Account Management

NOTICE

Table of Contents

Introduction

The Account API provides standardized mechanism for the management of billing and settlement accounts, as well as for financial accounting (account receivable)contexts.

It allows creation, update and retrieval of account information for common business models such as B2C, B2B2C (creation of mass market customer billing account within a "Billing on Behalf of" process for example), or B2B (creation of a billing/settlement account for a partner or B2B customer).

It also allows creation and query of bill items allowing partners or customers to check their invoice.

Accounts typically refer to parties and party roles. However the management of party and party roles is out of the scope of this API. The TMF APIs Party Management, Customer Management and Party Role Management are used for this purpose.

Sample Use Cases

Reader will find example of use cases using Usage API in "Open Digital Architecture Business Scenarios and Use Cases" document IG1228.

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

BillFormat resource

A detailed description of the way in which a bill is presented.

Resource model

Figure 1 - BillFormat

Field descriptions

BillFormat fields

description	A String. An explanatory text for this bill format.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

Json representation sample(s)

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

```
{
```

```
  "@type" : "BillFormat",
  "description" : "This  bill format describes a fancy layout for our youth
submarket",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice for youth market",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
}
```

PartyAccount resource

Account used for billing or for settlement purposes concerning a given party (an organization or an individual). It is a specialization of entity Account.

Resource model
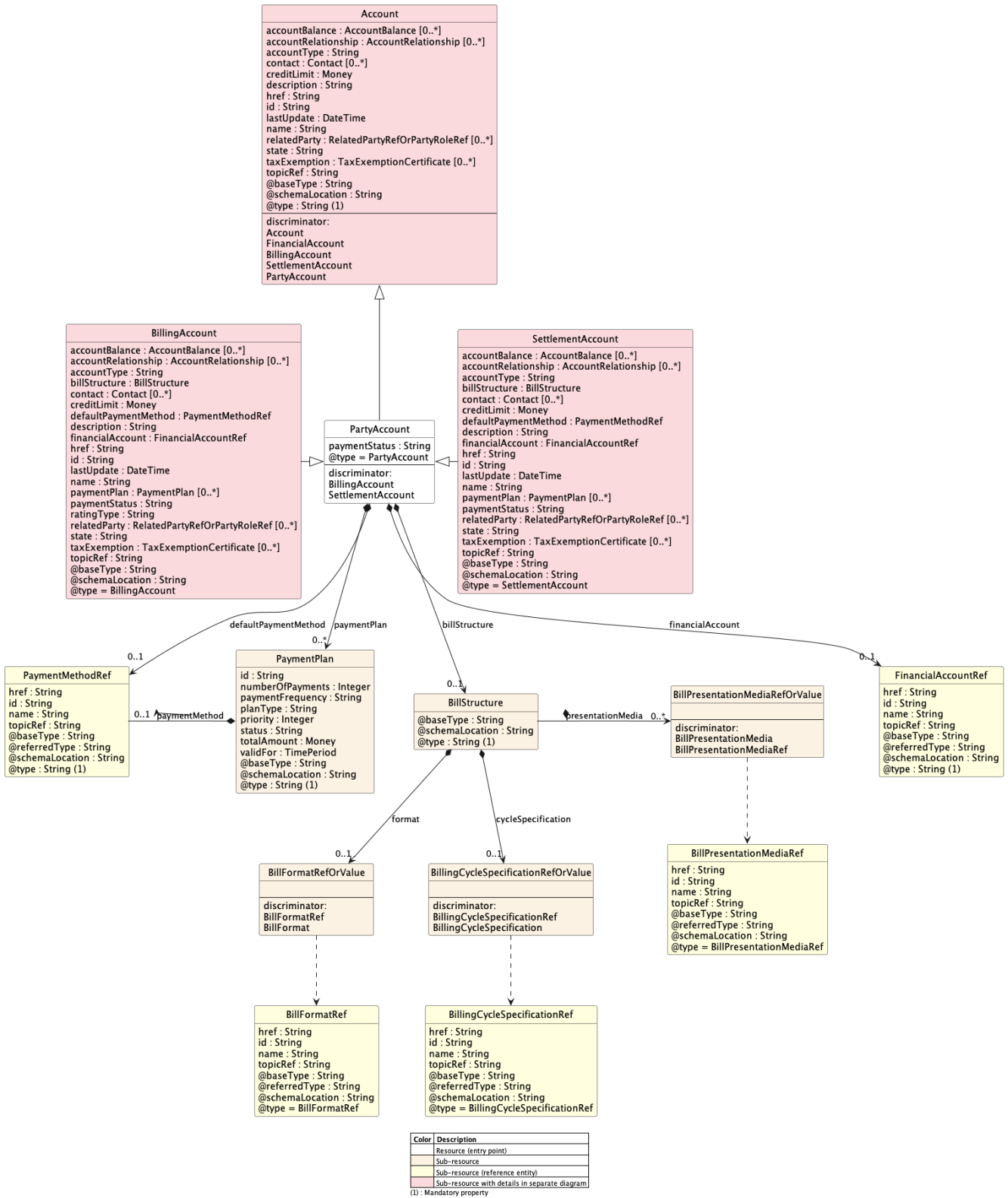
Figure 2 - PartyAccount
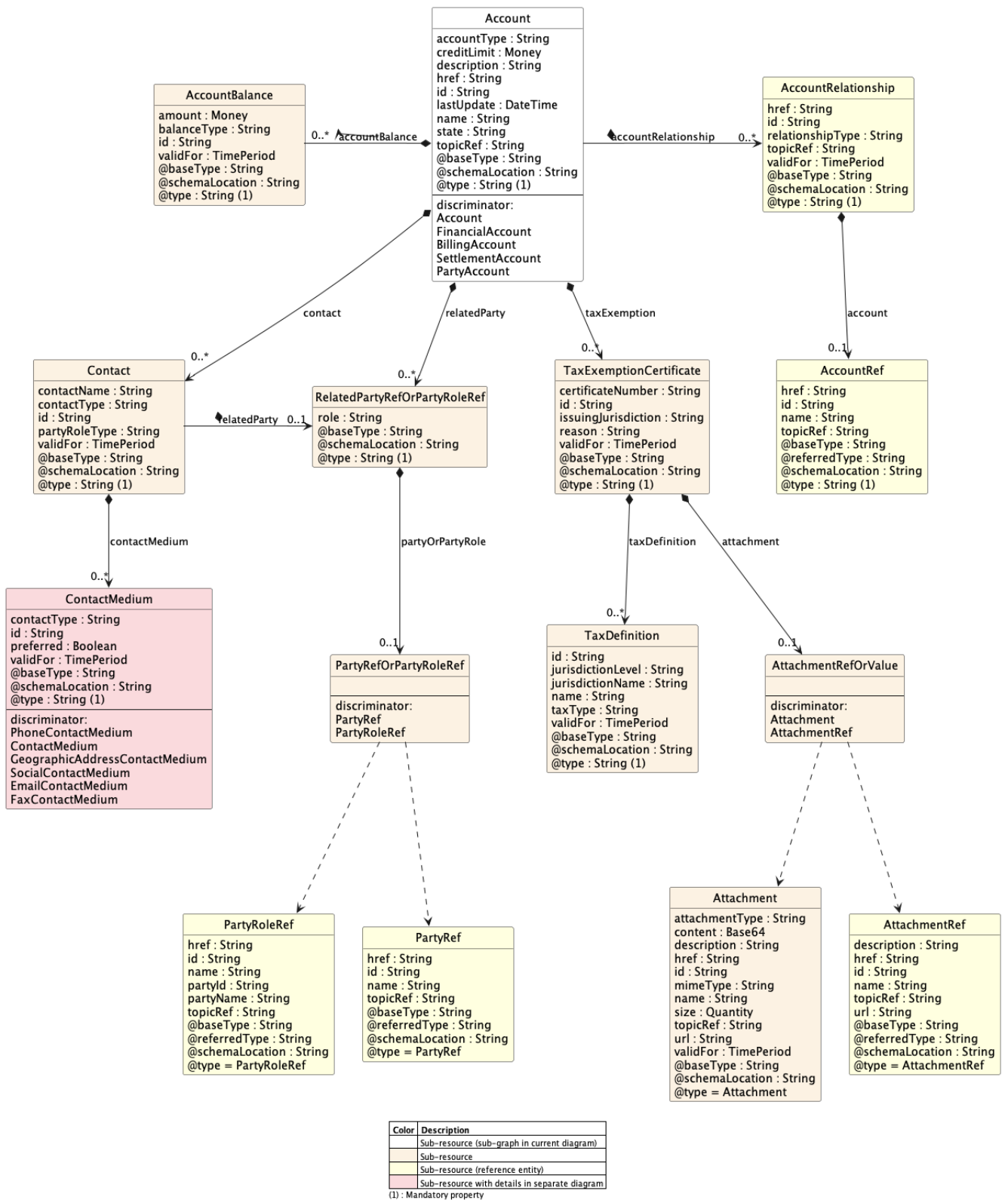
Figure 3 - Account

Field descriptions

PartyAccount fields

billStructure	A BillStructure. The structure of the bill for party accounts (billing or settlement).

defaultPaymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
financialAccount	A FinancialAccountRef. AccountReceivable reference. An account of money owed by a party to another entity in exchange for goods or services that have been delivered or used. An account receivable aggregates the amounts of one or more party accounts (billing or settlement) owned by a given party.
paymentPlan	A PaymentPlan. Defines a plan for payment (when a party wants to spread his payments).
paymentStatus	A String. The condition of the account, such as due, paid, in arrears.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

Account sub-resource fields

accountBalance	An AccountBalance. Balances linked to the account.
accountRelationship	An AccountRelationship. Significant connection between accounts. For instance an aggregating account for a list of shop branches each having its own billing account.
accountType	A String. A categorization of an account, such as individual, joint, and so forth, whose instances share some of the same characteristics. Note: for flexibility we use a String here but an implementation may use an enumeration with a limited list of valid values.
contact	A Contact. An individual or an organization used as a contact point for a given account and accessed via some contact medium.
creditLimit	A Money. A base / value business entity used to represent money.
description	A String. Detailed description of the account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
lastUpdate	A DateTime. The date and time that the account was last updated.
name	A String. Name of the account.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
state	A String. Contains the lifecycle state such as: Active, Closed, Suspended and so on.

taxExemption	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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountBalance sub-resource fields

amount	A Money. A base / value business entity used to represent money.
balanceType	A String. Type of the balance : deposit balance, disputed balance, loyalty balance, receivable balance...
id	A String. Identifier of the balance within list of the balances (for entities with list).
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.

AccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountRelationship sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
relationshipType	A String. Type of relationship.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillFormat sub-resource fields

description	A String. An explanatory text for this bill format.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillFormatRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMedia sub-resource fields

description	A String. An explanatory text describing this bill presentation media.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMediaRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillStructure sub-resource fields

cycleSpecification	A BillingCycleSpecificationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillingCycleSpecification entity and not the BillingCycleSpecificationRefOrValue class itself.
format	A BillFormatRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillFormat entity and not the BillFormatRefOrValue class itself.
presentationMedia	A BillPresentationMediaRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillPresentationMedia entity and not the BillPresentationMediaRefOrValue class itself.
@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.

BillingAccount sub-resource fields

ratingType	A String. Indicates whether the account follows a specific payment option such as prepaid or postpaid.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

BillingCycleSpecification sub-resource fields

billingDateShift	An Integer. An offset of a billing/settlement date. The offset is expressed as number of days with regard to the start of the billing/settlement period.
billingPeriod	A String. A billing time period. It can be recurring, for example: week, month, quarter of year, year .
chargeDateOffset	An Integer. An offset of a date through which charges previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.

creditDateOffset	An Integer. An offset of a date through which credits previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
description	A String. An explanation regarding this billing cycle specification.
frequency	A String. Frequency of the billing cycle (monthly for instance).
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mailingDateOffset	An Integer. An offset of a customer bill mailing date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
name	A String. A short descriptive name.
paymentDueDateOffset	An Integer. An offset of a payment due date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillingCycleSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

Contact 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...
contactName	A String. A displayable name for that contact.
contactType	A String. Type of contact (primary, secondary...).
id	A String. Identifier of the contact within list of the contacts (for entities with list).
partyRoleType	A String. Identifies what kind of party role type is linked to the contact (a account manager...).
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific 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.
@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 (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.

EmailContactMedium sub-resource fields

emailAddress	A String. Full email address in standard format.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FaxContactMedium sub-resource fields

faxNumber	A String. The fax number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FinancialAccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

GeographicAddressContactMedium sub-resource fields

city	A String. The city.
country	A String. The country.
geographicAddress	A GeographicAddressRef. Reference to a Geographic Address.
postCode	A String. Postcode.
stateOrProvince	A String. State or province.
street1	A String. Describes the street.
street2	A String. Complementary street description.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.

name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PaymentPlan sub-resource fields

id	A String. Identifier of the plan within list of the plans (for entities with list).
numberOfPayments	An Integer. Number of payments used to spread the global payment.
paymentFrequency	A String. Frequency of the payments, such as monthly and bimonthly.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
planType	A String. Type of payment plan.
priority	An Integer. Priority of the payment plan.
status	A String. Status of the payment plan (effective, ineffective).
totalAmount	A Money. A base / value business entity used to represent money.
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.

PhoneContactMedium sub-resource fields

phoneNumber	A String. The phone number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

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.

SettlementAccount sub-resource fields

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

SocialContactMedium sub-resource fields

socialNetworkId	A String. Identifier as a member of a social network.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

TaxDefinition sub-resource fields

id	A String. Unique identifier of the tax.
jurisdictionLevel	A String. Level of the jurisdiction that levies the tax.
jurisdictionName	A String. Name of the jurisdiction that levies the tax.
name	A String. Tax name.
taxType	A String. Type of the tax.
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.

TaxExemptionCertificate sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
certificateNumber	A String. Identifier of a document that shows proof of exemption from taxes for the taxing jurisdiction.
id	A String. Identifier of the tax exemption within list of the exemptions.
issuingJurisdiction	A String. Name of the jurisdiction that issued the exemption.
reason	A String. Reason for the tax exemption.
taxDefinition	A TaxDefinition. Reference of a tax definition. A tax is levied by an authorized tax jurisdiction. For example, there are many different types of tax (Federal Tax levied by the US Government, State Tax levied by the State of California, City Tax levied by the City of Los Angeles, etc.).
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.

Json representation sample(s)

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

```
{
  "@type" : "PartyAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 20000
  },
  "description" : "This  party account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "lastModified" : "2018-06-14T00:00:00.000Z",
```

```
    "name" : "Travel account",
    "state" : "Suspended",
    "accountType" : "Business",
    "paymentStatus" : "In Arrears",
    "billStructure" : {
      "@type" : "BillStructure",
      "presentationMedia" : [ {
        "@type" : "BillPresentationMedia",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/8800",
        "id" : "8800",
        "name" : "Electronic",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
      } ],
      "format" : {
        "@type" : "BillFormat",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/4824",
        "id" : "4824",
        "name" : "Summary invoice",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
      },
      "cycleSpecification" : {
        "@type" : "BillingCycleSpecification",
        "dateShift" : 8,
        "frequency" : "monthly",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1309",
        "id" : "1309",
        "name" : "Monthly billing",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
      }
    },
    "paymentPlan" : [ {
      "@type" : "PaymentPlan",
      "numberOfPayments" : 12,
      "paymentFrequency" : "monthly",
      "priority" : 2,
      "status" : "Ineffective",
      "totalAmount" : {
        "unit" : "USD",
        "value" : 100.0
      },
      "planType" : "regular",
      "validFor" : {
        "startDateTime" : "2018-06-17T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
```

```
      },
      "paymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6895",
        "id" : "6895",
        "name" : "family payment",
        "topicRef" :
  "kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      }
    } ],
    "financialAccount" : {
      "@referredType" : "FinancialAccount",
      "@type" : "FinancialAccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2209",
      "id" : "2209",
      "name" : "Travel account",
      "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
    },
    "defaultPaymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6514",
      "id" : "6514",
      "name" : "family payment",
      "topicRef" :
  "kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    },
    "relatedParty" : [ {
      "role" : "owner",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@type" : "PartyRefOrPartyRoleRef",
        "@referredType" : "Organization",
        "href" : "https://host:port/tmf-api/partyManagement/v5/party/4665",
        "id" : "4665",
        "name" : "John Doe Ltd",
        "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
      }
    } ],
    "taxExemption" : [ {
      "@type" : "TaxExemption",
      "certificateNumber" : "45678889876",
      "issuingJurisdiction" : "USA",
      "reason" : "Embassy",
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
      } ],
```

```
    "attachment" : {
      "@type" : "Attachment",
      "id" : "654321234334534552",
      "href" : "https://host:port/tmf-api/document/v5/attachment/654321234334534552",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-654321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
654321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Anna Cristal",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : true,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "owner",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
```

```
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 53.29
      },
      "balanceType" : "DepositBalance",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/9522",
        "id" : "9522",
        "name" : "Travel Account",
        "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
      }
    } ],
    "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
  }
```

BillingAccount resource

A party account used for billing purposes. It includes a description of the bill structure (frequency, presentation media, format and so on). It is a specialization of entity PartyAccount.

Resource model

BillingAccount

BillingAccount

ratingType : String
@type = BillingAccount

PartyAccount

accountBalance : AccountBalance [0..*]
accountRelationship : AccountRelationship [0..*]
accountType : String
billStructure : BillStructure
contact : Contact [0..*]
creditLimit : Money
defaultPaymentMethod : PaymentMethodRef
description : String
financialAccount : FinancialAccountRef
href : String
id : String
lastUpdate : DateTime
name : String
paymentPlan : PaymentPlan [0..*]
paymentStatus : String
relatedParty : RelatedPartyRefOrPartyRoleRef [0..*]
state : String
taxExemption : TaxExemptionCertificate [0..*]
topicRef : String
@baseType : String
@schemaLocation : String
@type = PartyAccount

discriminator:
BillingAccount
SettlementAccount

Color	Description
	Resource (entry point)
	Sub-resource with details in separate diagram

(1) : Mandatory property

Figure 4 - BillingAccount
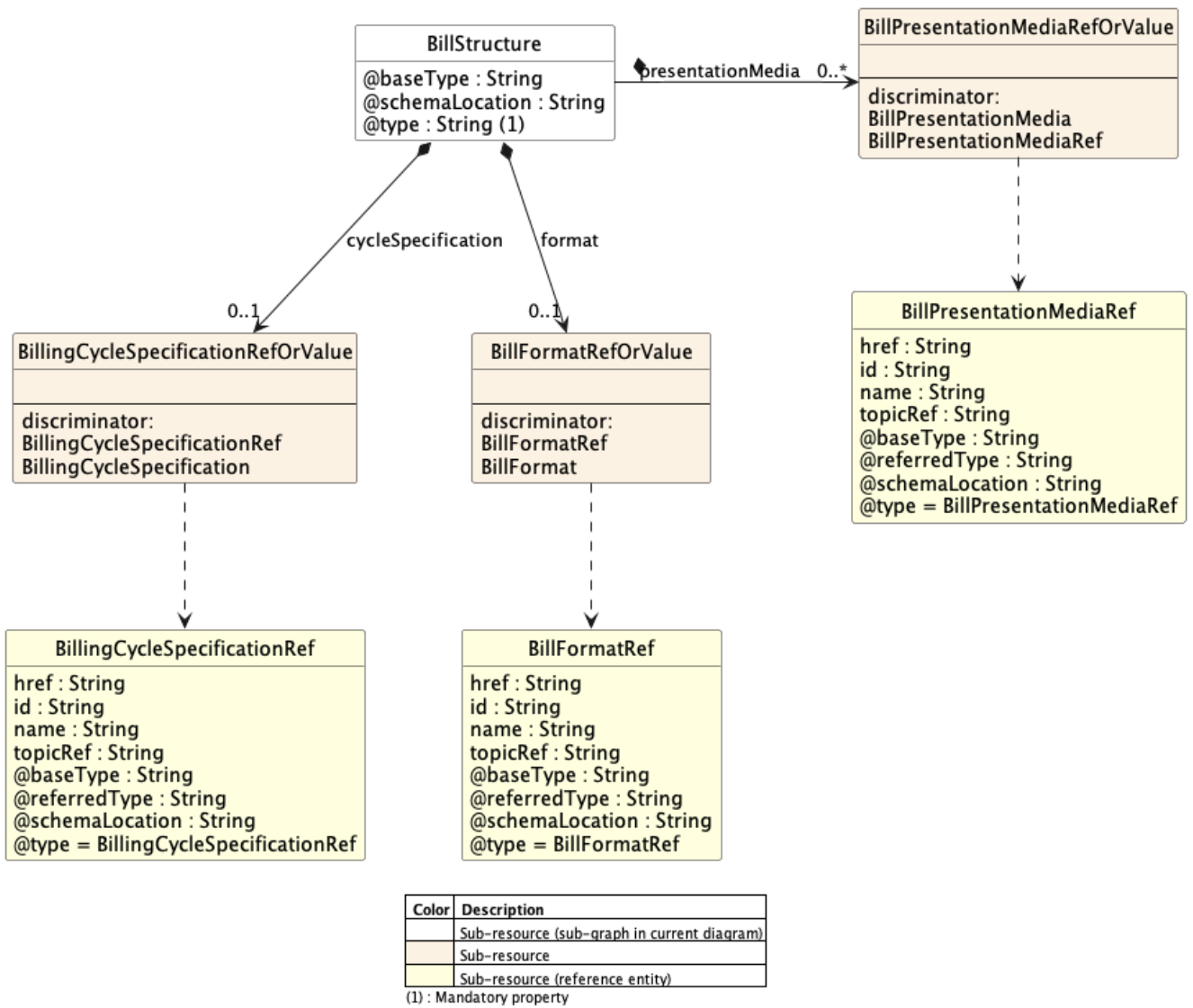
Figure 5 - BillStructure
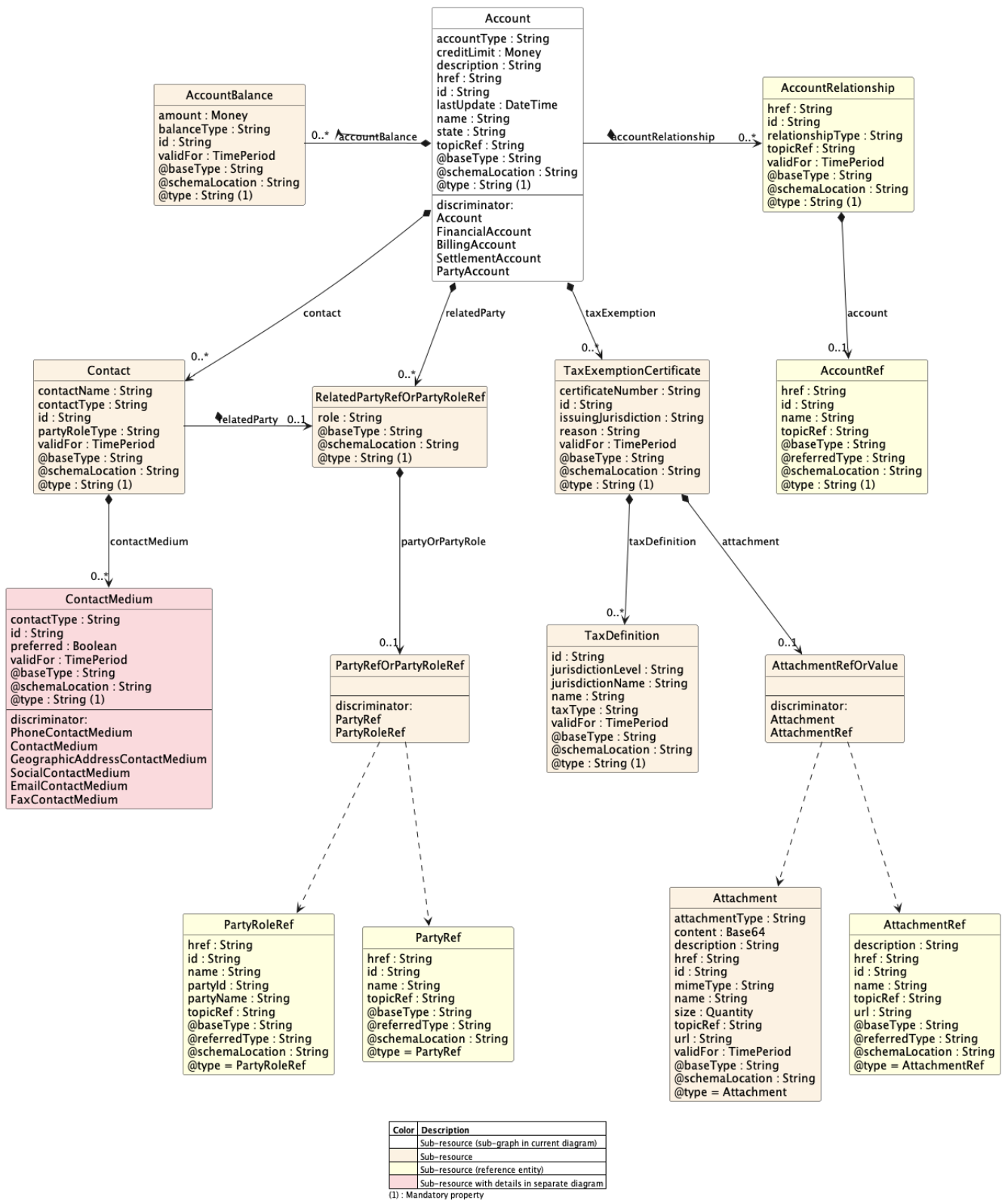
Figure 6 - Account

Field descriptions

BillingAccount fields

ratingType	A String. Indicates whether the account follows a specific payment option such as prepaid or postpaid.

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

Account sub-resource fields

accountBalance	An AccountBalance. Balances linked to the account.
accountRelationship	An AccountRelationship. Significant connection between accounts. For instance an aggregating account for a list of shop branches each having its own billing account.
accountType	A String. A categorization of an account, such as individual, joint, and so forth, whose instances share some of the same characteristics. Note: for flexibility we use a String here but an implementation may use an enumeration with a limited list of valid values.
contact	A Contact. An individual or an organization used as a contact point for a given account and accessed via some contact medium.
creditLimit	A Money. A base / value business entity used to represent money.
description	A String. Detailed description of the account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
lastUpdate	A DateTime. The date and time that the account was last updated.
name	A String. Name of the account.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
state	A String. Contains the lifecycle state such as: Active, Closed, Suspended and so on.
taxExemption	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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountBalance sub-resource fields

amount	A Money. A base / value business entity used to represent money.
balanceType	A String. Type of the balance : deposit balance, disputed balance, loyalty balance, receivable balance...
id	A String. Identifier of the balance within list of the balances (for entities with list).
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.

AccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountRelationship sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
href	A String. Hyperlink reference.

id	A String. Unique identifier.
relationshipType	A String. Type of relationship.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillFormat sub-resource fields

description	A String. An explanatory text for this bill format.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillFormatRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMedia sub-resource fields

description	A String. An explanatory text describing this bill presentation media.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMediaRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillStructure sub-resource fields

cycleSpecification	A BillingCycleSpecificationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillingCycleSpecification entity and not the BillingCycleSpecificationRefOrValue class itself.
format	A BillFormatRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillFormat entity and not the BillFormatRefOrValue class itself.
presentationMedia	A BillPresentationMediaRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillPresentationMedia entity and not the BillPresentationMediaRefOrValue class itself.
@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.

BillingCycleSpecification sub-resource fields

billingDateShift	An Integer. An offset of a billing/settlement date. The offset is expressed as number of days with regard to the start of the billing/settlement period.
billingPeriod	A String. A billing time period. It can be recurring, for example: week, month, quarter of year, year .
chargeDateOffset	An Integer. An offset of a date through which charges previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
creditDateOffset	An Integer. An offset of a date through which credits previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
description	A String. An explanation regarding this billing cycle specification.
frequency	A String. Frequency of the billing cycle (monthly for instance).
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mailingDateOffset	An Integer. An offset of a customer bill mailing date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
name	A String. A short descriptive name.

paymentDueDateOffset	An Integer. An offset of a payment due date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillingCycleSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

Contact 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...
contactName	A String. A displayable name for that contact.
contactType	A String. Type of contact (primary, secondary...).
id	A String. Identifier of the contact within list of the contacts (for entities with list).

partyRoleType	A String. Identifies what kind of party role type is linked to the contact (a account manager…).
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific 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.
@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 (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.

EmailContactMedium sub-resource fields

emailAddress	A String. Full email address in standard format.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FaxContactMedium sub-resource fields

faxNumber	A String. The fax number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FinancialAccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

GeographicAddressContactMedium sub-resource fields

city	A String. The city.
country	A String. The country.
geographicAddress	A GeographicAddressRef. Reference to a Geographic Address.
postCode	A String. Postcode.
stateOrProvince	A String. State or province.
street1	A String. Describes the street.
street2	A String. Complementary street description.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PartyAccount sub-resource fields

billStructure	A BillStructure. The structure of the bill for party accounts (billing or settlement).
defaultPaymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
financialAccount	A FinancialAccountRef. AccountReceivable reference. An account of money owed by a party to another entity in exchange for goods or services that have been delivered or used. An account receivable aggregates the amounts of one or more party accounts (billing or settlement) owned by a given party.
paymentPlan	A PaymentPlan. Defines a plan for payment (when a party wants to spread his payments).
paymentStatus	A String. The condition of the account, such as due, paid, in arrears.
@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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PaymentPlan sub-resource fields

id	A String. Identifier of the plan within list of the plans (for entities with list).
numberOfPayments	An Integer. Number of payments used to spread the global payment.
paymentFrequency	A String. Frequency of the payments, such as monthly and bimonthly.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
planType	A String. Type of payment plan.
priority	An Integer. Priority of the payment plan.
status	A String. Status of the payment plan (effective, ineffective).

totalAmount	A Money. A base / value business entity used to represent money.
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.

PhoneContactMedium sub-resource fields

phoneNumber	A String. The phone number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

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.

SocialContactMedium sub-resource fields

socialNetworkId	A String. Identifier as a member of a social network.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

TaxDefinition sub-resource fields

id	A String. Unique identifier of the tax.
jurisdictionLevel	A String. Level of the jurisdiction that levies the tax.
jurisdictionName	A String. Name of the jurisdiction that levies the tax.
name	A String. Tax name.
taxType	A String. Type of the tax.

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.

TaxExemptionCertificate sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
certificateNumber	A String. Identifier of a document that shows proof of exemption from taxes for the taxing jurisdiction.
id	A String. Identifier of the tax exemption within list of the exemptions.
issuingJurisdiction	A String. Name of the jurisdiction that issued the exemption.
reason	A String. Reason for the tax exemption.
taxDefinition	A TaxDefinition. Reference of a tax definition. A tax is levied by an authorized tax jurisdiction. For example, there are many different types of tax (Federal Tax levied by the US Government, State Tax levied by the State of California, City Tax levied by the City of Los Angeles, etc.).
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.

Json representation sample(s)

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

```
{
  "@type" : "BillingAccount",
  "paymentStatus" : "In Arrears",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 10000
```

```
    },
    "description" : "This  billing account ...",
    "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
    "id" : "5430",
    "lastModified" : "2018-06-14T00:00:00.000Z",
    "name" : "Home Account",
    "state" : "Inactive",
    "accountType" : "Business",
    "billStructure" : {
      "@type" : "BillStructure",
      "presentationMedia" : [ {
        "@type" : "BillPresentationMedia",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/9968",
        "id" : "9968",
        "name" : "Post Mail",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
      } ],
      "format" : {
        "@type" : "BillFormat",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/3555",
        "id" : "3555",
        "name" : "Detailed invoice",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
      },
      "cycleSpecification" : {
        "@type" : "BillingCycleSpecification",
        "dateShift" : 54,
        "frequency" : "monthly",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/3828",
        "id" : "3828",
        "name" : "Annual billing",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
      }
    },
    "paymentPlan" : [ {
      "@type" : "PaymentPlan",
      "numberOfPayments" : 4,
      "paymentFrequency" : "monthly",
      "priority" : 1,
      "status" : "Effective",
      "totalAmount" : {
        "unit" : "USD",
        "value" : 100.0
      },
```

```
    "paymentType" : "regular",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "paymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/2452",
      "id" : "2452",
      "name" : "professional payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    }
  } ],
  "financialAccount" : {
    "@referredType" : "FinancialAccount",
    "@type" : "FinancialAccountRef",
    "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
    "id" : "2063",
    "name" : "Partnership account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
  },
  "defaultPaymentMethod" : {
    "@type" : "PaymentMethodRef",
    "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/3537",
    "id" : "3537",
    "name" : "family payment",
    "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
  },
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/party/6838",
      "id" : "6838",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "9665432345",
    "issuingJurisdiction" : "USA",
    "reason" : "Embassy",
    "taxDefinition" : [ {
```

```
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "88888834534552",
      "href" : "https://host:port/tmf-api/document/v5/attachment/88888834534552",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-888.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-888.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Rachel Douglas",
    "contactType" : "secondary",
    "partyRoleType" : "Vendor",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : true,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "@type" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/party/9947",
      "id" : "9947",
      "name" : "Richard Cole",
      "role" : "owner",
      "topicRef" :
```

```
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
    "amount" : {
      "unit" : "USD",
      "value" : 58.33
    },
    "balanceType" : "ReceivableBalance",
    "validFor" : {
      "startDateTime" : "2018-06-10T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "accountRelationship" : [ {
    "@type" : "AccountRelationship",
    "relationshipType" : "contains",
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "account" : {
      "@referredType" : "BillingAccount",
      "@type" : "AccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/9327",
      "id" : "9327",
      "name" : "Paradise Account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

FinancialAccount resource

An account of money owed by a party to another entity in exchange for goods or services that have been delivered or used. A financial (account receivable account/account payable) aggregates the amounts of one or more party accounts (billing or settlement) owned by a given party. It is a specialization of entity Account.

Resource model

FinancialAccount

@type = FinancialAccount

Account

accountBalance : AccountBalance [0..*]
accountRelationship : AccountRelationship [0..*]
accountType : String
contact : Contact [0..*]
creditLimit : Money
description : String
href : String
id : String
lastUpdate : DateTime
name : String
relatedParty : RelatedPartyRefOrPartyRoleRef [0..*]
state : String
taxExemption : TaxExemptionCertificate [0..*]
topicRef : String
@baseType : String
@schemaLocation : String
@type : String (1)

discriminator:
Account
FinancialAccount
BillingAccount
SettlementAccount
PartyAccount

Color	Description
	Resource (entry point)
	Sub-resource with details in separate diagram

(1) : Mandatory property

Figure 7 - FinancialAccount
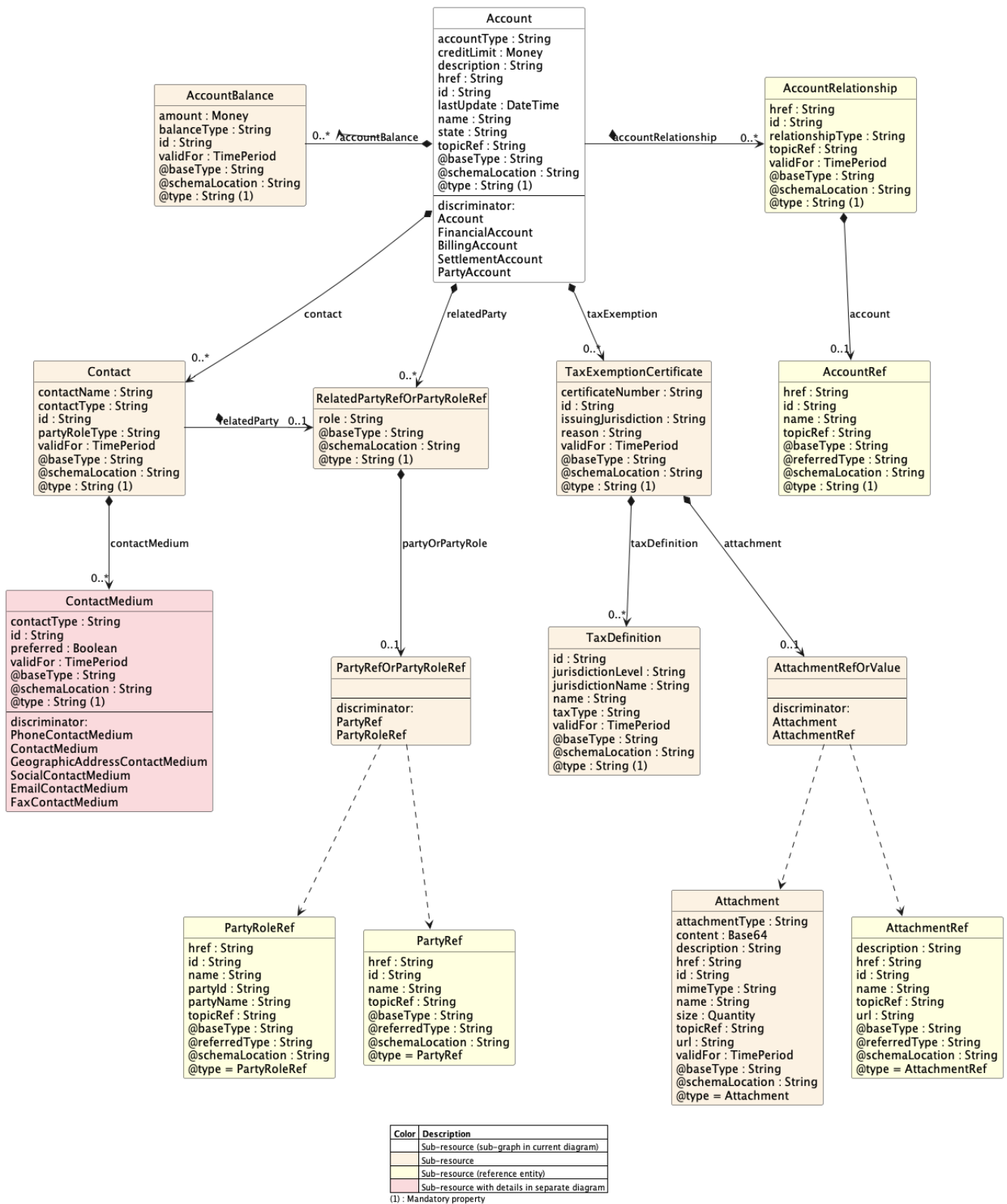
Figure 8 - Account

Field descriptions

FinancialAccount fields

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

Account sub-resource fields

accountBalance	An AccountBalance. Balances linked to the account.
accountRelationship	An AccountRelationship. Significant connection between accounts. For instance an aggregating account for a list of shop branches each having its own billing account.
accountType	A String. A categorization of an account, such as individual, joint, and so forth, whose instances share some of the same characteristics. Note: for flexibility we use a String here but an implementation may use an enumeration with a limited list of valid values.
contact	A Contact. An individual or an organization used as a contact point for a given account and accessed via some contact medium.
creditLimit	A Money. A base / value business entity used to represent money.
description	A String. Detailed description of the account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
lastUpdate	A DateTime. The date and time that the account was last updated.
name	A String. Name of the account.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
state	A String. Contains the lifecycle state such as: Active, Closed, Suspended and so on.
taxExemption	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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountBalance sub-resource fields

amount	A Money. A base / value business entity used to represent money.
balanceType	A String. Type of the balance : deposit balance, disputed balance, loyalty balance, receivable balance…
id	A String. Identifier of the balance within list of the balances (for entities with list).
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.

AccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountRelationship sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
relationshipType	A String. Type of relationship.
topicRef	A String. A reference to the topic from which this entity can be fetched.

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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

Contact 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...
contactName	A String. A displayable name for that contact.
contactType	A String. Type of contact (primary, secondary...).
id	A String. Identifier of the contact within list of the contacts (for entities with list).
partyRoleType	A String. Identifies what kind of party role type is linked to the contact (a account manager...).
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific 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.
@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 (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.

EmailContactMedium sub-resource fields

emailAddress	A String. Full email address in standard format.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FaxContactMedium sub-resource fields

faxNumber	A String. The fax number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressContactMedium sub-resource fields

city	A String. The city.
country	A String. The country.
geographicAddress	A GeographicAddressRef. Reference to a Geographic Address.
postCode	A String. Postcode.
stateOrProvince	A String. State or province.
street1	A String. Describes the street.
street2	A String. Complementary street description.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRef sub-resource fields

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

topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PhoneContactMedium sub-resource fields

phoneNumber	A String. The phone number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

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.

SocialContactMedium sub-resource fields

socialNetworkId	A String. Identifier as a member of a social network.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

TaxDefinition sub-resource fields

id	A String. Unique identifier of the tax.
jurisdictionLevel	A String. Level of the jurisdiction that levies the tax.
jurisdictionName	A String. Name of the jurisdiction that levies the tax.
name	A String. Tax name.
taxType	A String. Type of the tax.
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.

TaxExemptionCertificate sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
certificateNumber	A String. Identifier of a document that shows proof of exemption from taxes for the taxing jurisdiction.
id	A String. Identifier of the tax exemption within list of the exemptions.
issuingJurisdiction	A String. Name of the jurisdiction that issued the exemption.
reason	A String. Reason for the tax exemption.
taxDefinition	A TaxDefinition. Reference of a tax definition. A tax is levied by an authorized tax jurisdiction. For example, there are many different types of tax (Federal Tax levied by the US Government, State Tax levied by the State of California, City Tax levied by the City of Los Angeles, etc.).
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.

Json representation sample(s)

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

```
{
  "@type" : "FinancialAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Administration account",
  "state" : "Active",
  "accountType" : "Global",
```

```
  "relatedParty" : [ {
    "role" : "employee",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
```

```
      "contactMedium" : [ {
        "@type" : "EmailContactMedium",
        "preferred" : false,
        "mediumType" : "Email",
        "validFor" : {
          "startDateTime" : "2018-06-12T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "emailAddress" : "alain.delon@best-actor.fr"
      } ],
      "relatedParty" : {
        "role" : "bill receiver",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@referredType" : "Individual",
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/7688",
        "id" : "7688",
        "name" : "Travel Account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
      }
```

```
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

SettlementAccount resource

A party account used for settlement purposes. It includes a description of the bill structure (frequency, presentation media, format and so on). It is a specialization of entity PartyAccount.

Resource model
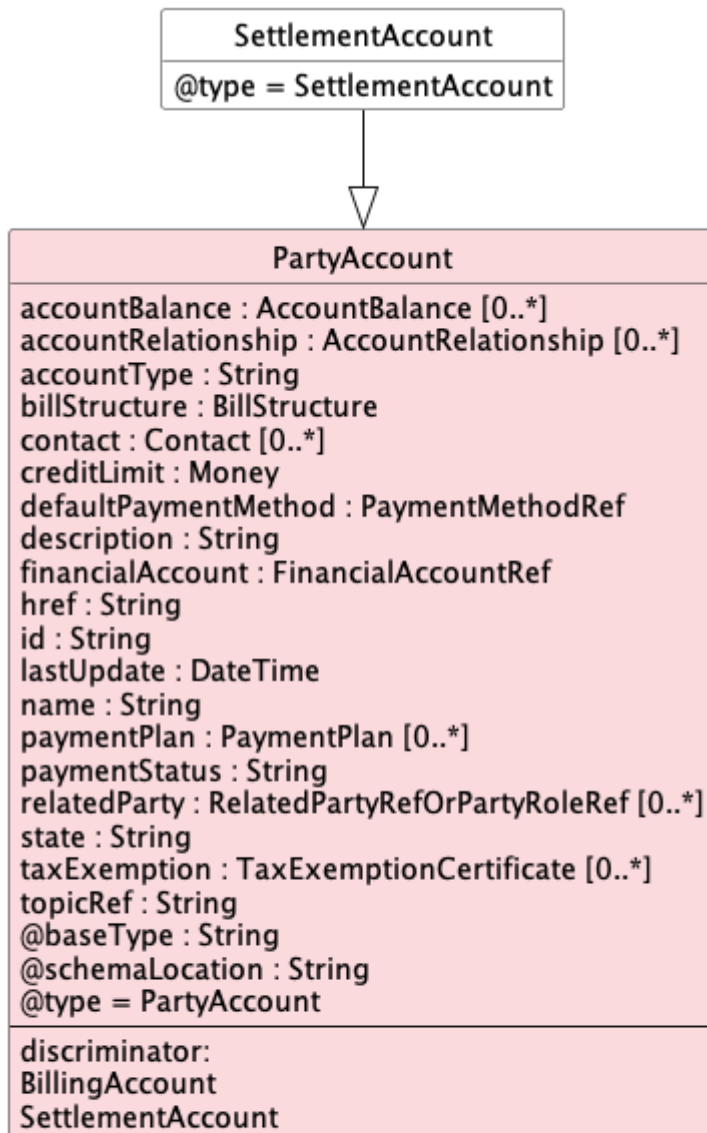
Figure 9 - SettlementAccount

Figure 10 - BillStructure

Figure 11 - Account

Field descriptions

SettlementAccount fields

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

Account sub-resource fields

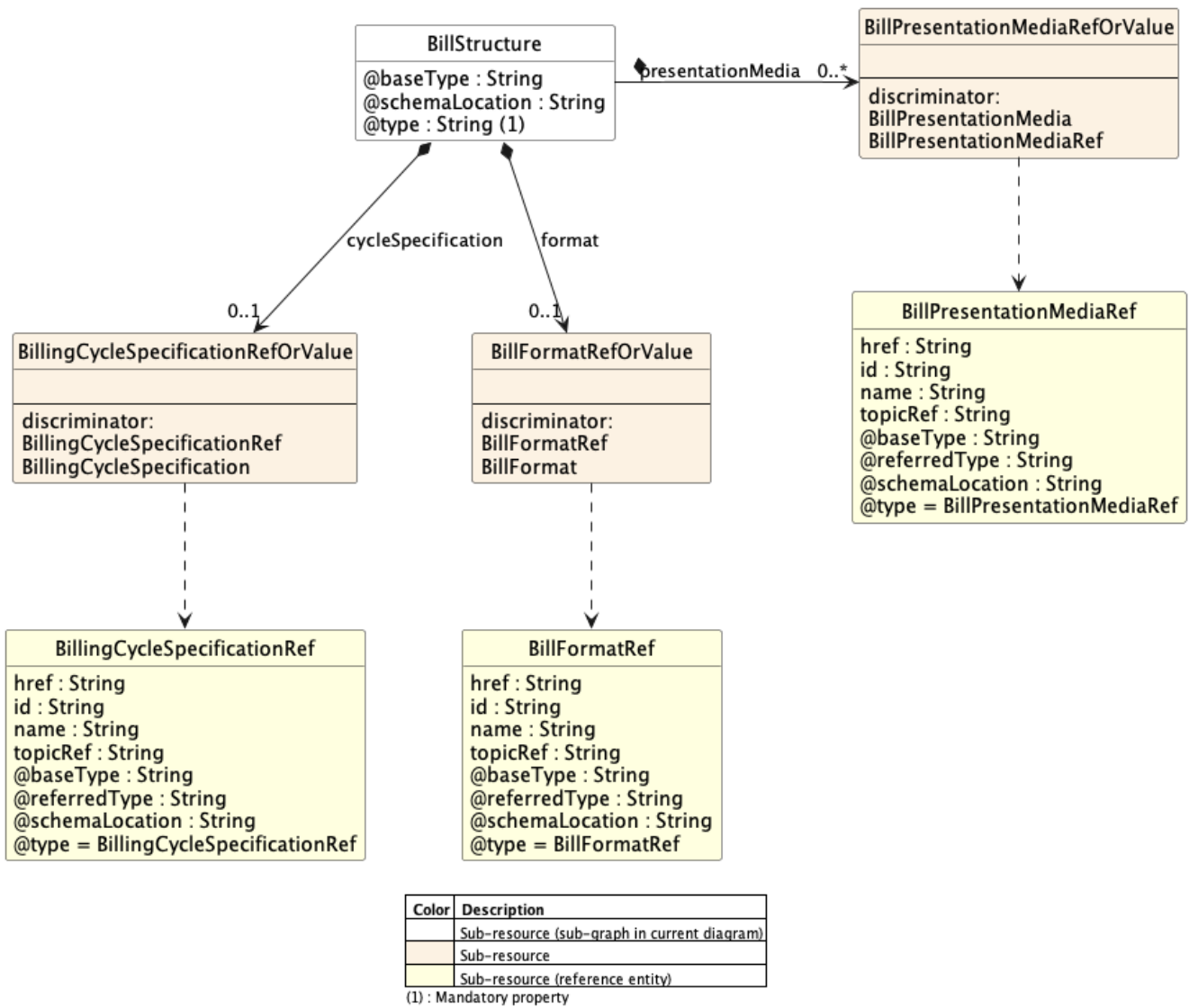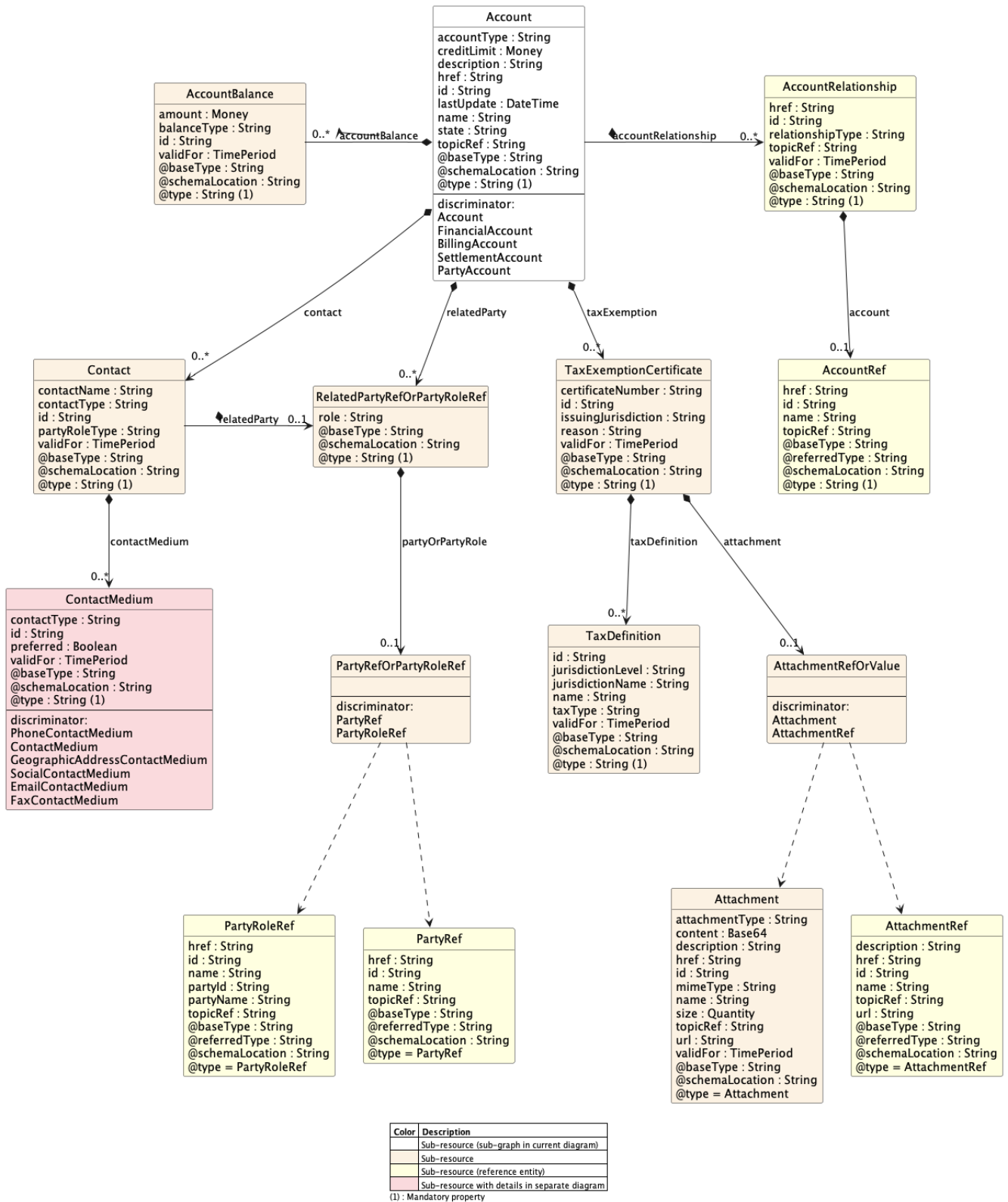|	
accountBalance	An AccountBalance. Balances linked to the account.
accountRelationship	An AccountRelationship. Significant connection between accounts. For instance an aggregating account for a list of shop branches each having its own billing account.
accountType	A String. A categorization of an account, such as individual, joint, and so forth, whose instances share some of the same characteristics. Note: for flexibility we use a String here but an implementation may use an enumeration with a limited list of valid values.
contact	A Contact. An individual or an organization used as a contact point for a given account and accessed via some contact medium.
creditLimit	A Money. A base / value business entity used to represent money.
description	A String. Detailed description of the account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
lastUpdate	A DateTime. The date and time that the account was last updated.
name	A String. Name of the account.
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific entity.
state	A String. Contains the lifecycle state such as: Active, Closed, Suspended and so on.
taxExemption	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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountBalance sub-resource fields

amount	A Money. A base / value business entity used to represent money.
balanceType	A String. Type of the balance : deposit balance, disputed balance, loyalty balance, receivable balance…
id	A String. Identifier of the balance within list of the balances (for entities with list).
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.

AccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

AccountRelationship sub-resource fields

account	An AccountRef. Account reference. A account may be a party account or a financial account.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
relationshipType	A String. Type of relationship.
topicRef	A String. A reference to the topic from which this entity can be fetched.

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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillFormat sub-resource fields

description	A String. An explanatory text for this bill format.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillFormatRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMedia sub-resource fields

description	A String. An explanatory text describing this bill presentation media.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillPresentationMediaRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

BillStructure sub-resource fields

cycleSpecification	A BillingCycleSpecificationRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillingCycleSpecification entity and not the BillingCycleSpecificationRefOrValue class itself.
format	A BillFormatRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillFormat entity and not the BillFormatRefOrValue class itself.

presentationMedia	A BillPresentationMediaRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the BillPresentationMedia entity and not the BillPresentationMediaRefOrValue class itself.
@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.

BillingCycleSpecification sub-resource fields

billingDateShift	An Integer. An offset of a billing/settlement date. The offset is expressed as number of days with regard to the start of the billing/settlement period.
billingPeriod	A String. A billing time period. It can be recurring, for example: week, month, quarter of year, year .
chargeDateOffset	An Integer. An offset of a date through which charges previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
creditDateOffset	An Integer. An offset of a date through which credits previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
description	A String. An explanation regarding this billing cycle specification.
frequency	A String. Frequency of the billing cycle (monthly for instance).
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mailingDateOffset	An Integer. An offset of a customer bill mailing date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
name	A String. A short descriptive name.
paymentDueDateOffset	An Integer. An offset of a payment due date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

BillingCycleSpecificationRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

Contact 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...
contactName	A String. A displayable name for that contact.
contactType	A String. Type of contact (primary, secondary...).
id	A String. Identifier of the contact within list of the contacts (for entities with list).
partyRoleType	A String. Identifies what kind of party role type is linked to the contact (a account manager...).
relatedParty	A RelatedPartyRefOrPartyRoleRef. RelatedParty reference. A related party defines party or party role or its reference, linked to a specific 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.

@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 (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.

EmailContactMedium sub-resource fields

emailAddress	A String. Full email address in standard format.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FaxContactMedium sub-resource fields

faxNumber	A String. The fax number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

FinancialAccountRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

GeographicAddressContactMedium sub-resource fields

city	A String. The city.
country	A String. The country.
geographicAddress	A GeographicAddressRef. Reference to a Geographic Address.
postCode	A String. Postcode.
stateOrProvince	A String. State or province.
street1	A String. Describes the street.
street2	A String. Complementary street description.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

GeographicAddressRef sub-resource fields

href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PartyAccount sub-resource fields

billStructure	A BillStructure. The structure of the bill for party accounts (billing or settlement).
defaultPaymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).

financialAccount	A FinancialAccountRef. AccountReceivable reference. An account of money owed by a party to another entity in exchange for goods or services that have been delivered or used. An account receivable aggregates the amounts of one or more party accounts (billing or settlement) owned by a given party.
paymentPlan	A PaymentPlan. Defines a plan for payment (when a party wants to spread his payments).
paymentStatus	A String. The condition of the account, such as due, paid, in arrears.
@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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

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.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.
id	A String. Unique identifier.
name	A String. Name of the referred entity.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

PaymentPlan sub-resource fields

id	A String. Identifier of the plan within list of the plans (for entities with list).
numberOfPayments	An Integer. Number of payments used to spread the global payment.
paymentFrequency	A String. Frequency of the payments, such as monthly and bimonthly.
paymentMethod	A PaymentMethodRef. PaymentMethod reference. A payment method defines a specific mean of payment (e.g direct debit).
planType	A String. Type of payment plan.
priority	An Integer. Priority of the payment plan.
status	A String. Status of the payment plan (effective, ineffective).
totalAmount	A Money. A base / value business entity used to represent money.
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.

PhoneContactMedium sub-resource fields

phoneNumber	A String. The phone number of the contact.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

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.

SocialContactMedium sub-resource fields

socialNetworkId	A String. Identifier as a member of a social network.
@type	A String. When sub-classing, this defines the sub-class Extensible name.

TaxDefinition sub-resource fields

id	A String. Unique identifier of the tax.
jurisdictionLevel	A String. Level of the jurisdiction that levies the tax.
jurisdictionName	A String. Name of the jurisdiction that levies the tax.
name	A String. Tax name.
taxType	A String. Type of the tax.
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.

TaxExemptionCertificate sub-resource fields

attachment	An AttachmentRefOrValue. The polymorphic attributes @type, @schemaLocation & @referredType are related to the Attachment entity and not the AttachmentRefOrValue class itself.
certificateNumber	A String. Identifier of a document that shows proof of exemption from taxes for the taxing jurisdiction.
id	A String. Identifier of the tax exemption within list of the exemptions.
issuingJurisdiction	A String. Name of the jurisdiction that issued the exemption.
reason	A String. Reason for the tax exemption.
taxDefinition	A TaxDefinition. Reference of a tax definition. A tax is levied by an authorized tax jurisdiction. For example, there are many different types of tax (Federal Tax levied by the US Government, State Tax levied by the State of California, City Tax levied by the City of Los Angeles, etc.).
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.

Json representation sample(s)

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

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "In Collection",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 20000
  },
  "description" : "This  settlement account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Per Usage Account",
  "state" : "inactive",
```

```
    "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
      "id" : "1451",
      "name" : "Web Page",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
      "id" : "8128",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 62,
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
      "id" : "1361",
      "name" : "Annual billing",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "paymentPlan" : [ {
    "@type" : "PaymentPlan",
    "numberOfPayments" : 4,
    "paymentFrequency" : "monthly",
    "priority" : 3,
    "status" : "Effective",
    "totalAmount" : {
      "unit" : "USD",
      "value" : 543.8
    },
    "planType" : "regular",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "paymentMethod" : {
      "@type" : "PaymentMethodRef",
```

```
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
      "id" : "1534",
      "name" : "professional payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    }
  } ],
  "financialAccount" : {
    "@referredType" : "FinancialAccount",
    "@type" : "FinancialAccountRef",
    "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/3408",
    "id" : "3408",
    "name" : "Partnership account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
  },
  "defaultPaymentMethod" : {
    "@type" : "PaymentMethodRef",
    "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
    "id" : "9124",
    "name" : "family payment",
    "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
  },
  "relatedParty" : [ {
    "@referredType" : "Organization",
    "href" : "https://host:port/tmf-api/partyManagement/v5/party/5965",
    "id" : "5965",
    "name" : "Jimmy Doe",
    "role" : "employee",
    "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "98765432345",
    "issuingJurisdiction" : "USA",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "1256673452346345",
      "href" : "https://host:port/tmf-api/document/v5/attachment/1256673452346345",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-555.pdf",
```

```
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-555.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Virginie Cork",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : true,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "bill receiver",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
    "amount" : {
      "unit" : "USD",
```

```
        "value" : 55.28
      },
      "balanceType" : "DepositBalance",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-16T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/7550",
        "id" : "7550",
        "name" : "Travel Account",
        "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
      }
    } ],
    "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
}
```

BillPresentationMedia resource

A mean of communicating a bill, supported by the associated bill format. For example, post mail, email, web page.

Resource model

(1) : Mandatory property

Figure 12 - BillPresentationMedia

Field descriptions

BillPresentationMedia fields

description	A String. An explanatory text describing this bill presentation media.
href	A String. Hyperlink reference.
id	A String. Unique identifier.
name	A String. A short descriptive name.
topicRef	A String. A reference to the topic from which this entity can be fetched.
@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.

Json representation sample(s)

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

```
{
  "@type" : "BillPresentationMedia",
  "description" : "This bill presentation media describes electronic media",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
  "id" : "4506",
  "name" : "Electronic",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

BillingCycleSpecification resource

A detailed description of when to initiate a billing cycle and the various sub steps of a billing cycle.

Resource model

(1) : Mandatory property

Figure 13 - BillingCycleSpecification

Field descriptions

BillingCycleSpecification fields

billingDateShift	An Integer. An offset of a billing/settlement date. The offset is expressed as number of days with regard to the start of the billing/settlement period.
billingPeriod	A String. A billing time period. It can be recurring, for example: week, month, quarter of year, year .
chargeDateOffset	An Integer. An offset of a date through which charges previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
creditDateOffset	An Integer. An offset of a date through which credits previously received by the billing system will appear on the bill. The offset is expressed as number of days with regard to the start of the BillingPeriod.
description	A String. An explanation regarding this billing cycle specification.
frequency	A String. Frequency of the billing cycle (monthly for instance).
href	A String. Hyperlink reference.
id	A String. Unique identifier.
mailingDateOffset	An Integer. An offset of a customer bill mailing date. The offset is expressed as number of days with regard to the start of the BillingPeriod.

name	A String. A short descriptive name.
paymentDueDateOffset	An Integer. An offset of a payment due date. The offset is expressed as number of days with regard to the start of the BillingPeriod.
topicRef	A String. A reference to the topic from which this entity can be fetched.
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.

Json representation sample(s)

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

```
{
  "@type" : "BillingCycleSpecification",
  "billi" : 20,
  "chargeDateOffset" : 5,
  "creditDateOffset" : 5,
  "description" : "This billing cycle specification specifies cycle 5th of month",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 25,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2019-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Notification Resource Models

28 notifications are defined for this API.

Notifications related to BillFormat:

- Bill Format Create Event

- Bill Format Delete Event

- Bill Format Attribute Value Change Event

- Bill Format State Change Event

Notifications related to PartyAccount:

- Party Account Create Event

- Party Account Delete Event

- Party Account Attribute Value Change Event

- Party Account State Change Event

Notifications related to BillingAccount:

- Billing Account Create Event

- Billing Account Delete Event

- Billing Account Attribute Value Change Event

- Billing Account State Change Event

Notifications related to FinancialAccount:

- Financial Account Create Event

- Financial Account Delete Event

- Financial Account Attribute Value Change Event

- Financial Account State Change Event

Notifications related to SettlementAccount:

- Settlement Account Create Event

- Settlement Account Delete Event

- Settlement Account Attribute Value Change Event

- Settlement Account State Change Event

Notifications related to BillPresentationMedia:

- Bill Presentation Media Create Event

- Bill Presentation Media Delete Event

- Bill Presentation Media Attribute Value Change Event

- Bill Presentation Media State Change Event

Notifications related to BillingCycleSpecification:

- Billing Cycle Specification Create Event

- Billing Cycle Specification Delete Event

- Billing Cycle Specification Attribute Value Change Event

- Billing Cycle Specification 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).
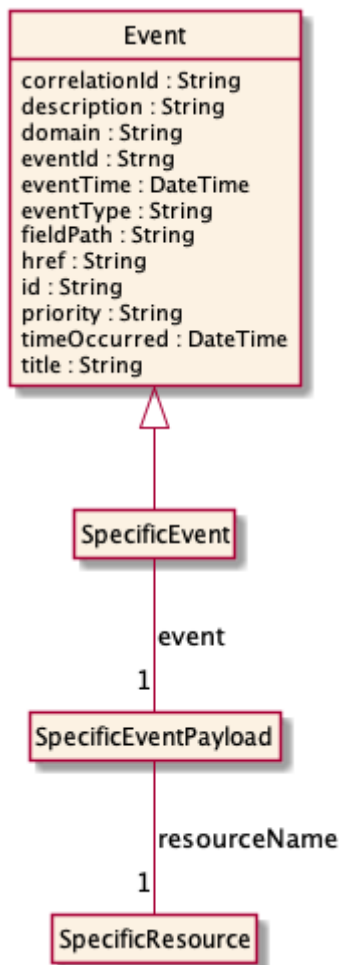
Figure 14 Notification Pattern

Bill Format Create Event

Message example for BillFormatCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "BillFormatCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
```

```json
    "eventTime" : "2022-08-25T12:23:44.181Z",
    "eventType" : "BillFormatCreateEvent",
    "priority" : "5",
    "timeOcurred" : "2022-08-25T12:23:37.884Z",
    "title" : "billFormatCreateEvent",
    "event" : {
      "billFormat" : {
        "@type" : "BillFormat",
        "description" : "This  bill format ...",
        "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
        "id" : "8718",
        "name" : "Detailed invoice",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "BillFormatCreateEvent"
}
```

Bill Format Delete Event

Message example for BillFormatDeleteEvent event

```json
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "BillFormatDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "BillFormatDeleteEvent",
  "priority" : "1",
  "timeOcurred" : "2022-08-25T12:23:35.327Z",
  "title" : "BillFormatDeleteEvent",
  "event" : {
    "billFormat" : {
```

```
      "@type" : "BillFormat",
      "description" : "This  bill format ...",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
      "id" : "8718",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillFormatDeleteEvent"
}
```

Bill Format Attribute Value Change Event

Message example for BillFormatAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "BillFormatAttributeValueChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "421f-ba83-b5ed387f1100",
  "eventTime" : "2022-08-25T12:23:44.191Z",
  "eventType" : "BillFormatAttributeValueChangeEvent",
  "priority" : "2",
  "timeOcurred" : "2022-08-25T12:23:40.440Z",
  "title" : "BillFormatAttributeValueChangeEvent",
  "event" : {
    "billFormat" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
      "id" : "8718",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    }
```

```
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "BillFormatAttributeValueChangeEvent"
}
```

Bill Format State Change Event

Message example for BillFormatStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "BillFormatStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "BillFormatStateChangeEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:40.247Z",
  "title" : "BillFormatStateChangeEvent",
  "event" : {
    "billFormat" : {
      "@type" : "BillFormat",
      "description" : "This  bill format ...",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
      "id" : "8718",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
```

```
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "BillFormatStateChangeEvent"
}
```

Party Account Create Event

Message example for PartyAccountCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "PartyAccountCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
  "eventTime" : "2022-08-25T12:23:44.181Z",
  "eventType" : "PartyAccountCreateEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:37.884Z",
  "title" : "PartyAccountCreateEvent",
  "event" : {
    "partyAccount" : {
      "@type" : "PartyAccount",
      "creditLimit" : {
        "unit" : "USD",
        "value" : 20000
      },
      "description" : "This  party account ...",
      "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
      "id" : "4458",
      "lastModified" : "2018-06-14T00:00:00.000Z",
      "name" : "Travel account",
      "state" : "Suspended",
      "accountType" : "Business",
      "paymentStatus" : "In Arrears",
      "billStructure" : {
        "@type" : "BillStructure",
        "presentationMedia" : [ {
          "@type" : "BillPresentationMedia",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/8800",
          "id" : "8800",
          "name" : "Electronic",
          "topicRef" :
```

```
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
        } ],
        "format" : {
          "@type" : "BillFormat",
          "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/4824",
          "id" : "4824",
          "name" : "Summary invoice",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
        },
        "cycleSpecification" : {
          "@type" : "BillingCycleSpecification",
          "dateShift" : 8,
          "frequency" : "monthly",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1309",
          "id" : "1309",
          "name" : "Monthly billing",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
        }
      },
      "paymentPlan" : [ {
        "@type" : "PaymentPlan",
        "numberOfPayments" : 12,
        "paymentFrequency" : "monthly",
        "priority" : 2,
        "status" : "Ineffective",
        "totalAmount" : {
          "unit" : "USD",
          "value" : 100.0
        },
        "planType" : "regular",
        "validFor" : {
          "startDateTime" : "2018-06-17T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "paymentMethod" : {
          "@type" : "PaymentMethodRef",
          "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6895",
          "id" : "6895",
          "name" : "family payment",
          "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
        }
      } ],
      "financialAccount" : {
        "@type" : "FinancialAccountRef",
        "@referredType" : "FinancialAccount",
```

```
        "href" : "https://host:port/tmf-
api/accountManagement/v5/financialAccount/2209",
        "id" : "2209",
        "name" : "Travel account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
      },
      "defaultPaymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6514",
        "id" : "6514",
        "name" : "family payment",
        "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      },
      "relatedParty" : [ {
        "role" : "owner",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@type" : "PartyRefOrPartyRoleRef",
          "@referredType" : "Organization",
          "href" : "https://host:port/tmf-api/partyManagement/v5/party/4665",
          "id" : "4665",
          "name" : "John Doe Ltd",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
        }
      } ],
      "taxExemption" : [ {
        "@type" : "TaxExemption",
        "certificateNumber" : "45678889876",
        "issuingJurisdiction" : "USA",
        "reason" : "Embassy",
        "taxDefinition" : [ {
          "@type" : "TaxDefinition",
          "id" : "96",
          "name" : "Value Added Tax",
          "taxType" : "federalVat"
        } ],
        "attachment" : {
          "@type" : "Attachment",
          "id" : "654321234334534552",
          "href" : "https://host:port/tmf-
api/document/v5/attachment/654321234334534552",
          "attachmentType" : "taxExemptionCertificate",
          "name" : "TaxExemptionCertificate-654321.pdf",
          "description" : "Electronic version of the tax exemption certificate",
          "mimeType" : "application/pdf",
          "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
654321.pdf",
          "topicRef" :
```

```
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
        },
        "validFor" : {
          "startDateTime" : "2018-06-13T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "contact" : [ {
        "@type" : "Contact",
        "contactName" : "Anna Cristal",
        "contactType" : "primary",
        "partyRoleType" : "Publisher",
        "validFor" : {
          "startDateTime" : "2018-06-11T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "contactMedium" : [ {
          "@type" : "GeographicAddressContactMedium",
          "preferred" : false,
          "mediumType" : "PostalAddress",
          "validFor" : {
            "startDateTime" : "2018-06-14T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "city" : "Paris",
          "country" : "France",
          "postCode" : "75014",
          "street1" : "15 Rue des Canards"
        } ],
        "relatedParty" : {
          "role" : "owner",
          "@type" : "RelatedPartyRefOrPartyRoleRef",
          "partyOrPartyRole" : {
            "@referredType" : "Individual",
            "@type" : "PartyRefOrPartyRoleRef",
            "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
            "id" : "2186",
            "name" : "Gustave Flaubert",
            "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
          }
        }
      } ],
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 53.29
        },
        "balanceType" : "DepositBalance",
        "validFor" : {
```

```
            "startDateTime" : "2018-06-13T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          }
        } ],
        "accountRelationship" : [ {
          "@type" : "AccountRelationship",
          "relationshipType" : "contains",
          "validFor" : {
            "startDateTime" : "2018-06-10T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "account" : {
            "@referredType" : "BillingAccount",
            "@type" : "AccountRef",
            "href" : "https://host:port/tmf-
api/accountManagement/v5/billingAccount/9522",
            "id" : "9522",
            "name" : "Travel Account",
            "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
          }
        } ],
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "PartyAccountCreateEvent"
}
```

Party Account Delete Event

Message example for PartyAccountDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
```

```
    "description" : "PartyAccountDeleteEvent illustration",
    "domain" : "Commercial",
    "eventId" : "48cb-a41e-943478b26d15",
    "eventTime" : "2022-08-25T12:23:44.212Z",
    "eventType" : "PartyAccountDeleteEvent",
    "priority" : "1",
    "timeOcurred" : "2022-08-25T12:23:35.327Z",
    "title" : "PartyAccountDeleteEvent",
    "event" : {
      "partyAccount" : {
        "@type" : "PartyAccount",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
        "id" : "4458",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "PartyAccountDeleteEvent"
}
```

Party Account Attribute Value Change Event

Message example for PartyAccountAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "PartyAccountAttributeValueChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "421f-ba83-b5ed387f1100",
  "eventTime" : "2022-08-25T12:23:44.191Z",
  "eventType" : "PartyAccountAttributeValueChangeEvent",
  "priority" : "2",
  "timeOcurred" : "2022-08-25T12:23:40.440Z",
  "title" : "PartyAccountAttributeValueChangeEvent",
  "event" : {
```

```
    "partyAccount" : {
      "href" : "http://servername/PartyAccount/1041",
      "id" : "1041",
      "@type" : "PartyAccount",
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 50.58
        },
        "balanceType" : "ReceivableBalance",
        "validFor" : {
          "startDateTime" : "2018-06-15T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "PartyAccountAttributeValueChangeEvent"
}
```

Party Account State Change Event

Message example for PartyAccountStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "PartyAccountStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "PartyAccountStateChangeEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:40.247Z",
```

```
    "title" : "PartyAccountStateChangeEvent",
    "event" : {
      "partyAccount" : {
        "href" : "http://servername/PartyAccount/1041",
        "id" : "1041",
        "@type" : "PartyAccount",
        "state" : "Active",
        "topicRef" : "kafka://broker-address/topic-name"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "PartyAccountStateChangeEvent"
}
```

Billing Account Create Event

Message example for BillingAccountCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "BillingAccountCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
  "eventTime" : "2022-08-25T12:23:44.181Z",
  "eventType" : "BillingAccountCreateEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:37.884Z",
  "title" : "BillingAccountCreateEvent",
  "event" : {
    "billingAccount" : {
      "@type" : "BillingAccount",
      "paymentStatus" : "In Arrears",
      "creditLimit" : {
        "unit" : "USD",
        "value" : 10000
      },
```

```
      "description" : "This  billing account ...",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
      "id" : "5430",
      "lastModified" : "2018-06-14T00:00:00.000Z",
      "name" : "Home Account",
      "state" : "Inactive",
      "accountType" : "Business",
      "billStructure" : {
        "@type" : "BillStructure",
        "presentationMedia" : [ {
          "@type" : "BillPresentationMedia",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/9968",
          "id" : "9968",
          "name" : "Post Mail",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
        } ],
        "format" : {
          "@type" : "BillFormat",
          "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/3555",
          "id" : "3555",
          "name" : "Detailed invoice",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
        },
        "cycleSpecification" : {
          "@type" : "BillingCycleSpecification",
          "dateShift" : 54,
          "frequency" : "monthly",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/3828",
          "id" : "3828",
          "name" : "Annual billing",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
        }
      },
      "paymentPlan" : [ {
        "@type" : "PaymentPlan",
        "numberOfPayments" : 4,
        "paymentFrequency" : "monthly",
        "priority" : 1,
        "status" : "Effective",
        "totalAmount" : {
          "unit" : "USD",
          "value" : 100.0
        },
        "paymentType" : "regular",
```

```
        "validFor" : {
          "startDateTime" : "2018-06-11T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "paymentMethod" : {
          "@type" : "PaymentMethodRef",
          "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/2452",
          "id" : "2452",
          "name" : "professional payment",
          "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
        }
      } ],
      "financialAccount" : {
        "@referredType" : "FinancialAccount",
        "@type" : "FinancialAccountRef",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/financialAccount/2063",
        "id" : "2063",
        "name" : "Partnership account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
      },
      "defaultPaymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/3537",
        "id" : "3537",
        "name" : "family payment",
        "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      },
      "relatedParty" : [ {
        "role" : "service provider",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@type" : "PartyRefOrPartyRoleRef",
          "@referredType" : "Organization",
          "href" : "https://host:port/tmf-api/partyManagement/v5/party/6838",
          "id" : "6838",
          "name" : "Richard Cole",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
        }
      } ],
      "taxExemption" : [ {
        "@type" : "TaxExemption",
        "id" : "1",
        "certificateNumber" : "9665432345",
        "issuingJurisdiction" : "USA",
        "reason" : "Embassy",
        "taxDefinition" : [ {
```

```
            "@type" : "TaxDefinition",
            "id" : "96",
            "name" : "Value Added Tax",
            "taxType" : "federalVat"
        } ],
        "attachment" : {
          "@type" : "Attachment",
          "id" : "88888834534552",
          "href" : "https://host:port/tmf-api/document/v5/attachment/88888834534552",
          "attachmentType" : "taxExemptionCertificate",
          "name" : "TaxExemptionCertificate-888.pdf",
          "description" : "Electronic version of the tax exemption certificate",
          "mimeType" : "application/pdf",
          "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
888.pdf",
          "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
        },
        "validFor" : {
          "startDateTime" : "2018-06-17T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "contact" : [ {
        "@type" : "Contact",
        "contactName" : "Rachel Douglas",
        "contactType" : "secondary",
        "partyRoleType" : "Vendor",
        "validFor" : {
          "startDateTime" : "2018-06-17T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "contactMedium" : [ {
          "@type" : "GeographicAddressContactMedium",
          "preferred" : true,
          "mediumType" : "PostalAddress",
          "validFor" : {
            "startDateTime" : "2018-06-14T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "city" : "Paris",
          "country" : "France",
          "postCode" : "75014",
          "street1" : "15 Rue des Canards"
        } ],
        "relatedParty" : {
          "@type" : "Organization",
          "href" : "https://host:port/tmf-api/partyManagement/v5/party/9947",
          "id" : "9947",
          "name" : "Richard Cole",
          "role" : "owner",
```

```
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
        }
      } ],
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 58.33
        },
        "balanceType" : "ReceivableBalance",
        "validFor" : {
          "startDateTime" : "2018-06-10T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "accountRelationship" : [ {
        "@type" : "AccountRelationship",
        "relationshipType" : "contains",
        "validFor" : {
          "startDateTime" : "2018-06-13T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "account" : {
          "@referredType" : "BillingAccount",
          "@type" : "AccountRef",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingAccount/9327",
          "id" : "9327",
          "name" : "Paradise Account",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
        }
      } ],
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
```

```
    "@type" : "BillingAccountCreateEvent"
}
```

Billing Account Delete Event

Message example for BillingAccountDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "BillingAccountDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "BillingAccountDeleteEvent",
  "priority" : "1",
  "timeOcurred" : "2022-08-25T12:23:35.327Z",
  "title" : "BillingAccountDeleteEvent",
  "event" : {
    "billingAccount" : {
      "@type" : "BillingAccount",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
      "id" : "5430",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillingAccountDeleteEvent"
}
```

Billing Account Attribute Value Change Event

Message example for BillingAccountAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "BillingAccountAttributeValueChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "421f-ba83-b5ed387f1100",
  "eventTime" : "2022-08-25T12:23:44.191Z",
  "eventType" : "BillingAccountAttributeValueChangeEvent",
  "priority" : "2",
  "timeOcurred" : "2022-08-25T12:23:40.440Z",
  "title" : "BillingAccountAttributeValueChangeEvent",
  "event" : {
    "billingAccount" : {
      "href" : "http://servername/BillingAccount/1041",
      "id" : "1041",
      "@type" : "BillingAccount",
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 50.58
        },
        "balanceType" : "ReceivableBalance",
        "validFor" : {
          "startDateTime" : "2018-06-15T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillingAccountAttributeValueChangeEvent"
}
```

Billing Account State Change Event

Message example for BillingAccountStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "BillingAccountStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "BillingAccountStateChangeEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:40.247Z",
  "title" : "BillingAccountStateChangeEvent",
  "event" : {
    "billingAccount" : {
      "href" : "http://servername/BillingAccount/1041",
      "id" : "1041",
      "@type" : "BillingAccount",
      "state" : "Active",
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillingAccountStateChangeEvent"
}
```

Financial Account Create Event

Message example for FinancialAccountCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
```

```json
      "description" : "FinancialAccountCreateEvent illustration",
      "domain" : "Commercial",
      "eventId" : "46a2-b923-aa337ca92912",
      "eventTime" : "2022-08-25T12:23:44.181Z",
      "eventType" : "FinancialAccountCreateEvent",
      "priority" : "5",
      "timeOcurred" : "2022-08-25T12:23:37.884Z",
      "title" : "FinancialAccountCreateEvent",
      "event" : {
        "financialAccount" : {
          "@type" : "FinancialAccount",
          "creditLimit" : {
            "unit" : "USD",
            "value" : 3500
          },
          "description" : "This financial account allows administration of the
obligations",
          "href" : "http://servername/financialAccount/1041",
          "id" : "1041",
          "lastModified" : "2018-06-14T00:00:00.000Z",
          "name" : "Administration account",
          "state" : "Active",
          "accountType" : "Global",
          "relatedParty" : [ {
            "role" : "bill receiver",
            "@type" : "RelatedPartyRefOrPartyRoleRef",
            "partyOrPartyRole" : {
              "@referredType" : "Individual",
              "@type" : "PartyRefOrPartyRoleRef",
              "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
              "id" : "2186",
              "name" : "Gustave Flaubert",
              "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
            }
          } ],
          "taxExemption" : [ {
            "@type" : "TaxExemption",
            "certificateNumber" : "45678909876",
            "issuingJurisdiction" : "Prefecture",
            "reason" : "Social",
            "taxDefinition" : [ {
              "@type" : "TaxDefinition",
              "id" : "96",
              "name" : "Value Added Tax",
              "taxType" : "federalVat"
            } ],
            "attachment" : {
              "@type" : "Attachment",
              "id" : "9304357346341236",
              "href" : "https://host:port/tmf-
```

```
api/document/v5/attachment/9304357346341236",
          "attachmentType" : "taxExemptionCertificate",
          "name" : "TaxExemptionCertificate-54321.pdf",
          "description" : "Electronic version of the tax exemption certificate",
          "mimeType" : "application/pdf",
          "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
          "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
        },
        "validFor" : {
          "startDateTime" : "2018-06-13T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "contact" : [ {
        "@type" : "Contact",
        "contactName" : "Ludwig Borgia",
        "contactType" : "secondary",
        "partyRoleType" : "CustomerAccountRepresentative",
        "validFor" : {
          "startDateTime" : "2018-06-11T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "contactMedium" : [ {
          "@type" : "EmailContactMedium",
          "preferred" : false,
          "mediumType" : "Email",
          "validFor" : {
            "startDateTime" : "2018-06-12T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "emailAddress" : "alain.delon@best-actor.fr"
        } ],
        "relatedParty" : {
          "role" : "employee",
          "@type" : "RelatedPartyRefOrPartyRoleRef",
          "partyOrPartyRole" : {
            "@referredType" : "Individual",
            "@type" : "PartyRefOrPartyRoleRef",
            "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
            "id" : "2186",
            "name" : "Gustave Flaubert",
            "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
          }
        }
      } ],
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
```

```
          "unit" : "USD",
          "value" : 50.58
        },
        "balanceType" : "ReceivableBalance",
        "validFor" : {
          "startDateTime" : "2018-06-15T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "accountRelationship" : [ {
        "@type" : "AccountRelationship",
        "relationshipType" : "contains",
        "validFor" : {
          "startDateTime" : "2018-06-13T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "account" : {
          "@referredType" : "BillingAccount",
          "@type" : "AccountRef",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingAccount/7688",
          "id" : "7688",
          "name" : "Travel Account",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
        }
      } ],
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "FinancialAccountCreateEvent"
}
```

Financial Account Delete Event

Message example for FinancialAccountDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "FinancialAccountDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "FinancialAccountDeleteEvent",
  "priority" : "1",
  "timeOcurred" : "2022-08-25T12:23:35.327Z",
  "title" : "FinancialAccountDeleteEvent",
  "event" : {
    "financialAccount" : {
      "@type" : "FinancialAccount",
      "href" : "http://servername/financialAccount/1041",
      "id" : "1041",
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "FinancialAccountDeleteEvent"
}
```

Financial Account Attribute Value Change Event

Message example for FinancialAccountAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "FinancialAccountAttributeValueChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "421f-ba83-b5ed387f1100",
  "eventTime" : "2022-08-25T12:23:44.191Z",
  "eventType" : "FinancialAccountAttributeValueChangeEvent",
```

```
    "priority" : "2",
    "timeOcurred" : "2022-08-25T12:23:40.440Z",
    "title" : "FinancialAccountAttributeValueChangeEvent",
    "event" : {
      "financialAccount" : {
        "href" : "http://servername/financialAccount/1041",
        "id" : "1041",
        "@type" : "FinancialAccount",
        "accountBalance" : [ {
          "@type" : "AccountBalance",
          "amount" : {
            "unit" : "USD",
            "value" : 50.58
          },
          "balanceType" : "ReceivableBalance",
          "validFor" : {
            "startDateTime" : "2018-06-15T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          }
        } ],
        "topicRef" : "kafka://broker-address/topic-name"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "FinancialAccountAttributeValueChangeEvent"
}
```

Financial Account State Change Event

Message example for FinancialAccountStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "FinancialAccountStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
```

```
   "eventTime" : "2022-08-25T12:23:44.202Z",
   "eventType" : "FinancialAccountStateChangeEvent",
   "priority" : "5",
   "timeOcurred" : "2022-08-25T12:23:40.247Z",
   "title" : "FinancialAccountStateChangeEvent",
   "event" : {
     "financialAccount" : {
       "href" : "http://servername/financialAccount/1041",
       "id" : "1041",
       "@type" : "FinancialAccount",
       "state" : "Active",
       "topicRef" : "kafka://broker-address/topic-name"
     }
   },
   "reportingSystem" : {
     "id" : "855",
     "name" : "APP-400",
     "@type" : "ReportingResource",
     "@referredType" : "LogicalResource"
   },
   "source" : {
     "id" : "92",
     "name" : "APP-105",
     "@type" : "ReportingResource",
     "@referredType" : "LogicalResource"
   },
   "@baseType" : "Event",
   "@type" : "FinancialAccountStateChangeEvent"
}
```

Settlement Account Create Event

Message example for SettlementAccountCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "SettlementAccountCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
  "eventTime" : "2022-08-25T12:23:44.181Z",
  "eventType" : "SettlementAccountCreateEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:37.884Z",
  "title" : "SettlementAccountCreateEvent",
  "event" : {
    "settlementAccount" : {
      "@type" : "SettlementAccount",
      "paymentStatus" : "In Collection",
```

```
      "creditLimit" : {
        "unit" : "USD",
        "value" : 20000
      },
      "description" : "This  settlement account ...",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/settlementAccount/8790",
      "id" : "8790",
      "lastModified" : "2018-06-14T00:00:00.000Z",
      "name" : "Per Usage Account",
      "state" : "inactive",
      "accountType" : "Business",
      "billStructure" : {
        "@type" : "BillStructure",
        "presentationMedia" : [ {
          "@type" : "BillPresentationMedia",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
          "id" : "1451",
          "name" : "Web Page",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
        } ],
        "format" : {
          "@type" : "BillFormat",
          "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
          "id" : "8128",
          "name" : "Detailed invoice",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
        },
        "cycleSpecification" : {
          "@type" : "BillingCycleSpecification",
          "dateShift" : 62,
          "frequency" : "monthly",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
          "id" : "1361",
          "name" : "Annual billing",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
        }
      },
      "paymentPlan" : [ {
        "@type" : "PaymentPlan",
        "numberOfPayments" : 4,
        "paymentFrequency" : "monthly",
        "priority" : 3,
        "status" : "Effective",
```

```
        "totalAmount" : {
          "unit" : "USD",
          "value" : 543.8
        },
        "planType" : "regular",
        "validFor" : {
          "startDateTime" : "2018-06-17T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "paymentMethod" : {
          "@type" : "PaymentMethodRef",
          "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
          "id" : "1534",
          "name" : "professional payment",
          "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
        }
      } ],
      "financialAccount" : {
        "@referredType" : "FinancialAccount",
        "@type" : "FinancialAccountRef",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/financialAccount/3408",
        "id" : "3408",
        "name" : "Partnership account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
      },
      "defaultPaymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
        "id" : "9124",
        "name" : "family payment",
        "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      },
      "relatedParty" : [ {
        "role" : "employee",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@referredType" : "Individual",
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
        }
      } ],
      "taxExemption" : [ {
        "@type" : "TaxExemption",
```

```
        "id" : "1",
        "certificateNumber" : "98765432345",
        "issuingJurisdiction" : "USA",
        "reason" : "Embassy",
        "taxDefinition" : [ {
          "@type" : "TaxDefinition",
          "id" : "96",
          "name" : "Value Added Tax",
          "taxType" : "federalVat"
        } ],
        "attachment" : {
          "@type" : "Attachment",
          "id" : "1256673452346345",
          "href" : "https://host:port/tmf-
api/document/v5/attachment/1256673452346345",
          "attachmentType" : "taxExemptionCertificate",
          "name" : "TaxExemptionCertificate-555.pdf",
          "description" : "Electronic version of the tax exemption certificate",
          "mimeType" : "application/pdf",
          "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
555.pdf",
          "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
        },
        "validFor" : {
          "startDateTime" : "2018-06-17T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "contact" : [ {
        "@type" : "Contact",
        "contactName" : "Virginie Cork",
        "contactType" : "primary",
        "partyRoleType" : "Publisher",
        "validFor" : {
          "startDateTime" : "2018-06-11T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "contactMedium" : [ {
          "@type" : "GeographicAddressContactMedium",
          "preferred" : true,
          "mediumType" : "PostalAddress",
          "validFor" : {
            "startDateTime" : "2018-06-14T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "city" : "Paris",
          "country" : "France",
          "postCode" : "75014",
          "street1" : "15 Rue des Canards"
        } ],
```

```
        "relatedParty" : {
          "role" : "bill receiver",
          "@type" : "RelatedPartyRefOrPartyRoleRef",
          "partyOrPartyRole" : {
            "@referredType" : "Individual",
            "@type" : "PartyRefOrPartyRoleRef",
            "href" : "https://host:port/tmf-api/partyManagement/v5/party/2186",
            "id" : "2186",
            "name" : "Gustave Flaubert",
            "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveParty.commandRequest"
          }
        }
      } ],
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 55.28
        },
        "balanceType" : "DepositBalance",
        "validFor" : {
          "startDateTime" : "2018-06-10T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "accountRelationship" : [ {
        "@type" : "AccountRelationship",
        "relationshipType" : "contains",
        "validFor" : {
          "startDateTime" : "2018-06-16T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "account" : {
          "@referredType" : "BillingAccount",
          "@type" : "AccountRef",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/billingAccount/7550",
          "id" : "7550",
          "name" : "Travel Account",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
        }
      } ],
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
```

```
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "SettlementAccountCreateEvent"
}
```

Settlement Account Delete Event

Message example for SettlementAccountDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "SettlementAccountDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "SettlementAccountDeleteEvent",
  "priority" : "1",
  "timeOcurred" : "2022-08-25T12:23:35.327Z",
  "title" : "SettlementAccountDeleteEvent",
  "event" : {
    "settlementAccount" : {
      "@type" : "SettlementAccount",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/settlementAccount/8790",
      "id" : "8790",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
```

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

Settlement Account Attribute Value Change Event

Message example for SettlementAccountAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "SettlementAccountAttributeValueChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "421f-ba83-b5ed387f1100",
  "eventTime" : "2022-08-25T12:23:44.191Z",
  "eventType" : "SettlementAccountAttributeValueChangeEvent",
  "priority" : "2",
  "timeOcurred" : "2022-08-25T12:23:40.440Z",
  "title" : "SettlementAccountAttributeValueChangeEvent",
  "event" : {
    "settlementAccount" : {
      "href" : "http://servername/SettlementAccount/1041",
      "id" : "1041",
      "@type" : "SettlementAccount",
      "accountBalance" : [ {
        "@type" : "AccountBalance",
        "amount" : {
          "unit" : "USD",
          "value" : 50.58
        },
        "balanceType" : "ReceivableBalance",
        "validFor" : {
          "startDateTime" : "2018-06-15T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        }
      } ],
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
```

```
        "@type" : "ReportingResource",
        "@referredType" : "LogicalResource"
      },
      "@baseType" : "Event",
      "@type" : "SettlementAccountAttributeValueChangeEvent"
  }
```

Settlement Account State Change Event

Message example for SettlementAccountStateChangeEvent

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "SettlementAccountStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "SettlementAccountStateChangeEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:40.247Z",
  "title" : "SettlementAccountStateChangeEvent",
  "event" : {
    "settlementAccount" : {
      "href" : "http://servername/SettlementAccount/1041",
      "id" : "1041",
      "@type" : "SettlementAccount",
      "state" : "Active",
      "topicRef" : "kafka://broker-address/topic-name"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "SettlementAccountStateChangeEvent"
}
```

Bill Presentation Media Create Event

Message example for BillPresentationMediaCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "BillPresentationMediaCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
  "eventTime" : "2022-08-25T12:23:44.181Z",
  "eventType" : "BillPresentationMediaCreateEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:37.884Z",
  "title" : "BillPresentationMediaCreateEvent",
  "event" : {
    "billPresentationMedia" : {
      "@type" : "BillPresentationMedia",
      "description" : "This  bill format ...",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/BillPresentationMedia/8718",
      "id" : "8718",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillPresentationMediaCreateEvent"
}
```

Bill Presentation Media Delete Event

Message example for BillPresentationMediaDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "BillPresentationMediaDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "BillPresentationMediaDeleteEvent",
  "priority" : "1",
  "timeOcurred" : "2022-08-25T12:23:35.327Z",
  "title" : "BillPresentationMediaDeleteEvent",
  "event" : {
    "billPresentationMedia" : {
      "@type" : "BillPresentationMedia",
      "description" : "This  bill format ...",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/BillPresentationMedia/8718",
      "id" : "8718",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillPresentationMediaDeleteEvent"
}
```

Bill Presentation Media Attribute Value Change Event

Message example for BillPresentationMediaAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
```

```
      "description" : "BillPresentationMediaAttributeValueChangeEvent illustration",
      "domain" : "Commercial",
      "eventId" : "421f-ba83-b5ed387f1100",
      "eventTime" : "2022-08-25T12:23:44.191Z",
      "eventType" : "BillPresentationMediaAttributeValueChangeEvent",
      "priority" : "2",
      "timeOcurred" : "2022-08-25T12:23:40.440Z",
      "title" : "BillPresentationMediaAttributeValueChangeEvent",
      "event" : {
        "billPresentationMedia" : {
          "@type" : "BillPresentationMedia",
          "href" : "https://host:port/tmf-
api/accountManagement/v5/BillPresentationMedia/8718",
          "id" : "8718",
          "name" : "Formatted e-paper",
          "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
        }
      },
      "reportingSystem" : {
        "id" : "855",
        "name" : "APP-400",
        "@type" : "ReportingResource",
        "@referredType" : "LogicalResource"
      },
      "source" : {
        "id" : "92",
        "name" : "APP-105",
        "@type" : "ReportingResource",
        "@referredType" : "LogicalResource"
      },
      "@baseType" : "Event",
      "@type" : "BillPresentationMediaAttributeValueChangeEvent"
}
```

Bill Presentation Media State Change Event

Message example for BillPresentationMediaStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "BillPresentationMediaStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "BillPresentationMediaStateChangeEvent",
  "priority" : "5",
```

```
    "timeOcurred" : "2022-08-25T12:23:40.247Z",
    "title" : "BillPresentationMediaStateChangeEvent",
    "event" : {
      "billPresentationMedia" : {
        "@type" : "BillPresentationMedia",
        "description" : "This  bill format ...",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/BillPresentationMedia/8718",
        "id" : "8718",
        "name" : "Detailed invoice",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "BillPresentationMediaStateChangeEvent"
}
```

Billing Cycle Specification Create Event

Message example for BillingCycleSpecificationCreateEvent event

```
Content-Type: application/json

{
  "correlationId" : "0510f131-c102",
  "description" : "BillingCycleSpecificationCreateEvent illustration",
  "domain" : "Commercial",
  "eventId" : "46a2-b923-aa337ca92912",
  "eventTime" : "2022-08-25T12:23:44.181Z",
  "eventType" : "BillingCycleSpecificationCreateEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:37.884Z",
  "title" : "BillingCycleSpecificationCreateEvent",
  "event" : {
    "billingCycleSpecification" : {
      "@type" : "BillingCycleSpecification",
```

```
      "billingDateShift" : 20,
      "chargeDateOffset" : 5,
      "creditDateOffset" : 5,
      "description" : "This  billing cycle specification ...",
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
      "id" : "4556",
      "mailingDateOffset" : 25,
      "name" : "Monthly billing",
      "paymentDueDateOffset" : 30,
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillingCycleSpecificationCreateEvent"
}
```

Billing Cycle Specification Delete Event

Message example for BillingCycleSpecificationDeleteEvent event

```
Content-Type: application/json

{
  "correlationId" : "14094289-0a38",
  "description" : "BillingCycleSpecificationDeleteEvent illustration",
  "domain" : "Commercial",
  "eventId" : "48cb-a41e-943478b26d15",
  "eventTime" : "2022-08-25T12:23:44.212Z",
  "eventType" : "BillingCycleSpecificationDeleteEvent",
  "priority" : "1",
```

```
      "timeOcurred" : "2022-08-25T12:23:35.327Z",
      "title" : "BillingCycleSpecificationDeleteEvent",
      "event" : {
        "billingCycleSpecification" : {
          "@type" : "BillingCycleSpecification",
          "billingDateShift" : 20,
          "chargeDateOffset" : 5,
          "creditDateOffset" : 5,
          "description" : "This  billing cycle specification ...",
          "frequency" : "monthly",
          "href" : "https://host:port/tmf-
  api/accountManagement/v5/billingCycleSpecification/4556",
          "id" : "4556",
          "mailingDateOffset" : 25,
          "name" : "Monthly billing",
          "paymentDueDateOffset" : 30,
          "validFor" : {
            "startDateTime" : "2018-06-10T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
  equest"
        }
      },
      "reportingSystem" : {
        "id" : "855",
        "name" : "APP-400",
        "@type" : "ReportingResource",
        "@referredType" : "LogicalResource"
      },
      "source" : {
        "id" : "92",
        "name" : "APP-105",
        "@type" : "ReportingResource",
        "@referredType" : "LogicalResource"
      },
      "@baseType" : "Event",
      "@type" : "BillingCycleSpecificationDeleteEvent"
  }
```

Billing Cycle Specification Attribute Value Change Event

Message example for BillingCycleSpecificationAttributeValueChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "95731510-e85e",
  "description" : "BillingCycleSpecificationAttributeValueChangeEvent illustration",
```

```
    "domain" : "Commercial",
    "eventId" : "421f-ba83-b5ed387f1100",
    "eventTime" : "2022-08-25T12:23:44.191Z",
    "eventType" : "BillingCycleSpecificationAttributeValueChangeEvent",
    "priority" : "2",
    "timeOcurred" : "2022-08-25T12:23:40.440Z",
    "title" : "BillingCycleSpecificationAttributeValueChangeEvent",
    "event" : {
      "billingCycleSpecification" : {
        "href" : "http://servername/BillingCycleSpecification/1041",
        "id" : "1041",
        "@type" : "BillingCycleSpecification",
        "chargeDateOffset" : 5,
        "topicRef" : "kafka://broker-address/topic-name"
      }
    },
    "reportingSystem" : {
      "id" : "855",
      "name" : "APP-400",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "source" : {
      "id" : "92",
      "name" : "APP-105",
      "@type" : "ReportingResource",
      "@referredType" : "LogicalResource"
    },
    "@baseType" : "Event",
    "@type" : "BillingCycleSpecificationAttributeValueChangeEvent"
}
```

Billing Cycle Specification State Change Event

Message example for BillingCycleSpecificationStateChangeEvent event

```
Content-Type: application/json

{
  "correlationId" : "fe01e099-6931",
  "description" : "BillingCycleSpecificationStateChangeEvent illustration",
  "domain" : "Commercial",
  "eventId" : "463e-90fc-7f2accb4b802",
  "eventTime" : "2022-08-25T12:23:44.202Z",
  "eventType" : "BillingCycleSpecificationStateChangeEvent",
  "priority" : "5",
  "timeOcurred" : "2022-08-25T12:23:40.247Z",
  "title" : "BillingCycleSpecificationStateChangeEvent",
  "event" : {
    "billingCycleSpecification" : {
```

```
      "@type" : "BillingCycleSpecification",
      "billingDateShift" : 20,
      "chargeDateOffset" : 5,
      "creditDateOffset" : 5,
      "description" : "This  billing cycle specification ...",
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
      "id" : "4556",
      "mailingDateOffset" : 25,
      "name" : "Monthly billing",
      "paymentDueDateOffset" : 30,
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "reportingSystem" : {
    "id" : "855",
    "name" : "APP-400",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "source" : {
    "id" : "92",
    "name" : "APP-105",
    "@type" : "ReportingResource",
    "@referredType" : "LogicalResource"
  },
  "@baseType" : "Event",
  "@type" : "BillingCycleSpecificationStateChangeEvent"
}
```

API OPERATIONS

Every operation consists of two parts:

- REQUEST: Publish a message on a 'commandRequest' channel.
- RESPONSE: Subscribe to the corresponding 'commandReply' channel to receive the response.

Remember the following Async Uniform Contract:

Operation on Entities	Uniform Async API Operation	Description
Query One Entity	retrieveResource	retrieve must be used to retrieve a representation of a resource.
Query Entities	listResource	list must be used to retrieve a list of resources.
Create Entity	createResource	create must be used to create a new resource
Partial Update of an Entity	patchResource	patch must be used to partially update a resource
Remove an Entity	deleteResource	delete must be used to remove a resource

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

Notifications are also described in a subsequent section.

Operations on PartyAccount

Retrieves a PartyAccount by ID

Request topic: {prefix}.accountManagement.v5.retrievePartyAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrievePartyAccount.commandReply

Description

This operation retrieves a PartyAccount 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.retrievePartyAccount.commandReply
```

```
Parameters: {
    "id": 4458
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.retrievePartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 20000
  },
  "description" : "This  party account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Travel account",
  "state" : "Suspended",
  "accountType" : "Business",
  "paymentStatus" : "In Arrears",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/8800",
      "id" : "8800",
      "name" : "Electronic",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/4824",
      "id" : "4824",
      "name" : "Summary invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 8,
```

```json
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1309",
      "id" : "1309",
      "name" : "Monthly billing",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "paymentPlan" : [ {
    "@type" : "PaymentPlan",
    "numberOfPayments" : 12,
    "paymentFrequency" : "monthly",
    "priority" : 2,
    "status" : "Ineffective",
    "totalAmount" : {
      "unit" : "USD",
      "value" : 100.0
    },
    "planType" : "regular",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "paymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6895",
      "id" : "6895",
      "name" : "family payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    }
  } ],
  "financialAccount" : {
    "@referredType" : "FinancialAccount",
    "@type" : "FinancialAccountRef",
    "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2209",
    "id" : "2209",
    "name" : "Travel account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
  },
  "defaultPaymentMethod" : {
    "@type" : "PaymentMethodRef",
    "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/6514",
    "id" : "6514",
    "name" : "family payment",
    "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
  },
```

```json
  "relatedParty" : [ {
    "role" : "owner",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "name" : "John Doe Ltd",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "certificateNumber" : "45678889876",
    "issuingJurisdiction" : "USA",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "66235558562345",
      "href" : "https://host:port/tmf-api/document/v5/attachment/66235558562345",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-654321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
654321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Anna Cristal",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
```

```
      "contactMedium" : [ {
        "@type" : "GeographicAddressContactMedium",
        "preferred" : false,
        "mediumType" : "PostalAddress",
        "validFor" : {
          "startDateTime" : "2018-06-14T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "city" : "Paris",
        "country" : "France",
        "postCode" : "75014",
        "street1" : "15 Rue des Canards"
      } ],
      "relatedParty" : {
        "role" : "bill receiver",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@referredType" : "Individual",
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 53.29
      },
      "balanceType" : "DepositBalance",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/9522",
        "id" : "9522",
```

```
        "name" : "Travel Account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
  }
```

List or find PartyAccount objects

Request topic: {prefix}.accountManagement.v5.listPartyAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.listPartyAccount.commandReply

Description

This operation list PartyAccount 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

Here is an example of a request for retrieving PartyAccount resources. Retrieving all party accounts of type Business with due status. The result items are shrunk to show only the id, name and the credit limit (fields=id,name,creditLimit).

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.listPartyAccount.commandReply
```

Request message header

```
{
    "Parameters": {
        "filtering": "status=due"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.listPartyAccount.commandRequest
```

Response Payload

```
[ {
    "@type" : "PartyAccount",
    "id" : "9473",
    "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/9473",
    "creditLimit" : {
      "unit" : "USD",
      "value" : 50000
    },
    "name" : "Administration Account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
}, {
    "@type" : "PartyAccount",
    "id" : "9899",
    "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/9899",
    "creditLimit" : {
      "unit" : "USD",
      "value" : 1000000
    },
    "name" : "Bahamas Account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
} ]
```

Creates a PartyAccount

Request topic: {prefix}.accountManagement.v5.createPartyAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.createPartyAccount.commandReply

Description

This operation creates a PartyAccount entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	
relatedParty	

Usage samples

Here is a sample of a request for creating an PartyAccount resource. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
```

```
Reply-Channel: {prefix}.accountManagement.v5.createPartyAccount.commandReply
```

Request Payload

```
{
  "@type" : "PartyAccount",
  "name" : "Travel account",
  "relatedParty" : [ {
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "role" : "owner",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ]
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel: {prefix}.accountManagement.v5.createPartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "name" : "Travel account",
  "relatedParty" : [ {
    "role" : "owner",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "name" : "John Doe Ltd",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
```

```
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
  }
```

Updates partially a PartyAccount

Request topic: {prefix}.accountManagement.v5.patchPartyAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchPartyAccount.commandReply

Description

This operation allows partial updates of a PartyAccount entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createPartyAccount operation applies to the patchPartyAccount operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	
lastUpdate	

Patchable Attributes	Rule
accountBalance	
accountRelationship	
accountType	
billStructure	
contact	
creditLimit	
defaultPaymentMethod	
description	
financialAccount	
name	
paymentPlan	

Patchable Attributes	Rule
paymentStatus	
relatedParty	
state	
taxExemption	

Usage samples

Here is an example of a request for patching an PartyAccount resource with change on credit limit attribute using patch merge

This example uses the PatchPartyAccountJsonRequest request message (used for a payload of type application/json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandReply
Parameters: {
    "id": 4458
}
```

Request Payload

```
{
  "@type" : "PartyAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 5000
  }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "name" : "Travel account",
```

```
  "creditLimit" : {
    "unit" : "USD",
    "value" : 5000
  },
  "relatedParty" : [ {
    "role" : "owner",
    "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "name" : "John Doe Ltd",
      "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
}
```

Here is an example of a request for patching an PartyAccount resource with change on credit limit attribute using patch merge

This example uses the PatchPartyAccountMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandReply
Parameters: {
    "id": 4458
}
```

Request Payload

```
{
  "@type" : "PartyAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 5000
  }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
```

```
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "name" : "Travel account",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 5000
  },
  "relatedParty" : [ {
    "role" : "owner",
    "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "name" : "John Doe Ltd",
      "topicRef" :
 "kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
}
```

Here is an example of a request for patching a PartyAccount by adding another related party using json-patch

This example uses the PatchPartyAccountJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandReply
Parameters: {
    "id": 4458
}
```

Request Payload

```
[ {
```

```
    "op" : "add",
    "path" : "/relatedParty",
    "value" : {
      "role" : "contact",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@type" : "PartyRefOrPartyRoleRef",
        "@referredType" : "Individual",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/6666",
        "id" : "6666",
        "name" : "John Doe",
        "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ]
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "name" : "Travel account",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 5000
  },
  "relatedParty" : [ {
    "role" : "owner",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/4665",
      "id" : "4665",
      "name" : "John Doe Ltd",
      "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  }, {
    "role" : "contact",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
```

```
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Individual",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/6666",
      "id" : "6666",
      "name" : "John Doe",
      "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
}
```

Here is an example of a request for patching a PartyAccount by extending the validity period of a tax exemption using json-patch query

This example uses the PatchPartyAccountPatchQueryRequest request message (used for a payload of type application/json-patch-query+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandReply
Parameters: {
    "id": 4458
}
```

Request Payload

```
[ {
  "op" : "replace",
  "path" : "/taxExemption/validFor?/taxExemption/certificateNumber=45678889876",
  "value" : {
    "startDateTime" : "2018-06-13T00:00:00.000Z",
    "endDateTime" : "2020-01-10T00:00:00.000Z"
  }
} ]
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchPartyAccount.commandRequest
```

Response Payload

```
{
  "@type" : "PartyAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/4458",
  "id" : "4458",
  "name" : "Travel account",
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "certificateNumber" : "45678889876",
    "issuingJurisdiction" : "USA",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "654321234334534552",
      "href" : "https://host:port/tmf-api/document/v5/attachment/654321234334534552",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-654321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
654321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2020-01-10T00:00:00.000Z"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
}
```

Deletes a PartyAccount

Request topic: {prefix}.accountManagement.v5.deletePartyAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.deletePartyAccount.commandReply

Description

This operation deletes a PartyAccount entity.

Usage samples

This operation deletes a PartyAccount resource.

Request

```
DELETE /partyaccount/4458
```

Response

```
204
```

Operations on BillingAccount

Retrieves a BillingAccount by ID

Request topic: {prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveBillingAccount.commandReply

Description

This operation retrieves a BillingAccount 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.retrieveBillingAccount.commandReply
Parameters: {
    "id": 5430
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "paymentStatus" : "In Arrears",
```

```
  "creditLimit" : {
    "unit" : "USD",
    "value" : 10000
  },
  "description" : "This  billing account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/bilingAccount/5430",
  "id" : "5430",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Home Account",
  "state" : "Inactive",
  "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/9968",
      "id" : "9968",
      "name" : "Post Mail",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/3555",
      "id" : "3555",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 54,
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/3828",
      "id" : "3828",
      "name" : "Annual billing",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "paymentPlan" : [ {
    "@type" : "PaymentPlan",
    "numberOfPayments" : 4,
    "paymentFrequency" : "monthly",
    "priority" : 1,
    "status" : "Effective",
    "totalAmount" : {
```

```
          "unit" : "USD",
          "value" : 100.0
        },
        "planType" : "regular",
        "validFor" : {
          "startDateTime" : "2018-06-11T00:00:00.000Z",
          "endDateTime" : "2019-01-10T00:00:00.000Z"
        },
        "paymentMethod" : {
          "@type" : "PaymentMethodRef",
          "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/2452",
          "id" : "2452",
          "name" : "professional payment",
          "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
        }
      } ],
    "financialAccount" : {
      "@referredType" : "FinancialAccount",
      "@type" : "FinancialAccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
      "id" : "2063",
      "name" : "Partnership account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
    },
    "defaultPaymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/3537",
      "id" : "3537",
      "name" : "family payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    },
    "relatedParty" : [ {
      "role" : "service provider",
      "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
      "partyOrPartyRole" : {
        "@type" : "PartyRefOrPartyRoleRef",
        "@referredType" : "Organization",
        "href" : "https://host:port/tmf-api/partyManagement/v5/organization/9947",
        "id" : "9947",
        "name" : "Richard Cole",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
      }
    } ],
    "taxExemption" : [ {
      "@type" : "TaxExemption",
      "id" : "1",
      "certificateNumber" : "45678909876",
```

```
      "issuingJurisdiction" : "Prefecture",
      "reason" : "Social",
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
      } ],
      "attachment" : {
        "@type" : "Attachment",
        "id" : "1232455768567",
        "href" : "https://host:port/tmf-api/document/v5/attachment/1232455768567",
        "attachmentType" : "taxExemptionCertificate",
        "name" : "TaxExemptionCertificate-12345.pdf",
        "description" : "Electronic version of the tax exemption certificate",
        "mimeType" : "application/pdf",
        "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
12345.pdf",
        "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
      },
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Rachel Douglas",
    "contactType" : "secondary",
    "partyRoleType" : "Vendor",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : true,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "owner",
      "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
```

```
        "partyOrPartyRole" : {
          "@type" : "PartyRefOrPartyRoleRef",
          "@referredType" : "Organization",
          "href" : "https://host:port/tmf-api/partyManagement/v5/organization/9947",
          "id" : "9947",
          "name" : "Richard Cole",
          "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 58.33
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/9327",
        "id" : "9327",
        "name" : "Paradise Account",
        "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveBilingAccount.commandRequest"
  }
```

List or find BillingAccount objects

Request topic: {prefix}.accountManagement.v5.listBillingAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.listBillingAccount.commandReply

Description

This operation list BillingAccount 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

Here is an example of a request for retrieving BillingAccount resources. List all suspended billing accounts. The result items are shrunk to show only the id and name (fields=id,name).

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.listBillingAccount.commandReply
```

Request message header

```
{
    "Parameters": {
        "filtering": "state=Suspended"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.listBillingAccount.commandRequest
```

Response Payload

```
[ {
  "@type" : "BillingAccount",
  "id" : "42",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/42",
  "name" : "Lakes Agency Account",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}, {
  "@type" : "BillingAccount",
  "id" : "43",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/43",
  "name" : "Santa Claus Donate Account",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
} ]
```

Creates a BillingAccount

Request topic: {prefix}.accountManagement.v5.createBillingAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.createBillingAccount.commandReply

Description

This operation creates a BillingAccount entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	
relatedParty	

Usage samples

Here is an example of a request for creating a specific BillingAccount. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.createBillingAccount.commandReply
```

Request Payload

```
{
  "@type" : "BillingAccount",
  "name" : "Home Account",
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/9947",
      "id" : "9947",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ]
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel: {prefix}.accountManagement.v5.createBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
  "id" : "5430",
  "name" : "Home Account",
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/9947",
      "id" : "9947",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

Updates partially a BillingAccount

Request topic: {prefix}.accountManagement.v5.patchBillingAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchBillingAccount.commandReply

Description

This operation allows partial updates of a BillingAccount entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createBillingAccount operation applies to the patchBillingAccount operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	

Non Patchable Attributes	Rule
@schemaLocation	
@type	
href	
id	
lastUpdate	

Patchable Attributes	Rule
accountBalance	
accountRelationship	
accountType	
billStructure	
contact	
creditLimit	
defaultPaymentMethod	
description	
financialAccount	
name	
paymentPlan	
paymentStatus	
ratingType	
relatedParty	
state	
taxExemption	

Usage samples

Here is an example of a request for patching a BillingAccount. In this example, the name is modified, using JSON Patch

This example uses the PatchBillingAccountJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandReply
Parameters: {
    "id": 5430
```

```
    }
```

Request Payload

```
{
  "path" : "/name",
  "value" : "Richard Cole Account",
  "op" : "replace"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
  "id" : "5430",
  "name" : "Richard Cole Account",
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "id" : "6838",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/6838",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

Here is an example of a request for patching a BillingAccount. In this example, the contact is promoted from secondary to primary, using JSON Patch Query

This example uses the PatchBillingAccountPatchQueryRequest request message (used for a payload of type application/json-patch-query+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandReply
Parameters: {
    "id": 5430
}
```

Request Payload

```
{
  "path" : "/contact/contactType?/contact.contactName=Rachel Douglas",
  "value" : "primary",
  "op" : "replace"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
  "id" : "5430",
  "name" : "Richard Cole Account",
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Rachel Douglas",
    "contactType" : "primary"
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

Here is an example of a request for patching a BillingAccount. In this example, the name is modified, using Patch Merge

This example uses the PatchBillingAccountJsonRequest request message (used for a payload of type application/json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandReply
```

```
Parameters: {
    "id": 5430
}
```

Request Payload

```
{
  "@type" : "BillingAccount",
  "name" : "Richard Cole Account"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
  "id" : "5430",
  "name" : "Richard Cole Account",
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "id" : "6838",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/6838",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

Here is an example of a request for patching a BillingAccount. In this example, the name is modified, using Patch Merge

This example uses the PatchBillingAccountMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandReply
Parameters: {
    "id": 5430
}
```

Request Payload

```
{
  "@type" : "BillingAccount",
  "name" : "Richard Cole Account"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillingAccount.commandRequest
```

Response Payload

```
{
  "@type" : "BillingAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billingAccount/5430",
  "id" : "5430",
  "name" : "Richard Cole Account",
  "relatedParty" : [ {
    "role" : "service provider",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
      "id" : "6838",
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/6838",
      "name" : "Richard Cole",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingAccount.commandRequest"
}
```

Deletes a BillingAccount

Request topic: {prefix}.accountManagement.v5.deleteBillingAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteBillingAccount.commandReply

Description

This operation deletes a BillingAccount entity.

Usage samples

This operation deletes a BillingAccount resource.

Request

```
DELETE /billingaccount/5430
```

Response

```
204
```

Operations on SettlementAccount

Retrieves a SettlementAccount by ID

Request topic: {prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveSettlementAccount.commandReply

Description

This operation retrieves a SettlementAccount 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.retrieveSettlementAccount.commandReply
Parameters: {
    "id": 8790
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest
```

Response Payload

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "In Collection",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 20000
  },
  "description" : "This  settlement account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Per Usage Account",
  "state" : "inactive",
  "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
      "id" : "1451",
      "name" : "Web Page",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
      "id" : "8128",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 62,
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
      "id" : "1361",
      "name" : "Annual billing",
```

```
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
      }
    },
    "paymentPlan" : [ {
      "@type" : "PaymentPlan",
      "numberOfPayments" : 4,
      "paymentFrequency" : "monthly",
      "priority" : 3,
      "status" : "Effective",
      "totalAmount" : {
        "unit" : "USD",
        "value" : 543.8
      },
      "planType" : "regular",
      "validFor" : {
        "startDateTime" : "2018-06-17T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "paymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
        "id" : "1534",
        "name" : "professional payment",
        "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      }
    } ],
    "financialAccount" : {
      "@referredType" : "FinancialAccount",
      "@type" : "FinancialAccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
      "id" : "2063",
      "name" : "Partnership account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
    },
    "defaultPaymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
      "id" : "9124",
      "name" : "family payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    },
    "relatedParty" : [ {
      "role" : "bill receiver",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
```

```
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
        }
    } ],
    "taxExemption" : [ {
      "@type" : "TaxExemption",
      "id" : "1",
      "certificateNumber" : "98765432345",
      "issuingJurisdiction" : "USA",
      "reason" : "Embassy",
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
      } ],
      "attachment" : {
        "@type" : "Attachment",
        "id" : "1256673452346345",
        "href" : "https://host:port/tmf-api/document/v5/attachment/1256673452346345",
        "attachmentType" : "taxExemptionCertificate",
        "name" : "TaxExemptionCertificate-555.pdf",
        "description" : "Electronic version of the tax exemption certificate",
        "mimeType" : "application/pdf",
        "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-555.pdf",
        "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
      },
      "validFor" : {
        "startDateTime" : "2018-06-17T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "contact" : [ {
      "@type" : "Contact",
      "contactName" : "Virginie Cork",
      "contactType" : "primary",
      "partyRoleType" : "Publisher",
      "validFor" : {
        "startDateTime" : "2018-06-11T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "contactMedium" : [ {
        "@type" : "GeographicAddressContactMedium",
        "preferred" : false,
        "mediumType" : "PostalAddress",
        "validFor" : {
```

```
      "startDateTime" : "2018-06-14T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "city" : "Paris",
    "country" : "France",
    "postCode" : "75014",
    "street1" : "15 Rue des Canards"
  } ],
  "relatedParty" : {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  }
} ],
"accountBalance" : [ {
  "@type" : "AccountBalance",
  "amount" : {
    "unit" : "USD",
    "value" : 55.28
  },
  "balanceType" : "DepositBalance",
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2019-01-10T00:00:00.000Z"
  }
} ],
"accountRelationship" : [ {
  "@type" : "AccountRelationship",
  "relationshipType" : "contains",
  "validFor" : {
    "startDateTime" : "2018-06-16T00:00:00.000Z",
    "endDateTime" : "2019-01-10T00:00:00.000Z"
  },
  "account" : {
    "@referredType" : "BillingAccount",
    "@type" : "AccountRef",
    "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7550",
    "id" : "7550",
    "name" : "Travel Account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
  }
} ],
```

```
   "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
 }
```

List or find SettlementAccount objects

Request topic: {prefix}.accountManagement.v5.listSettlementAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.listSettlementAccount.commandReply

Description

This operation list SettlementAccount 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

Here is an example of a request for retrieving SettlementAccount resources. List all settlement accounts connected to a given party account. The result items are shrunk to show only the id and name (fields=id,name).

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.listSettlementAccount.commandReply
```

Request message header

```
{
    "Parameters": {
        "filtering": "partyAccount.id=7876543"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.listSettlementAccount.commandRequest
```

Response Payload

```
[ {
   "@type" : "SettlementAccount",
   "id" : "442",
```

```
    "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/442",
    "name" : "API Usage Account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
}, {
    "@type" : "SettlementAccount",
    "id" : "443",
    "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/443",
    "name" : "Storage Usage Account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
} ]
```

Creates a SettlementAccount

Request topic: {prefix}.accountManagement.v5.createSettlementAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.createSettlementAccount.commandReply

Description

This operation creates a SettlementAccount entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	
relatedParty	

Usage samples

Here is an example of a request for creating a specific SettlementAccount. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.createSettlementAccount.commandReply
```

Request Payload

```
{
  "@type" : "SettlementAccount",
  "name" : "Per Usage Account",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
```

```
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
 "kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ]
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel:
{prefix}.accountManagement.v5.createSettlementAccount.commandRequest
```

Response Payload

```
{
  "@type" : "SettlementAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "name" : "Per Usage Account",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
 "kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
}
```

Updates partially a SettlementAccount

Request topic: {prefix}.accountManagement.v5.patchSettlementAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchSettlementAccount.commandReply

Description

This operation allows partial updates of a SettlementAccount entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createSettlementAccount operation applies to the patchSettlementAccount operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	
lastUpdate	

Patchable Attributes	Rule
accountBalance	
accountRelationship	
accountType	
billStructure	
contact	
creditLimit	
defaultPaymentMethod	
description	
financialAccount	
name	
paymentPlan	
paymentStatus	
relatedParty	
state	
taxExemption	

Usage samples

Here is an example of a request for patching a SettlementAccount. In this example, a tax exemption is added, using JSON Patch

This example uses the PatchSettlementAccountJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandReply
Parameters: {
    "id": 8790
}
```

Request Payload

```
{
  "path" : "/taxExemption",
  "op" : "add",
  "value" : {
    "@type" : "TaxExemption",
    "id" : "2",
    "certificateNumber" : "1212555247",
    "issuingJurisdiction" : "City of San Jose",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "City Tax",
      "taxType" : "CityTax"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "902347285733567433412",
      "href" : "https://host:port/tmf-
api/document/v5/attachment/902347285733567433412",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-777.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/777/TaxExemptionCertificate-777.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-04-17T00:00:00.000Z",
      "endDateTime" : "2019-02-10T00:00:00.000Z"
    }
  }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandRequest
```

Response Payload

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "In Collection",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 20000
  },
  "description" : "This  settlement account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Per Usage Account",
  "state" : "inactive",
  "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
      "id" : "1451",
      "name" : "Web Page",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
      "id" : "8128",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 62,
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
      "id" : "1361",
      "name" : "Annual billing",
      "topicRef" :
```

```
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "paymentPlan" : [ {
    "@type" : "PaymentPlan",
    "numberOfPayments" : 4,
    "paymentFrequency" : "monthly",
    "priority" : 3,
    "status" : "Effective",
    "totalAmount" : {
      "unit" : "USD",
      "value" : 543.8
    },
    "planType" : "regular",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "paymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
      "id" : "1534",
      "name" : "professional payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    }
  } ],
  "financialAccount" : {
    "@referredType" : "FinancialAccount",
    "@type" : "FinancialAccountRef",
    "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
    "id" : "2063",
    "name" : "Partnership account",
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
  },
  "defaultPaymentMethod" : {
    "@type" : "PaymentMethodRef",
    "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
    "id" : "9124",
    "name" : "family payment",
    "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
  },
  "relatedParty" : [ {
    "role" : "employee",
    "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
    "partyOrPartyRole" : {
      "@type" : "PartyRefOrPartyRoleRef",
      "@referredType" : "Organization",
```

```json
      "href" : "https://host:port/tmf-api/partyManagement/v5/organization/5965",
      "id" : "5965",
      "name" : "Jimmy Doe",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "98765432345",
    "issuingJurisdiction" : "USA",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "1256673452346345",
      "href" : "https://host:port/tmf-api/document/v5/attachment/1256673452346345",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-555.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-555.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  }, {
    "@type" : "TaxExemption",
    "id" : "2",
    "certificateNumber" : "1212555247",
    "issuingJurisdiction" : "City of San Jose",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "City Tax",
      "taxType" : "CityTax"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "902347285733567433412",
      "href" : "https://host:port/tmf-
```

```
api/document/v5/attachment/902347285733567433412",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-777.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/777/TaxExemptionCertificate-777.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-04-17T00:00:00.000Z",
      "endDateTime" : "2019-02-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Virginie Cork",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : false,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "bill receiver",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
```

```
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 55.28
      },
      "balanceType" : "DepositBalance",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-16T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7550",
        "id" : "7550",
        "name" : "Travel Account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
}
```

Here is an example of a request for patching a SettlementAccount. In this example, credit limit and payment status are updated, using Patch Merge

This example uses the PatchSettlementAccountMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandReply
Parameters: {
    "id": 8790
}
```

Request Payload

```
{
```

```
  "@type" : "SettlementAccount",
  "paymentStatus" : "Normal",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 25000
  }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandRequest
```

Response Payload

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "Normal",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 25000
  },
  "description" : "This  settlement account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Per Usage Account",
  "state" : "inactive",
  "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
      "id" : "1451",
      "name" : "Web Page",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
      "id" : "8128",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
```

```
      },
      "cycleSpecification" : {
        "@type" : "BillingCycleSpecification",
        "dateShift" : 62,
        "frequency" : "monthly",
        "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
        "id" : "1361",
        "name" : "Annual billing",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
      }
    },
    "paymentPlan" : [ {
      "@type" : "PaymentPlan",
      "numberOfPayments" : 4,
      "paymentFrequency" : "monthly",
      "priority" : 3,
      "status" : "Effective",
      "totalAmount" : {
        "unit" : "USD",
        "value" : 543.8
      },
      "planType" : "regular",
      "validFor" : {
        "startDateTime" : "2018-06-17T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "paymentMethod" : {
        "@type" : "PaymentMethodRef",
        "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
        "id" : "1534",
        "name" : "professional payment",
        "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
      }
    } ],
    "financialAccount" : {
      "@referredType" : "FinancialAccount",
      "@type" : "FinancialAccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
      "id" : "2063",
      "name" : "Partnership account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
    },
    "defaultPaymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
      "id" : "9124",
```

```
      "name" : "family payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    },
  "relatedParty" : [ {
      "role" : "employee",
      "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
      "partyOrPartyRole" : {
        "@type" : "PartyRefOrPartyRoleRef",
        "@referredType" : "Organization",
        "href" : "https://host:port/tmf-api/partyManagement/v5/organization/5965",
        "id" : "5965",
        "name" : "Jimmy Doe",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
      }
  } ],
  "taxExemption" : [ {
      "@type" : "TaxExemption",
      "id" : "1",
      "certificateNumber" : "98765432345",
      "issuingJurisdiction" : "USA",
      "reason" : "Embassy",
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
      } ],
      "attachment" : {
        "@type" : "Attachment",
        "id" : "1256673452346345",
        "href" : "https://host:port/tmf-api/document/v5/attachment/1256673452346345",
        "attachmentType" : "taxExemptionCertificate",
        "name" : "TaxExemptionCertificate-555.pdf",
        "description" : "Electronic version of the tax exemption certificate",
        "mimeType" : "application/pdf",
        "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-555.pdf",
        "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
      },
      "validFor" : {
        "startDateTime" : "2018-06-17T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    }, {
      "@type" : "TaxExemption",
      "id" : "2",
      "certificateNumber" : "1212555247",
      "issuingJurisdiction" : "City of San Jose",
      "reason" : "Embassy",
```

```
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "City Tax",
        "taxType" : "CityTax"
      } ],
      "attachment" : {
        "@type" : "Attachment",
        "id" : "902347285733567433412",
        "href" : "https://host:port/tmf-
api/document/v5/attachment/902347285733567433412",
        "attachmentType" : "taxExemptionCertificate",
        "name" : "TaxExemptionCertificate-777.pdf",
        "description" : "Electronic version of the tax exemption certificate",
        "mimeType" : "application/pdf",
        "url" : "http://host:port/DocumentManager/777/TaxExemptionCertificate-777.pdf",
        "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
      },
      "validFor" : {
        "startDateTime" : "2018-04-17T00:00:00.000Z",
        "endDateTime" : "2019-02-10T00:00:00.000Z"
      }
    } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Virginie Cork",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : false,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "bill receiver",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
```

```
            "@type" : "PartyRefOrPartyRoleRef",
            "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
            "id" : "2186",
            "name" : "Gustave Flaubert",
            "topicRef" :
  "kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 55.28
      },
      "balanceType" : "DepositBalance",
      "validFor" : {
        "startDateTime" : "2018-06-10T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-16T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7550",
        "id" : "7550",
        "name" : "Travel Account",
        "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
  "kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
  }
```

Here is an example of a request for patching a SettlementAccount. In this example, credit limit and payment status are updated, using Patch Merge

This example uses the PatchSettlementAccountJsonRequest request message (used for a payload of type application/json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandReply
Parameters: {
    "id": 8790
}
```

Request Payload

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "Normal",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 25000
  }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchSettlementAccount.commandRequest
```

Response Payload

```
{
  "@type" : "SettlementAccount",
  "paymentStatus" : "Normal",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 25000
  },
  "description" : "This  settlement account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/settlementAccount/8790",
  "id" : "8790",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Per Usage Account",
  "state" : "inactive",
  "accountType" : "Business",
  "billStructure" : {
    "@type" : "BillStructure",
    "presentationMedia" : [ {
      "@type" : "BillPresentationMedia",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/1451",
      "id" : "1451",
      "name" : "Web Page",
```

```json
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
    } ],
    "format" : {
      "@type" : "BillFormat",
      "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8128",
      "id" : "8128",
      "name" : "Detailed invoice",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
    },
    "cycleSpecification" : {
      "@type" : "BillingCycleSpecification",
      "dateShift" : 62,
      "frequency" : "monthly",
      "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/1361",
      "id" : "1361",
      "name" : "Annual billing",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
    }
  },
  "paymentPlan" : [ {
    "@type" : "PaymentPlan",
    "numberOfPayments" : 4,
    "paymentFrequency" : "monthly",
    "priority" : 3,
    "status" : "Effective",
    "totalAmount" : {
      "unit" : "USD",
      "value" : 543.8
    },
    "planType" : "regular",
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "paymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/1534",
      "id" : "1534",
      "name" : "professional payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    }
  } ],
  "financialAccount" : {
    "@referredType" : "FinancialAccount",
```

```
      "@type" : "FinancialAccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/2063",
      "id" : "2063",
      "name" : "Partnership account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
    },
    "defaultPaymentMethod" : {
      "@type" : "PaymentMethodRef",
      "href" : "https://host:port/tmf-api/paymentMethods/v5/paymentMethod/9124",
      "id" : "9124",
      "name" : "family payment",
      "topicRef" :
"kafka://host/{prefix}.paymentMethods.v5.retrievePaymentMethod.commandRequest"
    },
    "relatedParty" : [ {
      "role" : "employee",
      "@type" : "RelatedPartyRefOrRelatedPartyRoleRef",
      "partyOrPartyRole" : {
        "@type" : "PartyRefOrPartyRoleRef",
        "@referredType" : "Organization",
        "href" : "https://host:port/tmf-api/partyManagement/v5/organization/5965",
        "id" : "5965",
        "name" : "Jimmy Doe",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveOrganization.commandRequest"
      }
    } ],
    "taxExemption" : [ {
      "@type" : "TaxExemption",
      "id" : "1",
      "certificateNumber" : "98765432345",
      "issuingJurisdiction" : "USA",
      "reason" : "Embassy",
      "taxDefinition" : [ {
        "@type" : "TaxDefinition",
        "id" : "96",
        "name" : "Value Added Tax",
        "taxType" : "federalVat"
      } ],
      "attachment" : {
        "@type" : "Attachment",
        "id" : "1256673452346345",
        "href" : "https://host:port/tmf-api/document/v5/attachment/1256673452346345",
        "attachmentType" : "taxExemptionCertificate",
        "name" : "TaxExemptionCertificate-555.pdf",
        "description" : "Electronic version of the tax exemption certificate",
        "mimeType" : "application/pdf",
        "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-555.pdf",
        "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
```

```
    },
    "validFor" : {
      "startDateTime" : "2018-06-17T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  }, {
    "@type" : "TaxExemption",
    "id" : "2",
    "certificateNumber" : "1212555247",
    "issuingJurisdiction" : "City of San Jose",
    "reason" : "Embassy",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "City Tax",
      "taxType" : "CityTax"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "902347285733567433412",
      "href" : "https://host:port/tmf-
api/document/v5/attachment/902347285733567433412",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-777.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/777/TaxExemptionCertificate-777.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-04-17T00:00:00.000Z",
      "endDateTime" : "2019-02-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Virginie Cork",
    "contactType" : "primary",
    "partyRoleType" : "Publisher",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "GeographicAddressContactMedium",
      "preferred" : false,
      "mediumType" : "PostalAddress",
      "validFor" : {
        "startDateTime" : "2018-06-14T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
```

```
      },
      "city" : "Paris",
      "country" : "France",
      "postCode" : "75014",
      "street1" : "15 Rue des Canards"
    } ],
    "relatedParty" : {
      "role" : "bill receiver",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
    "amount" : {
      "unit" : "USD",
      "value" : 55.28
    },
    "balanceType" : "DepositBalance",
    "validFor" : {
      "startDateTime" : "2018-06-10T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "accountRelationship" : [ {
    "@type" : "AccountRelationship",
    "relationshipType" : "contains",
    "validFor" : {
      "startDateTime" : "2018-06-16T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "account" : {
      "@referredType" : "BillingAccount",
      "@type" : "AccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7550",
      "id" : "7550",
      "name" : "Travel Account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveSettlementAccount.commandRequest"
```

```
}
```

Deletes a SettlementAccount

Request topic: {prefix}.accountManagement.v5.deleteSettlementAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteSettlementAccount.commandReply

Description

This operation deletes a SettlementAccount entity.

Usage samples

This operation deletes a SettlementAccount resource.

Request

```
DELETE /settlementaccount/8790
```

Response

```
204
```

Operations on FinancialAccount

Retrieves a FinancialAccount by ID

Request topic: {prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveFinancialAccount.commandReply

Description

This operation retrieves a FinancialAccount 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.retrieveFinancialAccount.commandReply
Parameters: {
    "id": 1041
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest
```

Response Payload

```
{
  "@type" : "FinancialAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account ...",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Administration account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
```

```
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
      "mediumType" : "Email",
      "validFor" : {
        "startDateTime" : "2018-06-12T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "emailAddress" : "alain.delon@best-actor.fr"
    } ],
    "relatedParty" : {
      "role" : "employee",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
```

```
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
  } ],
  "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7688",
        "id" : "7688",
        "name" : "Travel Account",
        "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
  } ],
   "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

List or find FinancialAccount objects

Request topic: {prefix}.accountManagement.v5.listFinancialAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.listFinancialAccount.commandReply

Description

This operation list FinancialAccount 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

Here is an example of a request for retrieving multiple FinancialAccounts.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
```

```
Reply-Channel: {prefix}.accountManagement.v5.listFinancialAccount.commandReply
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.listFinancialAccount.commandRequest
```

Response Payload

```json
[ {
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account ...",
  "@type" : "FinancialAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Administration account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
```

```
      "@type" : "Attachment",
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
      "mediumType" : "Email",
      "validFor" : {
        "startDateTime" : "2018-06-12T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "emailAddress" : "alain.delon@best-actor.fr"
    } ],
    "relatedParty" : {
      "role" : "employee",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
```

```
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
  } ],
  "accountRelationship" : [ {
    "@type" : "AccountRelationship",
    "relationshipType" : "contains",
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "account" : {
      "@referredType" : "BillingAccount",
      "@type" : "AccountRef",
      "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7688",
      "id" : "7688",
      "name" : "Travel Account",
      "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
} ]
```

Creates a FinancialAccount

Request topic: {prefix}.accountManagement.v5.createFinancialAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.createFinancialAccount.commandReply

Description

This operation creates a FinancialAccount entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	
relatedParty	

Usage samples

Here is an example of a request for creating a specific FinancialAccount. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.createFinancialAccount.commandReply
```

Request Payload

```
{
  "@type" : "FinancialAccount",
  "name" : "Administration account",
  "relatedParty" : [ {
    "role" : "employee",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ]
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel: {prefix}.accountManagement.v5.createFinancialAccount.commandRequest
```

Response Payload

```
{
  "@type" : "FinancialAccount",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Administration account",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

Updates partially a FinancialAccount

Request topic: {prefix}.accountManagement.v5.patchFinancialAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchFinancialAccount.commandReply

Description

This operation allows partial updates of a FinancialAccount entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createFinancialAccount operation applies to the patchFinancialAccount operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	
lastUpdate	

Patchable Attributes	Rule
accountBalance	
accountRelationship	
accountType	
contact	
creditLimit	
description	
name	
relatedParty	
state	
taxExemption	

Usage samples

Here is an example of a request for patching a FinancialAccount. In this example, the name attribute is set, using Patch Merge

This example uses the PatchFinancialAccountMergePatchRequest request message (used for a

payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandReply
Parameters: {
    "id": 1041
}
```

Request Payload

```
{
  "@type" : "FinancialAccount",
  "name" : "Consolidation Account"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandRequest
```

Response Payload

```
{
  "@type" : "FinancialAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account helps consolidate across all the
branches.",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Consolidation Account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
```

```
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
      "mediumType" : "Email",
      "validFor" : {
        "startDateTime" : "2018-06-12T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
```

```
        },
        "emailAddress" : "alain.delon@best-actor.fr"
      } ],
      "relatedParty" : {
        "role" : "employee",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@referredType" : "Individual",
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7688",
        "id" : "7688",
        "name" : "Travel Account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

Here is an example of a request for patching a FinancialAccount. In this example, the name attribute is set, using Patch Merge

This example uses the PatchFinancialAccountJsonRequest request message (used for a payload of type application/json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandReply
Parameters: {
    "id": 1041
}
```

Request Payload

```
{
  "@type" : "FinancialAccount",
  "name" : "Consolidation Account"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandRequest
```

Response Payload

```
{
  "@type" : "FinancialAccount",
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account helps consolidate across all the
branches.",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Consolidation Account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
```

```
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
```

```
          "mediumType" : "Email",
          "validFor" : {
            "startDateTime" : "2018-06-12T00:00:00.000Z",
            "endDateTime" : "2019-01-10T00:00:00.000Z"
          },
          "emailAddress" : "alain.delon@best-actor.fr"
      } ],
      "relatedParty" : {
        "role" : "employee",
        "@type" : "RelatedPartyRefOrPartyRoleRef",
        "partyOrPartyRole" : {
          "@referredType" : "Individual",
          "@type" : "PartyRefOrPartyRoleRef",
          "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
          "id" : "2186",
          "name" : "Gustave Flaubert",
          "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
        }
      }
    } ],
    "accountBalance" : [ {
      "@type" : "AccountBalance",
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7688",
        "id" : "7688",
        "name" : "Travel Account",
        "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
```

```
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

Here is an example of a request for patching a FinancialAccount, by adding another related party using json-patch

This example uses the PatchFinancialAccountJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandReply
Parameters: {
    "id": 1041
}
```

Request Payload

```
[ {
  "op" : "add",
  "path" : "/relatedParty",
  "value" : {
    "role" : "payer",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/345365",
      "id" : "345365",
      "name" : "Sylvia Strudock",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  }
} ]
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandRequest
```

Response Payload

```
{
```

```json
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account helps consolidate across all the
branches.",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Consolidation Account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  }, {
    "role" : "payer",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/345365",
      "id" : "345365",
      "name" : "Sylvia Strudock",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
```

```
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
      "mediumType" : "Email",
      "validFor" : {
        "startDateTime" : "2018-06-12T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "emailAddress" : "alain.delon@best-actor.fr"
    } ],
    "relatedParty" : {
      "role" : "employee",
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
```

```
      "amount" : {
        "unit" : "USD",
        "value" : 50.58
      },
      "balanceType" : "ReceivableBalance",
      "validFor" : {
        "startDateTime" : "2018-06-15T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      }
    } ],
    "accountRelationship" : [ {
      "@type" : "AccountRelationship",
      "relationshipType" : "contains",
      "validFor" : {
        "startDateTime" : "2018-06-13T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "account" : {
        "@referredType" : "BillingAccount",
        "@type" : "AccountRef",
        "href" : "https://host:port/tmf-api/accountManagement/v5/partyAccount/7688",
        "id" : "7688",
        "name" : "Travel Account",
        "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrievePartyAccount.commandRequest"
      }
    } ],
    "topicRef" :
 "kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
  }
```

Here is an example of a request for patching a FinancialAccount, by removing an account
relationship using json-patch query

This example uses the PatchFinancialAccountPatchQueryRequest request message (used for a
payload of type application/json-patch-query+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandReply
Parameters: {
    "id": 1041
}
```

Request Payload

```
[ {
  "op" : "remove",
```

```
    "path" : "/accountRelationship?/accountRelationship.account.id=7688"
} ]
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchFinancialAccount.commandRequest
```

Response Payload

```
{
  "creditLimit" : {
    "unit" : "USD",
    "value" : 3500
  },
  "description" : "This  financial account helps consolidate across all the
branches.",
  "href" : "https://host:port/tmf-api/accountManagement/v5/financialAccount/1041",
  "id" : "1041",
  "lastModified" : "2018-06-14T00:00:00.000Z",
  "name" : "Consolidation Account",
  "state" : "Active",
  "accountType" : "Global",
  "relatedParty" : [ {
    "role" : "bill receiver",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
      "id" : "2186",
      "name" : "Gustave Flaubert",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  }, {
    "role" : "payer",
    "@type" : "RelatedPartyRefOrPartyRoleRef",
    "partyOrPartyRole" : {
      "@referredType" : "Individual",
      "@type" : "PartyRefOrPartyRoleRef",
      "href" : "https://host:port/tmf-api/partyManagement/v5/individual/345365",
      "id" : "345365",
      "name" : "Sylvia Strudock",
      "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
    }
  } ],
```

```json
  "taxExemption" : [ {
    "@type" : "TaxExemption",
    "id" : "1",
    "certificateNumber" : "45678909876",
    "issuingJurisdiction" : "Prefecture",
    "reason" : "Social",
    "taxDefinition" : [ {
      "@type" : "TaxDefinition",
      "id" : "96",
      "name" : "Value Added Tax",
      "taxType" : "federalVat"
    } ],
    "attachment" : {
      "@type" : "Attachment",
      "id" : "9304357346341236",
      "href" : "https://host:port/tmf-api/document/v5/attachment/9304357346341236",
      "attachmentType" : "taxExemptionCertificate",
      "name" : "TaxExemptionCertificate-54321.pdf",
      "description" : "Electronic version of the tax exemption certificate",
      "mimeType" : "application/pdf",
      "url" : "http://host:port/DocumentManager/666/TaxExemptionCertificate-
54321.pdf",
      "topicRef" :
"kafka://host/{prefix}.document.v5.retrieveAttachment.commandRequest"
    },
    "validFor" : {
      "startDateTime" : "2018-06-13T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "contact" : [ {
    "@type" : "Contact",
    "contactName" : "Ludwig Borgia",
    "contactType" : "secondary",
    "partyRoleType" : "CustomerAccountRepresentative",
    "validFor" : {
      "startDateTime" : "2018-06-11T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    },
    "contactMedium" : [ {
      "@type" : "EmailContactMedium",
      "preferred" : false,
      "mediumType" : "Email",
      "validFor" : {
        "startDateTime" : "2018-06-12T00:00:00.000Z",
        "endDateTime" : "2019-01-10T00:00:00.000Z"
      },
      "emailAddress" : "alain.delon@best-actor.fr"
    } ],
    "relatedParty" : {
      "role" : "employee",
```

```
      "@type" : "RelatedPartyRefOrPartyRoleRef",
      "partyOrPartyRole" : {
        "@referredType" : "Individual",
        "@type" : "PartyRefOrPartyRoleRef",
        "href" : "https://host:port/tmf-api/partyManagement/v5/individual/2186",
        "id" : "2186",
        "name" : "Gustave Flaubert",
        "topicRef" :
"kafka://host/{prefix}.partyManagement.v5.retrieveIndividual.commandRequest"
      }
    }
  } ],
  "accountBalance" : [ {
    "@type" : "AccountBalance",
    "amount" : {
      "unit" : "USD",
      "value" : 50.58
    },
    "balanceType" : "ReceivableBalance",
    "validFor" : {
      "startDateTime" : "2018-06-15T00:00:00.000Z",
      "endDateTime" : "2019-01-10T00:00:00.000Z"
    }
  } ],
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveFinancialAccount.commandRequest"
}
```

Deletes a FinancialAccount

Request topic: {prefix}.accountManagement.v5.deleteFinancialAccount.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteFinancialAccount.commandReply

Description

This operation deletes a FinancialAccount entity.

Usage samples

This operation deletes a FinancialAccount resource.

Request

```
DELETE /financialaccount/1041
```

Response

```
204
```

Operations on BillFormat

Retrieves a BillFormat by ID

Request topic: {prefix}.accountManagement.v5.retrieveBillFormat.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveBillFormat.commandReply

Description

This operation retrieves a BillFormat 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.retrieveBillFormat.commandReply
Parameters: {
    "id": 8718
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.retrieveBillFormat.commandRequest
```

Response Payload

```
{
  "@type" : "BillFormat",
  "description" : "This  bill format gives a detailed invoice",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
}
```

List or find BillFormat objects

Request topic: {prefix}.accountManagement.v5.listBillFormat.commandRequest

Reply topic: {prefix}.accountManagement.v5.listBillFormat.commandReply

Description

This operation list BillFormat 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

Retrieving all bill formats. The result items are shrunk to show only the id and name (fields=id,name).

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.listBillFormat.commandReply
```

Request message header

```
{
    "Parameters": {
        "fields": "id,name"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.listBillFormat.commandRequest
```

Response Payload

```
[ {
  "@type" : "BillFormat",
  "id" : "42",
  "name" : "simple invoice"
}, {
  "@type" : "BillFormat",
  "id" : "43",
  "name" : "detailed invoice"
} ]
```

Creates a BillFormat

Request topic: {prefix}.accountManagement.v5.createBillFormat.commandRequest

Reply topic: {prefix}.accountManagement.v5.createBillFormat.commandReply

Description

This operation creates a BillFormat entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	

Usage samples

Here is a sample of a request for creating a BillFormat resource. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.createBillFormat.commandReply
```

Request Payload

```
{
  "@type" : "BillFormat",
  "name" : "Detailed invoice"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel: {prefix}.accountManagement.v5.createBillFormat.commandRequest
```

Response Payload

```
{
  "@type" : "BillFormat",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
```

```
}
```

Updates partially a BillFormat

Request topic: {prefix}.accountManagement.v5.patchBillFormat.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchBillFormat.commandReply

Description

This operation allows partial updates of a BillFormat entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createBillFormat operation applies to the patchBillFormat operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	

Patchable Attributes	Rule
description	
name	

Usage samples

Here is an example of a request for patching a BillFormat resource with change on description attribute using patch merge

This example uses the PatchBillFormatMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandReply
Parameters: {
    "id": 8718
}
```

Request Payload

```
{
  "@type" : "BillFormat",
  "description" : "Detailed billing containing full phone numbers of calls"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandRequest
```

Response Payload

```
{
  "description" : "Detailed billing containing full phone numbers of calls",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
}
```

Here is an example of a request for patching a BillFormat resource with change on description attribute using patch merge

This example uses the PatchBillFormatMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandReply
Parameters: {
    "id": 8718
}
```

Request Payload

```
{
  "@type" : "BillFormat",
  "description" : "Detailed billing containing full phone numbers of calls"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandRequest
```

Response Payload

```
{
  "description" : "Detailed billing containing full phone numbers of calls",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
}
```

Here is an example of a request for patching a BillFormat resource with change on description attribute using JSON Patch

This example uses the PatchBillFormatJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandReply
Parameters: {
    "id": 8718
}
```

Request Payload

```
{
  "path" : "/description",
  "value" : "Detailed billing containing full phone numbers of calls",
  "op" : "replace"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel: {prefix}.accountManagement.v5.patchBillFormat.commandRequest
```

Response Payload

```
{
  "description" : "Detailed billing containing full phone numbers of calls",
  "href" : "https://host:port/tmf-api/accountManagement/v5/billFormat/8718",
  "id" : "8718",
  "name" : "Detailed invoice",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillFormat.commandRequest"
}
```

Deletes a BillFormat

Request topic: {prefix}.accountManagement.v5.deleteBillFormat.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteBillFormat.commandReply

Description

This operation deletes a BillFormat entity.

Usage samples

This operation deletes a BillFormat resource.

Request

```
DELETE /billformat/8718
```

Response

```
204
```

Operations on BillPresentationMedia

Retrieves a BillPresentationMedia by ID

Request topic: {prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReply

Description

This operation retrieves a BillPresentationMedia 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReply
Parameters: {
    "id": 4506
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandRequest
```

Response Payload

```
{
  "@type" : "BillPresentationMedia",
  "description" : "This bill presentation media ...",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
  "id" : "4506",
  "name" : "Electronic",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

List or find BillPresentationMedia objects

Request topic: {prefix}.accountManagement.v5.listBillPresentationMedia.commandRequest

Reply topic: {prefix}.accountManagement.v5.listBillPresentationMedia.commandReply

Description

This operation list BillPresentationMedia 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

Retrieving all bill presentation medias. The result items are shrunk to show only the id and name (fields=id,name).

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.listBillPresentationMedia.commandReply
```

Request message header

```
{
    "Parameters": {
        "fields": "id,name"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.listBillPresentationMedia.commandRequest
```

Response Payload

```
[ {
  "@type" : "BillPresentationMedia",
  "id" : "42",
  "name" : "signed mail"
}, {
  "@type" : "BillPresentationMedia",
  "id" : "43",
  "name" : "postal"
}, {
  "@type" : "BillPresentationMedia",
  "id" : "44",
  "name" : "web"
} ]
```

Creates a BillPresentationMedia

Request topic: {prefix}.accountManagement.v5.createBillPresentationMedia.commandRequest

Reply topic: {prefix}.accountManagement.v5.createBillPresentationMedia.commandReply

Description

This operation creates a BillPresentationMedia entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	

Usage samples

Here is a sample of a request for creating a BillPresentationMedia resource. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.createBillPresentationMedia.commandReply
```

Request Payload

```
{
  "@type" : "BillPresentationMedia",
  "name" : "Electronic"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel:
{prefix}.accountManagement.v5.createBillPresentationMedia.commandRequest
```

Response Payload

```
{
  "@type" : "BillPresentationMedia",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
  "id" : "4506",
  "name" : "Electronic",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

Updates partially a BillPresentationMedia

Request topic: {prefix}.accountManagement.v5.patchBillPresentationMedia.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchBillPresentationMedia.commandReply

Description

This operation allows partial updates of a BillPresentationMedia entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createBillPresentationMedia operation applies to the patchBillPresentationMedia operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	

Patchable Attributes	Rule
description	
name	

Usage samples

Here is an example of a request for patching a BillPresentationMedia resource with change on description attribute using patch merge

This example uses the PatchBillPresentationMediaMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillPresentationMedia.commandReply
Parameters: {
    "id": 4506
}
```

Request Payload

```
{
   "@type" : "BillPresentationMedia",
   "description" : "This bill presentation media is electronic"
```

```
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillPresentationMedia.commandRequest
```

Response Payload

```
{
   "description" : "This bill presentation media is electronic",
   "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
   "id" : "4506",
   "name" : "Electronic",
   "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

Here is an example of a request for patching a BillPresentationMedia resource with change on description attribute using patch merge

This example uses the PatchBillPresentationMediaMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillPresentationMedia.commandReply
Parameters: {
    "id": 4506
}
```

Request Payload

```
{
   "@type" : "BillPresentationMedia",
   "description" : "This bill presentation media is electronic"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillPresentationMedia.commandRequest
```

Response Payload

```
{
  "description" : "This bill presentation media is electronic",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
  "id" : "4506",
  "name" : "Electronic",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

Here is an example of a request for patching a BillPresentationMedia resource with change on description attribute using JSON patch

This example uses the PatchBillPresentationMediaJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel: {prefix}.accountManagement.v5.patchBillPresentationMedia.commandReply
Parameters: {
    "id": 4506
}
```

Request Payload

```
{
  "path" : "/description",
  "value" : "This bill presentation media is electronic",
  "op" : "replace"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
```

```
{prefix}.accountManagement.v5.patchBillPresentationMedia.commandRequest
```

Response Payload

```
{
  "description" : "This bill presentation media is electronic",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billPresentationMedia/4506",
  "id" : "4506",
  "name" : "Electronic",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillPresentationMedia.commandReque
st"
}
```

Deletes a BillPresentationMedia

Request topic: {prefix}.accountManagement.v5.deleteBillPresentationMedia.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteBillPresentationMedia.commandReply

Description

This operation deletes a BillPresentationMedia entity.

Usage samples

This operation deletes a BillPresentationMedia resource.

Request

```
DELETE /billpresentationmedia/4506
```

Response

```
204
```

Operations on BillingCycleSpecification

Retrieves a BillingCycleSpecification by ID

Request topic: {prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandRequest

Reply topic: {prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandReply

Description

This operation retrieves a BillingCycleSpecification 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

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandReply
Parameters: {
    "id": 4556
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandRequest
```

Response Payload

```
{
  "@type" : "BillCycleSpecification",
  "billingDateShift" : 20,
  "billingPeriod" : "monthly",
  "chargeDateOffset" : 10,
  "creditDateOffset" : 15,
  "description" : "This billing cycle specification describes the cycle for 20th of
the month.",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 25,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2025-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

List or find BillingCycleSpecification objects

Request topic: {prefix}.accountManagement.v5.listBillingCycleSpecification.commandRequest

Reply topic: {prefix}.accountManagement.v5.listBillingCycleSpecification.commandReply

Description

This operation list BillingCycleSpecification 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

Here is an example of a request for retrieving BillingCycleSpecification resources. Retrieving all BillingCycleSpecifications. The result items are field-restricted to show only the id and name

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.listBillingCycleSpecification.commandReply
```

Request message header

```
{
    "Parameters": {
        "fields": "id,name"
    }
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.listBillingCycleSpecification.commandRequest
```

Response Payload

```
[ {
  "@type" : "BillCycleSpecification",
  "id" : "9473",
  "name" : "bimonthly"
}, {
  "@type" : "BillCycleSpecification",
  "id" : "9473",
```

```
    "name" : "monthly"
  }, {
    "@type" : "BillCycleSpecification",
    "id" : "9899",
    "name" : "weekly"
  } ]
```

Creates a BillingCycleSpecification

Request topic: {prefix}.accountManagement.v5.createBillingCycleSpecification.commandRequest

Reply topic: {prefix}.accountManagement.v5.createBillingCycleSpecification.commandReply

Description

This operation creates a BillingCycleSpecification entity.

Mandatory Attributes

Mandatory Attributes	Rule
name	

Usage samples

Here is a sample of a request for creating a BillingCycleSpecification resource. In this example the request only passes mandatory attributes.

Request Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.createBillingCycleSpecification.commandReply
```

Request Payload

```
{
  "@type" : "BillCycleSpecification",
  "name" : "Monthly billing"
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 201
X-Request-Channel:
{prefix}.accountManagement.v5.createBillingCycleSpecification.commandRequest
```

Response Payload

```
{
  "@type" : "BillCycleSpecification",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "name" : "Monthly billing",
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Updates partially a BillingCycleSpecification

Request topic: {prefix}.accountManagement.v5.patchBillingCycleSpecification.commandRequest

Reply topic: {prefix}.accountManagement.v5.patchBillingCycleSpecification.commandReply

Description

This operation allows partial updates of a BillingCycleSpecification entity. Support of json/merge (https://tools.ietf.org/html/rfc7386) is mandatory, support of json/patch (http://tools.ietf.org/html/rfc5789) is optiona. 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 createBillingCycleSpecification operation applies to the patchBillingCycleSpecification operation. Hence these tables are not repeated here.

Patchable and Non Patchable Attributes

Non Patchable Attributes	Rule
@baseType	
@schemaLocation	
@type	
href	
id	

Patchable Attributes	Rule
billingDateShift	
billingPeriod	
chargeDateOffset	
creditDateOffset	
description	
frequency	

Patchable Attributes	Rule
mailingDateOffset	
name	
paymentDueDateOffset	
validFor	

Usage samples

Here is an example of a request for patching a BillingCycleSpecification resource with change on mailing date offset attribute using patch merge

This example uses the PatchBillingCycleSpecificationMergePatchRequest request message (used for a payload of type application/merge-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandReply
Parameters: {
    "id": 4556
}
```

Request Payload

```
{
   "@type" : "BillingCycleSpecification",
   "mailingDateOffset" : 30
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandRequest
```

Response Payload

```
{
   "@type" : "BillCycleSpecification",
   "billingDateShift" : 20,
   "billingPeriod" : "monthly",
   "chargeDateOffset" : 10,
   "creditDateOffset" : 15,
```

```
  "description" : "This billing cycle specification describes the cycle for 20th of
the month.",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 30,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2025-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Here is an example of a request for patching a BillingCycleSpecification resource with change on mailing date offset attribute using patch merge

This example uses the PatchBillingCycleSpecificationJsonRequest request message (used for a payload of type application/json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandReply
Parameters: {
    "id": 4556
}
```

Request Payload

```
{
  "@type" : "BillingCycleSpecification",
  "mailingDateOffset" : 30
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandRequest
```

Response Payload

```
{
  "@type" : "BillCycleSpecification",
  "billingDateShift" : 20,
  "billingPeriod" : "monthly",
  "chargeDateOffset" : 10,
  "creditDateOffset" : 15,
  "description" : "This billing cycle specification describes the cycle for 20th of
the month.",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 30,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2025-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Here is an example of a request for patching a BillingCycleSpecification resource with change on mailing date offset attribute using JSON patch

This example uses the PatchBillingCycleSpecificationJsonPatchRequest request message (used for a payload of type application/json-patch+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandReply
Parameters: {
    "id": 4556
}
```

Request Payload

```
{
  "path" : "/mailingDateOffset",
  "value" : 30,
  "op" : "replace"
```

```
      }
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandRequest
```

Response Payload

```
{
  "@type" : "BillCycleSpecification",
  "billingDateShift" : 20,
  "billingPeriod" : "monthly",
  "chargeDateOffset" : 10,
  "creditDateOffset" : 15,
  "description" : "This billing cycle specification describes the cycle for 20th of
the month.",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 30,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2025-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Here is an example of a request for patching a BillingCycleSpecification resource with change on
billing date shift to 30 days only if it was 20 days previously, using JSON patch query

This example uses the PatchBillingCycleSpecificationPatchQueryRequest request message (used for
a payload of type application/json-patch-query+json).

Request message header

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Reply-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandReply
Parameters: {
    "id": 4556
```

```
    }
```

Request Payload

```
{
  "op" : "replace",
  "path" : "/billingDateShift?/billingDateShift=20",
  "value" : 30
}
```

Response Headers

```
X-Correlation-Id: 4226B739-1DD2-4B43-A393-5E6F05CEF169
Status-Code: 200
X-Request-Channel:
{prefix}.accountManagement.v5.patchBillingCycleSpecification.commandRequest
```

Response Payload

```
{
  "@type" : "BillCycleSpecification",
  "billingDateShift" : 30,
  "billingPeriod" : "monthly",
  "chargeDateOffset" : 10,
  "creditDateOffset" : 15,
  "description" : "This billing cycle specification describes the cycle for 20th of
the month.",
  "frequency" : "monthly",
  "href" : "https://host:port/tmf-
api/accountManagement/v5/billingCycleSpecification/4556",
  "id" : "4556",
  "mailingDateOffset" : 30,
  "name" : "Monthly billing",
  "paymentDueDateOffset" : 30,
  "validFor" : {
    "startDateTime" : "2018-06-10T00:00:00.000Z",
    "endDateTime" : "2025-01-10T00:00:00.000Z"
  },
  "topicRef" :
"kafka://host/{prefix}.accountManagement.v5.retrieveBillingCycleSpecification.commandR
equest"
}
```

Deletes a BillingCycleSpecification

Request topic: {prefix}.accountManagement.v5.deleteBillingCycleSpecification.commandRequest

Reply topic: {prefix}.accountManagement.v5.deleteBillingCycleSpecification.commandReply

Description

This operation deletes a BillingCycleSpecification entity.

Usage samples

This operation deletes a BillingCycleSpecification resource.

Request

```
DELETE /billingcyclespecification/4556
```

Response

```
204
```

NOTIFICATIONS

Topic for BillFormat entity: {prefix}.accountManagement.v5.billFormat.notificationEvent

Topic for BillPresentationMedia entity:
{prefix}.accountManagement.v5.billPresentationMedia.notificationEvent

Topic for BillingAccount entity: {prefix}.accountManagement.v5.billingAccount.notificationEvent

Topic for BillingCycleSpecification entity:
{prefix}.accountManagement.v5.billingCycleSpecification.notificationEvent

Topic for FinancialAccount entity:
{prefix}.accountManagement.v5.financialAccount.notificationEvent

Topic for PartyAccount entity: {prefix}.accountManagement.v5.partyAccount.notificationEvent

Topic for SettlementAccount entity:
{prefix}.accountManagement.v5.settlementAccount.notificationEvent

For every single of operation on the entities use the following templates and provide sample notification message payloads.

It is assumed that consumers will subscribe to the notificationEvent channel to receive notifications, and that the server component will post notifications to that channel.

Publish Event to listener

Here's an example of a notification received by the consumer. 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.

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

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

Acknowledgements

Release History

Release Number	Date	Release led by:	Description
Release 1.0	04/15/2017	*Pierre Gauthier TM Forum pgauthier@tmforum.org * Mariano Belaunde Orange Labs	**First Release of the Document. Generated from API Data Model. It is a rebrand of the old Billing Management specification since its scope has been enlarged to other accounting aspects.**
Release 2.0	11/06/2018	**Mariano Belaunde Orange Labs**	**Alignment with Guidelines 3.0**
Release 4.0	30/05/2019	**Mariano Belaunde Orange Labs**	**Regeneration after schematization**
Release 4.1	13/07/2022	**Jonathan Goldberg Amdocs**	**Various fixes to model**
Version 5.0.0	December 2022	Jonathan Goldberg Amdocs Jonathan.Goldberg@amdocs.com	Upgrade to V5 design patterns and OAS3

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