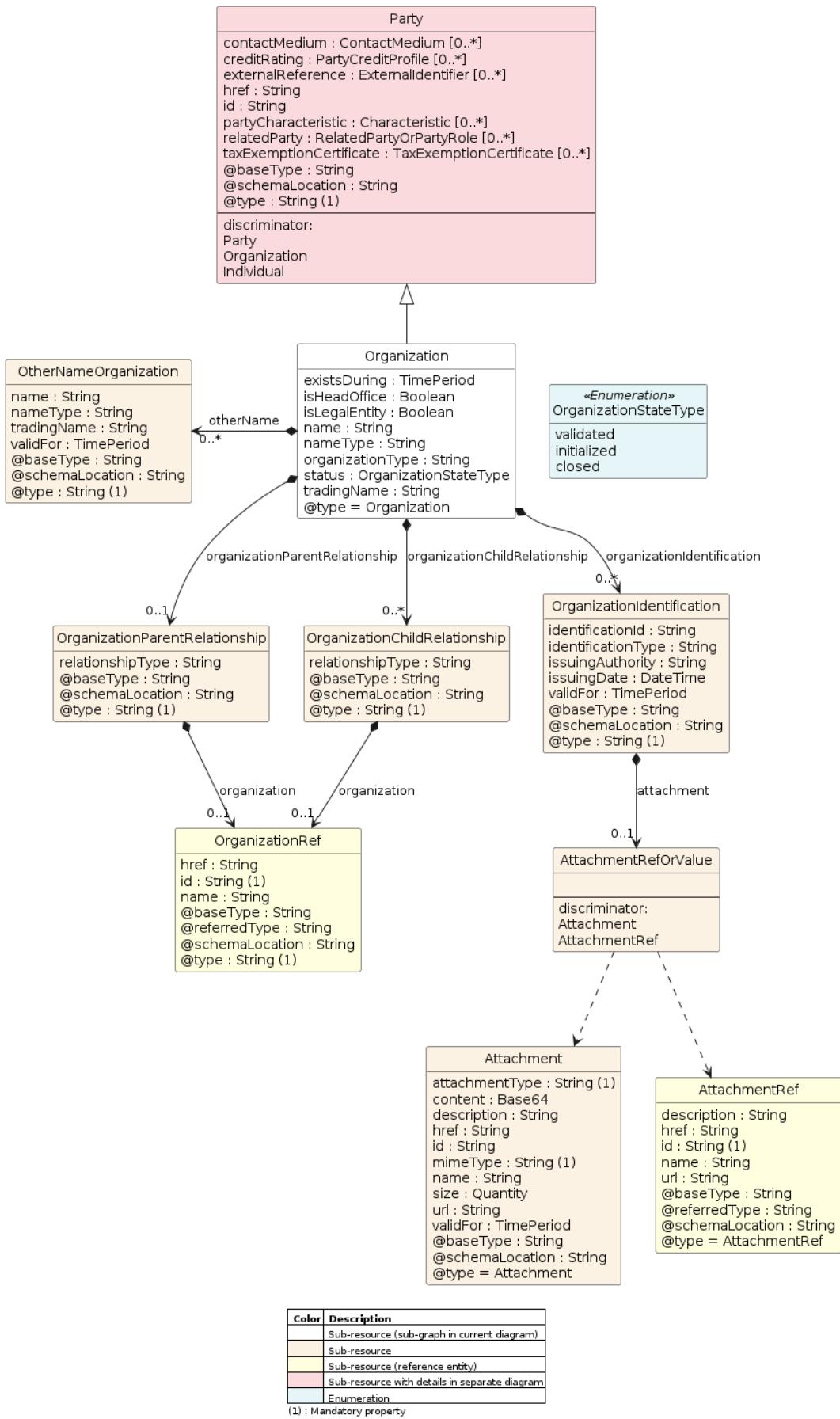


Figure 3 - Organization

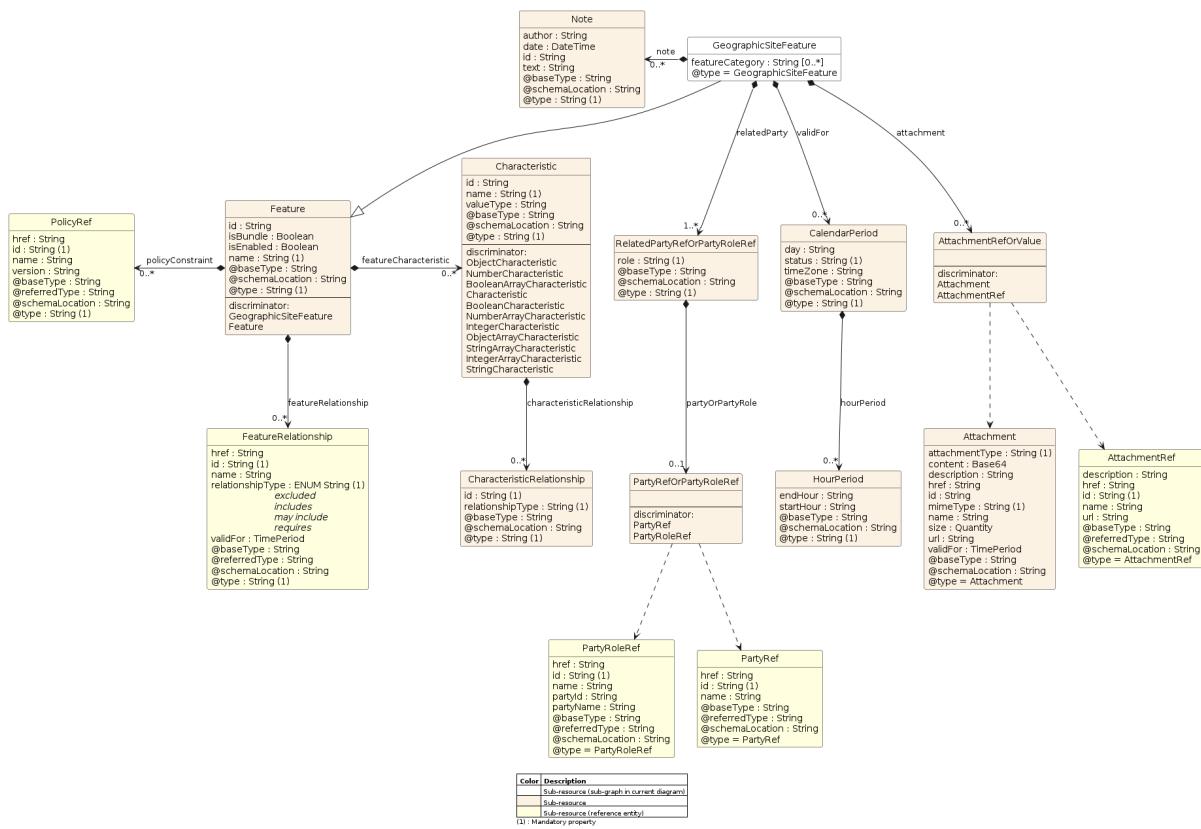


Figure 4 - GeographicSiteFeature

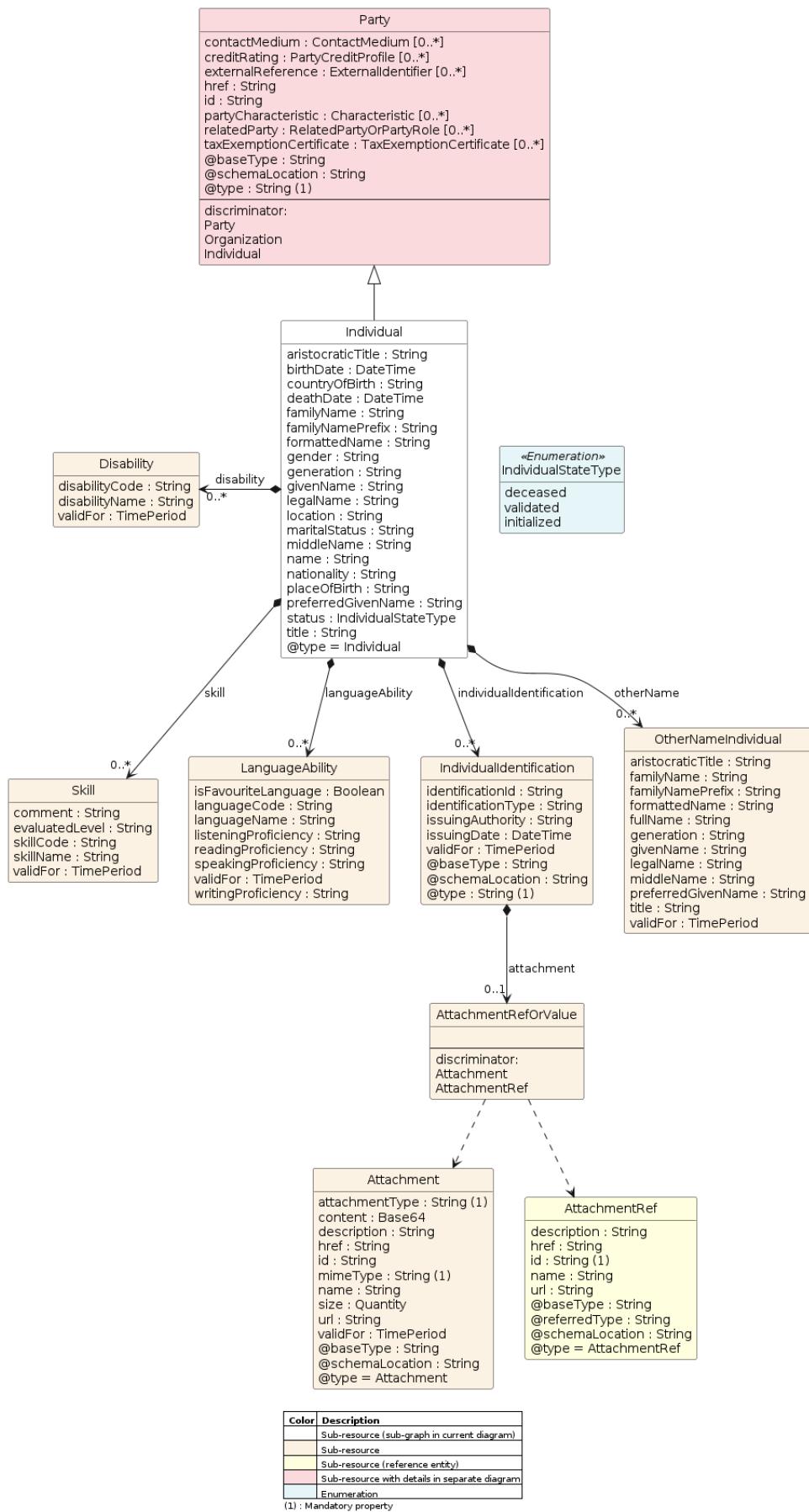


Figure 5 - Individual

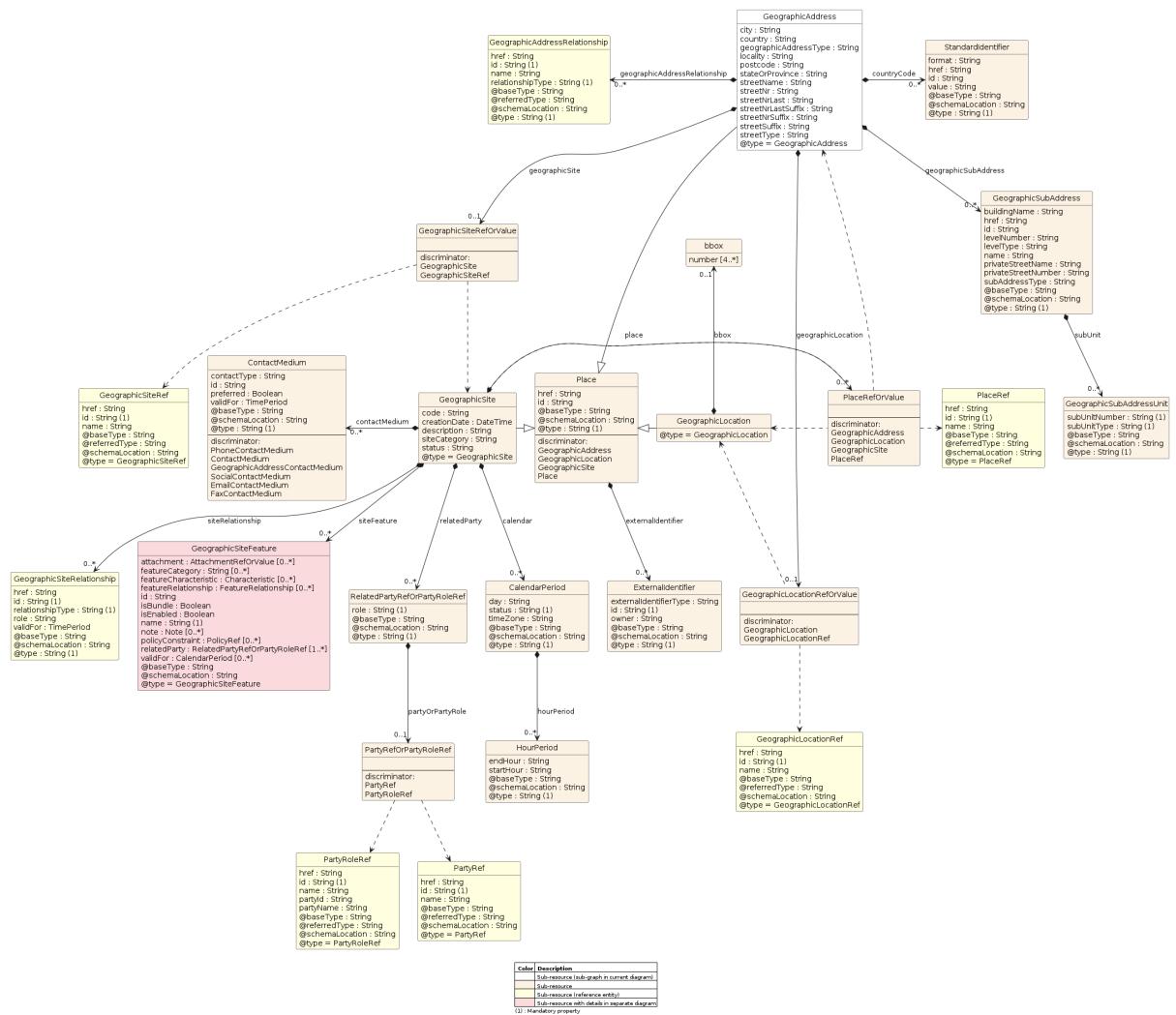


Figure 6 - GeographicAddress

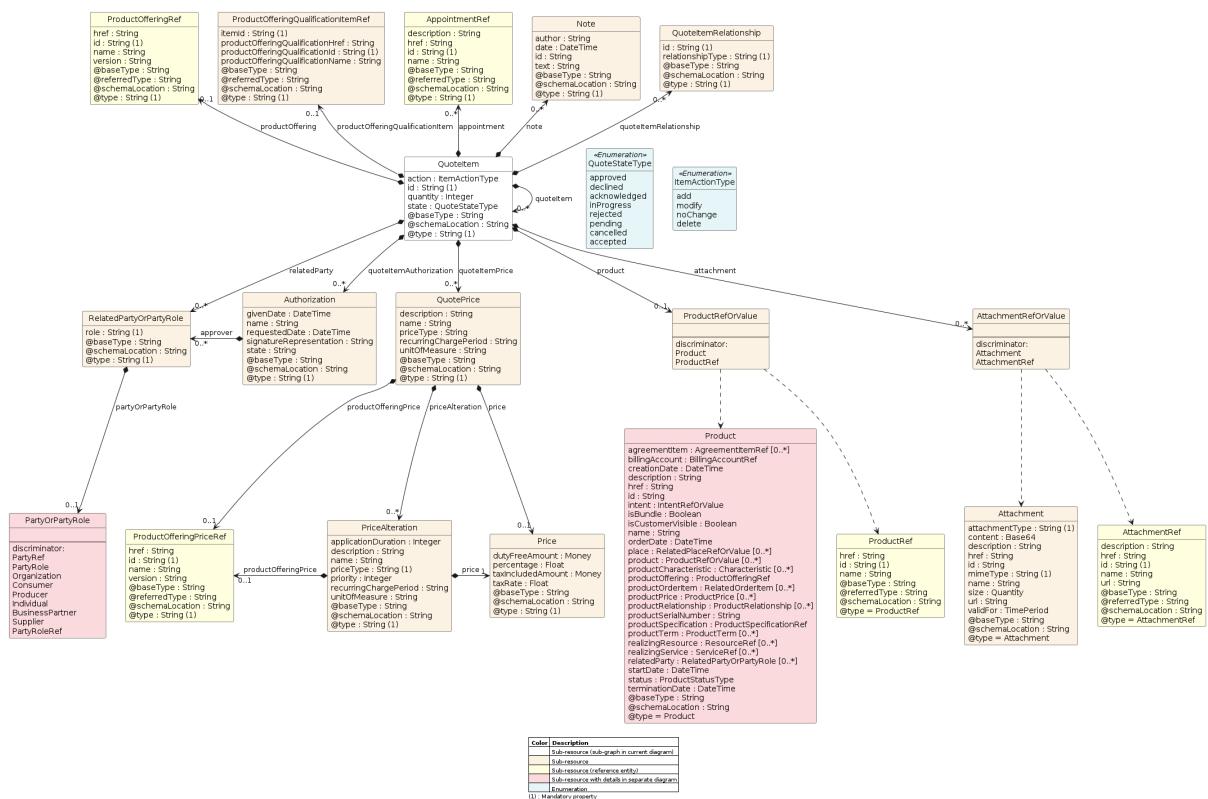


Figure 7 - QuotetItem

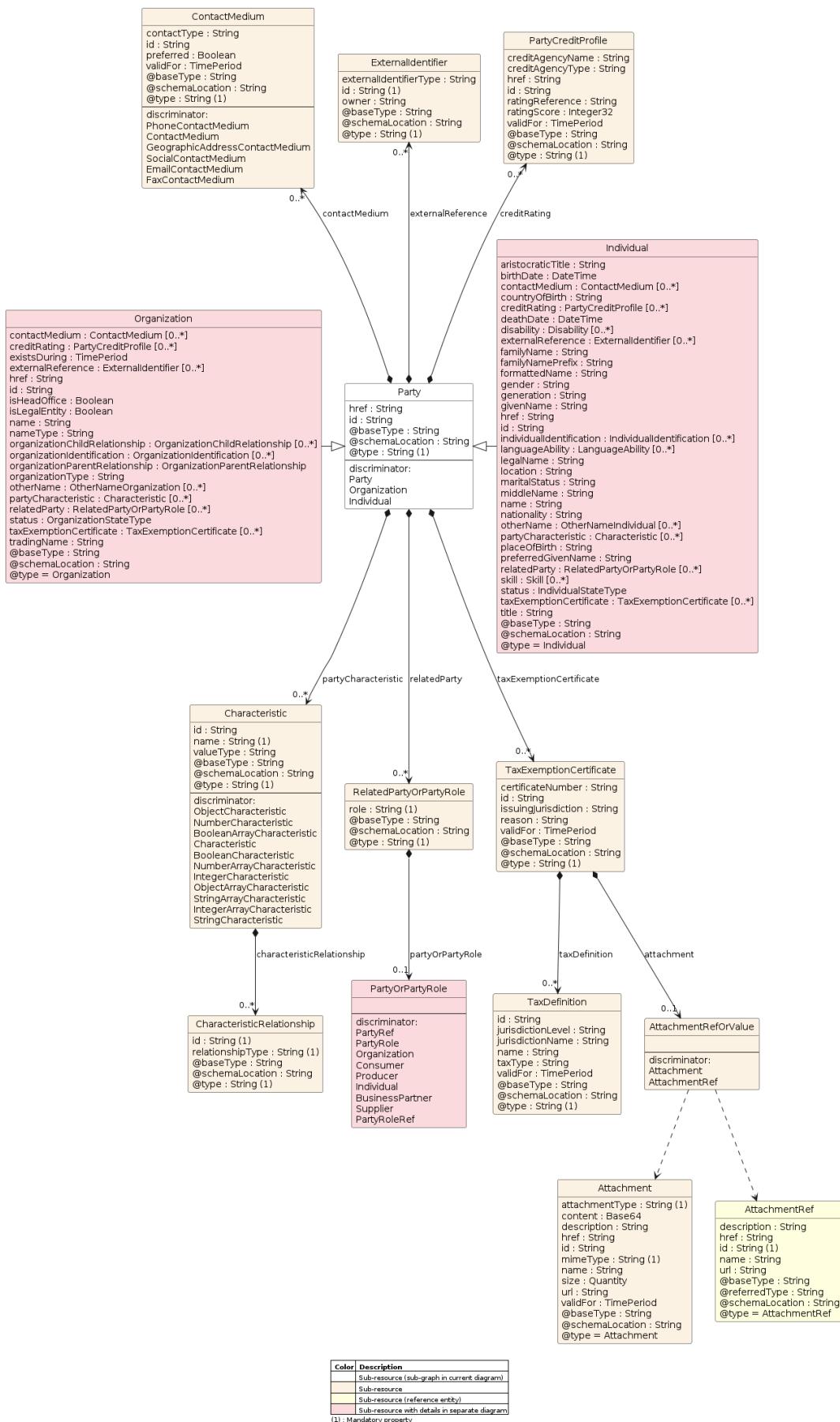


Figure 8 - Party

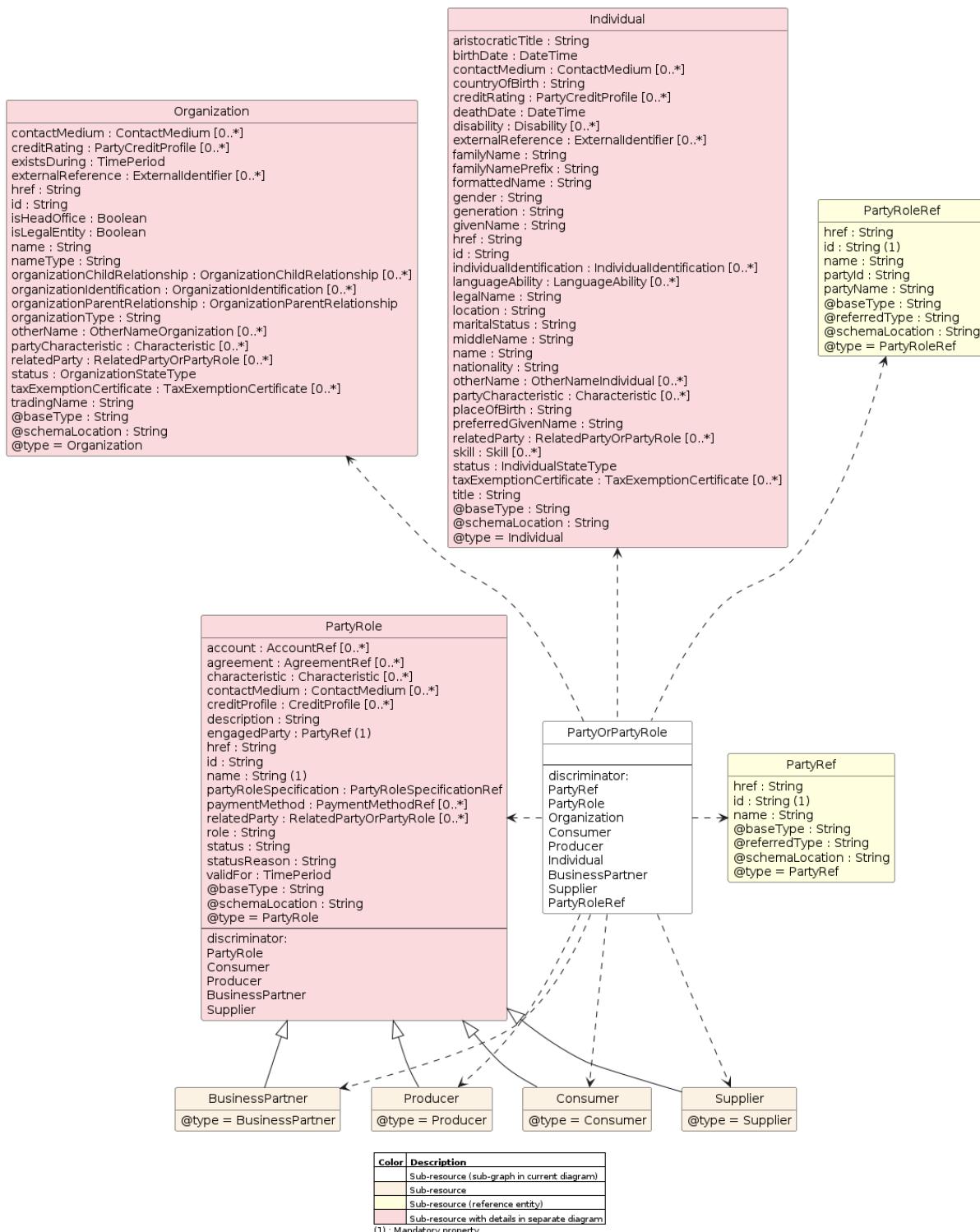


Figure 9 - PartyOrPartyRole

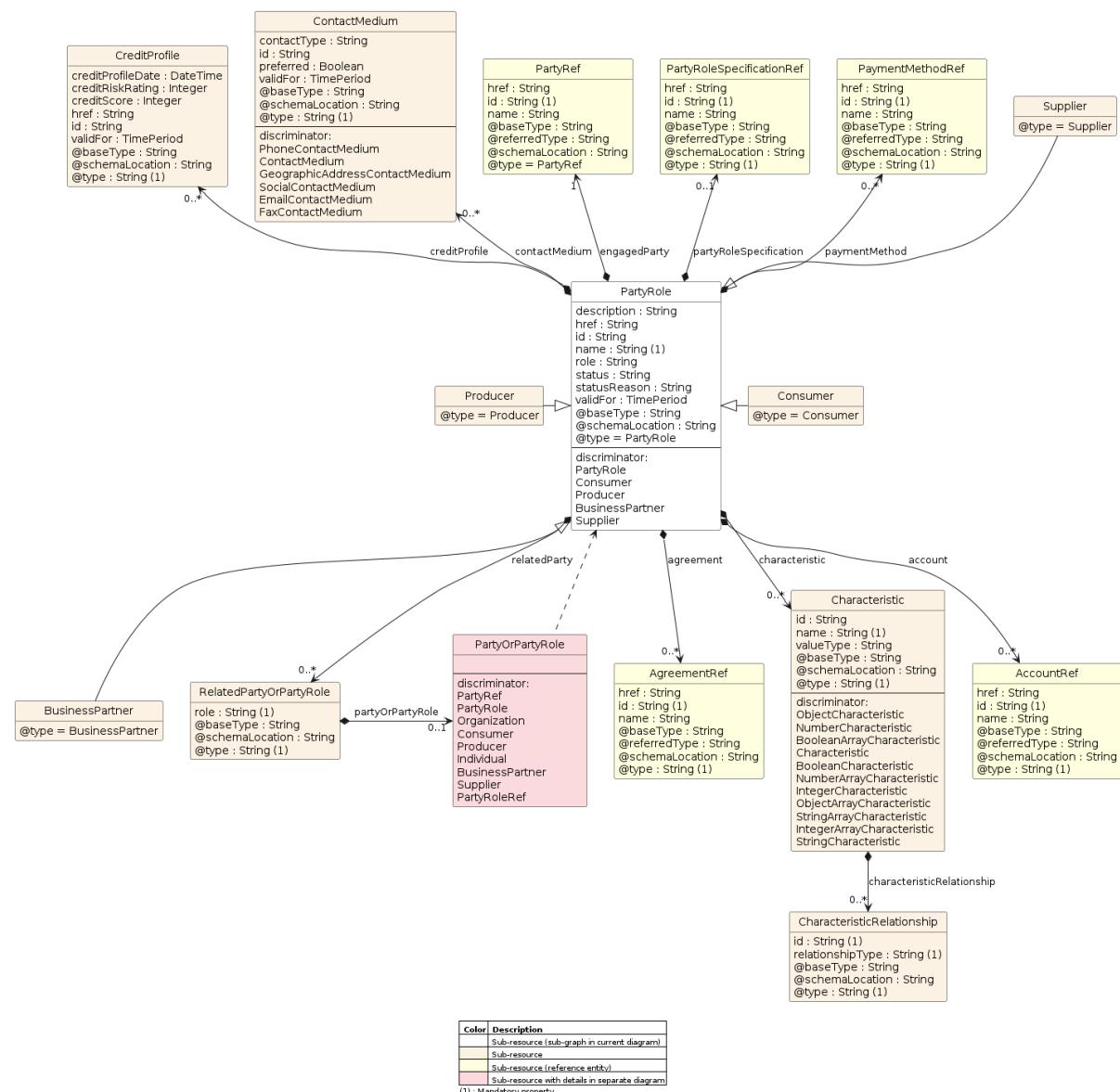


Figure 10 - PartyRole

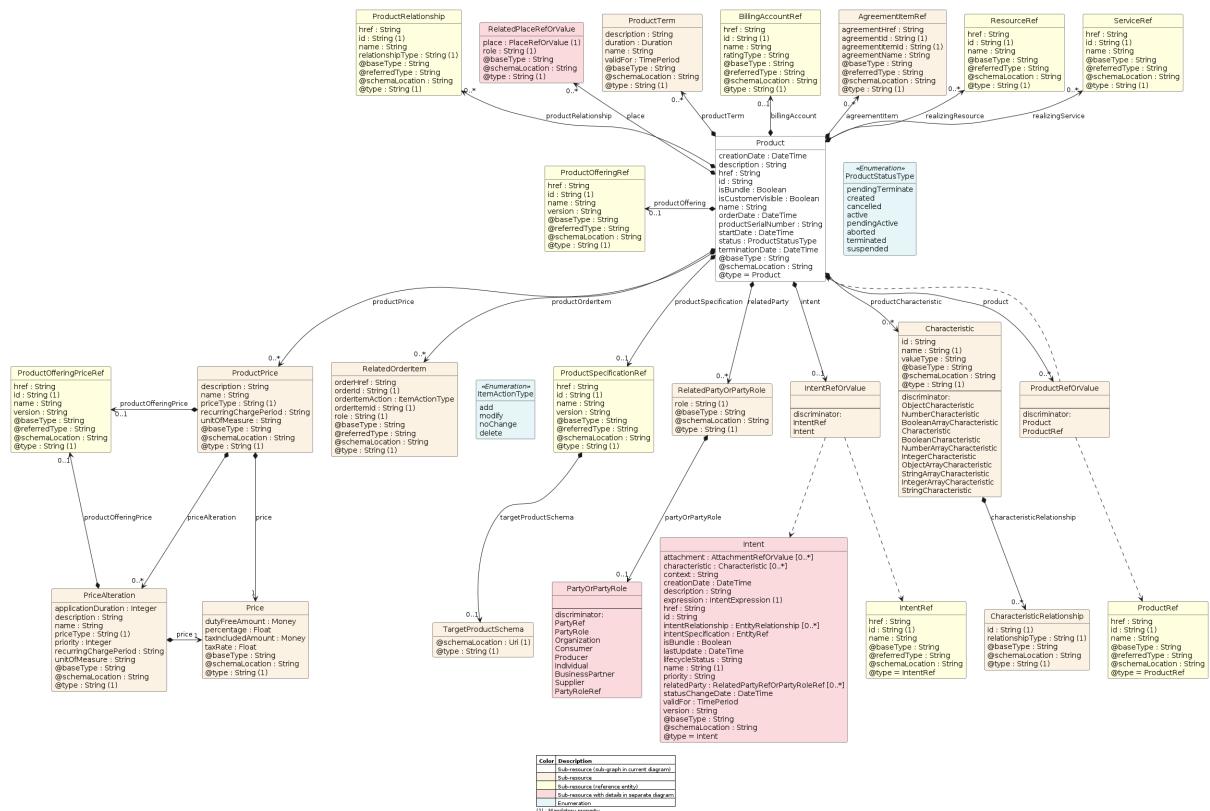


Figure 11 - Product

Field descriptions

Quote fields

agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.
authorization	An Authorization. If special discount or special product offering price or specific condition need an approval for ISP sale representative it is described here.
billingAccount	A BillingAccountRef. BillingAccount reference. A BillingAccount is a detailed description of a bill structure.
category	A String. Used to categorize the quote from a business perspective that can be useful for the CRM system (e.g. "enterprise", "residential", ...).

contactMedium	A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...
	ContactMedium can be instanciated as * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creationDate	A DateTime. Date and time when the quote was created.
description	A String. Description of the quote.
effectiveQuoteCompletionDate	A DateTime. Date when the quote has been completed.
expectedFulfillmentStartDate	A DateTime. This is the date wished by the requester to have the requested quote item delivered.
expectedQuoteCompletionDate	A DateTime. This is expected date - from quote supplier - to be able to send back a response for this quote.
externalId	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
instantSyncQuote	A Boolean. An indicator which when the value is "true" means that requester expects to get quoting result immediately in the response. If the indicator is true then the response code of 200 indicates the operation is successful otherwise a task is created with a response 201.
note	A Note. Extra information about a given entity.
productOfferingQualification	A ProductOfferingQualificationRef. A productOfferingQualification that has been executed previously.
quoteItem	A QuoteItem. A quote items describe an action to be performed on a productOffering or a product in order to get pricing elements and condition.
quoteTotalPrice	A QuotePrice. Description of price and discount awarded.

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
requestedQuoteCompletionDate	A DateTime. This is requested date - from quote requester - to get a complete response for this quote.
state	A QuoteStateType. Possible values for the state of the quote. ENUMERATED with values: * acknowledged * rejected * pending * inProgress * cancelled * approved * accepted * declined
validFor	A TimePeriod. A period of time, either as a deadline (endDateOnly) a startDateTime only, or both.
version	A String. Quote version - if the customer rejected the quote but negotiations still open a new version of the quote is managed.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Authorization sub-resource fields

approver	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
givenDate	A DateTime. Date when the authorization (approved or declined) was done.
name	A String. Name of the required authorization.
requestedDate	A DateTime. Date when the authorization is requested for.
signatureRepresentation	A String. To describe a digital or manual signature.
state	A String. State of the authorization, such as: approved or declined.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

QuotePrice sub-resource fields

description	A String. Description of the quote/quote item price.
name	A String. Name of the quote /quote item price.
price	A Price. Provides all amounts (tax included, duty free, tax rate), used currency and percentage to apply for Price and Price Alteration.
priceAlteration	A PriceAlteration. Is an amount, usually of money, that modifies the price charged for an order item.
priceType	A String. Indicate if the price is for recurrent or no-recurrent charge.
productOfferingPrice	A ProductOfferingPriceRef. ProductPriceOffering reference. An amount, usually of money, that is asked for or allowed when a ProductOffering is bought, rented, or leased.
recurringChargePeriod	A String. Used for recurring charge to indicate period (month, week, etc..).
unitOfMeasure	A String. Unit of Measure if price depending on it (Gb, SMS volume, etc..).
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
validFor	A TimePeriod. A period of time, either as a deadline (endDateOnly) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	ContactMedium can be instantiated as * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
city	This property is present in subclasses

country	This property is present in subclasses
emailAddress	This property is present in subclasses
faxNumber	This property is present in subclasses
geographicAddress	This property is present in subclasses
phoneNumber	This property is present in subclasses
postCode	This property is present in subclasses
socialNetworkId	This property is present in subclasses
stateOrProvince	This property is present in subclasses
street1	This property is present in subclasses
street2	This property is present in subclasses

PhoneContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
id	A String. Identifier for this contact medium.
phoneNumber	A String. The phone number of the contact.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressContactMedium sub-resource fields

city	A String. The city.
contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
country	A String. The country.
geographicAddress	A GeographicAddressRef. Reference to a Geographic Address.
id	A String. Identifier for this contact medium.
postCode	A String. Postcode.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
stateOrProvince	A String. State or province.
street1	A String. Describes the street.

street2	A String. Complementary street description.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

SocialContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
socialNetworkId	A String. Identifier as a member of a social network.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

EmailContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
emailAddress	A String. Full email address in standard format.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FaxContactMedium sub-resource fields

contactType	A String. Type of the contact medium to qualify it like pro email / personal email. This is not used to define the contact medium used.
faxNumber	A String. The fax number of the contact.
id	A String. Identifier for this contact medium.
preferred	A Boolean. If true, indicates that is the preferred contact medium.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ExternalIdentifier sub-resource fields

externalIdentifierType	A String. Type of the identification, typically would be the type of the entity within the external system.
id	A String. Identification of the entity within the external system.
owner	A String. Name of the external system that owns the entity.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BillingAccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
ratingType	A String. Indicates whether the account follows a specific payment option such as prepaid or postpaid.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Note sub-resource fields

author	A String. Author of the note.
date	A DateTime. Date of the note.
id	A String. Identifier of the note within its containing entity.
text	A String. Text of the note.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AgreementRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

QuotetItem sub-resource fields

action	An ItemActionType. Action to be performed on the entity managed by the item. ENUMERATED with values: * add * modify * delete * noChange
appointment	An AppointmentRef. Refers an appointment, such as a Customer presentation or internal meeting or site visit.
attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
id	A String. Identifier of the quote item (generally it is a sequence number 01, 02, 03, ...).
note	A Note. Extra information about a given entity.
product	A ProductRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Product entity and not the ProductRefOrValue class itself.

productOffering	A ProductOfferingRef. ProductOffering reference. A product offering represents entities that are orderable from the provider of the catalog, this resource includes pricing information.
productOfferingQualificationItem	A ProductOfferingQualificationItemRef. It's a productOfferingQualification item that has been executed previously.
quantity	An Integer. Quantity asked for this quote item.
quoteItem	A QuoteItem. A quote items describe an action to be performed on a productOffering or a product in order to get pricing elements and condition.
quoteItemAuthorization	An Authorization. If special discount or special product offering price or specific condition need an approval for ISP sale representative it is described here.
quoteItemPrice	A QuotePrice. Description of price and discount awarded.
quoteItemRelationship	A QuoteItemRelationship. Used to describe relationship between quote item. These relationship could have an impact on pricing and conditions.
relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
state	A QuoteStateType. Possible values for the state of the quote. ENUMERATED with values: * acknowledged * rejected * pending * inProgress * cancelled * approved * accepted * declined
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

RelatedPartyOrPartyRole sub-resource fields

partyOrPartyRole	A PartyOrPartyRole.
role	A String. Role played by the related party or party role in the context of the specific entity it is linked to. Such as 'initiator', 'customer', 'salesAgent', 'user'.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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ProductOfferingQualificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRole sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instantiated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditProfile	<p>A CreditProfile. Credit profile for the party (containing credit scoring, ...). By default only the current credit profile is retrieved. It can be used as a list to give the party credit profiles history, the first one in the list will be the current one.</p>
description	A String. A description of the PartyRole.
engagedParty	A PartyRef. A Party reference.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A word, term, or phrase by which the PartyRole is known and distinguished from other PartyRoles. It's the name of the PartyRole unique entity.
partyRoleSpecification	A PartyRoleSpecificationRef. Party role specification reference. A party role specification gives additional details on the part played by a party in a given context.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
role	A String. Role played by the engagedParty in this context. As role is defined by partyRoleSpecification, this role attribute can be used to precise the role defined by partyRoleSpecification, or it can be used to define the role in case there is no partyRoleSpecification.
status	A String. Used to track the lifecycle status of the party role.
statusReason	A String. A string providing an explanation on the value of the status lifecycle. For instance if the status is Rejected, statusReason will provide the reason for rejection.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	PartyRole can be instanciated as * BusinessPartner * Consumer * Producer * Supplier

Organization sub-resource fields

contactMedium	A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium... ContactMedium can be instanciated as * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditRating	A PartyCreditProfile. An individual might be evaluated for its worthiness and this evaluation might be based on a credit rating given by a credit agency.
existsDuring	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

externalReference	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
isHeadOffice	A Boolean. If value is true, the organization is the head office.
isLegalEntity	A Boolean. If value is true, the organization is a legal entity known by a national referential.
name	A String. Organization name (department name for example).
nameType	A String. Type of the name : Co, Inc, Ltd, etc.
organizationChildRelationship	An OrganizationChildRelationship. Child references of an organization in a structure of organizations.
organizationIdentification	An OrganizationIdentification. Represents our registration of information used as proof of identity by an organization.
organizationParentRelationship	An OrganizationParentRelationship. Parent references of an organization in a structure of organizations.
organizationType	A String. Type of Organization (company, department...).
otherName	An OtherNameOrganization. Keeps track of other names, for example the old name of an organization.
partyCharacteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <ul style="list-style-type: none"> * StringCharacteristic * ObjectCharacteristic * FloatCharacteristic * BooleanCharacteristic * NumberCharacteristic * IntegerCharacteristic * StringArrayCharacteristic * ObjectArrayCharacteristic * BooleanArrayCharacteristic * NumberArrayCharacteristic * IntegerArrayCharacteristic... <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
status	An OrganizationStateType. Valid values for the lifecycle state of the organization. ENUMERATED with values: * initialized * validated * closed
taxExemptionCertificate	A TaxExemptionCertificate. A tax exemption certificate represents a tax exemption granted to a party (individual or organization) by a tax jurisdiction which may be a city, state, country,... An exemption has a certificate identifier (received from the jurisdiction that levied the tax) and a validity period. An exemption is per tax types and determines for each type of tax what portion of the tax is exempted (partial by percentage or complete) via the tax definition.
tradingName	A String. Name that the organization (unit) trades under.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Consumer sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instantiated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditProfile	<p>A CreditProfile. Credit profile for the party (containing credit scoring, ...). By default only the current credit profile is retrieved. It can be used as a list to give the party credit profiles history, the first one in the list will be the current one.</p>
description	A String. A description of the PartyRole.
engagedParty	A PartyRef. A Party reference.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A word, term, or phrase by which the PartyRole is known and distinguished from other PartyRoles. It's the name of the PartyRole unique entity.
partyRoleSpecification	A PartyRoleSpecificationRef. Party role specification reference. A party role specification gives additional details on the part played by a party in a given context.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
role	A String. Role played by the engagedParty in this context. As role is defined by partyRoleSpecification, this role attribute can be used to precise the role defined by partyRoleSpecification, or it can be used to define the role in case there is no partyRoleSpecification.
status	A String. Used to track the lifecycle status of the party role.
statusReason	A String. A string providing an explanation on the value of the status lifecycle. For instance if the status is Rejected, statusReason will provide the reason for rejection.
validFor	A TimePeriod. A period of time, either as a deadline (endTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Producer sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instantiated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditProfile	<p>A CreditProfile. Credit profile for the party (containing credit scoring, ...). By default only the current credit profile is retrieved. It can be used as a list to give the party credit profiles history, the first one in the list will be the current one.</p>
description	A String. A description of the PartyRole.
engagedParty	A PartyRef. A Party reference.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A word, term, or phrase by which the PartyRole is known and distinguished from other PartyRoles. It's the name of the PartyRole unique entity.
partyRoleSpecification	A PartyRoleSpecificationRef. Party role specification reference. A party role specification gives additional details on the part played by a party in a given context.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
role	A String. Role played by the engagedParty in this context. As role is defined by partyRoleSpecification, this role attribute can be used to precise the role defined by partyRoleSpecification, or it can be used to define the role in case there is no partyRoleSpecification.
status	A String. Used to track the lifecycle status of the party role.
statusReason	A String. A string providing an explanation on the value of the status lifecycle. For instance if the status is Rejected, statusReason will provide the reason for rejection.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Individual sub-resource fields

aristocraticTitle	A String. E.g. Baron, Graf, Earl.
birthDate	A DateTime. Birth date.
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialMediaContactMedium... <p>ContactMedium can be instanciated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
countryOfBirth	A String. Country where the individual was born.
creditRating	A PartyCreditProfile. An individual might be evaluated for its worthiness and this evaluation might be based on a credit rating given by a credit agency.
deathDate	A DateTime. Date of death.
disability	A Disability. Lack or inadequate strength or ability.

externalReference	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
familyName	A String. Contains the non-chosen or inherited name. Also known as last name in the Western context.
familyNamePrefix	A String. Family name prefix.
formattedName	A String. A fully formatted name in one string with all of its pieces in their proper place and all of the necessary punctuation. Useful for specific contexts (Chinese, Japanese, Korean).
gender	A String. Gender.
generation	A String. E.g.. Sr, Jr, III (the third).
givenName	A String. First name of the individual.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
individualIdentification	An IndividualIdentification. Represents our registration of information used as proof of identity by an individual (passport, national identity card, drivers license, social security number, birth certificate).
languageAbility	A LanguageAbility. Ability of an individual to understand or converse in a language.
legalName	A String. Legal name or birth name (name one has for official purposes).
location	A String. Temporary current location of the individual (may be used if the individual has approved its sharing).
maritalStatus	A String. Marital status (married, divorced, widow ...).
middleName	A String. Middle name or initial.
name	A String. Full name flatten (first, middle, and last names) - this is the name that is expected to be presented in reference data types such as PartyRef, RelatedParty, etc. that refer to Individual.
nationality	A String. Nationality.
otherName	An OtherNameIndividual. Keeps track of other names, for example the old name of a woman before marriage or an artist name.

partyCharacteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
placeOfBirth	A String. Reference to the place where the individual was born.
preferredGivenName	A String. Contains the chosen name by which the individual prefers to be addressed. Note: This name may be a name other than a given name, such as a nickname.
relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
skill	A Skill. Skills evaluated for an individual with a level and possibly with a limited validity when an obsolescence is defined (Ex: the first-aid certificate first level is limited to one year and an update training is required each year to keep the level).
status	An IndividualStateType. Valid values for the lifecycle state of the individual. ENUMERATED with values: <ul style="list-style-type: none"> * initialized * validated * deceased
taxExemptionCertificate	A TaxExemptionCertificate. A tax exemption certificate represents a tax exemption granted to a party (individual or organization) by a tax jurisdiction which may be a city, state, country,... An exemption has a certificate identifier (received from the jurisdiction that levied the tax) and a validity period. An exemption is per tax types and determines for each type of tax what portion of the tax is exempted (partial by percentage or complete) via the tax definition.
title	A String. Useful for titles (aristocratic, social,...) Pr, Dr, Sir, ...
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BusinessPartner sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.
characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instanciated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instanciated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditProfile	A CreditProfile. Credit profile for the party (containing credit scoring, ...). By default only the current credit profile is retrieved. It can be used as a list to give the party credit profiles history, the first one in the list will be the current one.
description	A String. A description of the PartyRole.
engagedParty	A PartyRef. A Party reference.
href	A String. Hyperlink reference.
id	A String. Unique identifier.

name	A String. A word, term, or phrase by which the PartyRole is known and distinguished from other PartyRoles. It's the name of the PartyRole unique entity.
partyRoleSpecification	A PartyRoleSpecificationRef. Party role specification reference. A party role specification gives additional details on the part played by a party in a given context.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
role	A String. Role played by the engagedParty in this context. As role is defined by partyRoleSpecification, this role attribute can be used to precise the role defined by partyRoleSpecification, or it can be used to define the role in case there is no partyRoleSpecification.
status	A String. Used to track the lifecycle status of the party role.
statusReason	A String. A string providing an explanation on the value of the status lifecycle. For instance if the status is Rejected, statusReason will provide the reason for rejection.
validFor	A TimePeriod. A period of time, either as a deadline (endTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Supplier sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
agreement	An AgreementRef. Agreement reference. An agreement represents a contract or arrangement, either written or verbal and sometimes enforceable by law, such as a service level agreement or a customer price agreement. An agreement involves a number of other business entities, such as products, services, and resources and/or their specifications.

characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instantiated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creditProfile	<p>A CreditProfile. Credit profile for the party (containing credit scoring, ...). By default only the current credit profile is retrieved. It can be used as a list to give the party credit profiles history, the first one in the list will be the current one.</p>
description	A String. A description of the PartyRole.
engagedParty	A PartyRef. A Party reference.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A word, term, or phrase by which the PartyRole is known and distinguished from other PartyRoles. It's the name of the PartyRole unique entity.
partyRoleSpecification	A PartyRoleSpecificationRef. Party role specification reference. A party role specification gives additional details on the part played by a party in a given context.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).

relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
role	A String. Role played by the engagedParty in this context. As role is defined by partyRoleSpecification, this role attribute can be used to precise the role defined by partyRoleSpecification, or it can be used to define the role in case there is no partyRoleSpecification.
status	A String. Used to track the lifecycle status of the party role.
statusReason	A String. A string providing an explanation on the value of the status lifecycle. For instance if the status is Rejected, statusReason will provide the reason for rejection.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRoleRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
partyId	A String. The identifier of the engaged party that is linked to the PartyRole object.
partyName	A String. The name of the engaged party that is linked to the PartyRole object.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CreditProfile sub-resource fields

creditProfileDate	A DateTime. The date the profile was established.
creditRiskRating	An Integer. This is an integer whose value is used to rate the risk.

creditScore	An Integer. A measure of a person or organizations creditworthiness calculated on the basis of a combination of factors such as their income and credit history.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Characteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	Characteristic can be instantiated as * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
value	This property is present in subclasses

ObjectCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.

value	An object. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A Number. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanArrayCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A Boolean. A characteristic which value is an array of Boolean(s).
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BooleanCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.

name	A String. Name of the characteristic.
value	A Boolean. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

NumberArrayCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A Number. A characteristic which value is an array of Number(s).
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

IntegerCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	An Integer. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ObjectArrayCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
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<code>id</code>	A String. Unique identifier of the characteristic.
<code>name</code>	A String. Name of the characteristic.
<code>value</code>	An object. Collection of characteristic values.
<code>valueType</code>	A String. Data type of the value of the characteristic.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

StringArrayCharacteristic sub-resource fields

<code>characteristicRelationship</code>	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
<code>id</code>	A String. Unique identifier of the characteristic.
<code>name</code>	A String. Name of the characteristic.
<code>value</code>	A String. Collection of string characteristics.
<code>valueType</code>	A String. Data type of the value of the characteristic.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

IntegerArrayCharacteristic sub-resource fields

<code>characteristicRelationship</code>	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
<code>id</code>	A String. Unique identifier of the characteristic.
<code>name</code>	A String. Name of the characteristic.
<code>value</code>	An Integer. A characteristic which value is an array of Integer(s).
<code>valueType</code>	A String. Data type of the value of the characteristic.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

StringCharacteristic sub-resource fields

characteristicRelationship	A CharacteristicRelationship. Another Characteristic that is related to the current Characteristic;.
id	A String. Unique identifier of the characteristic.
name	A String. Name of the characteristic.
value	A String. Value of the characteristic.
valueType	A String. Data type of the value of the characteristic.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PartyRoleSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PaymentMethodRef sub-resource fields

href	A String. Hyperlink reference.
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<code>id</code>	A String. Unique identifier.
<code>name</code>	A String. Name of the referred entity.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@referredType</code>	A String. The actual type of the target instance when needed for disambiguation.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRef sub-resource fields

<code>href</code>	A String. Hyperlink reference.
<code>id</code>	A String. Unique identifier.
<code>name</code>	A String. Name of the referred entity.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@referredType</code>	A String. The actual type of the target instance when needed for disambiguation.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

CharacteristicRelationship sub-resource fields

<code>id</code>	A String. Unique identifier of the characteristic.
<code>relationshipType</code>	A String. The type of relationship.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
<code>@type</code>	A String. When sub-classing, this defines the sub-class Extensible name.

OrganizationParentRelationship sub-resource fields

<code>organization</code>	An OrganizationRef.
<code>relationshipType</code>	A String. Type of the relationship. Could be juridical, hierarchical, geographical, functional for example.
<code>@baseType</code>	A String. When sub-classing, this defines the super-class.
<code>@schemaLocation</code>	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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OrganizationIdentification sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
identificationId	A String. Identifier.
identificationType	A String. Type of identification information used to identify the company in a country or internationally.
issuingAuthority	A String. Authority which has issued the identifier (chamber of commerce...).
issuingDate	A DateTime. Date at which the identifier was issued.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

OtherNameOrganization sub-resource fields

name	A String. Organization name (department name for example).
nameType	A String. Co. , Inc. , Ltd. , Pty Ltd. , Plc; , Gmbh.
tradingName	A String. The name that the organization trades under.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

OrganizationChildRelationship sub-resource fields

organization	An OrganizationRef.
relationshipType	A String. Type of the relationship. Could be juridical, hierarchical, geographical, functional for example.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.

@type	A String. When sub-classing, this defines the sub-class Extensible name.
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OrganizationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Attachment sub-resource fields

attachmentType	A String. A business characterization of the purpose of the attachment, for example logo, instructionManual, contractCopy.
content	A Base64. The actual contents of the attachment object, if embedded, encoded as base64.
description	A String. A narrative text describing the content of the attachment.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mimeType	A String. A technical characterization of the attachment content format using IETF Mime Types.
name	A String. The name of the attachment.
size	A Quantity. An amount in a given unit.
url	A String. Uniform Resource Locator, is a web page address (a subset of URI).
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AttachmentRef sub-resource fields

description	A String. A narrative text describing the content of the attachment.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
url	A String. Link to the attachment media/content.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Disability sub-resource fields

disabilityCode	A String. Code of the disability.
disabilityName	A String. Name of the disability.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

Skill sub-resource fields

comment	A String. A free text comment linked to the evaluation done.
evaluatedLevel	A String. Level of expertise in a skill evaluated for an individual.
skillCode	A String. Code of the skill.
skillName	A String. Name of the skill, such as Java language.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

LanguageAbility sub-resource fields

isFavouriteLanguage	A Boolean. A ?true? value specifies whether the language is considered by the individual as his favourite one.
languageCode	A String. Language code (RFC 5646).
languageName	A String. Language name.
listeningProficiency	A String. Listening proficiency evaluated for this language.
readingProficiency	A String. Reading proficiency evaluated for this language.
speakingProficiency	A String. Speaking proficiency evaluated for this language.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

writingProficiency	A String. Writing proficiency evaluated for this language.
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IndividualIdentification sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
identificationId	A String. Identifier.
identificationType	A String. Identification type (passport, national identity card, drivers license, social security number, birth certificate).
issuingAuthority	A String. Authority which has issued the identifier, such as: social security, town hall.
issuingDate	A DateTime. Date at which the identifier was issued.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

OtherNameIndividual sub-resource fields

aristocraticTitle	A String. E.g. Baron, Graf, Earl, etc.
familyName	A String. Contains the non-chosen or inherited name. Also known as last name in the Western context.
familyNamePrefix	A String. Family name prefix.
formattedName	A String. A fully formatted name in one string with all of its pieces in their proper place and all of the necessary punctuation. Useful for specific contexts (Chinese, Japanese, Korean, etc.).
fullName	A String. Full name flatten (first, middle, and last names).
generation	A String. E.g. Sr, Jr, etc.
givenName	A String. First name.
legalName	A String. Legal name or birth name (name one has for official purposes).
middleName	A String. Middle name or initial.
preferredGivenName	A String. Contains the chosen name by which the person prefers to be addressed. Note: This name may be a name other than a given name, such as a nickname.
title	A String. Use for titles (aristocratic, social, ...): Pr, Dr, Sir,....
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.

PriceAlteration sub-resource fields

applicationDuration	An Integer. Duration during which the alteration applies on the order item price (for instance 2 months free of charge for the recurring charge).
description	A String. A narrative that explains in detail the semantics of this order item price alteration.
name	A String. Name of the order item price alteration.
price	A Price. Provides all amounts (tax included, duty free, tax rate), used currency and percentage to apply for Price and Price Alteration.
priceType	A String. A category that describes the price such as recurring, one time and usage.
priority	An Integer. Priority level for applying this alteration among all the defined alterations on the order item price.
productOfferingPrice	A ProductOfferingPriceRef. ProductPriceOffering reference. An amount, usually of money, that is asked for or allowed when a ProductOffering is bought, rented, or leased.
recurringChargePeriod	A String. Could be month, week...
unitOfMeasure	A String. Could be minutes, GB...
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductOfferingPriceRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
version	A String. Version of the product offering price.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Price sub-resource fields

dutyFreeAmount	A Money. A base / value business entity used to represent money.
percentage	A Float. Percentage to apply for ProdOfferPriceAlteration.
taxIncludedAmount	A Money. A base / value business entity used to represent money.
taxRate	A Float. Tax rate.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductOfferingRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
version	A String. Version of the product offering.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductOfferingQualificationItemRef sub-resource fields

itemId	A String. Id of an item of a product offering qualification.
productOfferingQualificationHref	A String. Reference of the related entity.
productOfferingQualificationId	A String. Unique identifier of a related entity.
productOfferingQualificationName	A String. Name of the related entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Product sub-resource fields

agreementItem	An AgreementItemRef. It's a Agreement item that has been executed previously.
billingAccount	A BillingAccountRef. BillingAccount reference. A BillingAccount is a detailed description of a bill structure.
creationDate	A DateTime. Date and time when the product was created.
description	A String. Is the description of the product. It could be copied from the description of the Product Offering.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intent	An IntentRefOrValue. Intent Ref (if Intent already exists) or Value (if Intent be created or its details be presented).
isBundle	A Boolean. If true, the product is a ProductBundle which is an instantiation of a BundledProductOffering. If false, the product is a ProductComponent which is an instantiation of a SimpleProductOffering.
isCustomerVisible	A Boolean. If true, the product is visible by the customer.
name	A String. Name of the product. It could be the same as the name of the product offering.
orderDate	A DateTime. Is the date when the product was ordered.
place	A RelatedPlaceRefOrValue. Entity reference. The polymorphic attributes @type, @schemaLocation & @referredType are related to the RelatedPlace entity and not the RelatedPlaceRefOrValue class itself.
product	A ProductRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Product entity and not the ProductRefOrValue class itself.
productCharacteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses :</p> <ul style="list-style-type: none"> * StringCharacteristic * ObjectCharacteristic * FloatCharacteristic * BooleanCharacteristic * NumberCharacteristic * IntegerCharacteristic * StringArrayCharacteristic * ObjectArrayCharacteristic * BooleanArrayCharacteristic * NumberArrayCharacteristic * IntegerArrayCharacteristic... <p>Characteristic can be instanciated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic

productOffering	A ProductOfferingRef. ProductOffering reference. A product offering represents entities that are orderable from the provider of the catalog, this resource includes pricing information.
productOrderItem	A RelatedOrderItem. It's a Order item that has been executed previously.
productPrice	A ProductPrice. Description of price and discount awarded.
productRelationship	A ProductRelationship. Used to describe relationship between product.
productSerialNumber	A String. Is the serial number for the product. This is typically applicable to tangible products e.g. Broadband Router.
productSpecification	A ProductSpecificationRef. ProductSpecification reference. A product Specification represents entities that are orderable from the provider of the catalog.
productTerm	A ProductTerm. Description of a productTerm linked to this product. This represent a commitment with a duration.
realizingResource	A ResourceRef. Resource reference, for when Resource is used by other entities.
realizingService	A ServiceRef. Service reference, for when Service is used by other entities.
relatedParty	A RelatedPartyOrPartyRole. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
startDate	A DateTime. Is the date from which the product starts.
status	A ProductStatusType. Possible values for the status of the product. ENUMERATED with values: * created * pendingActive * cancelled * active * pendingTerminate * terminated * suspended * aborted
terminationDate	A DateTime. Is the date when the product was terminated.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.

@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AppointmentRef sub-resource fields

description	A String. An explanatory text regarding the appointment made with a party.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

QuotelineItemRelationship sub-resource fields

id	A String. Id of the related quote item (must be in the same quote).
relationshipType	A String. Relationship type as relies on, bundles, etc...
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductPrice sub-resource fields

description	A String. Description of the Product price.
name	A String. Name of the Product price.
price	A Price. Provides all amounts (tax included, duty free, tax rate), used currency and percentage to apply for Price and Price Alteration.
priceAlteration	A PriceAlteration. Is an amount, usually of money, that modifies the price charged for an order item.

priceType	A String. Indicate if the price is for recurrent or no-recurrent charge.
productOfferingPrice	A ProductOfferingPriceRef. ProductPriceOffering reference. An amount, usually of money, that is asked for or allowed when a ProductOffering is bought, rented, or leased.
recurringChargePeriod	A String. Used for recurring charge to indicate period (month, week, etc..).
unitOfMeasure	A String. Unit of Measure if price depending on it (Gb, SMS volume, etc..).
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

IntentRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Intent sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
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characteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
context	A String. A string used to give a context to the intent.
creationDate	A DateTime. Date and time of the creation of this REST resource.
description	A String. The description of the intent.
expression	An IntentExpression. An Intent expression.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
intentRelationship	An EntityRelationship. A uni-directional relationship from this entity to a target entity instance.
intentSpecification	An EntityRef. Entity reference schema to be use for all entityRef class.
isBundle	A Boolean. IsBundle determines whether an intent represents a single intent (false), or a bundle of intents(true).
lastUpdate	A DateTime. Date and time of the last update of this REST resource.
lifecycleStatus	A String. Used to indicate the current lifecycle status of this intent.
name	A String. The name of the intent.
priority	A String. Can be used by intent owner to prioritize intents in an intent management system.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
statusChangeDate	A DateTime. A date time(DateTime). The date that the entity status changed to the current one.

validFor	A TimePeriod. A period of time, either as a deadline (endTime only) a startTime only, or both.
version	A String. A field that identifies the specific version of an instance of an intent.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductRelationship sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
relationshipType	A String. Relationship type as relies on, bundles, etc...
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

RelatedOrderItem sub-resource fields

orderHref	A String. Reference of the related entity.
orderId	A String. Unique identifier of a related Order.
orderItemAction	An ItemActionType. Action to be performed on the entity managed by the item. ENUMERATED with values: * add * modify * delete * noChange
orderItemId	A String. Id of an item of a product order.
role	A String. Role played by the Order.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

AgreementItemRef sub-resource fields

agreementHref	A String. Reference of the related entity.
agreementId	A String. Unique identifier of a related entity.
agreementItemId	A String. Id of an item of a Agreement.
agreementName	A String. Name of the related entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

RelatedPlaceRefOrValue sub-resource fields

place	A PlaceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Place entity and not the PlaceRefOrValue class itself.
role	A String.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ResourceRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductTerm sub-resource fields

description	A String. Description of the productTerm.
duration	A Duration. A time interval in a given unit of time.

name	A String. Name of the productTerm.
validFor	A TimePeriod. A period of time, either as a deadline (endTime only) a startTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ServiceRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

ProductSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
targetProductSchema	A TargetProductSchema. The reference object to the schema and type of target product which is described by product specification.
version	A String. Version of the product specification.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

IntentExpression sub-resource fields

iri	A String. Internationalized Resource Identifier of the intent Expression.
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@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

EntityRelationship sub-resource fields

associationSpec	An EntityRef. Entity reference schema to be use for all entityRef class.
href	A String.
id	A String.
name	A String.
relationshipType	A String. Type of relationship such as migration, substitution, dependency, exclusivity.
role	A String. The association role for this entity.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String.

RelatedPartyRefOrPartyRoleRef sub-resource fields

partyOrPartyRole	A PartyRefOrPartyRoleRef.
role	A String. Role played by the related party or party role in the context of the specific entity it is linked to. Such as 'initiator', 'customer', 'salesAgent', 'user'.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

EntityRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.

@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddress sub-resource fields

city	A String. City that the address is in.
country	A String. Country that the address is in.
countryCode	A StandardIdentifier. The corresponding identification of the resource in different standard, regulatory definitions. The standard specification identifier (e.g., ISO 3166-1 Alpha-2) and the corresponding value (e.g., BE) relevant to a particular resource. It is anticipated that multiple standards can provide definitions for a single entity, e.g., a country identifier can be specified in various standards (e.g., "ISO 3166-1 Alpha 2", "ISO 3166-1 Alpha 3", "ISO 3166-1 Numeric").
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
geographicAddressRelationship	A GeographicAddressRelationship. The GeographicAddressRelationship schema represents a relationship between geographic addresses. It defines the structure for storing information about how two geographic addresses are related to each other within a system.
geographicAddressType	A String. Classification of the address, e.g., residential, industrial.
geographicLocation	A GeographicLocationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicLocation entity and not the GeographicLocationRefOrValue class itself.
geographicSite	A GeographicSiteRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the GeographicSite entity and not the GeographicSiteRefOrValue class itself.
geographicSubAddress	A GeographicSubAddress. Representation of a GeographicSubAddress. It is used for addressing within a property in an urban area (country properties are often defined differently). It may refer to a building, a building cluster, or a floor of a multistory building.

href	A String. Hyperlink reference.
id	A String. Unique identifier.
locality	A String. An area of defined or undefined boundaries within a local authority or other legislatively defined area, usually rural or semi rural in nature. [ANZLIC-STREET], or a suburb, a bounded locality within a city, town or shire principally of urban character [ANZLICSTREET].
postcode	A String. Descriptor for a postal delivery area, used to speed and simplify the delivery of mail (also known as zipcode).
stateOrProvince	A String. The State or Province that the address is in.
streetName	A String. Name of the street or other street type.
streetNr	A String. Number identifying a specific property on a public street. It may be combined with streetNrLast for ranged addresses.
streetNrLast	A String. Last number in a range of street numbers allocated to a property.
streetNrLastSuffix	A String. Last street number suffix for a ranged address.
streetNrSuffix	A String. The first street number suffix.
streetSuffix	A String. A modifier denoting a relative direction.
streetType	A String. Alley, avenue, boulevard, brae, crescent, drive, highway, lane, terrace, parade, place, tarn, way, wharf.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicLocation sub-resource fields

bbox	A bbox. A bounding box array that contains the geometry. The axes order follows the axes order of the geometry.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.

@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSite sub-resource fields

calendar	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
code	A String. A code that may be used for some addressing schemes eg: [ANSI T1.253-1999].
contactMedium	<p>A ContactMedium. Indicates the contact medium that could be used to contact the party. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : EmailContactMedium, FaxContactMedium, PhoneContactMedium, GeographicAddressContactMedium, SocialMediaContactMedium...</p> <p>ContactMedium can be instanciated as</p> <ul style="list-style-type: none"> * EmailContactMedium * FaxContactMedium * GeographicAddressContactMedium * PhoneContactMedium * SocialContactMedium
creationDate	A DateTime. Date and time when the GeographicSite was created.
description	A String. Text describing additional information regarding the site.
externalIdentifier	An ExternalIdentifier. An identification of an entity that is owned by or originates in a software system different from the current system, for example a ProductOrder handed off from a commerce platform into an order handling system. The structure identifies the system itself, the nature of the entity within the system (e.g. class name) and the unique ID of the entity within the system. It is anticipated that multiple external IDs can be held for a single entity, e.g. if the entity passed through multiple systems on the way to the current system. In this case the consumer is expected to sequence the IDs in the array in reverse order of provenance, i.e. most recent system first in the list.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
place	A PlaceRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Place entity and not the PlaceRefOrValue class itself.

relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
siteCategory	A String. Site classification/category.
siteFeature	A GeographicSiteFeature. Geographic Site Feature captures various site information, ranging from survey data to safety guidelines and hazard information.
siteRelationship	A GeographicSiteRelationship. Details of geographic site relationship.
status	A String. The condition of the GeographicSite, such as planned, underConstruction, cancelled, active, inactive, former.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

PlaceRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRelationship sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
relationshipType	A String. Type of relationship between the geographic addresses. This attribute specifies the nature of the relationship between the related addresses. It provides context for understanding how the addresses are related to each other.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.

@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

StandardIdentifier sub-resource fields

format	A String. Standard/Regulatory definition identifier. e.g., ISO 3166-1.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
value	A String. The value of the resource in the corresponding standard.e.g., a country code value.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicLocationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSubAddress sub-resource fields

buildingName	A String. Allows for buildings that have well-known names.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
levelNumber	A String. Used where a level type may be repeated e.g. BASEMENT 1, BASEMENT 2.
levelType	A String. Describes level types within a building.
name	A String. Name of the subAddress to identify it with a meaningful identification.

privateStreetName	A String. Private streets internal to a property (e.g. a university) may have internal names that are not recorded by the land title office.
privateStreetNumber	A String. Private streets numbers internal to a private street.
subAddressType	A String. Type of subAddress : it can be a subunit or a private street.
subUnit	A GeographicSubAddressUnit. Representation of a SubUnit. It is used for describing subunit within a subAddress e.g. BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSiteRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
@baseType	A String. When sub-classing, this defines the super-class.
@referredType	A String. The actual type of the target instance when needed for disambiguation.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSubAddressUnit sub-resource fields

subUnitNumber	A String. The discriminator used for the subunit, often just a simple number but may also be a range.
subUnitType	A String. The type of subunit e.g.BERTH, FLAT, PIER, SUITE, SHOP, TOWER, UNIT, WHARF, RACK.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

CalendarPeriod sub-resource fields

day	A String. Day where the calendar status applies (e.g.: monday, mon-to-fri, weekdays, weekend, all week,).
-----	--

hourPeriod	A HourPeriod. Hour interval.
status	A String. Indication of the availability of the calendar period (e.g.: available, booked, etc.).
timeZone	A String. Indication of the timezone applicable to the calendar information (e.g.: Paris, GMT+1).
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSiteRelationship sub-resource fields

href	A String. Reference of the related geographic site.
id	A String. Unique identifier of the related site entity within the server.
relationshipType	A String. Type of relationship.
role	A String. Role of the related site in the relationship.
validFor	A TimePeriod. A period of time, either as a deadline (endDateTime only) a startDateTime only, or both.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicSiteFeature sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
featureCategory	A String. Collection of feature category.

featureCharacteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
featureRelationship	A FeatureRelationship. Configuration feature.
id	A String. Unique identifier.
isBundle	A Boolean. True if this is a feature group. Default is false.
isEnabled	A Boolean. True if this feature is enabled. Default is true.
name	A String. This is the name for the feature.
note	A Note. Extra information about a given entity.
policyConstraint	A PolicyRef. Reference to managed Policy object.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
validFor	A CalendarPeriod. The CalendarPeriod schema represents a period of time within a calendar, defining various attributes such as the applicable day, timezone, hour period, and status. It is designed to capture information about the availability or status of a calendar period, which can be used in scheduling, booking, or resource allocation applications.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Feature sub-resource fields

featureCharacteristic	<p>A Characteristic. Describes a given characteristic of an object or entity through a name/value pair. This is an abstract base class, the actual value is in one of the strongly-typed subclasses : StringCharacteristic, ObjectCharacteristic, FloatCharacteristic, BooleanCharacteristic, NumberCharacteristic, IntegerCharacteristic, StringArrayCharacteristic, ObjectArrayCharacteristic, BooleanArrayCharacteristic, NumberArrayCharacteristic, IntegerArrayCharacteristic...</p> <p>Characteristic can be instantiated as</p> <ul style="list-style-type: none"> * BooleanArrayCharacteristic * BooleanCharacteristic * IntegerArrayCharacteristic * IntegerCharacteristic * NumberArrayCharacteristic * NumberCharacteristic * ObjectArrayCharacteristic * ObjectCharacteristic * StringArrayCharacteristic * StringCharacteristic
featureRelationship	A FeatureRelationship. Configuration feature.
id	A String. Unique identifier.
isBundle	A Boolean. True if this is a feature group. Default is false.
isEnabled	A Boolean. True if this feature is enabled. Default is true.
name	A String. This is the name for the feature.
policyConstraint	A PolicyRef. Reference to managed Policy object.
@baseType	A String. When sub-classing, this defines the super-class.
@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.
	<p>Feature can be instantiated as</p> <ul style="list-style-type: none"> * GeographicSiteFeature
attachment	This property is present in subclasses
featureCategory	This property is present in subclasses
note	This property is present in subclasses
relatedParty	This property is present in subclasses
validFor	This property is present in subclasses

HourPeriod sub-resource fields

endHour	A String. The time when the status ends applying.
startHour	A String. The time when the status starts applying.
@baseType	A String. When sub-classing, this defines the super-class.

@schemaLocation	A String. A URI to a JSON-Schema file that defines additional attributes and relationships.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

TargetProductSchema sub-resource fields

@schemaLocation	A Uri. This field provides a link to the schema describing the target product.
@type	A String. Class type of the target product.

Json representation sample(s)

We provide below a JSON representation as example of the 'Quote' resource object.

```
{
  "expectedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
  "note": [
    {
      "date": "2019-05-06T12:45:12.031Z",
      "author": "Jean Pontus",
      "@type": "Note",
      "id": "1",
      "text": "This is a quote request following today call"
    }
  ],
  "contactMedium": [
    {
      "emailAddress": "jean.pontus@PerfectCustomer.com",
      "validFor": {"startDateTime": "2019-05-06T12:45:12.028Z"},
      "@type": "EmailContactMedium",
      "id": "1",
      "preferred": true
    }
  ],
  "agreement": [
    {
      "@referredType": "MassAgreement",
      "@type": "AgreementRef",
      "name": "Global Agreement",
      "id": "7778-jj56",
      "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56"
    }
  ],
  "requestedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
  "validFor": {
    "startDateTime": "2021-05-06T12:45:12.033Z",
    "endDateTime": "2021-05-06T12:45:12.033Z"
  },
  "@type": "Quote",
  "expectedFulfillmentStartDate": "2021-05-21T12:45:12.028Z",
  "productOfferingQualification": [
    {
      "@type": "ProductOfferingQualificationRef",
      "id": "22ds-ty55",
      "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
    }
  ],
  "description": "Quote illustration",
  "externalId": [
    {
      "owner": "TMF",
      "externalIdentifierType": "Quotenumber",
      "@type": "ExternalIdentifier",
      "id": "1"
    }
  ]
}
```

```
        "id": "AK1"
    },
    "billingAccount": [
        {
            "@type": "BillingAccountRef",
            "id": "BA4569",
            "href": "https://host:port/accountManagement/v5/billingAccount/BA4569"
        }
    ],
    "relatedParty": [
        {
            "partyOrPartyRole": {
                "@referredType": "Individual",
                "@type": "PartyRef",
                "name": "Jean Pontus",
                "id": "qsdd-9888"
            },
            "role": "Buyer Contact",
            "@type": "RelatedPartyOrPartyRole"
        },
        {
            "partyOrPartyRole": {
                "@referredType": "Organization",
                "@type": "PartyRef",
                "name": "PerfectCustomer",
                "id": "55"
            },
            "role": "Buyer organization",
            "@type": "RelatedPartyOrPartyRole"
        },
        {
            "partyOrPartyRole": {
                "@referredType": "Individual",
                "@type": "PartyRef",
                "name": "Joe Doe",
                "id": "45gh-gh89"
            },
            "role": "Seller Contact",
            "@type": "RelatedPartyOrPartyRole"
        }
    ],
    "version": "1",
    "effectiveQuoteCompletionDate": "2021-05-21T12:45:12.028Z",
    "authorization": [
        {
            "givenDate": "2019-05-08T12:45:12.031Z",
            "approver": [
                {
                    "partyOrPartyRole": {
                        "@referredType": "Individual",
                        "@type": "PartyRef",
                        "name": "Joe Doe",
                        "id": "45gh-gh89"
                    },
                    "role": "B2B Discount approver",
                    "@type": "RelatedPartyOrPartyRole"
                }
            ],
            "@type": "Authorization",
            "name": "Discount validation",
            "signatureRepresentation": "Manager approval",
            "requestedDate": "2021-05-09T12:45:12.031Z",
            "state": "validated"
        },
        {
            "quoteItem": [
                {
                    "product": {
                        "productSpecification": {

```

```
    "@type": "ProductSpecificationRef",
    "name": "TMF Tariff Plan",
    "id": "ssp7-ty89",
    "href":
"https://host:port/productCatalogManagement/v5/productSpecification/ssp7-ty89"
},
"@type": "Product",
"productCharacteristic": [
{
    "@type": "StringCharacteristic",
    "name": "Voice Bundle",
    "value": "unlimited"
},
{
    "@type": "ObjectCharacteristic",
    "name": "Data Bundle",
    "id": "Char5",
    "value": {
        "volume": 50,
        "unit": "Gb/month"
    }
}
],
"quantity": 10,
"productOffering": {
    "@type": "ProductOfferingRef",
    "name": "TMF Tarif Plan 25",
    "id": "54gg-zzal",
    "href": "https://host:port/productCatalogManagement/v5/productOffering/54gg-
zzal"
},
"@type": "QuoteItem",
"action": "add",
"id": "1",
"state": "approved",
"quoteItemPrice": [
{
    "@type": "QuotePrice",
    "price": {
        "taxRate": 16,
        "@type": "Price",
        "taxIncludedAmount": {
            "unit": "EUR",
            "value": 34.8
        },
        "dutyFreeAmount": {
            "unit": "EUR",
            "value": 30
        }
    },
    "name": "Tariff Plan 25 tariff",
    "priceType": "recurring",
    "description": "Tariff plan 25 fee",
    "recurringChargePeriod": "month",
    "priceAlteration": [
{
        "applicationDuration": 0,
        "@type": "PriceAlteration",
        "price": {
            "@type": "Price",
            "percentage": 10
        },
        "name": "10% off",
        "priceType": "recurring"
    }
]
}
```

```
        "description": "Specific Discount for PerfectCustomer company",
        "priority": 1,
        "recurringChargePeriod": "month"
    }]
}
},
{
    "product": {
        "productSpecification": {
            "@type": "ProductSpecificationRef",
            "name": "Handset",
            "id": "qq45-ytr7",
            "href":
https://host:port/productCatalogManagement/v5/productSpecification/qq45-ytr7
        },
        "@type": "Product"
    },
    "quantity": 10,
    "attachment": [
        {
            "size": {
                "amount": 3.7,
                "units": "Mb"
            },
            "attachmentType": "brochure",
            "validFor": {"startDateTime": "2019-05-06T12:45:12.031Z"},
            "@type": "Attachment",
            "name": "Handset commercial brochure.pdf",
            "description": "handset brochure",
            "mimeType": "pdf",
            "url": "www.tmf_hanset/contentMangement/brochure.pdf"
        }
    ],
    "productOffering": {
        "@type": "ProductOfferingRef",
        "name": "TMF handset T9+",
        "id": "z789-78ga",
        "href": "https://host:port/productCatalogManagement/v5/productOffering/z789-78ga"
    },
    "@type": "QuoteItem",
    "action": "add",
    "id": "2",
    "state": "approved",
    "quoteItemPrice": [
        {
            "@type": "QuotePrice",
            "price": {
                "taxRate": 16,
                "@type": "Price",
                "taxIncludedAmount": {
                    "unit": "EUR",
                    "value": 406
                },
                "dutyFreeAmount": {
                    "unit": "EUR",
                    "value": 350
                }
            },
            "name": "Handset Fee",
            "priceType": "nonRecurring",
            "description": "Handset"
        }
    ]
},
{
    "id": "12dd-78hg",
    "name": "Handset"
}
```

```
"href": "https://host:port/quoteManagement/v4/quote/12dd-78hg",
"state": "approved",
"category": "BSBS Quote",
"instantSyncQuote": false
}
```

Notification Resource Models

5 notifications are defined for this API.

Notifications related to Quote:

- Create Event
- Delete Event
- Attribute Value Change Event
- Information Required Event
- State Change Event

The notification structure for all notifications in this API follow the pattern depicted by the figure below. A notification event resource (depicted by "SpecificEvent" placeholder) is a sub class of a generic Event structure containing at least an id of the event occurrence (eventId), an event timestamp (eventTime), and the name of the resource (eventType). This notification structure owns an event payload structure ("SpecificEventPayload" placeholder) linked to the resource concerned by the notification using the resource name as access field ("resourceName" placeholder).

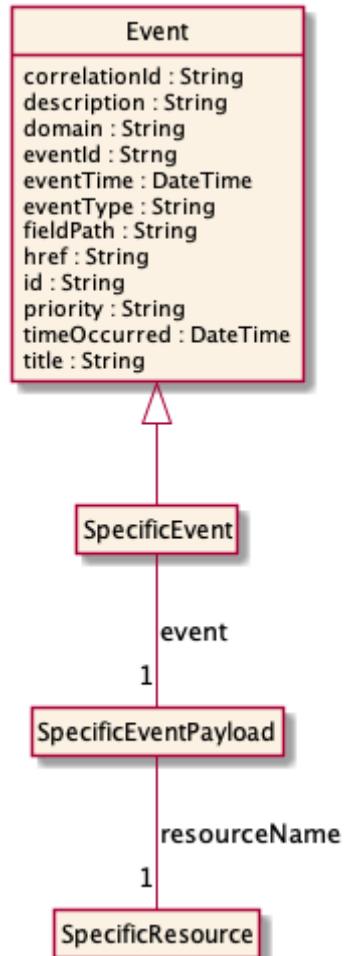


Figure 12 Notification Pattern

Quote**Create Event**

Message example for QuoteCreateEvent event

```

Content-Type: application/json

{
  "correlationId": "126-54f",
  "description": "QuoteCreateEvent illustration",
  "domain": "Commercial",
  "eventId": "125",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "QuoteCreateEvent",
  "priority": "1",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "QuoteCreateEvent",
  "event": {
    "quote": {
      "id": "12dd-78hg",
      "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
      "@type": "Quote",
      "category": "BSBS Quote",
    }
  }
}
  
```

```
"description": "Quote illustration",
"effectiveQuoteCompletionDate": "2021-05-13T12:45:12.028Z",
"expectedFulfillmentStartDate": "2021-05-21T12:45:12.028Z",
"expectedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
"externalId": [
  {
    "@type": "ExternalIdentifier",
    "owner": "TMF",
    "externalIdentifierType": "Quotenumber",
    "id": "AK1"
  }
],
"instantSyncQuote": false,
"quoteDate": "2021-05-06T12:45:12.028Z",
"requestedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
"version": "1",
"agreement": [
  {
    "id": "7778-jj56",
    "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
    "name": "Global Agrrement",
    "@type": "AgreementRef",
    "@referredType": "MassAgreement"
  }
],
"billingAccount": [
  {
    "id": "BA4569",
    "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
    "@type": "BillingAccountRef"
  }
],
"contactMedium": [
  {
    "@type": "EmailContactMedium",
    "contactMediumIdentifier": "11",
    "preferred": true,
    "emailAddress": "jean.pontus@PerfectCustomer.com"
  }
],
"note": [
  {
    "id": "1",
    "author": "Jean Pontus",
    "date": "2021-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call",
    "@type": "Note"
  }
],
"productOfferingQualification": [
  {
    "id": "22ds-ty55",
    "@type": "ProductOfferingQualificationRef",
    "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
  }
],
"authorization": [
  {
    "givenDate": "2021-05-08T12:45:12.031Z",
    "name": "Discount validation",
    "@type": "Authorization"
  }
]
```

```
"requestedDate": "2021-05-09T12:45:12.031Z",
"signatureRepresentation": "Manager approval",
"state": "validated",
"approver": [
  {
    "role": "B2B Discount approver",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
      "id": "45gh-gh89",
      "name": "Joe Doe",
      "@referredType": "Individual",
      "@type": "PartyRef"
    }
  }
],
"quoteItem": [
  {
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "state": "approved",
    "product": {
      "@type": "product",
      "productCharacteristic": [
        {
          "@type": "StringCharacteristic",
          "id": "Char1",
          "name": "Voice Bundle",
          "value": "unlimited"
        },
        {
          "@type": "ObjectCharacteristic",
          "id": "Char5",
          "name": "Data Bundle",
          "value": {
            "volume": 50,
            "unit": "Gb/month"
          }
        }
      ],
      "productSpecification": {
        "id": "ssp7-ty89",
        "href": "https://host:port/productCatalogManagement/v5/productSpecification/ssp7-ty89",
        "name": "TMF Tariff Plan",
        "@type": "ProductSpecificationRef"
      }
    },
    "productOffering": {
      "id": "54gg-zzal",
      "href": "https://host:port/productCatalogManagement/v5/productSpecification/54gg-zzal",
      "name": "TMF Tarif Plan 25",
      "@type": "ProductOfferingRef"
    },
    "quoteItemPrice": [
      {
        "description": "Tariff plan 25 fee",
        "name": "Tariff Plan 25 tariff",
        "priceType": "recurring",
        "value": 25
      }
    ]
  }
]
```

```
        "recurringChargePeriod": "month",
        "@type": "QuotePrice",
        "price": {
            "@type": "Price",
            "taxRate": 16,
            "dutyFreeAmount": {
                "unit": "EUR",
                "value": 30,
                "@type": "Money"
            },
            "taxIncludedAmount": {
                "unit": "EUR",
                "value": 34.8,
                "@type": "Money"
            }
        },
        "priceAlteration": [
            {
                "applicationDuration": 0,
                "description": "Specific Discount for PerfectCustomer company",
                "name": "10% off",
                "priceType": "recurring",
                "priority": 1,
                "recurringChargePeriod": "month",
                "@type": "PriceAlteration",
                "price": {
                    "percentage": 10,
                    "@type": "Price"
                }
            }
        ]
    }
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 10,
    "state": "approved",
    "attachment": [
        {
            "@type": "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": "2021-05-06T12:45:12.031Z"
            }
        }
    ],
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "href": "https://host:port/productCatalogManagement/v5/productSpecification/qq45-ytr7",
        }
    }
}
```

```
        "name": "Handset",
        "@type": "ProductSpecificationRef",
        "version": "1"
    }
},
"productOffering": {
    "id": "z789-78ga",
    "href": "https://host:port/productCatalogManagement/v5/productOffering/z789-78ga",
    "name": "TMF handset T9+",
    "@type": "ProductOfferingRef"
},
"quoteItemPrice": [
{
    "description": "Handset",
    "name": "Handset Fee",
    "priceType": "nonRecurring",
    "@type": "QuotePrice",
    "price": {
        "@type": "Price",
        "taxRate": 16,
        "dutyFreeAmount": {
            "unit": "EUR",
            "value": 350,
            "@type": "Money"
        },
        "taxIncludedAmount": {
            "unit": "EUR",
            "value": 406,
            "@type": "Money"
        }
    }
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Jean Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "55",
        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
    }
}
```

```

        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
],
"state": "approved",
"validFor": {
    "endDateTime": "2021-05-06T12:45:12.033Z",
    "startDateTime": "2021-05-06T12:45:12.033Z"
}
},
"relatedParty": [
{
    "role": "Issuer",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "56d",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
}
],
"reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
},
"source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
},
"@baseType": "Event",
"@type": "QuoteCreateEvent"
}
}
```

Delete Event

Message example for QuoteDeleteEvent event

```

Content-Type: application/json

{
    "correlationId": "145d-8hh",
    "description": "QuoteDeleteEvent illustration",
    "domain": "Commercial",
    "eventId": "523",
    "eventTime": "2021-09-27T07:43:59.059Z",
    "eventType": "QuoteDeleteEvent",
    "priority": "3",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "QuoteDeleteEvent",
    "event": {
        "quote": {
            "id": "9693",
            "href": "https://host:port/quoteManagement/v5/quote/9693",
            "@type": "Quote"
        }
    }
}
```

```
        }
    },
    "reportingSystem": {
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "QuoteDeleteEvent"
}
```

Attribute Value Change Event

Message example for AttributeValueChangeEvent event

```
Content-Type: application/json

{
    "correlationId": "akj-566",
    "description": "QuoteAttributeValueChangeEvent illustration",
    "domain": "Commercial",
    "eventId": "741",
    "eventTime": "2021-09-27T07:43:59.059Z",
    "eventType": "QuoteAttributeValueChangeEvent",
    "priority": "1",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "QuoteAttributeValueChangeEvent",
    "event": {
        "quote": {
            "id": "12dd-78hg",
            "quoteItem": [
                {
                    "id": "2",
                    "@type": "QuoteItem",
                    "quantity": 12
                }
            ],
            "relatedParty": [
                {
                    "role": "Buyer Contact",
                    "@type": "RelatedPartyOrPartyRole",
                    "partyOrPartyRole": {
                        "id": "qsdd-9888",
                        "name": "Louise Pontus",
                        "@referredType": "Individual",
                        "@type": "PartyRef"
                    }
                }
            ],
            "@type": "Quote"
        }
    },
    "reportingSystem": {
```

```
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "@baseType": "Event",
    "@type": "QuoteAttributeValueChangeEvent"
}
```

Information Required Event

Message example for QuoteInformationRequiredEvent event

```
Content-Type: application/json

{
    "correlationId": "qsl-k33",
    "description": "QuoteInformationRequiredEvent illustration",
    "domain": "Commercial",
    "eventId": "966",
    "eventTime": "2021-09-27T07:43:59.059Z",
    "eventType": "QuoteInformationRequiredEvent",
    "priority": "1",
    "timeOccurred": "2021-09-27T07:43:59.059Z",
    "title": "QuoteInformationRequiredEvent",
    "event": {
        "quote": {
            "id": "5252",
            "href": "https://host:port/quoteManagement/v5/quote/5252",
            "@type": "Quote",
            "informationRequired": [
                {
                    "op": "add",
                    "path": "/agreement"
                },
                {
                    "op": "add",
                    "path": "/contactMedium"
                }
            ]
        }
    },
    "reportingSystem": {
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    },
    "source": {
        "id": "123",
        "name": "CRM app",
        "@type": "ReportingResource",
        "@referredType": "LogicalResource"
    }
},
```

```
    "@baseType": "Event",
    "@type": "QuoteInformationRequiredEvent"
}
```

State Change Event

Message example for QuoteStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId": "333-fd6",
  "description": "QuoteStateChangeEvent illustration",
  "domain": "Commercial",
  "eventId": "569",
  "eventTime": "2021-09-27T07:43:59.059Z",
  "eventType": "QuoteStateChangeEvent",
  "priority": "1",
  "timeOccurred": "2021-09-27T07:43:59.059Z",
  "title": "QuoteStateChangeEvent",
  "event": {
    "quote": {
      "id": "9693",
      "href": "https://host:port/quoteManagement/v5/quote/9693",
      "@type": "Quote",
      "state": "approved"
    }
  },
  "reportingSystem": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "source": {
    "id": "123",
    "name": "CRM app",
    "@type": "ReportingResource",
    "@referredType": "LogicalResource"
  },
  "@baseType": "Event",
  "@type": "QuoteStateChangeEvent"
}
```

API OPERATIONS

Remember the following Uniform Contract:

Operation on Entities	Uniform API Operation	Description
Query Entities	GET Resource	GET must be used to retrieve a representation of a resource.
Create Entity	POST Resource	POST must be used to create a new resource
Partial Update of an Entity	PATCH Resource	PATCH must be used to partially update a resource
Remove an Entity	DELETE Resource	DELETE must be used to remove a resource
Execute an Action on an Entity	POST on TASK Resource	POST must be used to execute Task Resources
Other Request Methods	POST on TASK Resource	GET and POST must not be used to tunnel other request methods.

Filtering and attribute selection rules are described in the TMF REST Design Guidelines.

Notifications are also described in a subsequent section.

Operations on Quote

Retrieves a Quote by ID

`GET /quote/{id}?fields=...`

Description

This operation retrieves a Quote entity. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

Retrieve a quote from its identifier - only a subset of quote attributes (as defined in the API) are used in this example

Request

```
GET /quote/12dd-78hg
Content-Type: application/json
```

Response

```
200

{
  "id": "12dd-78hg",
  "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
  "@type": "Quote",
  "category": "BSBS Quote",
  "description": "Quote illustration",
  "effectiveQuoteCompletionDate": "2021-05-13T12:45:12.028Z",
  "expectedFulfillmentStartDate": "2021-05-21T12:45:12.028Z",
  "expectedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
  "externalId": [
    {
      "@type": "ExternalIdentifier",
      "owner": "TMF",
      "externalIdentifierType": "Quotenumber",
      "id": "AK1"
    }
  ],
  "instantSyncQuote": false,
  "quoteDate": "2021-05-06T12:45:12.028Z",
  "requestedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
  "version": "1",
  "agreement": [
    {
      "id": "7778-jj56",
      "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
      "name": "Global Agreement",
      "@type": "AgreementRef",
      "@referredType": "MassAgreement"
    }
  ],
  "billingAccount": [
    {
      "id": "BA4569",
      "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
      "@type": "BillingAccountRef"
    }
  ],
  "contactMedium": [
    {
      "@type": "EmailContactMedium",
      "id": "1",
      "preferred": true,
      "emailAddress": "jean.pontus@PerfectCustomer.com",
      "validFor": [
        "startDateTime": "2019-05-06T12:45:12.028Z"
      ]
    }
  ],
  "note": [
    {
      "id": "1",
      "author": "Jean Pontus",
      "date": "2021-05-06T12:45:12.031Z",
      "text": "This is a quote request following today call",
      "@type": "Note"
    }
  ],
  "productOfferingQualification": [
    {
      "id": "22ds-ty55",
      "label": "Product Offering Qualification"
    }
  ]
}
```

```
    "@type": "ProductOfferingQualificationRef",
    "href":
"https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
}
],
"authorization": [
{
    "givenDate": "2021-05-08T12:45:12.031Z",
    "name": "Discount validation",
    "@type": "Authorization",
    "requestedDate": "2021-05-09T12:45:12.031Z",
    "signatureRepresentation": "Manager approval",
    "state": "validated",
    "approver": [
        {
            "role": "B2B Discount approver",
            "@type": "RelatedPartyOrPartyRole",
            "partyOrPartyRole": {
                "id": "45gh-gh89",
                "name": "Joe Doe",
                "@referredType": "Individual",
                "@type": "PartyRef"
            }
        }
    ]
},
"quoteItem": [
{
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "state": "approved",
    "product": {
        "@type": "Product",
        "productCharacteristic": [
            {
                "@type": "StringCharacteristic",
                "id": "Char1",
                "name": "Voice Bundle",
                "value": "unlimited"
            },
            {
                "@type": "ObjectCharacteristic",
                "id": "Char5",
                "name": "Data Bundle",
                "value": {
                    "volume": 50,
                    "unit": "Gb/month"
                }
            }
        ],
        "productSpecification": {
            "id": "ssp7-ty89",
            "href":
"https://host:port/productCatalogManagement/v5/productSpecification/ssp7-ty89",
            "name": "TMF Tariff Plan",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {

```

```
        "id": "54gg-zzal",
        "href": "https://host:port/productCatalogManagement/v5/productSpecification/54gg-zzal",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
    },
    "quoteItemPrice": [
        {
            "description": "Tariff plan 25 fee",
            "name": "Tariff Plan 25 tariff",
            "priceType": "recurring",
            "recurringChargePeriod": "month",
            "@type": "QuotePrice",
            "price": {
                "@type": "Price",
                "taxRate": 16,
                "dutyFreeAmount": {
                    "unit": "EUR",
                    "value": 30,
                    "@type": "Money"
                },
                "taxIncludedAmount": {
                    "unit": "EUR",
                    "value": 34.8,
                    "@type": "Money"
                }
            },
            "priceAlteration": [
                {
                    "applicationDuration": 0,
                    "description": "Specific Discount for PerfectCustomer company",
                    "name": "10% off",
                    "priceType": "recurring",
                    "priority": 1,
                    "recurringChargePeriod": "month",
                    "@type": "PriceAlteration",
                    "price": {
                        "percentage": 10,
                        "@type": "Price"
                    }
                }
            ]
        }
    ],
    {
        "id": "2",
        "@type": "QuoteItem",
        "action": "add",
        "quantity": 10,
        "state": "approved",
        "attachment": [
            {
                "@type": "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": "2021-05-06T12:45:12.031Z"
        }
    },
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "href": "https://host:port/productCatalogManagement/v5/productSpecification/qq45-ytr7",
            "name": "Handset",
            "@type": "ProductSpecificationRef",
            "version": "1"
        }
    },
    "productOffering": {
        "id": "z789-78ga",
        "href": "https://host:port/productCatalogManagement/v5/productOffering/z789-78ga",
        "name": "TMF handset T9+",
        "@type": "ProductOfferingRef"
    },
    "quoteItemPrice": [
        {
            "description": "Handset",
            "name": "Handset Fee",
            "priceType": "nonRecurring",
            "@type": "QuotePrice",
            "price": {
                "@type": "Price",
                "taxRate": 16,
                "dutyFreeAmount": {
                    "unit": "EUR",
                    "value": 350,
                    "@type": "Money"
                },
                "taxIncludedAmount": {
                    "unit": "EUR",
                    "value": 406,
                    "@type": "Money"
                }
            }
        }
    ]
},
"relatedParty": [
    {
        "role": "Buyer Contact",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "qsdd-9888",
            "name": "Jean Pontus",
            "@referredType": "Individual",
            "@type": "PartyRef"
        }
    },
    {
        "role": "Buyer organization",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "55",
            "name": "TM Forum"
        }
    }
]
```

```

        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
],
"state": "approved",
"validFor": {
    "endDateTime": "2021-05-06T12:45:12.033Z",
    "startDateTime": "2021-05-06T12:45:12.033Z"
}
}
}

```

List or find Quote objects

GET /quote?fields=...

Description

This operation list Quote entities. Attribute selection is enabled for all first level attributes. Filtering may be available depending on the compliance level supported by an implementation.

Usage samples

TBD - not retrievable from API

Request

```

GET /quote
Content-Type: application/json
{}

```

Response

```

200

```

Creates a Quote

POST /quote?fields=...

Description

This operation creates a Quote entity.

Mandatory Attributes

Mandatory Attributes	Rule
instantSyncQuote	
quoteltem	
quoteltem.@type	
quoteltem.id	
@type	

Usage samples

Creation of a new quote with POST operation

Request

```

POST /quote
Content-Type: application/json

{
    "@type": "Quote",
    "category": "BSBS Quote",
    "description": "Quote illustration",
    "expectedFulfillmentStartDate": "2021-05-21T12:45:12.028Z",
    "externalId": [
        {
            "@type": "ExternalIdentifier",
            "owner": "TMF",
            "externalIdentifierType": "Quotenumber",
            "id": "AK1"
        }
    ],
    "instantSyncQuote": false,
    "requestedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
    "version": "1",
    "agreement": [
        {
            "id": "7778-jj56",
            "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
            "name": "Global Agreement",
            "@type": "AgreementRef"
        }
    ],
    "billingAccount": [
        {
            "id": "BA4569",
            "@type": "BillingAccountRef"
        }
    ],
    "contactMedium": [
        {
            "@type": "EmailContactMedium",
            "contactMediumIdentifier": "11",
            "preferred": true,
        }
    ]
}

```

```
        "emailAddress": "jean.pontus@PerfectCustomer.com"
    }
],
"note": [
{
    "id": "1",
    "author": "Jean Pontus",
    "date": "2021-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call",
    "@type": "Note"
}
],
"productOfferingQualification": [
{
    "id": "22ds-ty55",
    "@type": "ProductOfferingQualificationRef"
}
],
"quoteItem": [
{
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "product": {
        "@type": "Product",
        "productCharacteristic": [
{
            "@type": "StringCharacteristic",
            "id": "Char1",
            "name": "Voice Bundle",
            "value": "unlimited"
},
{
            "@type": "ObjectCharacteristic",
            "id": "Char5",
            "name": "Data Bundle",
            "value": {
                "volume": 50,
                "unit": "Gb/month"
            }
}
],
"productSpecification": {
        "id": "ssp7-ty89",
        "name": "TMF Tariff Plan",
        "@type": "ProductSpecificationRef"
}
},
"productOffering": {
        "id": "54gg-zzal",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
}
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 10,
    "product": {
        "@type": "Product",
        "productSpecification": {
```

```

        "id": "qq45-ytr7",
        "name": "Handset",
        "version": "1",
        "@type": "ProductSpecificationRef"
    }
},
"productOffering": {
    "id": "z789-78ga",
    "name": "TMF handset T9+",
    "@type": "ProductOfferingRef"
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Jean Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "55",
        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
]
}

```

Response

```

201

{
    "id": "12dd-78hg",
    "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
    "@type": "Quote",
    "category": "BSBS Quote",
    "description": "Quote illustration",
    "effectiveQuoteCompletionDate": "2021-05-13T12:45:12.028Z",
    "expectedFulfillmentStartDate": "2021-05-21T12:45:12.028Z",
    "expectedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
}

```

```
"externalId": [
  {
    "@type": "ExternalIdentifier",
    "owner": "TMF",
    "externalIdentifierType": "Quotenumber",
    "id": "AK1"
  }
],
"instantSyncQuote": false,
"quoteDate": "2021-05-06T12:45:12.028Z",
"requestedQuoteCompletionDate": "2021-05-14T12:45:12.028Z",
"version": "1",
"agreement": [
  {
    "id": "7778-jj56",
    "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
    "name": "Global Agreement",
    "@type": "AgreementRef"
  }
],
"billingAccount": [
  {
    "id": "BA4569",
    "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
    "@type": "BillingAccountRef"
  }
],
"contactMedium": [
  {
    "@type": "EmailContactMedium",
    "contactMediumIdentifier": "11",
    "preferred": true,
    "emailAddress": "jean.pontus@PerfectCustomer.com"
  }
],
"note": [
  {
    "id": "1",
    "author": "Jean Pontus",
    "date": "2021-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call",
    "@type": "Note"
  }
],
"productOfferingQualification": [
  {
    "id": "22ds-ty55",
    "@type": "ProductOfferingQualificationRef",
    "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
  }
],
"authorization": [
  {
    "givenDate": "2019-05-08T12:45:12.031Z",
    "name": "Discount validation",
    "@type": "Authorization",
    "requestedDate": "2021-05-09T12:45:12.031Z",
    "signatureRepresentation": "Manager approval",
    "state": "validated",
    "approver": [
      {
        "id": "1"
      }
    ]
  }
]
```

```
        "role": "B2B Discount approver",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "45gh-gh89",
            "name": "Joe Doe",
            "@referredType": "Individual",
            "@type": "PartyRef"
        }
    }
],
"quoteItem": [
{
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "state": "approved",
    "product": {
        "@type": "Product",
        "productCharacteristic": [
            {
                "@type": "StringCharacteristic",
                "id": "Char1",
                "name": "Voice Bundle",
                "value": "unlimited"
            },
            {
                "@type": "ObjectCharacteristic",
                "id": "Char5",
                "name": "Data Bundle",
                "value": {
                    "volume": 50,
                    "unit": "Gb/month"
                }
            }
        ],
        "productSpecification": {
            "id": "ssp7-ty89",
            "href": "https://host:port/productCatalogManagement/v5/productSpecification/ssp7-ty89",
            "name": "TMF Tariff Plan",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "54gg-zzal",
        "href": "https://host:port/productCatalogManagement/v5/productSpecification/54gg-zzal",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
    },
    "quoteItemPrice": [
    {
        "description": "Tariff plan 25 fee",
        "name": "Tariff Plan 25 tariff",
        "priceType": "recurring",
        "recurringChargePeriod": "month",
        "@type": "QuotePrice",
        "price": {
            "@type": "Price",
            "taxRate": 16,

```

```
        "dutyFreeAmount": {
            "unit": "EUR",
            "value": 30,
            "@type": "Money"
        },
        "taxIncludedAmount": {
            "unit": "EUR",
            "value": 34.8,
            "@type": "Money"
        }
    },
    "priceAlteration": [
        {
            "applicationDuration": 0,
            "description": "Specific Discount for PerfectCustomer company",
            "name": "10% off",
            "priceType": "recurring",
            "priority": 1,
            "recurringChargePeriod": "month",
            "@type": "PriceAlteration",
            "price": {
                "percentage": 10,
                "@type": "Price"
            }
        }
    ]
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 10,
    "state": "approved",
    "attachment": [
        {
            "@type": "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": "2021-05-06T12:45:12.031Z"
            }
        }
    ],
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "href": "https://host:port/productCatalogManagement/v5/productSpecification/qq45-ytr7",
            "name": "Handset",
            "@type": "ProductSpecificationRef",
            "version": "1"
        }
    }
},
```

```
"productOffering": {
    "id": "z789-78ga",
    "href": "https://host:port/productCatalogManagement/v5/productOffering/z789-78ga",
    "name": "TMF handset T9+",
    "@type": "ProductOfferingRef"
},
"quoteItemPrice": [
    {
        "description": "Handset",
        "name": "Handset Fee",
        "priceType": "nonRecurring",
        "@type": "QuotePrice",
        "price": {
            "@type": "Price",
            "taxRate": 16,
            "dutyFreeAmount": {
                "unit": "EUR",
                "value": 350,
                "@type": "Money"
            },
            "taxIncludedAmount": {
                "unit": "EUR",
                "value": 406,
                "@type": "Money"
            }
        }
    }
],
"relatedParty": [
    {
        "role": "Buyer Contact",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "qsdd-9888",
            "name": "Jean Pontus",
            "@referredType": "Individual",
            "@type": "PartyRef"
        }
    },
    {
        "role": "Buyer organization",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "55",
            "name": "PerfectCustomer",
            "@referredType": "Organization",
            "@type": "PartyRef"
        }
    },
    {
        "role": "Seller Contact",
        "@type": "RelatedPartyOrPartyRole",
        "partyOrPartyRole": {
            "id": "45gh-gh89",
            "name": "Joe Doe",
            "@referredType": "Individual",
            "@type": "PartyRef"
        }
    }
]
```

```

    "state": "approved",
    "validFor": {
        "endDateTime": "2021-05-06T12:45:12.033Z",
        "startDateTime": "2021-05-06T12:45:12.033Z"
    }
}

```

Updates partially a Quote

PATCH /quote/{id}?fields=...

Description

This operation allows partial updates of a Quote entity. Support of json/merge (<https://tools.ietf.org/html/rfc7396>) is mandatory, support of json/patch (<http://tools.ietf.org/html/rfc5789>) is optional. Note: If the update operation yields to the creation of sub-resources or relationships, the same rules concerning mandatory sub-resource attributes and default value settings in the POST operation applies to the PATCH operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
creationDate	
instantSyncQuote	
@baseType	@baseType is immutable
@schemaLocation	@schemaLocation is immutable
@type	@type is immutable

Patchable Attributes	Rule
agreement	
authorization	
billingAccount	
category	
contactMedium	
description	
effectiveQuoteCompletionDate	
expectedFulfillmentStartDate	
expectedQuoteCompletionDate	
externalId	
href	
id	
note	

Patchable Attributes	Rule
productOfferingQualification	
quoteItem	
quoteTotalPrice	
relatedParty	
requestedQuoteCompletionDate	
state	
validFor	
version	

Usage samples

PATCH Quote request leveraging json application example

Request

```

PATCH /quote/12dd-78hg
Content-Type: application/json

{
    "validFor": {
        "endDateTime": "2019-07-20T12:45:12.033Z",
        "startDateTime": "2019-05-20T12:45:12.028Z"
    }
}

```

Response

```

200

{
    "id": "12dd-78hg",
    "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
    "category": "BSBS Quote",
    "description": "Quote illustration",
    "expectedFulfillmentStartDate": "2019-05-16T12:45:12.028Z",
    "expectedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
    "externalId": [
        {
            "@type": "ExternalIdentifier",
            "owner": "TMF",
            "externalIdentifierType": "Quotenumber",
            "id": "AK1"
        }
    ],
    "instantSyncQuote": false,
    "quoteDate": "2019-05-06T12:45:12.028Z",
    "requestedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
    "version": "1",
    "agreement": [
        {

```

```
        "id": "7778-jj56",
        "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
        "name": "Global Agrement",
        "@type": "AgreementRef"
    }
],
"billingAccount": [
{
    "id": "BA4569",
    "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
    "@type": "BillingAccountRef"
}
],
"contactMedium": [
{
    "@type": "EmailContactMedium",
    "contactMediumIdentifier": "11",
    "preferred": true,
    "emailAddress": "jean.pontus@PerfectCustomer.com"
}
],
"note": [
{
    "id": "1",
    "author": "Jean Pontus",
    "date": "2019-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call",
    "@type": "Note"
}
],
"productOfferingQualification": [
{
    "id": "22ds-ty55",
    "@type": "ProductOfferingQualificationRef",
    "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
}
],
"quoteItem": [
{
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "product": {
        "@type": "Product",
        "productCharacteristic": [
            {
                "@type": "StringCharacteristic",
                "id": "Char1",
                "name": "Voice Bundle",
                "value": "unlimited"
            },
            {
                "@type": "ObjectCharacteristic",
                "id": "Char5",
                "name": "Data Bundle",
                "value": {
                    "volume": 50,
                    "unit": "Gb/month"
                }
            }
        ]
    }
}
```

```
        ],
        "productSpecification": {
            "id": "ssp7-ty89",
            "name": "TMF Tariff Plan",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "54gg-zzal",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
    }
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 12,
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "name": "Handset",
            "version": "1",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "z789-78ga",
        "name": "TMF handset T9+",
        "@type": "ProductOfferingRef"
    }
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Louise Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "55",
        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
```

```
        }
    ],
    "state": "inProgress",
    "@type": "Quote",
    "validFor": {
        "endDateTime": "2019-07-20T12:45:12.033Z",
        "startDateTime": "2019-05-20T12:45:12.028Z"
    }
}
```

PATCH Quote request leveraging merge-patch+json application example

Request

```
PATCH /quote/12dd-78hg
Content-Type: application/merge-patch+json

{
    "validFor": {
        "endDateTime": "2019-07-20T12:45:12.033Z",
        "startDateTime": "2019-05-20T12:45:12.028Z"
    }
}
```

Response

```
200

{
    "id": "12dd-78hg",
    "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
    "category": "BSBS Quote",
    "description": "Quote illustration",
    "expectedFulfillmentStartDate": "2019-05-16T12:45:12.028Z",
    "expectedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
    "externalId": [
        {
            "@type": "ExternalIdentifier",
            "owner": "TMF",
            "externalIdentifierType": "Quotenumber",
            "id": "AK1"
        }
    ],
    "instantSyncQuote": false,
    "quoteDate": "2019-05-06T12:45:12.028Z",
    "requestedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
    "version": "1",
    "agreement": [
        {
            "id": "7778-jj56",
            "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
            "name": "Global Agrement",
            "@type": "AgreementRef"
        }
    ],
    "billingAccount": [
        ...
    ]
}
```

```
{  
    "id": "BA4569",  
    "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",  
    "@type": "BillingAccountRef"  
}  
,  
"contactMedium": [  
    {  
        "@type": "EmailContactMedium",  
        "contactMediumIdentifier": "11",  
        "preferred": true,  
        "emailAddress": "jean.pontus@PerfectCustomer.com"  
    }  
,  
],  
"note": [  
    {  
        "id": "1",  
        "author": "Jean Pontus",  
        "date": "2019-05-06T12:45:12.031Z",  
        "text": "This is a quote request following today call",  
        "@type": "Note"  
    }  
,  
],  
"productOfferingQualification": [  
    {  
        "id": "22ds-ty55",  
        "@type": "ProductOfferingQualificationRef",  
        "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"  
    }  
,  
],  
"quoteItem": [  
    {  
        "id": "1",  
        "@type": "QuoteItem",  
        "action": "add",  
        "quantity": 1,  
        "product": {  
            "@type": "Product",  
            "productCharacteristic": [  
                {  
                    "@type": "StringCharacteristic",  
                    "id": "Char1",  
                    "name": "Voice Bundle",  
                    "value": "unlimited"  
                },  
                {  
                    "@type": "ObjectCharacteristic",  
                    "id": "Char5",  
                    "name": "Data Bundle",  
                    "value": {  
                        "volume": 50,  
                        "unit": "Gb/month"  
                    }  
                }  
            ],  
            "productSpecification": {  
                "id": "ssp7-ty89",  
                "name": "TMF Tariff Plan",  
                "@type": "ProductSpecificationRef"  
            }  
        }  
    }  
]
```

```
"productOffering": {
    "id": "54gg-zzal",
    "name": "TMF Tarif Plan 25",
    "@type": "ProductOfferingRef"
}
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 12,
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "name": "Handset",
            "version": "1",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "z789-78ga",
        "name": "TMF handset T9+",
        "@type": "ProductOfferingRef"
    }
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Louise Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "55",
        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
],
"state": "inProgress",
"@type": "Quote",
"validFor": {
    "endDateTime": "2019-07-20T12:45:12.033Z",
}
```

```
        "startDateTime": "2019-05-20T12:45:12.028Z"
    }
}
```

Update a quote using json-patch

Request

```
PATCH /quote/12dd-78hg
Content-Type: application/json-patch+json

[
  {
    "op": "add",
    "path": "/relatedParty",
    "value": {
      "role": "Buyer organization",
      "@type": "RelatedPartyOrPartyRole",
      "partyOrPartyRole": {
        "id": "99",
        "name": "AnotherCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
      }
    }
  }
]
```

Response

```
200

{
  "id": "12dd-78hg",
  "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
  "category": "BSBS Quote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-16T12:45:12.028Z",
  "expectedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
  "externalId": [
    {
      "@type": "ExternalIdentifier",
      "owner": "TMF",
      "externalIdentifierType": "Quotenumber",
      "id": "AK1"
    }
  ],
  "instantSyncQuote": false,
  "quoteDate": "2019-05-06T12:45:12.028Z",
  "requestedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
  "version": "1",
  "agreement": [
    {
      "id": "7778-jj56",
      "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
      "name": "Global Agrement",
      "@type": "AgreementRef"
    }
  ]
}
```

```
        }
    ],
    "billingAccount": [
    {
        "id": "BA4569",
        "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
        "@type": "BillingAccountRef"
    }
],
    "contactMedium": [
    {
        "@type": "EmailContactMedium",
        "contactMediumIdentifier": "11",
        "preferred": true,
        "emailAddress": "jean.pontus@PerfectCustomer.com"
    }
],
    "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",
        "@type": "ProductOfferingQualificationRef",
        "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
    }
],
    "quoteItem": [
    {
        "id": "1",
        "@type": "QuoteItem",
        "action": "add",
        "quantity": 1,
        "product": {
            "@type": "Product",
            "productCharacteristic": [
            {
                "@type": "StringCharacteristic",
                "id": "Char1",
                "name": "Voice Bundle",
                "value": "unlimited"
            },
            {
                "@type": "ObjectCharacteristic",
                "id": "Char5",
                "name": "Data Bundle",
                "value": {
                    "volume": 50,
                    "unit": "Gb/month"
                }
            }
        ],
        "productSpecification": {
            "id": "ssp7-ty89",
            "name": "TMF Tariff Plan",
            "@type": "ProductSpecificationRef"
        }
    }
]
```

```
        },
    },
    "productOffering": {
        "id": "54gg-zza1",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
    }
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 12,
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "name": "Handset",
            "version": "1",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "z789-78ga",
        "name": "TMF handset T9+",
        "@type": "ProductOfferingRef"
    }
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Jean Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "99",
        "name": "AnotherCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
],
"state": "inProgress",
"@type": "Quote",
```

```

    "validFor": {
      "endDateTime": "2019-05-06T12:45:12.033Z",
      "startDateTime": "2019-05-06T12:45:12.033Z"
    }
}

```

Update a quote using json-patch-query+json

Request

```

PATCH /quote/12dd-78hg
Content-Type: application/json-patch-query+json

[
  {
    "op": "replace",
    "path": "/relatedParty/partyOrPartyRole/name?relatedParty.role=Buyer Contact",
    "value": "Louise Pontus"
  },
  {
    "op": "replace",
    "path": "/quoteItem/quantity?id=2",
    "value": 12
  }
]

```

Response

```

200

{
  "id": "12dd-78hg",
  "href": "https://host:port/quoteManagement/v5/quote/12dd-78hg",
  "category": "BSBS Quote",
  "description": "Quote illustration",
  "expectedFulfillmentStartDate": "2019-05-16T12:45:12.028Z",
  "expectedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
  "externalId": [
    {
      "@type": "ExternalIdentifier",
      "owner": "TMF",
      "externalIdentifierType": "Quotenumber",
      "id": "AK1"
    }
  ],
  "instantSyncQuote": false,
  "quoteDate": "2019-05-06T12:45:12.028Z",
  "requestedQuoteCompletionDate": "2019-05-14T12:45:12.028Z",
  "version": "1",
  "agreement": [
    {
      "id": "7778-jj56",
      "href": "https://host:port/agreementManagement/v5/agreement/7778-jj56",
      "name": "Global Agrement",
      "@type": "AgreementRef"
    }
  ],
  "billingAccount": [
    {
      ...
    }
  ]
}

```

```
        "id": "BA4569",
        "href": "https://host:port/accountManagement/v5/billingAccount/BA4569",
        "@type": "BillingAccountRef"
    }
],
"contactMedium": [
{
    "@type": "EmailContactMedium",
    "contactMediumIdentifier": "11",
    "preferred": true,
    "emailAddress": "jean.pontus@PerfectCustomer.com"
}
],
"note": [
{
    "id": "1",
    "author": "Jean Pontus",
    "date": "2019-05-06T12:45:12.031Z",
    "text": "This is a quote request following today call",
    "@type": "Note"
}
],
"productOfferingQualification": [
{
    "id": "22ds-ty55",
    "@type": "ProductOfferingQualificationRef",
    "href": "https://host:port/productOfferingQualificationManagement/v5/productOfferingQualification/22ds-ty55"
}
],
"quoteItem": [
{
    "id": "1",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 1,
    "product": {
        "@type": "Product",
        "productCharacteristic": [
            {
                "@type": "StringCharacteristic",
                "id": "Char1",
                "name": "Voice Bundle",
                "value": "unlimited"
            },
            {
                "@type": "ObjectCharacteristic",
                "id": "Char5",
                "name": "Data Bundle",
                "value": {
                    "volume": 50,
                    "unit": "Gb/month"
                }
            }
        ],
        "productSpecification": {
            "id": "ssp7-ty89",
            "name": "TMF Tariff Plan",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {

```

```
        "id": "54gg-zzal",
        "name": "TMF Tarif Plan 25",
        "@type": "ProductOfferingRef"
    }
},
{
    "id": "2",
    "@type": "QuoteItem",
    "action": "add",
    "quantity": 12,
    "product": {
        "@type": "Product",
        "productSpecification": {
            "id": "qq45-ytr7",
            "name": "Handset",
            "version": "1",
            "@type": "ProductSpecificationRef"
        }
    },
    "productOffering": {
        "id": "z789-78ga",
        "name": "TMF handset T9+",
        "@type": "ProductOfferingRef"
    }
}
],
"relatedParty": [
{
    "role": "Buyer Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "qsdd-9888",
        "name": "Louise Pontus",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
},
{
    "role": "Buyer organization",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "55",
        "name": "PerfectCustomer",
        "@referredType": "Organization",
        "@type": "PartyRef"
    }
},
{
    "role": "Seller Contact",
    "@type": "RelatedPartyOrPartyRole",
    "partyOrPartyRole": {
        "id": "45gh-gh89",
        "name": "Joe Doe",
        "@referredType": "Individual",
        "@type": "PartyRef"
    }
}
],
"state": "inProgress",
"@type": "Quote"
}
```

Deletes a Quote

`DELETE /quote/{id}`

Description

This operation deletes a Quote entity.

Usage samples

Here's an example of a request for deleting a quote.

Request

```
DELETE /quote/87g-8tt
Content-Type: application/json
```

Response

```
204
```

API NOTIFICATIONS

For every single of operation on the entities use the following templates and provide sample REST notification POST calls.

It is assumed that the Pub/Sub uses the Register and UnRegister mechanisms described in the REST Guidelines reproduced below.

Register listener

POST /hub

Description

Sets the communication endpoint address the service instance must use to deliver information about its health state, execution state, failures and metrics. Subsequent POST calls will be rejected by the service if it does not support multiple listeners. In this case DELETE /api/hub/{id} must be called before an endpoint can be created again.

Behavior

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

Returns HTTP/1.1 status code 409 if request is not successful.

Usage Samples

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

Request

```
POST /api/hub
Accept: application/json
{
  "callback": "http://in.listener.com"
}
```

Response

```
201
Content-Type: application/json
Location: /api/hub/42
{
  "id": "42",
  "callback": "http://in.listener.com",
  "query": ""
}
```

Unregister listener

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.

Usage Samples

Here's an example of a request for un-registering a listener.

Request

```
DELETE /api/hub/42  
Accept: application/json
```

Response

```
204
```

Publish Event to listener

POST /client/listener

Description

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

Provides to a registered listener the description of the event that was raised. The /client/listener url is the callback url passed when registering the listener.

Behavior

Returns HTTP/1.1 status code 201 if the service is able to set the configuration.

Usage Samples

Here's an example of a notification received by the listener. In this example "EVENT TYPE" should be replaced by one of the notification types supported by this API (see Notification resources Models section) and EVENT BODY refers to the data structure of the given notification type.

Request

```
POST /client/listener

Accept: application/json

{
    "event": {
        EVENT BODY
    },
    "eventType": "EVENT_TYPE"
}
```

Response

```
201
```

For detailed examples on the general TM Forum notification mechanism, see the TMF REST Design Guidelines.

Acknowledgements

Release History

Release Number	Date	Release led by:	Description
Release 1.0.0	15-Apr-2016	Pierre Gauthier	First Release of Draft Version of the Document
Release 2.0.0	18-Sep-2017	Pierre Gauthier Mariano Belaunde	Regenerated from the API Data Model and rebranded. update to comply with API new pattern AP 935 feedbacks
Release 4.0.0	01-Jul-2021	Pierre Gauthier Ludovic Robert	Schema-driven API with polymorphism pattern Following Jira have been integrated: • AP-1248 • AP-1253 • AP-1245 • AP-1252 • AP-1272 Note: the version 4.0 is assigned to all the APIs delivered in the release 19.0
Release 5.0.0	01-Feb-2024	Amani Dkhil	Revise Swagger to adhere to the latest OpenAPI Specification (OAS) version 3.0.1 Refine the API model to align with emerging needs and the collectively established evolutions.

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