

FIWARE Business API Ecosystem Open API Specification

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Abstract

The Business API Ecosystem is a joint component made up of the FIWARE Business Framework and a set of APIs (and its reference implementations) provided by the TMForum. This component allows the monetization of different kind of assets (both digital and physical) during the whole service life cycle, from offering creation to its charging, accounting and revenue settlement and sharing. The Business API Ecosystem exposes its complete functionality through TMForum standard APIs; concretely, it includes the catalog management, ordering management, inventory management, usage management, billing, customer, and party APIs.

Status of this document

This is a work in progress and is changing on a daily basis. You can check the latest available version on [GitHub](#).

Please send your comments to wstore@conwet.com.

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API Summary

Asset Type Management API

Asset Types Collection

GET - List asset types [\[/charging/api/assetManagement/assetTypes\]](/charging/api/assetManagement/assetTypes)

Asset Type Entry

GET - Get asset type [\[/charging/api/assetManagement/assetTypes/{id}\]](/charging/api/assetManagement/assetTypes/{id})

Asset Management API

Asset Info collection

GET - List seller assets [\[/charging/api/assetManagement/assets{?start}{?limit}\]](/charging/api/assetManagement/assets{?start}{?limit})

Asset Info Entry

GET - Get seller asset [\[/charging/api/assetManagement/assets/{id}\]](/charging/api/assetManagement/assets/{id})

Upload asset task

POST - Upload base64 encoded asset
[\[/charging/api/assetManagement/assets/uploadJob/\]](/charging/api/assetManagement/assets/uploadJob/)

Category Management API

Category Collection

GET - List Categories [\[/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit})

POST - Create Category [\[/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit})

Category Entry

GET - Get Category [\[/DSProductCatalog/api/catalogManagement/v2/category/{id}\]](/DSProductCatalog/api/catalogManagement/v2/category/{id})

PATCH - Update Category
[\[/DSProductCatalog/api/catalogManagement/v2/category/{id}\]](/DSProductCatalog/api/catalogManagement/v2/category/{id})

Product Catalog Management API

Product Catalog Collection

GET - List Product Catalogs
[\[/DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit})

POST - Create Product Catalog
[\[/DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit})

Product Catalog Entry

GET - Get Product Catalog
[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{id}\]](/DSProductCatalog/api/catalogManagement/v2/catalog/{id})

PATCH - Update Product Catalog
[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{id}\]](/DSProductCatalog/api/catalogManagement/v2/catalog/{id})

Product Specification Management API

Product Specification Collection

GET - List Product Specifications
[\[/DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit})

POST - Create Product Specification
[\[/DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}\]](/DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit})

Product Specification Entry

GET - Get Product Specification
[\[/DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}\]](/DSProductCatalog/api/catalogManagement/v2/productSpecification/{id})

PATCH - Update Product Specification
[\[/DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}\]](/DSProductCatalog/api/catalogManagement/v2/productSpecification/{id})

Product Offering Management API

Product Offering Collection

GET - List Product Offerings

[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}\]](#)

POST - Create Product Offering

[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}\]](#)

Product Offering Entry

GET - Get Product Offering

[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}\]](#)

PATCH - Update Product Offering

[\[/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}\]](#)

Order Management API

Product Order Collection

GET - List Product Orders

[\[/DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}\]](#)

POST - Create Product Order

[\[/DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}\]](#)

Product Order Entry

GET - Get Product Order

[\[/DSProductOrdering/api/productOrdering/v2/productOrder/{id}\]](#)

PATCH - Update Product Order

[\[/DSProductOrdering/api/productOrdering/v2/productOrder/{id}\]](#)

Inventory Management API

Product Collection

GET - List Products [\[/DSProductInventory/api/productInventory/v2/product{?start}{?limit}\]](#)

Product Entry

GET - Get Product [\[/DSProductInventory/api/productInventory/v2/product/{id}\]](#)

Party Management API

Individuals Collection

GET - List Individuals [\[/DSPartyManagement/api/partyManagement/v2/individual\]](#)

POST - Create Individual [\[/DSPartyManagement/api/partyManagement/v2/individual\]](#)

Individual Entry

GET - Get Individual

[\[/DSPartyManagement/api/partyManagement/v2/individual/{id}\]](#)

PATCH - Update Individual

[\[/DSPartyManagement/api/partyManagement/v2/individual/{id}\]](#)

Customer Management API

Customer Collection

GET - List Customers

[\[/DSCustomerManagement/api/customerManagement/v2/customer\]](#)

POST - Create a Customer

[\[/DSCustomerManagement/api/customerManagement/v2/customer\]](#)

Customer Entry

GET - Get Customer

[\[/DSCustomerManagement/api/customerManagement/v2/customer/{id}\]](#)

PATCH - Update Customer

[\[/DSCustomerManagement/api/customerManagement/v2/customer/{id}\]](#)

Customer Account Management API

Customer Account Collection

GET - List Customer Accounts

[\[/DSCustomerManagement/api/customerManagement/v2/customerAccount\]](#)

POST - [Create a Customer Account](#)

[\[/DSCustomerManagement/api/customerManagement/v2/customerAccount\]](#)

Customer Account Entry

GET - [Get Customer](#)

[\[/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}\]](#)

PATCH - [Update Customer Account](#)

[\[/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}\]](#)

Billing Account Management API

Billing Account Collection

GET - [List Billing Accounts](#)

[\[/DSBillingManagement/api/billingManagement/v2/billingAccount\]](#)

POST - [Create a Billing Account](#)

[\[/DSBillingManagement/api/billingManagement/v2/billingAccount\]](#)

Billing Account Entry

GET - [Get Customer](#)

[\[/DSBillingManagement/api/billingManagement/v2/billingAccount/{id}\]](#)

PATCH - [Update Customer Account](#)

[\[/DSBillingManagement/api/billingManagement/v2/billingAccount/{id}\]](#)

Billing Charges Management API

Billing Charge Collection

GET - [List Billing Charges](#)

[\[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge\]](#)

Billing Charge Entry

GET - [Get Billing Charge](#)

[\[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}\]](#)

Usage Specification Management API

Usage Management API

Revenue Sharing Algorithms Management API

Algorithms Collection

GET - [List Supported Algorithms](#) [\[/DSRevenueSharing/rss/algorithms\]](#)

Revenue Sharing Models Management API

Revenue Sharing Models Collection

GET - [List Revenue Sharing models](#) [\[/DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}\]](#)

POST - [Create Revenue Sharing Model](#) [\[/DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}\]](#)

CDRs - Transactions - Management API

Transactions Collection

GET - [List Transactions](#) [\[/DSRevenueSharing/rss/cdrs{?aggregatorId}{?providerId}\]](#)

Settlement Collection

POST - [Launch Settlement](#) [\[/DSRevenueSharing/rss/settlement\]](#)

Revenue Sharing Reports Management API

Reports Collection

GET - [Get Reports](#) [\[/DSRevenueSharing/rss/settlement/reports{?aggregatorId}{?providerId}{?productClass}\]](#)

Specification

Authentication

Each HTTP request against the Business API Ecosystem API requires the inclusion of specific authentication credentials. The specific implementation of this API may support multiple

authentication schemes (OAuth, Basic Auth, Token) and will be determined by the specific provider that implements the GE. Please contact the provider to determine the best way to authenticate against this API. Remember that some authentication schemes may require that the API operates using SSL over HTTP (HTTPS).

The reference implementation of the Business API Ecosystem provides support for Cookie, and OAuth2 authentication, being OAuth2 the default in FIWARE Lab.

Synchronous Faults

Error responses will be encoded using the most appropriated `content-type` in base to the `Accept` header of the request.

JSON Example

```
{
  "error": "No JSON object could be decoded",
}
```

XML Example

```
<?xml version="1.0" encoding="utf-8"?>
<error>No JSON object could be decoded</error>
```

Used HTTP Codes

HTTP Code	Type	Description
200	OK	Your request has been completed properly
201	Created	Your resource has been created.
204	No content	Your request has been processed, but a response is not available. Generally used when deleting entities
400	Bad Request	The content of your request is not correct
401	Unauthorized	You are not logged in or the Authorization token you are providing is not valid
403	Forbidden	You have no rights to perform the request
404	Not Found	The resource you are looking for does not exists
409	Conflict	The resource you are tring to create already exists
422	Unprocessable Entity	The entity included in the request cannot be processed (e.g. It includes invalid fields)
500	Internal server error	There was an internal error in the system so your request cannot be completed

API Specification

Asset Type Management API

API for the management of asset types. These asset types represent the different kind of digital assets that can be validated, managed, and activated by the system. The different asset types are included in the system by the admins, who can install them as plugins.

This API manages the following fields:

id - id in the system of the asset type

href - URL pointing to the asset type info

name - Name of the asset type

author - Author of the installed plugin that implements the asset type

version - Version of the plugin that implements the asset type

mediaTypes - List of media types that are valid when provided an asset of the given type. If this field is empty, any media type is allowed

formats - List of formats that are valid when providing an asset of the given type. URL and FILE formats are supported

overrides - List of product fields whose value will be overridden by the plugin implementation, when a product spec is created including the asset

Asset Types Collection [/charging/api/assetManagement/assetTypes]

List asset types

GET /charging/api/assetManagement/assetTypes

Asset Type Entry [/charging/api/assetManagement/assetTypes/{id}]

Get asset type

GET /charging/api/assetManagement/assetTypes/{id}

Asset Management API

API for the management of digital assets. These assets can be used by the Business API Ecosystem for the creation of digital products or as attachments in product specifications (e.g the logo, a pdf document, etc)

This API manages the following fields:

id - Id in the system of the digital asset

href - URL that can be used to retrieve the information of the digital asset

version - Version of the digital asset

contentType - Media type of the digital asset (e.g application/pdf)

state - Current status of the asset in its life cycle

location - URL where it is possible to download the digital asset itself

resourceType - Type of digital asset chosen between the supported by the system

metadata - A generic field with information provided by the owner of the asset

Additionally, for uploading assets the API manages the following fields:

isPublic - Specifies whether the asset could be downloaded by any user or only by the authorized ones (typically the owner and customers if the assets has been included in a product)

content - Object containing the file itself. This object includes the following fields:

name - Name of the asset file being uploaded

data - Base64 encoded raw data of the asset file being uploaded

Asset Info collection

`[/charging/api/assetManagement/assets{?start}{?limit}]`

List seller assets

GET `/charging/api/assetManagement/assets{?start}{?limit}`

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Asset Info Entry `[/charging/api/assetManagement/assets/{id}]`

Get seller asset

GET `/charging/api/assetManagement/assets/{id}`

Parameters

id (required)

1 - Id of the element to be retrieved

Upload asset task [/charging/api/assetManagement/assets/uploadJob/]

There are two different ways of uploading digital assets in the Business API Ecosystem GE. On the one hand, it is possible to encode the asset in base64 and make a pure JSON request including the encoded data. On the other hand, it is possible to make a multipart form request, providing a JSON with the asset metadata and including the asset as a file in the HTTP request.

Upload base64 encoded asset

POST /charging/api/assetManagement/assets/uploadJob/

Category Management API

API for the management of categories. A Category is used to group catalogs and product offerings in logical containers. Categories can contain other categories being possible to create a tree of categories.

Category Management API uses the following fields:

id - Unique identifier of the category

href - URL pointing to the category info

version - Version of the category

lastUpdate - Date and time of the last update

name - Name of the category

lifecycleStatus - Current lifecycle status

parentId - Id of the parent of the current category. If this field has a value, *isRoot* must be false

isRoot - Specifies whether this category is a root category or has a parent

description - Description of the category

Category Collection

[/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}]

List Categories

GET /DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Create Category

POST /DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}

Category Entry

[/DSProductCatalog/api/catalogManagement/v2/category/{id}]

Get Category

GET /DSProductCatalog/api/catalogManagement/v2/category/{id}

Parameters

id (required)

1 - Id of the category to be returned

Update Category

PATCH /DSProductCatalog/api/catalogManagement/v2/category/{id}

Parameters

id (required)

1 - Id of the category to be updated

Product Catalog Management API

API for the management of catalogs. These catalogs are collections of product offerings that are grouped together according to the seller needs.

The product catalog management API uses the following fields:

id - Unique identifier of the catalog

href - URL pointing to the catalog info

version - Version of the catalog

lastUpdate - Date and time of the last update

category - List of categories of the catalog. For each category the id, href, and name fields are included as described in Category Management section.

name - Name of the catalog

lifecycleStatus - Current lifecycle status

relatedParty - List of parties and its roles related to the current catalog. For each party, it is included the id and the href as described in the Party Management section. Additionally, it is included a *role* field specifying the role of the user in the current catalog

Product Catalog Collection

[/DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}]

List Product Catalogs

GET /DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Create Product Catalog

POST /DSProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}

Product Catalog Entry

[/DSPProductCatalog/api/catalogManagement/v2/catalog/{id}]

Get Product Catalog

GET /DSPProductCatalog/api/catalogManagement/v2/catalog/{id}

Parameters

- id** (required)
 - 1 - Id of the catalog to be retrieved

Update Product Catalog

PATCH /DSPProductCatalog/api/catalogManagement/v2/catalog/{id}

Parameters

- id** (required)
 - 1 - Id of the catalog to be updated

Product Specification Management API

API for the management of Product Specifications. A Product Specification is a detailed description of a tangible or intangible object made available in the form of a Product Offering to customers or other parties playing a party role.

The Product Specification Management API uses the following fields:

- id** - Unique identifier of the product specification
- href** - URL pointing to the product specification info
- productNumber** - An id number assigned by the seller to identify its product specification
- version** - Version of the product specification
- lastUpdate** - Date and time of the last update
- name** - Name of the product specification
- description** - Narrative text that explains what the product specification is
- isBundle** - Determines whether the current specification represents a single product specification or a bundle of product specifications
- brand** - The manufacturer or trademark of the specification
- lifecycleStatus** - Current lifecycle status of the product specification
- relatedParty** - List of parties and its roles related to the current product specification. For each party, it is included the id and the href as described in the Party Management section. Additionally, it is included a *role* field specifying the role of the user in the current product specification
- attachment** - List of product attachments, such as video, pictures, pdf documents, etc. Which help describing the product specification. Each attachment contains the following fields:

type - Attachment type, video, picture, document, etc. The type *Picture* can be included only once and is used by the platform as the logo of the product specification (and its product offering)

url - URL pointing to the attachment itself. Note that if the attachment has been uploaded to the system using the asset management API, you can use the URL returned by the upload task in the *Location* header

bundledProductSpecification - In case the current product is a bundle (*isBundle* is true), this field contains the list of product specifications that made up the bundle. Each element of the list must contain the id, the href and the name of the product specification being bundled

productSpecificationRelationship - Describes the relationships of the current product specification with other product specifications of the system. For each relationship, it is required to include the id and the href of the related product specification, and a *type* which describes the type of relationship. The supported types are *migration*, *substitution*, *dependency*, and *exclusivity*

productSpecCharacteristic - A characteristic or distinctive feature of the product specification. Characteristics can be a discrete value, such as color, or can be a range of values. Additionally, some characteristics may be selected during the ordering process. Characteristics have the following fields:

configurable - Determines whether the characteristic can be configured during the ordering process

name - Name of the characteristic

description - Narrative text explaining what the characteristic is

valueType - The kind of value the characteristic could have. Valid values are *String* and *Number*

productSpecCharacteristicValue - List of values of the characteristic. If *configurable* is false, this field must contain a single value. Each of these elements contain the following fields:

default - Indicates whether the current value is the default for the characteristic

unitOfMeasure - Could be minutes, MB, etc. This field is only used when the type is *Number*

value - Value of the characteristic when it is a discrete value. If this field is included, *valueFrom* and *valueTo* must be empty

valueFrom - Starting value of the characteristic when it is a range. If this field is included, *valueTo* must be also included and *value* must be empty

valueTo - Ending value of the characteristic when it is a range. If this field is included, *valueFrom* must be also included and *value* must be empty

valueType - The kind of value the characteristic could have. Valid values are *String* and *Number*

Product Specification Collection

[/DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}]

List Product Specifications

GET /DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Create Product Specification

POST /DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}

Product Specification Entry

[/DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}]

Get Product Specification

GET /DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}

Parameters

id (required)

1 - Id of the product to be retrieved

Update Product Specification

PATCH /DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}

Parameters

id (required)

1 - Id of the product specification to be updated

Product Offering Management API

API for the management of Product Offerings. Product Offerings represents entities that are orderable from the provider of the catalog, this resource includes pricing information.

The Product Offering Management API uses the following fields:

id - Unique identifier of the product offering

href - URL pointing to the product offering info

version - Version of the product offering

lastUpdate - Date and time of the last update

name - Name of the product offering

description - Narrative text that explains what the product offering is

isBundle - Determines whether the current offering represents a single offering or a bundle of offerings. If false, then a productSpecification will be returned, but the bundledProductOfferings will be absent or empty and vice-versa if isBundle is true.

lifecycleStatus - Current lifecycle status of the product offering

category - List of categories of the product offering. For each category the id, href, and name fields are included as described in Category Management section.

place - List of places where the offering is available. Each object includes the name of the place

bundledProductOffering - List of offerings included when the product offering is a bundle. For each offering is included the id, the name, and the href

productSpecification - Product specification offered when the offering is not a bundle

serviceCandidate - Object used to specify the product class of the current offering as described in the Revenue Sharing Management sections.

productOfferingPrice - List of pricing models of the product offering. Each of the pricing models included defines a price that can be selected by the customers during the ordering process. Each pricing model includes the following fields:

name - Name of the pricing model

description - Narrative text explaining what the pricing models is

priceType - Type of the pricing model. It could be *one time* for payments made once at acquisition time, *recurring* for payments made periodically, and *usage* for payments calculated based on the usage made by the customer of the product

unitOfMeasure - Unit that is monitored when the priceType is usage, otherwise this field is empty

recurringChargePeriod - Specifies the period between charges when the priceType is recurring, otherwise the field is empty

price - Object describing the price of the pricing model. It contains the following fields:

taxIncludedAmount - Price of the model

dutyFreeAmount - Price of the model without including taxes

taxRate - Percentage of taxes that apply to the price

currencyCode - Currency of the price

productOfferPriceAlteration - Object that specifies alterations over the final price based on certain conditions. This object contains the following fields:

name - Specifies if the alteration is a *discount* or a *fee*

description - Narrative text explaining what the alteration is

priceType - Type of the alteration. It could be *one time* if the alteration only applies to the initial charge, or *recurring* if the alteration applies to all charges

priceCondition - Condition of the alteration with the format [lt | le | eq | ge | gt]

price - fixed price or percentage for be deducted or added to the final price

Product Offering Collection

[/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}]

List Product Offerings

GET

/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}

Parameters

catId (required)

1 - Id of the catalog whose offerings are going to be retrieved

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Create Product Offering

POST

/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}

Parameters

catId (required)

1 - Id of the catalog whose offerings are going to be retrieved

Product Offering Entry

[/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}]

Get Product Offering

GET

/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}

Parameters

catId (required)

1 - Id of the catalog whose offerings are going to be retrieved

id (required)

1 - Id of the product offering to be retrieved

Update Product Offering

PATCH

/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}

Parameters

catId (required)

1 - Id of the catalog whose offerings are going to be retrieved

id (required)

1 - Id of the product offering to be retrieved

Order Management API

API for the management of Product Orders. Product orders are made by customers, and include a set of order items each specifying an offering to be acquired. When creating an order, customers can select the value of the different configurable characteristics as well as the concrete pricing to be applied.

This API manages the following fields:

id - Unique identifier of the order

href - URL pointing to the product order info

externalId - Id of the order given by customer, which can be used by them to identify the order in their own systems

priority - Number between 1 and 4 (1 the highest) that can be used by the customer to specify the priority of their orders

description - Description of the product order

state - Status of the order, relative to the status of the different order items

orderDate - Date when the order was created

completionDate - Date when the order was completed

requestedStartDate - Order start date wished by the requestor

requestedCompletionDate - Requested delivery date from the requestor perspective

expectedCompletionDate - Expected delivery date amended by the provider

notificationContact - Contact attached to the order to send back information regarding the current order

note - List of extra information about the order. For each note is included the following info:

date - Date of the note

author - Author of the note

text - Text of the note

relatedParty - Defines parties which are involved in the order and the role they are playing. For each party, it is included the id and the href as described in the Party Management section. Additionally, it is included a *role* field specifying the role of the user in the current product order

orderItem - List of order items that have to be treated. For each order item the following information is managed:

id - Id of the order item relative to to the product order (Only need to be unique within the order)

action - Type of the order item. Currently only *add* is supported (acquisition)

state - Status of the order item

billingAccount - Billing account selected by the customer to acquire the offering according to the Billing Management API section

productOffering - Product offering being acquired. It includes the id and the href of the product offering

product - Information provided to create the inventory product. It contains the selected characteristics and the selected pricing. The different fields managed by this object are the same as the described in the Inventory Management API Section

Product Order Collection

[/DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}]

List Product Orders

GET /DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Create Product Order

POST /DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}

Product Order Entry

[/DSPProductOrdering/api/productOrdering/v2/productOrder/{id}]

Get Product Order

GET /DSPProductOrdering/api/productOrdering/v2/productOrder/{id}

Parameters

- id** (required)
 - 1 - Id of the product order to be retrieved

Update Product Order

PATCH /DSPProductOrdering/api/productOrdering/v2/productOrder/{id}

Parameters

- id** (required)
 - 1 - Id of the product order to be updated

Inventory Management API

API for the Management of the Inventory. This API allows to retrieve instantiated products, that is, this API allows customers to retrieve information of the products they have acquired including the specific characteristics and pricing model selected. Note that this API does not allow to create or update products. This process is done by the system when an order is completed or renovated.

This API manages the following fields:

- id** - Id that identifies the product
- href** - URL pointing to the product info
- name** - Name of the product (maps the name of the product specification)
- description** - Description of the product (maps the description of the product specification)
- status** - Current status of the products. Specifies if the user has access to the service (Active), if the service is temporally unaccessible for the customer (Suspended), or if the customer has no longer access to the service (Terminated)
- isBundle** - Specifies whether the acquired offering is a bundle
- startDate** - Date when the product was activated. The customer has access to the acquired service from this date
- orderDate** - Date when the order that generated the current product was created
- terminationDate** - Date when the product was terminated. The customer has no longer access to the acquired service from this date
- productOffering** - Offering that has been acquired. This object includes the id and the href of the offering
- productSpecification** - Product specification that has been acquired. This object includes the id and the href of the product specification

productCharacteristic - Selected values of the configurable characteristics defined in the product specification

billingAccount - Billing account used by the customer to acquire the product offering

relatedParty - Defines parties which are involved in the product and the role they are playing. For each party, it is included the id and the href as described in the Party Management section. Additionally, it is included a *role* field specifying the role of the user in the current product

productPrice - Price model of the product offering selected by the user when the order was created

Product Collection

[/DSPProductInventory/api/productInventory/v2/product/{?start}{?limit}]

List Products

GET /DSPProductInventory/api/productInventory/v2/product/{?start}{?limit}

Parameters

limit (required)

10 (optional) - Optional parameter used to limit the number of elements returned

start (required)

1 (optional) - Optional parameter used to specify the first element to be returned

Product Entry [/DSPProductInventory/api/productInventory/v2/product/{id}]

Get Product

GET /DSPProductInventory/api/productInventory/v2/product/{id}

Parameters

id (required)

1 - Id of the product to be retrieved

Party Management API

API for the management of the parties. This API allows to create, retrieve and update the different parties of the system, who are included as related parties in the rest of APIs. For the different individuals of the system the following information is used:

id - Id of the party. Corresponds with the username of the user in the system

href - URL pointing to the party info

gender - Gender of the individual owner of the account

placeOfBirth - Place where the owner of the account was born

countryOfBirth - Country where the owner of the account was born

nationality - Nationality of the owner of the account

maritalStatus - Marital status (married, divorced, widow, etc)

birthDate - Date when the owner of the account was born

title - Preferred title of the user (Mr., Dr., etc)

givenName - First name of the user owner of the account

familyName - Family name of the user owner of the account

contactMedium - List of mediums that can be used to contact the user. Note that this information is public to all the users of the system, so this mediums are used as seller contact. Each medium contains the following fields:

type - Type of the contact medium. It could be *Email*, *TelephoneNumber*, or *PostalAddress*

preferred - If true, indicates that is the preferred contact medium

emailAddress - Full email address in standard format. This field is only used when the type is *Email*

number - Phone number. This field is only used when the type is *TelephoneNumber*

street1 - Describes the street. This field is only used when the type is *PostalAddress*

street2 - Complementary street description. This field is only used when the type is *PostalAddress*

city - City of the medium. This field is only used when the type is *PostalAddress*

postCode - PostCode of the medium. This field is only used when the type is *PostalAddress*

stateOrProvince - State or province of the medium. This field is only used when the type is *PostalAddress*

country - Country of the medium. This field is only used when the type is *PostalAddress*

Individuals Collection

[/DSPartyManagement/api/partyManagement/v2/individual]

List Individuals

GET /DSPartyManagement/api/partyManagement/v2/individual

Create Individual

POST /DSPartyManagement/api/partyManagement/v2/individual

Individual Entry

[/DSPartyManagement/api/partyManagement/v2/individual/{id}]

Get Individual

GET /DSPartyManagement/api/partyManagement/v2/individual/{id}

Parameters

- id** (required)
 - 1 - Id of the individual to be retrieved

Update Individual

PATCH /DSPartyManagement/api/partyManagement/v2/individual/{id}

Parameters

- id** (required)
 - 1 - Id of the individual to be updated

Customer Management API

API for the management of customer information. This API is used for saving customer private information that cannot be included within the party resources. Concretely, this API is used jointly with *Customer Account*, and *Billing Account* to maintain different shipping contact mediums (including, email, phone, and address) attached to different billing accounts.

This API manages the following fields:

id - Id that identifies the customer object

href - URL pointing to the customer info

name - Username of the owner of the customer object. Note that this field maps the *id* field of the individual object

relatedParty - Party which owns the Customer object

contactMedium - List of contact mediums that define a shipping contact. This list has the same format as the contact medium described in the *Party Management API*, and must include an email, a telephone, and an address. In this case, this address is private and only visible by sellers when they need it.

customerAccount - Reference of the customer account attached to this customer object

Note that a complete shipping profile is created as a tuple of a Customer object, a Customer Account, and a Billing Account. In this way, the Billing account reference is included when creating an order (see **Order Management API** section), the Billing Account includes a reference to a Customer Account which links to a Customer object. The later contains the contact medium chosen as shipping address for the order.

Customer Collection

[/DSCustomerManagement/api/customerManagement/v2/customer]

List Customers

GET /DSCustomerManagement/api/customerManagement/v2/customer

Create a Customer

POST /DSCustomerManagement/api/customerManagement/v2/customer

Customer Entry

[/DSCustomerManagement/api/customerManagement/v2/customer/{id}]

Get Customer

GET /DSCustomerManagement/api/customerManagement/v2/customer/{id}

Parameters

id (required)

1 - Id of the customer to be retrieved

Update Customer

PATCH /DSCustomerManagement/api/customerManagement/v2/customer/{id}

Parameters

id (required)

1 - Id of the individual to be updated

Customer Account Management API

API for the management of Customer Account. These Customer Accounts are used as the nexus between the Billing Account included in products orders and the Customer objects that contain the Shipping contacts.

This API uses the following fields:

id - Id that identifies the Customer Account

href - URL pointing to the Customer Account info

name - Username of the owner of the Customer Account

accountType - Type of the Customer Account. Currently only *Shipping Address* is supported

customer - Reference to the customer object that contains the shipping address

lastModified - Date and time of the last modification

Note that a complete shipping profile is created as a tuple of a Customer object, a Customer Account, and a Billing Account. In this way, the Billing account reference is included when creating an order (see **Order Management API** section), the Billing Account includes a reference to a Customer Account which links to a Customer object. The later contains the contact medium chosen as shipping address for the order.

Customer Account Collection

[/DSCustomerManagement/api/customerManagement/v2/customerAccount]

List Customer Accounts

GET /DSCustomerManagement/api/customerManagement/v2/customerAccount

Create a Customer Account

POST /DSCustomerManagement/api/customerManagement/v2/customerAccount

Customer Account Entry

[/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}]

Get Customer

GET /DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}

Parameters

id (required)

1 - Id of the customer account to be retrieved

Update Customer Account

PATCH

/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}

Parameters

id (required)

1 - Id of the customer account to be updated

Billing Account Management API

API for the management of Billing Account. A Billing Account is a description of a Customer bill structure.

Billing Accounts contain the following fields:

id - Id that identifies the Billing Account

href - URL pointing to the Billing Account info

ratingType - Type of rating to be applied. In this case this value is fixed to *Postpaid*

name - Username of the user that owns the account

state - Current status of the Billing Account

validFor - Date and time from when the account is valid

customerAccount - Reference to the Customer Account that links to the shipping details

relatedParty - List of parties that are related to the Billing Account. Note that at least it must include the owner of the account playing the *bill receiver* role.

Note that a complete shipping profile is created as a tuple of a Customer object, a Customer Account, and a Billing Account. In this way, the Billing account reference is included when creating an order (see **Order Management API** section), the Billing Account includes a reference to a Customer Account which links to a Customer object. The later contains the contact medium chosen as shipping address for the order.

Billing Account Collection

[/DSBillingManagement/api/billingManagement/v2/billingAccount]

List Billing Accounts

GET /DSBillingManagement/api/billingManagement/v2/billingAccount

Create a Billing Account

POST /DSBillingManagement/api/billingManagement/v2/billingAccount

Billing Account Entry

[/DSBillingManagement/api/billingManagement/v2/billingAccount/{id}]

Get Customer

GET /DSBillingManagement/api/billingManagement/v2/billingAccount/{id}

Parameters

- id** (required)
- 1 - Id of the billing account to be retrieved

Update Customer Account

PATCH /DSBillingManagement/api/billingManagement/v2/billingAccount/{id}

Parameters

- id** (required)
- 1 - Id of the billing account to be updated

Billing Charges Management API

API for the management of Billing Charges. A Billing Charge includes the information of a payment made by a customer for a specific product acquired in the system.

This API uses the following fields:

id - Id that identifies the charge

href - URL pointing to the charge info

date - Date and time when the customer was charged

description - Description of the charge, including a URL where downloading an invoice

type - Type of the charge, it could be *one time*, *recurring* and *usage*

currencyCode - Currency of the charge

taxIncludedAmount - Total amount charged

taxExcludedAmount - Amount charged without taxes

appliedCustomerBillingTaxRate - Tax rate and type applied to the charge

productSpecification - Purchased product that generated the charge

period - Period of time of the charge. The value of this field depends on the type of charges. If the type is *one time*, the field is empty. If the type is *recurring*, this field contains the period until next payment, since recurring charges are paid on advance. Finally, if the type is *usage*, this field contains the period since last charge

Billing Charge Collection

[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge]

List Billing Charges

GET

/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge

Billing Charge Entry

[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}]

Get Billing Charge

GET

/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}

Parameters

id (required)

1 - Id of the billing charge to be retrieved

Usage Specification Management API

API for the management of Usage Specifications. Usage Specifications are a detailed description of a usage event which can then be used in an usage pricing model. Usage Specifications define all the attributes known for a particular type of usage.

This API uses the following fields:

id - Id that identifies the Usage Specification

href - URL pointing to the Usage Specification

name - Name of the usage specification

description - Textual description of the Usage Specification

usageSpecCharacteristic - List of characteristics which define the specific attributes of the described usage documents. Each characteristic is defined with the same format as the *productSpecCharacteristic* field of the Product Specification object, defined in the *Product Specification Management API* section

Note, that for a usage document to be processed and understood by the system, it is required to include some fields which must also be defined as characteristics of the Usage Specification. This fields are:

orderid - Id of the order where the product was acquired

productid - Id in the inventory of the product containing the details of the acquisition

correlationNumber - Sequence number of the usage documents, used to ensure that no usage has been lost

unit - Unit being monitored while accounting the service (e.g second, call, megabyte, etc)

value - Usage made of the service of the given unit

Usage Specification Collection

[DSUsageManagement/api/usageManagement/v2/usageSpecification]

List Usage Specifications [GET]

Request

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

```
[
  {
    "id": "234",
    "href": "https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usageSpecification/234",
    "name": "Service Calls",
    "description": "Spec for service calls usage",
    "usageSpecCharacteristic": [
      {
        "name": "orderId",
```

```

    "description": "Order Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }, {
    "name": "productId",
    "description": "Product Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }, {
    "name": "correlationNumber",
    "description": "Correlation Number",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }, {
    "name": "unit",
    "description": "Accounted Unit",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "string",
      "default": "false",
      "value": "call",
      "valueFrom": "",
      "valueTo": ""
    }]
  }, {
    "name": "value",
    "description": "Usage Made",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "",
      "valueTo": ""
    }]
  }
]

```

Create Usage Specification [POST]

Request (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "name": "Service Calls",
  "description": "Spec for service calls usage",
  "usageSpecCharacteristic": [{
    "name": "orderId",
    "description": "Order Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "productId",
    "description": "Product Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "correlationNumber",
    "description": "Correlation Number",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "unit",
    "description": "Accounted Unit",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "string",
      "default": "false",
      "value": "call",
      "valueFrom": "",
      "valueTo": ""
    }]
  }], {
    "name": "value",
    "description": "Usage Made",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",

```

```

        "valueFrom": "",
        "valueTo": ""
    }]
}

```

Response 201 (application/json)

```

{
  "id": "234",
  "href": "https://store.lab.firmware.org/DSUsageManagement/api/usageManagement/v2/usageSpecification/234",
  "name": "Service Calls",
  "description": "Spec for service calls usage",
  "usageSpecCharacteristic": [{
    "name": "orderId",
    "description": "Order Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "productId",
    "description": "Product Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "correlationNumber",
    "description": "Correlation Number",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "unit",
    "description": "Accounted Unit",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "string",
      "default": "false",
      "value": "call",
      "valueFrom": "",
      "valueTo": ""
    }]
  }], {
    "name": "value",
    "description": "Usage Made",

```

```

        "configurable": "false",
        "usageSpecCharacteristicValue": [{
            "valueType": "number",
            "default": "false",
            "value": "",
            "valueFrom": "",
            "valueTo": ""
        }]
    }]
}

```

Usage Specification Entry

[DSUsageManagement/api/usageManagement/v2/usageSpecification/{id}]

Get Usage Specification [GET]

Parameters

id - 1 - Id of the usage specification to be retrieved

Request

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

```

{
  "id": "234",
  "href": "https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usageSpecification/234",
  "name": "Service Calls",
  "description": "Spec for service calls usage",
  "usageSpecCharacteristic": [{
    "name": "orderId",
    "description": "Order Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }], {
    "name": "productId",
    "description": "Product Id",
    "configurable": "false",
    "usageSpecCharacteristicValue": [{
      "valueType": "number",
      "default": "false",
      "value": "",
      "valueFrom": "0",
      "valueTo": ""
    }]
  }
}

```

```

    }, {
      "name": "correlationNumber",
      "description": "Correlation Number",
      "configurable": "false",
      "usageSpecCharacteristicValue": [{
        "valueType": "number",
        "default": "false",
        "value": "",
        "valueFrom": "0",
        "valueTo": ""
      }]
    }, {
      "name": "unit",
      "description": "Accounted Unit",
      "configurable": "false",
      "usageSpecCharacteristicValue": [{
        "valueType": "string",
        "default": "false",
        "value": "call",
        "valueFrom": "",
        "valueTo": ""
      }]
    }, {
      "name": "value",
      "description": "Usage Made",
      "configurable": "false",
      "usageSpecCharacteristicValue": [{
        "valueType": "number",
        "default": "false",
        "value": "",
        "valueFrom": "",
        "valueTo": ""
      }]
    }
  ]
}

```

Usage Management API

API for the management of Usage documents. Usage documents contain the actual usage made of an acquired product, including the information defined in its Usage Specification.

This API manages the following fields:

id - Id that identifies the Usage

href - URL pointing to the Usage

date - Date and time when the usage was created

type - Type of the Usage document. It refers to the name of an Usage Specification

description - Description of the Usage Document

status - Current status of the Usage

usageSpecification - Reference to the Usage Specification that defines the current usage. It includes its id and its href

usageCharacteristic - List with the values of the characteristics defined in the Usage Specification

relatedParty - List of parties that are involved in the Usage. At least this list must include the user the made the usage of the service with the role *customer*

ratedProductUsage - In case the customer had already been charged for the usage made in the current document, this field would contain the amount generated by the document, taking into account the pricing model of the product. This field contains the following fields:

ratingDate - Date and time when the document was rated

usageRatingTag - Fixed to *usage*

isBilled - Specifies if the rated document has been already charged

ratingAmountType - Fixed to *Total*

taxIncludedRatingAmount - Total amount generated by the Usage

taxExcludedRatingAmount - Amount without taxes generated by the Usage

taxRate - Tax rate of the rated amount

currencyCode - Currency of the rated amount

productRef - *href* of the product in the inventory that generated the rate

Note, that for a usage document to be processed and understood by the system, it is required to include some fields which must also be defined as characteristics of the Usage Specification. This fields are:

orderid - Id of the order where the product was acquired

productid - Id in the inventory of the product containing the details of the acquisition

correlationNumber - Sequence number of the usage documents, used to ensure that no usage has been lost

unit - Unit being monitored while accounting the service (e.g second, call, megabyte, etc)

value - Usage made of the service of the given unit

Usage Collection

[DSUsageManagement/api/usageManagement/v2/usage]

List Usages [GET]

Request

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

```
[
  {
    "id": "15",
    "href": "https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usage/15",
    "date": "2013-04-19T16:42:23-04:00",
    "type": "Service Call",
    "description": "Description for individual usage content",
    "status": "rated",
    "usageSpecification": {
      "id": "234",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "name": "Service Calls"
    }
  }
]
```

```

    },
    "usageCharacteristic": [
      {
        "name": "orderId",
        "value": "1"
      }, {
        "name": "productId",
        "value": "4"
      }, {
        "name": "value",
        "value": "2"
      }, {
        "name": "unit",
        "value": "call"
      }, {
        "name": "correlationNumber",
        "value": "7"
      }
    ],
    "relatedParty": [{
      "role": "customer",
      "id": "fdelavega",
      "href": "http://serverlocation:port/partyManagement/organization/1"
    }],
    "ratedProductUsage": [
      {
        "ratingDate": "2013-04-19T16:42:23-04:00",
        "usageRatingTag": "Usage",
        "isBilled": "False",
        "ratingAmountType": "Total",
        "taxIncludedRatingAmount": "12.00",
        "taxExcludedRatingAmount": "10.00",
        "taxRate": "20",
        "currencyCode": "EUR",
        "productRef": "https://store.lab.fiware.org/DSPProductInventory/api/productInventory/v2/product/42"
      }
    ]
  }
]

```

Create Usage [POST]

Request (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```

{
  "date": "2013-04-19T16:42:23-04:00",
  "type": "Service Call",
  "description": "Description for individual usage content",
  "status": "rated",
  "usageSpecification": {
    "id": "234",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",

```

```

    "name": "Service Calls"
  },
  "usageCharacteristic": [
    {
      "name": "orderId",
      "value": "1"
    }, {
      "name": "productId",
      "value": "4"
    }, {
      "name": "value",
      "value": "2"
    }, {
      "name": "unit",
      "value": "call"
    }, {
      "name": "correlationNumber",
      "value": "7"
    }
  ],
  "relatedParty": [{
    "role": "customer",
    "id": "fdelavega",
    "href": "http://serverlocation:port/partyManagement/organization/1"
  }],
  "ratedProductUsage": [
    {
      "ratingDate": "2013-04-19T16:42:23-04:00",
      "usageRatingTag": "Usage",
      "isBilled": "False",
      "ratingAmountType": "Total",
      "taxIncludedRatingAmount": "12.00",
      "taxExcludedRatingAmount": "10.00",
      "taxRate": "20",
      "currencyCode": "EUR",
      "productRef": "https://store.lab.fiware.org/DSPProductInventory/api/productInventory/v2/product/42"
    }
  ]
}

```

Response 201 (application/json)

```

{
  "id": "15",
  "href": "https://store.lab.fiware.org/DUsageManagement/api/usageManagement/v2/usage/15",
  "date": "2013-04-19T16:42:23-04:00",
  "type": "Service Call",
  "description": "Description for individual usage content",
  "status": "rated",
  "usageSpecification": {
    "id": "234",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
    "name": "Service Calls"
  },
  "usageCharacteristic": [
    {
      "name": "orderId",
      "value": "1"
    }
  ]
}

```

```

    }, {
      "name": "productId",
      "value": "4"
    }, {
      "name": "value",
      "value": "2"
    }, {
      "name": "unit",
      "value": "call"
    }, {
      "name": "correlationNumber",
      "value": "7"
    }
  ],
  "relatedParty": [{
    "role": "customer",
    "id": "fdelavega",
    "href": "http://serverlocation:port/partyManagement/organization/1"
  }],
  "ratedProductUsage": [
    {
      "ratingDate": "2013-04-19T16:42:23-04:00",
      "usageRatingTag": "Usage",
      "isBilled": "False",
      "ratingAmountType": "Total",
      "taxIncludedRatingAmount": "12.00",
      "taxExcludedRatingAmount": "10.00",
      "taxRate": "20",
      "currencyCode": "EUR",
      "productRef": "https://store.lab.fiware.org/DSPProductInventory/api/productInventory/v2/product/42"
    }
  ]
}

```

Usage Entry

[DSUsageManagement/api/usageManagement/v2/usage/{id}]

Get Usage [GET]

Parameters

id - 1 - Id of the usage specification to be retrieved

Request

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

```
[
  {
    "id": "15",
    "href": "https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usage/15"
  }
]
```

```

t/v2/usage/15",
  "date": "2013-04-19T16:42:23-04:00",
  "type": "Service Call",
  "description": "Description for individual usage content",
  "status": "rated",
  "usageSpecification": {
    "id": "234",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
    "name": "Service Calls"
  },
  "usageCharacteristic": [
    {
      "name": "orderId",
      "value": "1"
    }, {
      "name": "productId",
      "value": "4"
    }, {
      "name": "value",
      "value": "2"
    }, {
      "name": "unit",
      "value": "call"
    }, {
      "name": "correlationNumber",
      "value": "7"
    }
  ],
  "relatedParty": [{
    "role": "customer",
    "id": "fdelavega",
    "href": "http://serverlocation:port/partyManagement/organization/1"
  }],
  "ratedProductUsage": [
    {
      "ratingDate": "2013-04-19T16:42:23-04:00",
      "usageRatingTag": "Usage",
      "isBilled": "False",
      "ratingAmountType": "Total",
      "taxIncludedRatingAmount": "12.00",
      "taxExcludedRatingAmount": "10.00",
      "taxRate": "20",
      "currencyCode": "EUR",
      "productRef": "https://store.lab.fiware.org/DSPProductInventory/api/productInventory/v2/product/42"
    }
  ]
}
]

```

Revenue Sharing Algorithms Management

API

API for the management of supported Algorithms. Supported algorithms are those that can be used to calculate the revenue sharing.

This API manages the following fields:

algorithmId - ID of the given algorithm

description - A textual description that explains how the algorithm works

Algorithms Collection [/DSRevenueSharing/rss/algorithms]

List Supported Algorithms

GET /DSRevenueSharing/rss/algorithms

Revenue Sharing Models Management API

API for the management of revenue sharing models. A Revenue Sharing Model specifies how the revenues must be distributed between the involved stakeholders. This API allows to retrieve, create, update, and delete revenue sharing models.

This API manages the following fields:

ownerProviderId - Provider Id of the owner of the model. This provider is the owner of the application and services whose revenues will be distributed using the Revenue Sharing Model

ownerValue - Value of the owner provider in the Revenue Sharing Model. The semantics of this field depends on the algorithm specified, for example if the algorithm is a fixed percentage, this field will contain the percentage of the revenue that belongs to the owner provider.

productClass - Id of the Revenue Sharing Model. This field represents a group of services or applications whose revenues are distributed in the same way

algorithmType - ID of the algorithm that is used in this model

aggregatorId - Id of the aggregator that represents the Store instance where the applications and services are offered, and thus, must receive part of the revenues

aggregatorValue - Value of the aggregator in the Revenue Sharing Model

stakeholders - List of providers that are stakeholders of the applications and services included in a given product class, and thus, must receive part of the revenues. For each stakeholder the following fields are included:

stakeholderId - provider Id of the Stakeholder

modelValue - Value of the stakeholder in the Revenue Sharing Model

Revenue Sharing Models Collection

[/DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}]

List Revenue Sharing models

GET /DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}

Parameters

- aggregatorId** (optional)
Optional parameter used to filter by aggregator Id
- appProviderId** (optional)
Optional parameter used to filter by provider Id
- productClass** (optional)
Optional parameter used to filter by product class

Create Revenue Sharing Model

POST /DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}

CDRs - Transactions - Management API

API for the management of CDR documents describing transactions. This API allows to register transactions. Additionally, this API allows to launch the settlement process that aggregates the transactions and calculates the distribution of revenues.

This API manages the following fields:

cdrSource - Id of the aggregator that represent the Store instance that is generating the charging information

productClass - Product Class used to identify the revenue sharing model that will be used to distribute the revenues generated in the current transaction

correlationNumber - Correlation number of the transaction

timestamp - Timestamp of the transaction

application - Textual field with the id of the application or service that generates the transaction

transactionType - Type of transaction. This field can contain "C" for charges and "R" for refunds

event - Textual field that describes the event that generated the transaction (e.g pay-per-use)

referenceCode - Reference code that identifies the purchase in the Store instance that generates the transaction

description - Textual description of the transaction

chargedAmount - Part of the total charged amount to be distributed. The total amount charged to the customer includes also the field chargedTaxAmount

chargedTaxAmount - Part of the total charged amount that are taxes. The total amount charged to the customer includes also the field chargedAmount

currency - Currency of the transaction

customerId - Id of the customer that acquires the given service or application

appProvider - provider Id of the owner of the charged applications or services

Additionally, for launching the settlement process it uses the following fields:

aggregatorId - Optional parameter specifying the aggregator of the transactions

providerId - Optional parameter specifying the provider of the transactions

productClass - Optional parameter specifying the product class of the transactions

callbackUrl - Callback to be called when the settlement process ends

Transactions Collection

[/DSRevenueSharing/rss/cdrs{?aggregatorId}{?providerId}]

List Transactions

GET /DSRevenueSharing/rss/cdrs{?aggregatorId}{?providerId}

Parameters

aggregatorId (optional)

Optional parameter used to filter transactions by aggregatorId

providerId (optional)

Optional parameter used to filter transactions by providerId

Settlement Collection [/DSRevenueSharing/rss/settlement]

Launch Settlement

POST /DSRevenueSharing/rss/settlement

Revenue Sharing Reports Management API

API for the management of RS Reports generated during the settlement process. This API allows to retrieve RS Reports.

This API manages the following fields:

ownerProviderId - Provider Id of the owner of the model. This provider is the owner of the application and services whose revenues has been aggregated.

ownerValue - Amount that has to be paid to the provider.

productClass - Id of the Revenue Sharing Model that have been applied. This field represents a group of services or applications whose revenues are distributed in the same way

algorithmType - ID of the algorithm that have been used.

aggregatorId - Id of the aggregator that represents the Store instance where the applications and services are offered, and thus, must receive part of the revenues

aggregatorValue - Amount that has to be paid to the store owners.

currency - Currency of the different amounts.

timestamp - Timestamp of the reports.

paid - Specifies whether the different amounts included in the report have been paid to the involved stakeholders

stakeholders - List of providers that are stakeholders of the applications and services included in a given product class, and thus, must receive part of the revenues. For each stakeholder the following fields are included:

stakeholderId - provider Id of the Stakeholder

modelValue - Amount that has to be paid to the concrete stakeholder

Reports Collection

```
[/DSRevenueSharing/rss/settlement/reports{?aggregatorId}{?providerId}{?productClass}]
```

Get Reports

```
GET /DSRevenueSharing/rss/settlement/reports{?aggregatorId}{?providerId}{?productClass}
```

Parameters

aggregatorId (optional)

Optional parameter used to get only reports with a given aggregator

productClass (optional)

Optional parameter used to get only reports with a given product class

providerId (optional)

Optional parameter used to get only reports with a given provider

Examples

Asset Type Management API

Asset Types Collection

[/charging/api/assetManagement/assetTypes]

List asset types

GET /charging/api/assetManagement/assetTypes

Request /charging/api/assetManagement/assetTypes

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "1",
    "href": "https://store.lab.fiware.org/charging/api/assetManagement/assetTypes/1",
    "name": "Java App",
    "author": "fdelavega",
    "version": "1",
    "mediaTypes": ["application/zip"],
    "formats": ["FILE"],
    "overrides": []
  }
]
```

Asset Type Entry

[/charging/api/assetManagement/assetTypes/{id}]

Get asset type

GET /charging/api/assetManagement/assetTypes/{id}

Request /charging/api/assetManagement/assetTypes/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "1",
  "href": "https://store.lab.fiware.org/charging/api/assetManagement/assetTypes/1",
  "name": "Java App",
  "author": "fdelavega",
  "version": "1",
  "mediaTypes": ["application/zip"],
  "formats": ["FILE"],
  "overrides": []
}
```

Asset Management API

Asset Info collection

`[/charging/api/assetManagement/assets{?start}{?limit}]`

List seller assets

GET `/charging/api/assetManagement/assets{?start}{?limit}`

Request `/charging/api/assetManagement/assets`

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "1",
    "href": "https://store.lab.fiware.org/charging/api/assetManagement/assets/1",
    "version": "1",
  },
  ...
]
```

```
"contentType": "application/zip",
"state": "Active",
"location": "https://store.lab.fiware.org/charging/api/media/application.wa
r",
"resourceType": "Java App",
"metadata": {}
}
]
```

Asset Info Entry

[/charging/api/assetManagement/assets/{id}]

Get seller asset

GET /charging/api/assetManagement/assets/{id}

Request /charging/api/assetManagement/assets/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "1",
  "href": "https://store.lab.fiware.org/charging/api/assetManagement/assets/1",
  "version": "1",
  "contentType": "application/zip",
  "state": "Active",
  "location": "https://store.lab.fiware.org/charging/api/media/application.war",
  "resourceType": "Java App",
  "metadata": {}
}
```

Upload asset task

[/charging/api/assetManagement/assets/uploadJob/]

Upload base64 encoded asset

POST /charging/api/assetManagement/assets/uploadJob/

Request `/charging/api/assetManagement/assets/uploadJob/` (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "version": "1.0",
  "contentType": "application/zip",
  "isPublic": false,
  "metadata": {},
  "content": {
    "name": "application.war",
    "data": "encoded data"
  }
}
```

Response 201

Headers

```
Location: URL_TO_YOUR_ASSET
```

Request `/charging/api/assetManagement/assets/uploadJob/` (multipart/form-data)

Headers

```
Content-Type: multipart/form-data
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "version": "1.0",
  "contentType": "application/zip",
  "isPublic": false,
  "metadata": {}
}

+

FILE
```

Response 201

Headers

```
Location: URL_TO_YOUR_ASSET
```

Category Management API

Category Collection

`[/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}]`

List Categories

GET `/DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}`

Request `/DSProductCatalog/api/catalogManagement/v2/category`

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "41",
    "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/category/41",
    "lastUpdate": "2013-04-19T16:42:23.0Z",
    "version": "2.0",
    "lifecycleStatus": "Active",
    "parentId": "",
    "isRoot": true,
    "name": "Digital Service",
    "description": "A category to hold all available digital services"
  },
  {
    "id": "42",
    "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/category/42",
    "lastUpdate": "2013-04-19T16:42:23.0Z",
    "version": "2.0",
    "lifecycleStatus": "Active",
    "parentId": "41",
    "isRoot": false,
    "name": "Cloud Service",
    "description": "A category to hold all available cloud service offers"
  }
]
```

Create Category

POST /DSProductCatalog/api/catalogManagement/v2/category{?start}{?limit}

Request /DSProductCatalog/api/catalogManagement/v2/category (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "version": "2.0",
  "lifecycleStatus": "Active",
  "parentId": "",
  "isRoot": true,
  "name": "Digital Service",
  "description": "A category to hold all available digital services"
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "41",
  "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/category/41",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "version": "2.0",
  "lifecycleStatus": "Active",
  "parentId": "",
  "isRoot": true,
  "name": "Digital Service",
  "description": "A category to hold all available digital services"
}
```

Category Entry

[/DSProductCatalog/api/catalogManagement/v2/category/{id}]

Get Category

GET /DSProductCatalog/api/catalogManagement/v2/category/{id}

Request /DSProductCatalog/api/catalogManagement/v2/category/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "41",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/41",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "version": "2.0",
  "lifecycleStatus": "Active",
  "parentId": "",
  "isRoot": true,
  "name": "Digital Service",
  "description": "A category to hold all available digital services"
}
```

Update Category

PATCH /DSPProductCatalog/api/catalogManagement/v2/category/{id}

Request - Partial update of the category, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "lifecycleStatus": "Retired"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
```

```
"id": "41",
"href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2
/category/41",
"lastUpdate": "2013-04-19T16:42:23.0Z",
"version": "2.0",
"lifecycleStatus": "Retired",
"parentId": "",
"isRoot": true,
"name": "Digital Service",
"description": "A category to hold all available digital services"
}
```

Product Catalog Management API

Product Catalog Collection

[/DSPProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}]

List Product Catalogs

GET /DSPProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}

Request /DSPProductCatalog/api/catalogManagement/v2/catalog

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "1",
    "version": "",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagemen
t/v2/catalog/1",
    "name": "Cloud Services",
    "lastUpdate": "2016-07-20T10:03:59.000+0000",
    "lifecycleStatus": "Launched",
    "relatedParty": [
      {
        "id": "fdelavega",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyM
anagement/v2/individual/fdelavega",
        "role": "Owner"
      }
    ],
  },
]
```

```
    "category": [
      {
        "id": "12",
        "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
        "name": "Digital Service"
      }
    ]
  }
]
```

Create Product Catalog

POST /DSPProductCatalog/api/catalogManagement/v2/catalog{?start}{?limit}

Request /DSPProductCatalog/api/catalogManagement/v2/catalog (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "version": "1.0",
  "name": "Cloud Services",
  "lifecycleStatus": "Launched",
  "relatedParty": [
    {
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "role": "Owner"
    }
  ],
  "category": [
    {
      "id": "12",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
      "name": "Digital Service"
    }
  ]
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
```

```
"id": "1",
"version": "1.0",
"href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/catalog/1",
"name": "Cloud Services",
"lastUpdate": "2016-07-20T10:03:59.000+0000",
"lifecycleStatus": "Launched",
"relatedParty": [
  {
    "id": "fdelavega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
    "role": "Owner"
  }
],
"category": [
  {
    "id": "12",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
    "name": "Digital Service"
  }
]
}
```

Product Catalog Entry

[/DSPProductCatalog/api/catalogManagement/v2/catalog/{id}]

Get Product Catalog

GET /DSPProductCatalog/api/catalogManagement/v2/catalog/{id}

Request /DSPProductCatalog/api/catalogManagement/v2/catalog/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "1",
  "version": "",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/catalog/1",
  "name": "Cloud Services",
  "lastUpdate": "2016-07-20T10:03:59.000+0000",
```

```
"lifecycleStatus": "Launched",
"relatedParty": [
  {
    "id": "fdelavega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
    "role": "Owner"
  }
],
"category": [
  {
    "id": "12",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
    "name": "Digital Service"
  }
]
}
```

Update Product Catalog

PATCH /DSPProductCatalog/api/catalogManagement/v2/catalog/{id}

Request - Partial update of the catalog, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "lifecycleStatus": "Retired"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "1",
  "version": "",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/catalog/1",
  "name": "Cloud Services",
  "lastUpdate": "2016-07-20T10:03:59.000+0000",
  "lifecycleStatus": "Retired",
  "relatedParty": [
    {
      "id": "fdelavega",
```

```
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
        "role": "Owner"
    }
  ],
  "category": [
    {
      "id": "12",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
      "name": "Digital Service"
    }
  ]
}
```

Product Specification Management API

Product Specification Collection

[/DSPProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}]

List Product Specifications

GET /DSPProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}

Request /DSPProductCatalog/api/catalogManagement/v2/productSpecification

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "22",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/22",
    "productNumber": "I42-340-DX",
    "version": "2.0",
    "lastUpdate": "2013-04-19T16:42:23.0Z",
    "name": "Services Bundle",
    "description": "A bundle of services",
    "isBundle": true,
    "brand": "UPM",
```

```

"lifecycleStatus": "Active",
"relatedParty": [
  {
    "id": "fdelavega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
    "role": "Owner"
  }
],
"attachment": [
  {
    "type": "Picture",
    "url": "https://store.lab.fiware.org/media/picture.png"
  }
],
"bundledProductSpecification": [
  {
    "id": "15",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/15",
    "name": "Service 15"
  }, {
    "id": "64",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/64",
    "name": "Service 64"
  }
],
"productSpecificationRelationship": [
  {
    "id": "23",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/23",
    "type": "dependency"
  }
],
"productSpecCharacteristic": [
  {
    "name": "Speed",
    "description": "Speed of the service",
    "valueType": "number",
    "configurable": false,
    "productSpecCharacteristicValue": [
      {
        "valueType": "number",
        "default": true,
        "value": "100",
        "unitOfMeasure": "mb/s",
        "valueFrom": "",
        "valueTo": ""
      }
    ]
  }
]
]

```

Create Product Specification

POST /DSProductCatalog/api/catalogManagement/v2/productSpecification{?start}{?limit}

Request /DSProductCatalog/api/catalogManagement/v2/productSpecification

(application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "productNumber": "I42-340-DX",
  "version": "2.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Services Bundle",
  "description": "A bundle of services",
  "isBundle": true,
  "brand": "UPM",
  "lifecycleStatus": "Active",
  "relatedParty": [
    {
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "role": "Owner"
    }
  ],
  "attachment": [
    {
      "type": "Picture",
      "url": "https://store.lab.fiware.org/media/picture.png"
    }
  ],
  "bundledProductSpecification": [
    {
      "id": "15",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/15",
      "name": "Service 15"
    }, {
      "id": "64",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/64",
      "name": "Service 64"
    }
  ],
  "productSpecificationRelationship": [
    {
      "id": "23",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/23",
      "type": "dependency"
    }
  ],
}
```

```

    "productSpecCharacteristic": [
      {
        "name": "Speed",
        "description": "Speed of the service",
        "valueType": "number",
        "configurable": false,
        "productSpecCharacteristicValue": [
          {
            "valueType": "number",
            "default": true,
            "value": "100",
            "unitOfMeasure": "mb/s",
            "valueFrom": "",
            "valueTo": ""
          }
        ]
      }
    ]
  }
}

```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": "22",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/22",
  "productNumber": "I42-340-DX",
  "version": "2.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Services Bundle",
  "description": "A bundle of services",
  "isBundle": true,
  "brand": "UPM",
  "lifecycleStatus": "Active",
  "relatedParty": [
    {
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "role": "Owner"
    }
  ],
  "attachment": [
    {
      "type": "Picture",
      "url": "https://store.lab.fiware.org/media/picture.png"
    }
  ],
  "bundledProductSpecification": [
    {
      "id": "15",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/15",
      "name": "Service 15"
    }
  ]
}

```

```

    }, {
      "id": "64",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/64",
      "name": "Service 64"
    }
  ],
  "productSpecificationRelationship": [
    {
      "id": "23",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/23",
      "type": "dependency"
    }
  ],
  "productSpecCharacteristic": [
    {
      "name": "Speed",
      "description": "Speed of the service",
      "valueType": "number",
      "configurable": false,
      "productSpecCharacteristicValue": [
        {
          "valueType": "number",
          "default": true,
          "value": "100",
          "unitOfMeasure": "mb/s",
          "valueFrom": "",
          "valueTo": ""
        }
      ]
    }
  ]
}

```

Product Specification Entry

[/DSPProductCatalog/api/catalogManagement/v2/productSpecification/{id}]

Get Product Specification

GET /DSPProductCatalog/api/catalogManagement/v2/productSpecification/{id}

Request /DSPProductCatalog/api/catalogManagement/v2/productSpecification/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "22",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/22",
  "productNumber": "I42-340-DX",
  "version": "2.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Services Bundle",
  "description": "A bundle of services",
  "isBundle": true,
  "brand": "UPM",
  "lifecycleStatus": "Active",
  "relatedParty": [
    {
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "role": "Owner"
    }
  ],
  "attachment": [
    {
      "type": "Picture",
      "url": "https://store.lab.fiware.org/media/picture.png"
    }
  ],
  "bundledProductSpecification": [
    {
      "id": "15",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/15",
      "name": "Service 15"
    }, {
      "id": "64",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/64",
      "name": "Service 64"
    }
  ],
  "productSpecificationRelationship": [
    {
      "id": "23",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/23",
      "type": "dependency"
    }
  ],
  "productSpecCharacteristic": [
    {
      "name": "Speed",
      "description": "Speed of the service",
      "valueType": "number",
      "configurable": false,
      "productSpecCharacteristicValue": [
        {
          "valueType": "number",
          "default": true,
          "value": "100",
          "unitOfMeasure": "mb/s",

```

```
        "valueFrom": "",
        "valueTo": ""
      }
    ]
  }
]
```

Update Product Specification

PATCH /DSProductCatalog/api/catalogManagement/v2/productSpecification/{id}

Request - Partial update of the product specification, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "lifecycleStatus": "Retired"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "22",
  "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/22",
  "productNumber": "I42-340-DX",
  "version": "2.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Services Bundle",
  "description": "A bundle of services",
  "isBundle": true,
  "brand": "UPM",
  "lifecycleStatus": "Active",
  "relatedParty": [
    {
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega",
      "role": "Owner"
    }
  ],
  "attachment": [
    {
```

```

        "type": "Picture",
        "url": "https://store.lab.fiware.org/media/picture.png"
    }
  ],
  "bundledProductSpecification": [
    {
      "id": "15",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/15",
      "name": "Service 15"
    }, {
      "id": "64",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/64",
      "name": "Service 64"
    }
  ],
  "productSpecificationRelationship": [
    {
      "id": "23",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/23",
      "type": "dependency"
    }
  ],
  "productSpecCharacteristic": [
    {
      "name": "Speed",
      "description": "Speed of the service",
      "valueType": "number",
      "configurable": false,
      "productSpecCharacteristicValue": [
        {
          "valueType": "number",
          "default": true,
          "value": "100",
          "unitOfMeasure": "mb/s",
          "valueFrom": "",
          "valueTo": ""
        }
      ]
    }
  ]
}

```

Product Offering Management API

Product Offering Collection

[/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}]

List Product Offerings

GET

/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}

Request /DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "42",
    "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/catalog/1/productOffering/42",
    "version": "1.0",
    "lastUpdate": "2013-04-19T16:42:23.0Z",
    "name": "Virtual Storage Medium",
    "description": "Virtual Storage Medium",
    "isBundle": true,
    "lifecycleStatus": "Active",
    "category": [
      {
        "id": "12",
        "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/category/12",
        "name": "Cloud offerings"
      }
    ],
    "place": [
      {
        "name": "France"
      }
    ],
    "bundledProductOffering": [],
    "productSpecification": [
      {
        "id": "13",
        "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/13",
        "name": "specification product 1"
      }
    ],
    "serviceCandidate": {
      "id": "defaultRevenue",
      "name": "Revenue Sharing Model"
    },
    "productOfferingPrice": [
```

```

    {
      "name": "Monthly Price",
      "description": "monthlyprice",
      "priceType": "recurring",
      "unitOfMeasure": "",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR",
      },
      "recurringChargePeriod": "monthly"
    }, {
      "name": "Usage Price",
      "description": "usageprice",
      "priceType": "usage",
      "unitOfMeasure": "second",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR"
      },
      "recurringChargePeriod": "",
      "productOfferPriceAlteration": {
        "name": "Discount",
        "description": "One time shipping discount",
        "priceType": "one time",
        "unitOfMeasure": "",
        "price": {
          "percentage": 100
        },
        "recurringChargePeriod": "",
        "priceCondition": "gt 300.00"
      }
    }
  ]
}
]

```

Create Product Offering

POST

/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering{?start}{?limit}

Request /DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering (application/json)

Headers

```

Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN

```

Body

```
{
```

```

"version": "1.0",
"name": "Virtual Storage Medium",
"description": "Virtual Storage Medium",
"isBundle": true,
"lifecycleStatus": "Active",
"category": [
  {
    "id": "12",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
    "name": "Cloud offerings"
  }
],
"place": [
  {
    "name": "France"
  }
],
"bundledProductOffering": [],
"productSpecification":
  {
    "id": "13",
    "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/13",
    "name": "specification product 1"
  },
"serviceCandidate": {
  "id": "defaultRevenue",
  "name": "Revenue Sharing Model"
},
"productOfferingPrice": [
  {
    "name": "Monthly Price",
    "description": "monthlyprice",
    "priceType": "recurring",
    "unitOfMeasure": "",
    "price": {
      "taxIncludedAmount": 12,
      "dutyFreeAmount": 10,
      "taxRate": 20,
      "currencyCode": "EUR",
    },
    "recurringChargePeriod": "monthly"
  }, {
    "name": "Usage Price",
    "description": "usageprice",
    "priceType": "usage",
    "unitOfMeasure": "second",
    "price": {
      "taxIncludedAmount": 12,
      "dutyFreeAmount": 10,
      "taxRate": 20,
      "currencyCode": "EUR"
    },
    "recurringChargePeriod": "",
    "productOfferPriceAlteration": {
      "name": "Discount",
      "description": "One time shipping discount",
      "priceType": "one time",
      "unitOfMeasure": "",
      "price": {
        "percentage": 100
      }
    }
  }
]

```

```
    },
    "recurringChargePeriod": "",
    "priceCondition": "gt 300.00"
  }
}
]
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/catalog/1/productOffering/42",
  "version": "1.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Virtual Storage Medium",
  "description": "Virtual Storage Medium",
  "isBundle": true,
  "lifecycleStatus": "Active",
  "category": [
    {
      "id": "12",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
      "name": "Cloud offerings"
    }
  ],
  "place": [
    {
      "name": "France"
    }
  ],
  "bundledProductOffering": [],
  "productSpecification": [
    {
      "id": "13",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/13",
      "name": "specification product 1"
    }
  ],
  "serviceCandidate": {
    "id": "defaultRevenue",
    "name": "Revenue Sharing Model"
  },
  "productOfferingPrice": [
    {
      "name": "Monthly Price",
      "description": "monthlyprice",
      "priceType": "recurring",
      "unitOfMeasure": "",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,

```

```

        "taxRate": 20,
        "currencyCode": "EUR",
    },
    "recurringChargePeriod": "monthly"
}, {
    "name": "Usage Price",
    "description": "usageprice",
    "priceType": "usage",
    "unitOfMeasure": "second",
    "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR"
    },
    "recurringChargePeriod": "",
    "productOfferPriceAlteration": {
        "name": "Discount",
        "description": "One time shipping discount",
        "priceType": "one time",
        "unitOfMeasure": "",
        "price": {
            "percentage": 100
        },
        "recurringChargePeriod": "",
        "priceCondition": "gt 300.00"
    }
}
]
}

```

Product Offering Entry

[/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}]

Get Product Offering

GET

/DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}

Request /DSPProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/catalog/1/productOffering/42",
  "version": "1.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Virtual Storage Medium",
  "description": "Virtual Storage Medium",
  "isBundle": true,
  "lifecycleStatus": "Active",
  "category": [
    {
      "id": "12",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/category/12",
      "name": "Cloud offerings"
    }
  ],
  "place": [
    {
      "name": "France"
    }
  ],
  "bundledProductOffering": [],
  "productSpecification": [
    {
      "id": "13",
      "href": "https://store.lab.fiware.org/DSPProductCatalog/api/catalogManagement/v2/productSpecification/13",
      "name": "specification product 1"
    }
  ],
  "serviceCandidate": {
    "id": "defaultRevenue",
    "name": "Revenue Sharing Model"
  },
  "productOfferingPrice": [
    {
      "name": "Monthly Price",
      "description": "monthlyprice",
      "priceType": "recurring",
      "unitOfMeasure": "",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR",
      },
      "recurringChargePeriod": "monthly"
    }, {
      "name": "Usage Price",
      "description": "usageprice",
      "priceType": "usage",
      "unitOfMeasure": "second",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR"
      },
      "recurringChargePeriod": "",
      "productOfferPriceAlteration": {
        "name": "Discount",

```

```
        "description": "One time shipping discount",
        "priceType": "one time",
        "unitOfMeasure": "",
        "price": {
            "percentage": 100
        },
        "recurringChargePeriod": "",
        "priceCondition": "gt 300.00"
    }
}
]
```

Update Product Offering

PATCH

/DSProductCatalog/api/catalogManagement/v2/catalog/{catId}/productOffering/{id}

Request - Partial update of the product offering, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "lifecycleStatus": "Retired"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/catalog/1/productOffering/42",
  "version": "1.0",
  "lastUpdate": "2013-04-19T16:42:23.0Z",
  "name": "Virtual Storage Medium",
  "description": "Virtual Storage Medium",
  "isBundle": true,
  "lifecycleStatus": "Active",
  "category": [
    {
      "id": "12",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/category/12",
      "name": "Cloud offerings"
    }
  ]
}
```

```

    }
  ],
  "place": [
    {
      "name": "France"
    }
  ],
  "bundledProductOffering": [],
  "productSpecification": [
    {
      "id": "13",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/13",
      "name": "specification product 1"
    }
  ],
  "serviceCandidate": {
    "id": "defaultRevenue",
    "name": "Revenue Sharing Model"
  },
  "productOfferingPrice": [
    {
      "name": "Monthly Price",
      "description": "monthlyprice",
      "priceType": "recurring",
      "unitOfMeasure": "",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR",
      },
      "recurringChargePeriod": "monthly"
    }, {
      "name": "Usage Price",
      "description": "usageprice",
      "priceType": "usage",
      "unitOfMeasure": "second",
      "price": {
        "taxIncludedAmount": 12,
        "dutyFreeAmount": 10,
        "taxRate": 20,
        "currencyCode": "EUR"
      },
      "recurringChargePeriod": "",
      "productOfferPriceAlteration": {
        "name": "Discount",
        "description": "One time shipping discount",
        "priceType": "one time",
        "unitOfMeasure": "",
        "price": {
          "percentage": 100
        },
        "recurringChargePeriod": "",
        "priceCondition": "gt 300.00"
      }
    }
  ]
}

```

Order Management API

Product Order Collection

[/DSProductOrdering/api/productOrdering/v2/productOrder{?start}-{?limit}]

List Product Orders

GET /DSProductOrdering/api/productOrdering/v2/productOrder{?start}-{?limit}

Request /DSProductOrdering/api/productOrdering/v2/productOrder

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "42",
    "href": "https://store.lab.fiware.org/DSProductOrdering/api/productOrdering/v2/productOrder/42",
    "externalId": "CustomerId",
    "priority": "1",
    "description": "A wonderful 42 order for brand new products",
    "state": "InProgress",
    "orderDate": "2013-04-12T16:42:23-04:00",
    "completionDate": "2013-04-19T16:42:23-04:00",
    "requestedStartDate": "2013-04-12T16:42:23-04:00",
    "requestedCompletionDate": "2013-04-19T16:42:23-04:00",
    "expectedCompletionDate": "2013-04-19T16:42:23-04:00",
    "notificationContact": "fdelavega@conwet.com",
    "note": [
      {
        "text": "A free text detailing the note",
        "date": "2013-04-12T16:42:23-04:00",
        "author": "fdelavega"
      }
    ],
    "relatedParty": [
      {
        "role": "customer",
        "id": "fdelavega",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega"
      }, {
        "role": "seller",
        "id": "aarranz",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/aarranz"
      }
    ]
  }
]
```

```

    }
  ],
  "orderItem": {
    "id": "1",
    "action": "add",
    "state": "Acknowledged",
    "billingAccount": [{
      "id": "5",
      "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/5"
    }],
    "productOffering": {
      "id": "42",
      "href": "http://serverlocation:port/catalogManagement/productOffering/42"
    },
    "product": {
      "productCharacteristic": [
        {
          "name": "Colour",
          "value": "White"
        },
        {
          "name": "Memory",
          "value": "16"
        }
      ],
      "productPrice": [
        {
          "name": "Monthly payment",
          "description": "A monthly payment price model",
          "priceType": "recurring",
          "recurringChargePeriod": "monthly",
          "unitOfMeasure": "",
          "price": {
            "amount": "12",
            "currency": "EUR"
          }
        }
      ]
    }
  }
}
]

```

Create Product Order

POST /DSProductOrdering/api/productOrdering/v2/productOrder{?start}{?limit}

Request /DSProductOrdering/api/productOrdering/v2/productOrder (application/json)

Headers

```

Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN

```

Body

```

{
  "externalId": "CustomerId",
  "priority": "1",
  "description": "A wonderful 42 order for brand new products",
  "state": "InProgress",
  "requestedStartDate": "2013-04-12T16:42:23-04:00",
  "requestedCompletionDate": "2013-04-19T16:42:23-04:00"
  "notificationContact": "fdelavega@conwet.com",
  "note": [
    {
      "text": "A free text detailing the note",
      "date": "2013-04-12T16:42:23-04:00",
      "author": "fdelavega"
    }
  ],
  "relatedParty": [
    {
      "role": "customer",
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega"
    }, {
      "role": "seller",
      "id": "aarranz",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/aarranz"
    }
  ],
  "orderItem": {
    "id": "1",
    "action": "add",
    "state": "Acknowledged",
    "billingAccount": [{
      "id": "5",
      "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/5"
    }],
    "productOffering": {
      "id": "42",
      "href": "http://serverlocation:port/catalogManagement/productOffering/42"
    },
    "product": {
      "productCharacteristic": [
        {
          "name": "Colour",
          "value": "White"
        },
        {
          "name": "Memory",
          "value": "16"
        }
      ],
      "productPrice": [
        {
          "name": "Monthly payment",
          "description": "A monthly payment price model",
          "priceType": "recurring",
          "recurringChargePeriod": "monthly",
          "unitOfMeasure": "",
          "price": {
            "amount": "12",

```

```
        "currency": "EUR"
      }
    ]
  }
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSPProductOrdering/api/productOrdering/v2/productOrder/42",
  "externalId": "CustomerId",
  "priority": "1",
  "description": "A wonderful 42 order for brand new products",
  "state": "InProgress",
  "orderDate": "2013-04-12T16:42:23-04:00",
  "requestedStartDate": "2013-04-12T16:42:23-04:00",
  "requestedCompletionDate": "2013-04-19T16:42:23-04:00",
  "notificationContact": "fdelavega@conwet.com",
  "note": [
    {
      "text": "A free text detailing the note",
      "date": "2013-04-12T16:42:23-04:00",
      "author": "fdelavega"
    }
  ],
  "relatedParty": [
    {
      "role": "customer",
      "id": "fdelavega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega"
    }, {
      "role": "seller",
      "id": "aarranz",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/aarranz"
    }
  ],
  "orderItem": {
    "id": "1",
    "action": "add",
    "state": "Acknowledged",
    "billingAccount": [
      {
        "id": "5",
        "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/5"
      }
    ],
    "productOffering": {
      "id": "42",
      "href": "http://serverlocation:port/catalogManagement/productOffering"
    }
  }
}
```

```

/42"
    },
    "product":{
      "productCharacteristic":[
        {
          "name":"Colour",
          "value":"White"
        },
        {
          "name":"Memory",
          "value":"16"
        }
      ],
      "productPrice": [
        {
          "name" : "Monthly payment",
          "description" : "A monthly payment price model",
          "priceType":"recurring",
          "recurringChargePeriod":"monthly",
          "unitOfMeasure":"",
          "price":{
            "amount":"12",
            "currency":"EUR"
          }
        }
      ]
    }
  }
}

```

Product Order Entry

[/DSPProductOrdering/api/productOrdering/v2/productOrder/{id}]

Get Product Order

GET /DSPProductOrdering/api/productOrdering/v2/productOrder/{id}

Request /DSPProductOrdering/api/productOrdering/v2/productOrder/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "42",

```

```

    "href": "https://store.lab.fiware.org/DSPProductOrdering/api/productOrdering/v2/p
roductOrder/42",
    "externalId": "CustomerId",
    "priority": "1",
    "description": "A wonderful 42 order for brand new products",
    "state": "InProgress",
    "orderDate": "2013-04-12T16:42:23-04:00",
    "completionDate": "2013-04-19T16:42:23-04:00",
    "requestedStartDate": "2013-04-12T16:42:23-04:00",
    "requestedCompletionDate": "2013-04-19T16:42:23-04:00",
    "expectedCompletionDate": "2013-04-19T16:42:23-04:00",
    "notificationContact": "fdelavega@conwet.com",
    "note": [
      {
        "text": "A free text detailing the note",
        "date": "2013-04-12T16:42:23-04:00",
        "author": "fdelavega"
      }
    ],
    "relatedParty": [
      {
        "role": "customer",
        "id": "fdelavega",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManage
ment/v2/individual/fdelavega"
      }, {
        "role": "seller",
        "id": "aarranz",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManage
ment/v2/individual/aarranz"
      }
    ],
    "orderItem": {
      "id": "1",
      "action": "add",
      "state": "Acknowledged",
      "billingAccount": [{
        "id": "5",
        "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingMa
nagement/v2/billingAccount/5"
      }],
      "productOffering": {
        "id": "42",
        "href": "http://serverlocation:port/catalogManagement/productOffering
/42"
      },
      "product": {
        "productCharacteristic": [
          {
            "name": "Colour",
            "value": "White"
          },
          {
            "name": "Memory",
            "value": "16"
          }
        ],
        "productPrice": [
          {
            "name": "Monthly payment",
            "description": "A monthly payment price model",
            "priceType": "recurring",

```

```
        "recurringChargePeriod": "monthly",
        "unitOfMeasure": "",
        "price": {
            "amount": "12",
            "currency": "EUR"
        }
    }
]
}
}
```

Update Product Order

PATCH /DSProductOrdering/api/productOrdering/v2/productOrder/{id}

Request - Partial update of the product order, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "state": "Completed"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSProductOrdering/api/productOrdering/v2/productOrder/42",
  "externalId": "CustomerId",
  "priority": "1",
  "description": "A wonderful 42 order for brand new products",
  "state": "Completed",
  "orderDate": "2013-04-12T16:42:23-04:00",
  "completionDate": "2013-04-19T16:42:23-04:00",
  "requestedStartDate": "2013-04-12T16:42:23-04:00",
  "requestedCompletionDate": "2013-04-19T16:42:23-04:00",
  "expectedCompletionDate": "2013-04-19T16:42:23-04:00",
  "notificationContact": "fdelavega@conwet.com",
  "note": [
    {
      "text": "A free text detailing the note",
      "date": "2013-04-12T16:42:23-04:00",
    }
  ]
}
```


Inventory Management API

Product Collection

[/DSProductInventory/api/productInventory/v2/product{?start}{?limit}]

List Products

GET /DSProductInventory/api/productInventory/v2/product{?start}{?limit}

Request /DSProductInventory/api/productInventory/v2/product

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "42",
    "href": "https://store.lab.fiware.org/DSProductInventory/api/productInventory/v2/product/42",
    "name": "Broadband",
    "description": "Description of the instantiated broadband product",
    "status": "active",
    "isBundle": false,
    "startDate": "2013-07-21 08:16:39ZGMT+1",
    "orderDate": "2013-07-21 06:16:39ZGMT+1",
    "terminationDate": "",
    "productOffering": {
      "id": "42",
      "href": "http://serverlocation:port/catalogManagement/productOffering/42"
    },
    "productSpecification": {
      "id": "13",
      "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/13",
    },
    "productCharacteristic": [{
      "name": "speed",
      "value": "16M"
    }],
    "billingAccount": [{
      "id": "5",
      "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/5"
    }],
    "relatedParty": [{
      "role": "owner",
```

```

        "id": "aarranz",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/aarranz"
    }],
    "productPrice" : [
        {
            "name" : "Monthly payment",
            "description" : "A monthly payment price model",
            "priceType": "recurring",
            "recurringChargePeriod": "monthly",
            "unitOfMeasure": "",
            "price": {
                "amount": "12",
                "currency": "EUR"
            }
        }
    ]
}
]

```

Product Entry

[/DSProductInventory/api/productInventory/v2/product/{id}]

Get Product

GET /DSProductInventory/api/productInventory/v2/product/{id}

Request /DSProductInventory/api/productInventory/v2/product/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": "42",
  "href": "https://store.lab.fiware.org/DSProductInventory/api/productInventory/v2/product/42",
  "name": "Broadband",
  "description": "Description of the instantiated broadband product",
  "status": "active",
  "isBundle" : false,
  "startDate": "2013-07-21 08:16:39ZGMT+1",
  "orderDate": "2013-07-21 06:16:39ZGMT+1",
  "terminationDate": "",
  "productOffering": {

```

```

    "id": "42",
    "href": "http://serverlocation:port/catalogManagement/productOffering/42"
  },
  "productSpecification": {
    "id": "13",
    "href": "https://store.lab.fiware.org/DSProductCatalog/api/catalogManagement/v2/productSpecification/13",
  },
  "productCharacteristic": [{
    "name": "speed",
    "value": "16M"
  }],
  "billingAccount": [{
    "id": "5",
    "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/5"
  }],
  "relatedParty": [{
    "role": "owner",
    "id": "aarranz",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/aarranz"
  }],
  "productPrice" : [
    {
      "name" : "Monthly payment",
      "description" : "A monthly payment price model",
      "priceType": "recurring",
      "recurringChargePeriod": "monthly",
      "unitOfMeasure": "",
      "price": {
        "amount": "12",
        "currency": "EUR"
      }
    }
  ]
}

```

Party Management API

Individuals Collection

[/DSPartyManagement/api/partyManagement/v2/individual]

List Individuals

GET /DSPartyManagement/api/partyManagement/v2/individual

Request /DSPartyManagement/api/partyManagement/v2/individual

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "francisco-de-la-vega",
    "href": "http://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
    "birthDate": "1970-01-04T01:00:00+01:00",
    "countryOfBirth": "DZ",
    "familyName": "de la Vega",
    "gender": "Male",
    "givenName": "Francisco",
    "maritalStatus": "Married",
    "nationality": "spanish",
    "placeOfBirth": "Madrid",
    "title": "Mr",
    "contactMedium": [{
      "type": "Email",
      "preferred": "false",
      "medium": {
        "emailAddress": "fdelavega@conwet.com"
      }
    }]
  }
]
```

Create Individual

POST /DSPartyManagement/api/partyManagement/v2/individual

Request /DSPartyManagement/api/partyManagement/v2/individual (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "id": "francisco-de-la-vega",
  "birthDate": "1970-01-04T01:00:00+01:00",
  "countryOfBirth": "DZ",
  "familyName": "de la Vega",
  "gender": "Male",
  "givenName": "Francisco",
  "maritalStatus": "Married",
  "nationality": "spanish",
  "placeOfBirth": "Madrid",
  "title": "Mr",
  "contactMedium": [{
```

```
"type": "Email",
"preferred": "false",
"medium": {
  "emailAddress": "fdelavega@conwet.com"
}
}]
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "francisco-de-la-vega",
  "href": "http://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
  "birthDate": "1970-01-04T01:00:00+01:00",
  "countryOfBirth": "DZ",
  "familyName": "de la Vega",
  "gender": "Male",
  "givenName": "Francisco",
  "maritalStatus": "Married",
  "nationality": "spanish",
  "placeOfBirth": "Madrid",
  "title": "Mr",
  "contactMedium": [{
    "type": "Email",
    "preferred": "false",
    "medium": {
      "emailAddress": "fdelavega@conwet.com"
    }
  }]
}
```

Individual Entry

[/DSPartyManagement/api/partyManagement/v2/individual/{id}]

Get Individual

GET /DSPartyManagement/api/partyManagement/v2/individual/{id}

Request /DSPartyManagement/api/partyManagement/v2/individual/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "francisco-de-la-vega",
  "href": "http://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
  "birthDate": "1970-01-04T01:00:00+01:00",
  "countryOfBirth": "DZ",
  "familyName": "de la Vega",
  "gender": "Male",
  "givenName": "Francisco",
  "maritalStatus": "Married",
  "nationality": "spanish",
  "placeOfBirth": "Madrid",
  "title": "Mr",
  "contactMedium": [{
    "type": "Email",
    "preferred": "false",
    "medium": {
      "emailAddress": "fdelavega@conwet.com"
    }
  }]
}
```

Update Individual

PATCH /DSPartyManagement/api/partyManagement/v2/individual/{id}

Request - Partial update of the individual, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "maritalStatus": "Divorced"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": "francisco-de-la-vega",
  "href": "http://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
  "birthDate": "1970-01-04T01:00:00+01:00",
  "countryOfBirth": "DZ",
  "familyName": "de la Vega",
  "gender": "Male",
  "givenName": "Francisco",
  "maritalStatus": "Divorced",
  "nationality": "spanish",
  "placeOfBirth": "Madrid",
  "title": "Mr",
  "contactMedium": [{
    "type": "Email",
    "preferred": "false",
    "medium": {
      "emailAddress": "fdelavega@conwet.com"
    }
  }]
}
```

Customer Management API

Customer Collection

[/DSCustomerManagement/api/customerManagement/v2/customer]

List Customers

GET /DSCustomerManagement/api/customerManagement/v2/customer

Request /DSCustomerManagement/api/customerManagement/v2/customer

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": 51,
    "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customer/51",
    "name": "francisco-de-la-vega",
    "relatedParty": {
```

```

        "id": "francisco-de-la-vega",
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
        "role": "Owner"
    },
    "contactMedium": [
        {
            "type": "Email",
            "medium": {
                "emailAddress": "fdelavega@conwet.com.com"
            }
        },
        {
            "type": "PostalAddress",
            "medium": {
                "city": "Madrid",
                "country": "SP",
                "postcode": "28016",
                "stateOrProvince": "Madrid",
                "streetOne": "Campus Montegancedo S/N"
            }
        },
        {
            "type": "TelephoneNumber",
            "medium": {
                "type": "mobile",
                "number": "+3462222222"
            }
        }
    ],
    "customerAccount": [
        {
            "href": "http://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
            "id": "60",
            "name": "francisco-de-la-vega",
            "status": "Active"
        }
    ]
}
]

```

Create a Customer

POST /DSCustomerManagement/api/customerManagement/v2/customer

Request /DSCustomerManagement/api/customerManagement/v2/customer
(application/json)

Headers

```

Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN

```

Body

```

{
  "name": "francisco-de-la-vega",
  "relatedParty": {
    "id": "francisco-de-la-vega",

```

```

    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/
v2/individual/francisco-de-la-vega",
    "role": "Owner"
  },
  "contactMedium": [
    {
      "type": "Email",
      "medium": {
        "emailAddress": "fdelavega@conwet.com.com"
      }
    },
    {
      "type": "PostalAddress",
      "medium": {
        "city": "Madrid",
        "country": "SP",
        "postcode": "28016",
        "stateOrProvince": "Madrid",
        "streetOne": "Campus Montegancedo S/N"
      }
    },
    {
      "type": "TelephoneNumber",
      "medium": {
        "type": "mobile",
        "number": "+34622222222"
      }
    }
  ],
  "customerAccount": []
}

```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customer/51",
  "name": "francisco-de-la-vega",
  "relatedParty": {
    "id": "francisco-de-la-vega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
    "role": "Owner"
  },
  "contactMedium": [
    {
      "type": "Email",
      "medium": {
        "emailAddress": "fdelavega@conwet.com.com"
      }
    },
    {
      "type": "PostalAddress",
      "medium": {
        "city": "Madrid",

```

```

        "country": "SP",
        "postcode": "28016",
        "stateOrProvince": "Madrid",
        "streetOne": "Campus Montegancedo S/N"
    },
    "preferred": false
}, {
    "type": "TelephoneNumber",
    "medium": {
        "type": "mobile",
        "number": "+3462222222"
    },
    "preferred": false
}],
"customerAccount": []
}

```

Customer Entry

[/DSCustomerManagement/api/customerManagement/v2/customer/{id}]

Get Customer

GET /DSCustomerManagement/api/customerManagement/v2/customer/{id}

Request /DSCustomerManagement/api/customerManagement/v2/customer/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customer/51",
  "name": "francisco-de-la-vega",
  "relatedParty": {
    "id": "francisco-de-la-vega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
    "role": "Owner"
  },
  "contactMedium": [{
    "type": "Email",
    "medium": {
      "emailAddress": "fdelavega@conwet.com.com"
    }
  }
]
}

```

```

    },
    "preferred":false
  }, {
    "type": "PostalAddress",
    "medium": {
      "city": "Madrid",
      "country": "SP",
      "postcode": "28016",
      "stateOrProvince": "Madrid",
      "streetOne": "Campus Montegancedo S/N"
    },
    "preferred":false
  }, {
    "type": "TelephoneNumber",
    "medium": {
      "type": "mobile",
      "number": "+3462222222"
    },
    "preferred":false
  }
],
"customerAccount": [
  {
    "href": "http://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60"
    "id": "60"
    "name": "francisco-de-la-vega"
    "status": "Active"
  }
]
}

```

Update Customer

PATCH /DSCustomerManagement/api/customerManagement/v2/customer/{id}

Request - Partial update of the customer, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```

{
  "customerAccount": [
    {
      "href": "http://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60"
      "id": "60"
      "name": "francisco-de-la-vega"
      "status": "Active"
    }
  ]
}

```

Response 200 (application/json)

Headers

Content-Type: application/json

Body

```
{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customer/51",
  "name": "francisco-de-la-vega",
  "relatedParty": {
    "id": "francisco-de-la-vega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
    "role": "Owner"
  },
  "contactMedium": [{
    "type": "Email",
    "medium": {
      "emailAddress": "fdelavega@conwet.com.com"
    },
    "preferred": false
  }, {
    "type": "PostalAddress",
    "medium": {
      "city": "Madrid",
      "country": "SP",
      "postcode": "28016",
      "stateOrProvince": "Madrid",
      "streetOne": "Campus Montegancedo S/N"
    },
    "preferred": false
  }, {
    "type": "TelephoneNumber",
    "medium": {
      "type": "mobile",
      "number": "+34622222222"
    },
    "preferred": false
  }],
  "customerAccount": [{
    "href": "http://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60"
    "id": "60"
    "name": "francisco-de-la-vega"
    "status": "Active"
  }]
}
```

Customer Account Management API

Customer Account Collection

[/DSCustomerManagement/api/customerManagement/v2/customerAccount]

List Customer Accounts

GET /DSCustomerManagement/api/customerManagement/v2/customerAccount

Request /DSCustomerManagement/api/customerManagement/v2/customerAccount

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": 60,
    "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
    "name": "francisco-de-la-vega",
    "accountType": "shipping address",
    "lastModified": "2016-08-29T10:44:30+02:00",
    "customer": {
      "id": "51",
      "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/51",
      "name": "francisco-de-la-vega"
    }
  }
]
```

Create a Customer Account

POST /DSCustomerManagement/api/customerManagement/v2/customerAccount

Request /DSCustomerManagement/api/customerManagement/v2/customerAccount
(application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "name": "francisco-de-la-vega",
  "accountType": "shipping address",
  "lastModified": "2016-08-29T10:44:30+02:00",
```

```
"customer": {
  "id": "51",
  "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/51",
  "name": "francisco-de-la-vega"
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 60,
  "href": "https://store.lab.fiware.org//DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
  "name": "francisco-de-la-vega",
  "accountType": "shipping address",
  "lastModified": "2016-08-29T10:44:30+02:00",
  "customer": {
    "id": "51",
    "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/51",
    "name": "francisco-de-la-vega"
  }
}
```

Customer Account Entry

[/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}]

Get Customer

GET /DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}

Request /DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 60,
  "href": "https://store.lab.fiware.org//DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
  "name": "francisco-de-la-vega",
  "accountType": "shipping address",
  "lastModified": "2016-08-29T10:44:30+02:00",
  "customer": {
    "id": "51",
    "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/51",
    "name": "francisco-de-la-vega"
  }
}
```

Update Customer Account

PATCH

/DSCustomerManagement/api/customerManagement/v2/customerAccount/{id}

Request - Partial update of the customer account, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "customer": {
    "id": "30",
    "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/30",
    "name": "fdelavega"
  }
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 60,
  "href": "https://store.lab.fiware.org//DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
  "name": "francisco-de-la-vega",
  "accountType": "shipping address",
```

```
"lastModified": "2016-08-29T10:44:30+02:00",
"customer": {
  "id": "30",
  "href": "http://localhost:8004/DSCustomer/api/customerManagement/v2/customer/30",
  "name": "fdelavega"
}
}
```

Billing Account Management API

Billing Account Collection

[/DSBillingManagement/api/billingManagement/v2/billingAccount]

List Billing Accounts

GET /DSBillingManagement/api/billingManagement/v2/billingAccount

Request /DSBillingManagement/api/billingManagement/v2/billingAccount

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": 51,
    "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/51",
    "ratingType": "Postpaid",
    "name": "francisco-de-la-vega",
    "state": "Defined",
    "validFor": {
      "startPeriod": "2016-08-29T10:44:31+02:00",
      "endPeriod": null
    },
    "customerAccount": {
      "id": "60",
      "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
      "name": "francisco-de-la-vega"
    },
    "relatedParty": [{
      "id": "francisco-de-la-vega",
```

```
        "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
        "role": "bill receiver"
    }]
}
]
```

Create a Billing Account

POST /DSBillingManagement/api/billingManagement/v2/billingAccount

Request /DSBillingManagement/api/billingManagement/v2/billingAccount (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "ratingType": "Postpaid",
  "name": "francisco-de-la-vega",
  "state": "Defined",
  "validFor": {
    "startPeriod": "2016-08-29T10:44:31+02:00"
  },
  "customerAccount": {
    "id": "60",
    "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
    "name": "francisco-de-la-vega"
  },
  "relatedParty": [{
    "id": "francisco-de-la-vega",
    "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
    "role": "bill receiver"
  }]
}
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/51",
  "ratingType": "Postpaid",
```

```
"name": "francisco-de-la-vega",
"state": "Defined",
"validFor": {
  "startPeriod": "2016-08-29T10:44:31+02:00",
  "endPeriod": null
},
"customerAccount": {
  "id": "60",
  "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
  "name": "francisco-de-la-vega"
},
"relatedParty": [{
  "id": "francisco-de-la-vega",
  "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
  "role": "bill receiver"
}]
}
```

Billing Account Entry

[/DSBillingManagement/api/billingManagement/v2/billingAccount/{id}]

Get Customer

GET /DSBillingManagement/api/billingManagement/v2/billingAccount/{id}

Request /DSBillingManagement/api/billingManagement/v2/billingAccount/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/51",
  "ratingType": "Postpaid",
  "name": "francisco-de-la-vega",
  "state": "Defined",
  "validFor": {
    "startPeriod": "2016-08-29T10:44:31+02:00",
    "endPeriod": null
  },
  "customerAccount": {
```

```
    "id": "60",
    "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
    "name": "francisco-de-la-vega"
  },
  "relatedParty": [
    {
      "id": "francisco-de-la-vega",
      "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
      "role": "bill receiver"
    }
  ]
}
```

Update Customer Account

PATCH /DSBillingManagement/api/billingManagement/v2/billingAccount/{id}

Request - Partial update of the billing account, only the fields to be updated need to be provided - (application/json)

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "state": "Active"
}
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
{
  "id": 51,
  "href": "https://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/billingAccount/51",
  "ratingType": "Postpaid",
  "name": "francisco-de-la-vega",
  "state": "Active",
  "validFor": {
    "startPeriod": "2016-08-29T10:44:31+02:00",
    "endPeriod": null
  },
  "customerAccount": {
    "id": "60",
    "href": "https://store.lab.fiware.org/DSCustomerManagement/api/customerManagement/v2/customerAccount/60",
    "name": "francisco-de-la-vega"
  },
}
```

```
"relatedParty": [{
  "id": "francisco-de-la-vega",
  "href": "https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/francisco-de-la-vega",
  "role": "bill receiver"
}]
}
```

Billing Charges Management API

Billing Charge Collection

[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge]

List Billing Charges

GET

/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge

Request /DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "id": "10",
    "href": "http://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/10",
    "date": "2013-04-19T16:42:23.0Z",
    "description": "invoice http://store.lab.fiware.org/media/bills/invoice1.pdf",
    "type": "recurring",
    "currencyCode": "USD",
    "taxIncludedAmount": 2.4,
    "taxExcludedAmount": 2,
    "appliedCustomerBillingTaxRate": [
      {
        "amount": 0.4,
        "taxCategory": "VAT"
      }
    ],
    "productSpecification": [
```

```

    {
      "name": "Partner Premium",
      "productNumber": "45"
    }
  ],
  "period": [
    {
      "startPeriod": "2013-10-01T00:00:00.0Z",
      "endPeriod": "2013-10-31T00:00:00.0Z"
    }
  ]
}
]

```

Billing Charge Entry

[/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}]

Get Billing Charge

GET

/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}

Request /DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/{id}

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```

{
  "id": "10",
  "href": "http://store.lab.fiware.org/DSBillingManagement/api/billingManagement/v2/appliedCustomerBillingCharge/10",
  "date": "2013-04-19T16:42:23.0Z",
  "description": "invoice http://store.lab.fiware.org/media/bills/invoice1.pdf",
  "type": "recurring",
  "currencyCode": "USD",
  "taxIncludedAmount": 2.4,
  "taxExcludedAmount": 2,
  "appliedCustomerBillingTaxRate": [
    {
      "amount": 0.4,
      "taxCategory": "VAT"
    }
  ]
}

```

```
],
  "productSpecification": [
    {
      "name": "Partner Premium",
      "productNumber": "45"
    }
  ],
  "period": [
    {
      "startPeriod": "2013-10-01T00:00:00.0Z",
      "endPeriod": "2013-10-31T00:00:00.0Z"
    }
  ]
}
```

Revenue Sharing Algorithms Management API

Algorithms Collection

`[/DSRevenueSharing/rss/algorithms]`

List Supported Algorithms

GET `/DSRevenueSharing/rss/algorithms`

Request `/DSRevenueSharing/rss/algorithms`

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "algorithmId": "FIXED_PERCENTAGE",
    "description": "Fixed percentage distribution of revenues"
  }
]
```

Revenue Sharing Models Management API

Revenue Sharing Models Collection

[/DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}]

List Revenue Sharing models

GET /DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}

Request /DSRevenueSharing/rss/models?aggregatorId=fdelavega@conwet.com?appProviderId=aarranz?productClass=orionServices

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "ownerProviderId": "fdelavega",
    "ownerValue": 60,
    "productClass": "orionServices",
    "algorithmType": "FIXED_PERCENTAGE",
    "aggregatorId": "fdelavega@conwet.com",
    "aggregatorValue": 20,
    "stakeholders": [
      {
        "stakeholderId": "aarranz",
        "modelValue": 20
      }
    ]
  }
]
```

Create Revenue Sharing Model

POST /DSRevenueSharing/rss/models{?aggregatorId}{?appProviderId}{?productClass}

Request /DSRevenueSharing/rss/models (application/json)

Headers

```
Content-Type: application/json
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "ownerProviderId": "fdelavega",
  "ownerValue": 60,
  "productClass": "orionServices",
  "algorithmType": "FIXED_PERCENTAGE",
  "aggregatorId": "fdelavega@conwet.com",
  "aggregatorValue": 20,
  "stakeholders": [
    {
      "stakeholderId": "aarranz",
      "modelValue": 20
    }
  ]
}
```

Response 201

CDRs - Transactions - Management API

Transactions Collection

[/DSRevenueSharing/rss/cdrs{?aggregatorId}{?providerId}]

List Transactions

GET /DSRevenueSharing/rss/cdrs{?aggregatorId}{?providerId}

Request /DSRevenueSharing/rss/cdrs?aggregatorId=fdelavega@conwet.com?providerId=aarranz

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 201 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "cdrSource": "fdelavega@conwet.com",
    "productClass": "orionServices",
    "correlationNumber": 112,
    "timestamp": "2015-07-15T19:00:01.000Z",
    "application": "OrionStarterKit",
    "transactionType": "C",
  }
]
```

```
"event": "use",
"referenceCode": "555b079d8e05ac213ff15827",
"description": "Usage of OrionStarterKit Offering",
"chargedAmount": 10,
"chargedTaxAmount": 3,
"currency": "EUR",
"customerId": "amagan",
"appProvider": "fdelavega"
}
]
```

Settlement Collection

[/DSRevenueSharing/rss/settlement]

Launch Settlement

POST /DSRevenueSharing/rss/settlement

Request /DSRevenueSharing/rss/settlement

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Body

```
{
  "aggregatorId": "fdelavega@conwet.com",
  "providerId": "aarranz",
  "productClass": "orionServices",
  "callbackUrl": "http://myservice.com/callback"
}
```

Response 202

Revenue Sharing Reports Management API

Reports Collection

[/DSRevenueSharing/rss/settlement/reports{?aggregatorId}{?providerId}{?productClass}]

Get Reports

GET /DSRevenueSharing/rss/settlement/reports{?aggregatorId}{?providerId}{?productClass}

Request /DSRevenueSharing/rss/settlement/reports?aggregatorId=fdelavega@conw

et.com?providerId=aarranz?productClass=orionServices

Headers

```
Authorization: Bearer YOUR_OAUTH2_TOKEN
```

Response 200 (application/json)

Headers

```
Content-Type: application/json
```

Body

```
[
  {
    "ownerProviderId": "fdelavega",
    "ownerValue": 4578,
    "productClass": "orionServices",
    "algorithmType": "FIXED_PERCENTAGE",
    "aggregatorId": "fdelavega@conwet.com",
    "aggregatorValue": 3000,
    "currency": EUR,
    "timestamp": "2015-07-15T19:00:01",
    "paid": false,
    "stakeholders": [
      {
        "stakeholderId": "aarranz",
        "modelValue": 2500
      }
    ]
  }
]
```

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References

[Apiary project \(http://docs.fiwaretmfbizecosystem.apiary.io/#reference\)](http://docs.fiwaretmfbizecosystem.apiary.io/#reference)

[Github source \(https://github.com/FIWARE-TMForum\)](https://github.com/FIWARE-TMForum)

[GitHub \(https://github.com/FIWARE-TMForum\)](https://github.com/FIWARE-TMForum)

[FIWARE Open Specification License](#)

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[https://forge.fiware.org/plugins/mediawiki/wiki/fiware/index.php/Implicit_Patents_License\)](https://forge.fiware.org/plugins/mediawiki/wiki/fiware/index.php/Implicit_Patents_License)

<https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usageSpecification/234>

<https://store.lab.fiware.org/DSUsageManagement/api/usageManagement/v2/usage/15>

<https://store.lab.fiware.org/DSPartyManagement/api/partyManagement/v2/individual/fdelavega>

<https://store.lab.fiware.org/DSPProductInventory/api/productInventory/v2/product/42>