# **Open API Table - Archived Comments**

# 84 Comments



#### **Robert Medeiros**

The Swagger links for the Recommendation and Payment Management APIs are currently broken.

Nov 16, 2017



#### **Anup Sarkar**

HI,

On clicking on Swagger UI link for Product Catalog Management API under TM forum open APIs early Adapters I am getting error Sorry, we can't find tmforum-open-api / product-catalog\_management / 3.0.

Please let me know how to get it?

Nov 22, 2017



# **Abdul Majid Hussain**

Ηi,

This is related to "Activation and Configuration API" Swagger. The basePath is not as per TMF630 (Rest API Design Principle).

The TMF630 suggests (Release 17.5.0, REST API Design Guidelines Part 1) to use a camel case nomenclature and hence instead of "Activation AndConfiguration" it should be "activationAndConfiguration"

Jan 10, 2018



# **Pierre Gauthier**

Hi Abdul,

We are enforcing the rule that the API reosurce and task names are camel case as per API Design Guidelines V3.

"Names in URI (tasks, individual resources, etc.) MUST be camel case or lower case"

What you are asking for is to make the API name itself follow the camelCase convention (at least for our Swagger definitions) which I concur evidently with. However we can't enforce strict rules for how other piece of the URI will be presented i.e host name and domain information.

Regard Pierre Jan 19, 2018



#### Bill Li

Speaking of inconsistencies, I've pulled down all the swagger files, and this is the list of the base urls for the APIs:

- Account Management API /tmf-api/accountManagement
- Activation and Configuration API /DSEntityProvisioning/api/ActivationAndConfiguration/v2
- Address API /
- Agreement Management API /tmf-api/agreementManagement
- Alarm Management API /DSPerformancealarm/api/alarm/v1
- Appointment API /
- Billing Management API /DSBillingManagement/api/billingManagement/v2
- Change Management API /tmf-api/changeManagement
- Customer Management API /tmf-api/customerManagement
- Document Management API /tmf-api/documentManagement
- Entity Catalog Management API /tmf-api/entityCatalogManagement

- Loyalty Management API /loyaltyManagement
- NFV Entity Provisioning API /DSEntityProvisioning/api/EntityProvisioning/v2
- Onboarding Management API /tmf-api/onboardingManagement Partnership Type Management API /tmf-api/partnershipTypeManagement
- Party Management API /DSPartyManagement/api/partyManagement/v2
- Party Role Management API /tmf-api/partyRoleManagement
- Payment Methods API /paymentMethods/v0
- Performance Management Threshold API undefined
- Prepay Balance Management API /tmf-api/PrepayBalanceManagement
- Privacy Management API /
- Product Catalog Management API /DSProductCatalog/api/catalogManagement/v2
- Product Inventory Management API /DSProductInventory/api/productInventory/v2
- Product Ordering API /DSProductOrdering/api/productOrdering/v2
- Promotion API /tmf-api/promotion
- Quote API /tmf-api/quoteManagement
- Resource Catalog Management API /tmf-api/resourceCatalogManagement
- Resource Function Activation and Configuration API /DSResourceFunctionCA/api/ResourceFunctionCA/v1
- Resource Inventory Management API /tmf-api/resourceInventoryManagement
- SLA Management API /DSLAManagement/api/slaManagement/v2
- Service Catalog API /ServiceCatalog/api/catalogManagement/v2
- Service Qualification API /DSServiceQualification/api/serviceQualification/v1
- Service Quality Management API /tmf-api/serviceQualityManagement
- Service Test Management API /tmf-api/serviceTestManagement
- Shopping Cart API /tmf-api/shoppingCartManagement
- Trouble Ticket API /DSTroubleTicket/api/troubleTicketManagement/v2
- Usage Management API /DSUsageManagement/api/usageManagement/v2
- User Roles and Permissions API /usersandroles/v1

The below APIs would fail the camel case nomenclature, either it contains DS prefix, or is missing a base url property, or is using the root api namespace or it is using tmf-api as a prefix, finally other inconsistency is versioning of the APIs, some are versioned in the url (v1, v2) while others are missing.

- Activation and Configuration API /DSEntityProvisioning/api/ActivationAndConfiguration/v2
- Address API /
- Alarm Management API /DSPerformancealarm/api/alarm/v1
- Appointment API /
- Billing Management API /DSBillingManagement/api/billingManagement/v2
- Loyalty Management API /loyaltyManagement
- NFV Entity Provisioning API /DSEntityProvisioning/api/EntityProvisioning/v2
- Party Management API /DSPartyManagement/api/partyManagement/v2
- Party Role Management API /tmf-api/partyRoleManagement
- Payment Methods API /paymentMethods/v0
- Performance Management Threshold API undefined
- Prepay Balance Management API /tmf-api/PrepayBalanceManagement
- Privacy Management API /
- Product Catalog Management API /DSProductCatalog/api/catalogManagement/v2
- Product Inventory Management API /DSProductInventory/api/productInventory/v2
- Product Ordering API /DSProductOrdering/api/productOrdering/v2
- Resource Function Activation and Configuration API /DSResourceFunctionCA/api/ResourceFunctionCA/v1
- Resource Inventory Management API /tmf-api/resourceInventoryManagement
- SLA Management API /DSLAManagement/api/slaManagement/v2
- Service Catalog API /ServiceCatalog/api/catalogManagement/v2
- Service Qualification API /DSServiceQualification/api/serviceQualification/v1
- Trouble Ticket API /DSTroubleTicket/api/troubleTicketManagement/v2
- Usage Management API /DSUsageManagement/api/usageManagement/v2
- User Roles and Permissions API /usersandroles/v1

Jan 16, 2018



# **Pierre Gauthier**

Hi Bill,

Thanks for looking at this.

The issues you raise are related to consistency of some of the element of the URI:

1- API Name should use camelCase i.e the API Name being the token in the URI identifying the API i.e alarmManagement instead of AlarmManagement. Consequence is that we normalize the API Name and not only the resource name in our APIs (I agree with that). 2- Versioning some of the APIs use a Version Number some of them dont however the presence of a version number is not mandatory for the first version of an API. So some of the Swagger show presence of v1 and some of them don't. Note that if we have a minor version then the version 1.x must be present. For the sake of simplicity we could mandate the presence of a version number no matter

3-We can't normalize all the elements of the basePath since some of that information is endpoint configuration dependant. My endpoint is running under that host but it is configured under a domain xyzzy

I suggest that you raise a CR on that topic or that you comunicate with the API Program leads stephen.harrop@vodafone.com and andre as.polz@bearingpoint.com

Jan 19, 2018



# **Abdul Majid Hussain**

Ηi

Suggest to inlude TMF# in above table to majke it more readable. Jan 18, 2018



Prateek Saxena

I am getting errors when I am trying to access Geographic Location Management API.

Seems like access issue even though I am from TMF member company.

Feb 01, 2018



#### **Bill Li**

The swagger hub link is broken, but you should be able to access the swagger file and then view it in a swagger viewer. Feb 01, 2018

7.

# **Alan Pope**

Prateek,

Please join the API Project at https://www.tmforum.org/collaboration/current-projects/ and wait for project membership confirmation before trying to access the Geographic Location Management API again.

Regards,

Alan Feb 01, 2018

# **Anant Vikram**

Hi Alan,

I am also not able to access Geographic Location Management API.

However, whenever I click on "Join" on the API Project, I am being asked to login even though I am already logged in. Furthermore, when i login again nothing happens.

Please suggest.

Regards,

Anant Feb 05, 2018

**Johan Fantenberg** 

G'day, I can't access the API table either. It asks me to login, which I already have done. There is also a lot of "macro" errors shown. I'm using Chrome. Cheers, /JF Feb 08, 2018

10.

# **Andrew Larmour**

I cannot access "Geographic Address API" despite having already joined the API project. Looking at the link, I'm wondering if it's a problem with the naming structure of the link...

The link is to TMF647\_Address\_API\_REST\_Specification\_R17.0.0.pdf where I would have expected the file name of the PDF to be TMF647\_G eographic\_Address\_Management\_API\_REST\_Specification\_R17.5.pdf Feb 13, 2018

11.

# **Alan Pope**

Hi Andrew,

Apologies for the confusion. TMF673 Geographic Address API REST Specification R17.5.0 has recently been published for Member Evaluation and can be found here.

Regards,

Alan

Feb 12, 2018

a.

# **Andrew Larmour**

Thanks Alan Feb 13, 2018



# **Mohammed Packeer Rawther**

Hi,

I am planning to use TMF638 Service Inventory Management API, but there is no Swagger yet. Is there a Swagger coming soon?

Would it make sense to build a Swagger based on the model and samples defined in the PDF API Specs? Or it is better not to implement until a Swagger is ready?

Thanks

Sherif Feb 20, 2018

13.

# **Alan Pope**

Hi Sheriff,

Good news. The R18.0 version of TMF638, including the Swagger, will be available via the Open API Table next Monday (February 26th).

Regards,

Alan Feb 20, 2018



# **Mohammed Packeer Rawther**

Thanks Alan. That is great to know. Appreciate the quick attention to this.

Feb 21, 2018

#### **Tony Nathan**

HI All,

I have been looking at the inventory APIs and have 2 questions:

- a. With polymorphic APIs are we going to see a reduction in the number of inventory APIs as there seems be a high degree of duplication?
- b. I could not see anything about notification or event streaming in the API specs for Inventory. Is there any plan to support this?

Tony Feb 22, 2018



16.

#### Saad Ullah Sheikh

Unfortunately we find the content and its directory positioning is really intricate to follow and more difficult to probe in . Its better to provide more details may be link with Gitlab etc to make it complete or if someone can provide more specific details specially for NFV Entity management part will be nice

Feb 25, 2018

17.

# **Alan Pope**

The NFV Entity Provisioning API has been superseded by the Resource Function Activation and Configuration API (TMF664). Details (including the Swagger file in GitHub) can be found by clicking on the relevant Icons. Feb 26, 2018



18.

# **Jeff Hansen**

does anyone have a recommendation on which API to use for order notifications? Feb 26, 2018

19.

# **Emmanuel A. Otchere**

Am proposing the need for a Data-as-a-Service API that can drive platform ecosystem business models, especially for CSPs seeking to become Digital Enablers. I think it will take on similar lines like the Location API, but this time provide a means to generalize the 'response' payload in order to fit different use cases. Feb 28, 2018



# **Manas Dighe**

I'm looking at the Geographic Address API release in 17.5 (TMF673). The conformance document (Pg. 14) references a geographic validation API for fetching a list of geographic address validation entities, though I cannot find any reference to it in the REST API document. Is it an issue with the conformance document or a missing API? Mar 08, 2018



21.

# **Charlie Jiang**

We are in the mid of implementing TMF633 - Service catalog API, and we noticed that API specification was changed a little bit between R 16.5 and R 17.5, and Swagger API specification was not reflected to R 17.5. Do you have a plan to update Swagger one?

Thanks,

Charlie Mar 13, 2018



22

#### Siltvani Siltvani

Hi,

The Conformance Profile link of Product Inventory Management API seems like navigating to incorrect document. It navigates to "Open API Conformance" document. Where can I find Conformance doc for Product Inventory Management API?

Thank you. Mar 26, 2018

23.

#### santiago lorente

Account Management API ... page 12. can an account move from active through suspention to suspended and then be closed, wihout the cancellation of the offers and dunning process?

Apr 05, 2018



24.

# Saravana Chockalingam

Hi.

The Project L1 API is in the poster but not in the table above - is there a target date for this API?

Thank you. Apr 17, 2018

25.

# **Kevin McDonnell**

Hi Peter, quick suggestion on API table: could we add the PDF icon/link for API spec on the "API Spec" column beside the HTML icon? Those links go together really, and you can then remove the "Download PDF specification" column. cheers, Kevin Apr 17, 2018



26.

# Sahil Bhalla

Hello Team,

We need to develop an API which will reserve the stock in inventory, please share any specification regarding the stock management which can provide details regarding the implementation of Stock availability and stock reservation in inventory.

Apr 20, 2018

a.

# **Jonathan Goldberg**

Suggest you take a look at the Resource-related APIs. In particular the not-yet published Resource Pool API (this is a link to the team review assets), and you might want to reach out to Takayuki Nakamura the team leader for that API. Apr 20, 2018



27

# **Abdul Majid Hussain**

Hi Team,

TMF656 Swagger file is not listed. Can someone please upload?

Pierre Gauthier can you please help?

May 03, 2018



**Abdul Majid Hussain** 

Pierre Gauthier We need inputs here. appreciate if someone picks and responds. May 08, 2018



28.

# **Abdul Majid Hussain**

In TMF653 - Service Test Management, as per Service Test resource model and API Spec document, the related service is identified by "related service Ref", however swagger is wrongly created with "relatedService".

Missing "Ref" in swagger file. Can someone corrcet and upload swagger file for allignment please? May 08, 2018



29.

#### **Brian Cohen**

HI Team,

We have implemented the Service Test Management API and put into production. During the development we identified a number of recommendations/enhancements that can be possibly considered for the API. What is the best way forward to discuss and possibly include these enhancements in the API spec?

May 12, 2018



a. \_\_\_\_

# **Abdul Majid Hussain**

Hi Brian Cohen

I am interested in understanding the proposed enhancement for **TMF653 - Service Test Management API.** Can you please share if possible,

May 15, 2018

30.

# **Jonathan Goldberg**

The best approach would be to document the issues in one or more JIRA entries, at https://projects.tmforum.org/jira/. May 12, 2018



31.

# **David Lagace**

Hi!

It's unclear to me which API I should use in the following case.

We need to expose an API that will receive some SNMP command to push/get to/from a specific device.

The API need to expose a GET on multiple SNMP oids; expose an SNMP walk to specific root oid; expose a SNMP SET for specific oid.

I hesitate between "Resource Inventory" and "Activation and Configuration". It's unclear to me where the request should be handle and how the answer should be return.

Should it include in the "resourceCharacteristic"?

ex.:

"resourceCharacteristic": [{

name:oidList

```
value:{
  oid1 = oid1,
  oid2 = oid2,
  oid3 = oid3
}
}]
or
"resourceCharacteristic": [{
  name:oid1
  value:{
   oid1 = oid1
  type = string (or something else)
}
}]
where oid1 could be = 1.4.6.1.1.n..... and so on.
What do you guys think?

Tx
May 14, 2018
```

# **Ashis Malakar**

How to get open API for 'Customer Order Management' and 'Resource Order Management'. May 17, 2018

a.

# Jonathan Goldberg

Customer Order Management is done by the Product Order Management API on this page. The spec can be found at https://projects. tmforum.org/wiki/download/attachments/90514841/TMF622\_Product\_Ordering\_Management\_API\_REST\_Specification\_R17.5.0.pdf?

Resource Order Management is in the table on this page, the spec can be found at https://projects.tmforum.org/wiki/download/attachments/84580751/TMF652\_Resource\_Ordering\_Management\_API\_REST\_Specification\_R16.5.1.pdf?api=v2 May 17, 2018



# **Ashis Malakar**

Thank you. May 21, 2018



# Yury Bury-Burymski

Which API is used for user authentication? May 17, 2018

# Jonathan Goldberg

There is an API planned for release 18.0 (mid-year), 691 Federated Identity. The team leader for this API is Luis Velarde, you might want to contact Luis to find out the content and scope of the API and to see if it meets your needs. May 17, 2018



# **Akhilesh Tripathi**

We are exposing TMF Open apis as the Northbound resource from our API gateway. In case of any error from backend or gateway, should we return error code defined in TMF Open api swagger or in API gateway?

Please note that API gateway has added security definitions in TMF Open api and shared with consumer. May 30, 2018



#### Sarah Hamid

I need to use Prepay Balance Managemtent in order to inquiry all details reflecting in main balance of subscriber (whether debit or credit).

#### Displayed Fields:

- · Date of change
- Amount +/-
- · Adjustment Description
- Amount Before
- · Amount After

# Search Criteria:

- From Date
- To Date
- SubscriberId"MSISDN"

problem that prepay has only 4 implemented operations inswagger and required resrouce "BALANCEADJUSTMENTREQUEST RESOURCE" not implemented Jun 24, 2018

a.

# Jonathan Goldberg

I suggest you reach out to Luis Velarde, the leader of this API, to discuss your question. Jun 24, 2018



# **Andrei Kolchanov**

TMF 629 Customer Management API has TMF 659 Conformance Profile. TMF659B\_Customer\_Management\_API\_Conformance\_Profile\_R17.0 Jul 13, 2018

a.

# **Alan Pope**

Andrei,

Thank you for your feedback.

When the Customer Management Conformance Profile was first published, it was assigned a different document number from the Customer Management API Specification:

TMF629 Customer Management API REST Specification R17.0.1

TMF659 Customer Management API Conformance Profile R16.5.1

So the current API table does link to the correct documents.

The revised process now assigns the same document number with a 'B' suffix for the Conformance Profile, so this anomaly will be resolved in the R18.0 refresh of the API Table:

TMF629 Customer Management API REST Specification R18.0.0

TMF629B Customer Management API Conformance Profile R18.0.0 Jul 17, 2018

37.

#### **Alan Pope**

The Open API Table has been updated with the latest published information.





#### Vanitha R

Hi

I couldn't find the link to the Topology API. I remember sometime there was Topology REST API .. Can anyone help to point me to the link. Thanks

Jul 19, 2018

a.

# **Jonathan Goldberg**

To my best understanding, there has never been a release of this API. It has a line in the internal API project master list and is assigned number 686, but I don't recall any review and approval process. If you have access to the internal project confluence you can find the most recent work at Topology API REST Specification 17.0 (dating from early 2017).

Jul 19, 2018



39.

#### **Marcel L'Heureux**

Hi, can anyone tell me what is the intended use of the chanel entity of the resource mode in the 18.0.0 release of the Trouble Ticket API ??? Jul 25, 2018



a.

# **Hayrettin Beyhan**

Hi Marcel, my understanding is it is the channel where the service or product is sold. Examples are web site, physical store or customer service. So the tickets can be filtered or routed according to channel.

Aug 15, 2018



b.

# **Oscar Morei**

Hi Marcel,

Take a look at the Json representation sample, "Self Service" channel. It is critical in an automated tickiting process to know from which channels(IVR, Portal, USSD or service desk) a ticket was loged, for authentication purpose and status report if neccessary.

ID is provided which will be different for each channel in an organisation where there are many selfservice channels or service desk.

Remember we are dealing with a trouble ticket(Assurance), so it is not necessarily where the product is sold rather it is where the product is assured.

# Json representation sample:

"channel": {

"id": "8774", "name": "Self Service", "@type": "Channel"},

ref: Trouble tocket API REST Specification, TMF621, Release 18.0.0, June 2018

Aug 16, 2018



# Yury Bury-Burymski

Most of Postman collection are not available now by the reason of update to new version. We can we expect to get them? Is it possible to get access to previous version?

Yury Jul 27, 2018

a.

# **Alan Pope**

Per my recent email, previous versions are now listed as a sub-page to the Open API Table. Aug 02, 2018

# Yury Bury-Burymski

Thanks, Alan!

When do you plan to finish update for the last version? Aug 02, 2018



# **Mohit Gupta**

Hello,

We are looking for a TMForum specification for Carrier Maintenance feature. Carrier MAintenance should have endpoints for maintenance creation, updation and view etc.

Do let me know if there is any standard format being formulated for such task. Aug 01, 2018



#### **Hugo Vaughan**

Carrier is a specialisation of Resource.

Use whatever you can from the resource domain, and only in neccessary, limit it to only one type of resource. I suspect even within such a narrow field as carrier maintenance, there will still be a wide veriety of resource types to include. Aug 01, 2018



#### Vanitha R

There was a Service Test Management API . Can this API be used for implementing such features. Aug 03, 2018



# **Pavel Krishtalskiy**

Hello.

TMF 641 spec Release 18.0.1 defines 'value' field for ServiceCharacteristic as "An object. A link to a value description structure." (see page 16).

In previous version of specification (Release 16.5.1) value was a string.

Does it mean TMF 641 of Release 18.0.1 is not backward compatible? Aug 01, 2018

43.

# Yury Bury-Burymski

Dear Alan,

Could you please explain why the models of Product entity are so different in SID and OpenAPI?

Yury Aug 03, 2018

a.

# **Derek Flexer**

Yury, hi. We are in the process of mapping each API against SID, please look at the resources page to see the mappings that have been published - https://www.tmforum.org/?s=api+sid+mapping&post\_type=product Aug 03, 2018

b.

# Cecile Ludwichowski

Hi Yury,

In addition, you can find general principals used for mappings that highlights the logical differences between the Information model (SID) and the Resource model used in the APIs HERE (in the mapping rules and guideline document).

If you are interested in the mapping between SID and APIs, you are welcome to participate in the "SID / Open API mapping" weekly meeting on Thursday.

See you,

Cécile Aug 03, 2018



44

# **Hugo Vaughan**

Hi Cecile

Is there a data model of the Resource model used?

It would be a major enabler of integration solution architecture if there was one available to members. Aug 04, 2018

a.

# **Jonathan Goldberg**

There is a data model for the resources, the API team use this model internally to create API designs and generate Swagger files, but currently it is not published. If you are member of the API project, you will be able to download a copy (it is an Enterprise Architect UML model file - .eap) from the internal project page at <a href="https://projects.tmforum.org/wiki/display/AP/API+Data+Model">https://projects.tmforum.org/wiki/display/AP/API+Data+Model</a>. Aug 05, 2018



# **Hugo Vaughan**

Thanks, much appreciated.



#### **Cliff Faurer**

I get a 'Page Not Found' error when following that link Aug 07, 2018

a.

# **Alan Pope**

Hi Cliff,

Please log in and join the Core Project Area using your current email address. Aug 07, 2018

46.

# Yury Bury-Burymski

Could you please recommend the right way to query specific customer having only his (or one of his) MSISDNs?

Should we use for this the sequence of calls?

- 1) query Resource with given MSISDN, and get reference of product in product inventory
- 2) query Product from product inventory and get reference to customer
- 3) query Customer with given ID

Looks like it is very long way. What is the best way of implementation to make it more easy for consuming applications? Aug 09, 2018



# **Oscar Morei**

Hi Yury,

An axisting cutomer with with an MSISDN will be related to an existing product.

So maybe five table table:

**MSISDN** table

**Customer** table

Product table

one to many(Customer can have many MSISDN, an MSISDN belong to one Customer), e.g CustomerMSISDN relationship table many to many (Customer can have many Products) e.g CustomerProduct relationship table

query Customer table to get customer details where MSISDN in CustomerMSISDN table is equal to the provided MSISD. \*\*Highlevel query\*\*

Same as for product details Aug 16, 2018

# Yury Bury-Burymski

Thanks, Oscar!

I already found that Federated Identity API (TMF691) is the proper API for this task.

GET https://{serverRoot}/openid/v1/userinfo?fields=userAssets

Authorization: Bearer <token associated to user u123>

The required data will be returned in the "userAsset" entity. Aug 16, 2018



# **SURABHI JOSHI**

I have the question about TMforum API version and version in path variable. I can see in swagger documentation version is mentioned v2 and path is like: "Billing Management API /DSBillingManagement/api/billingManagement/v2" But in matrix version is 17.5.0.

- 1) Which version we need to follow while creating TMforum API? v2 or v17.5.0
- 2) What will be path in the case 17.5.0 version needed

/DSBillingManagement/api/billingManagement/v17 or /DSBillingManagement/api/billingManagement/v17\_5 Aug 10, 2018

a.

# Jonathan Goldberg

Hi Surabhi

The TMF deliverables (not just Open API but also SID and other Frameworx stuff) have a twice-yearly release cycle, with releases being denoted as xx.0 and xx.5, where xx.0 is the mid-year release for year 20xx and xx.5 is the end-year release. So each assets that is updated in (for example) release 17.5.0 will be marked as dating from that release, even in subsequent releases, until the asset is next updated.

But this numbering scheme has no relation to the executable parts of the API (swagger file etc.). Each API starts at v1.0, and the API designer is responsible for incrementing the version number according to the versioning rules defined in the API design guidelines. It is this version that will appear in the endpoint path, so v2 in your example. Aug 10, 2018

48.

# Yury Bury-Burymski

Dear TMForum,

Could you please advice which API could be used for customer feedback and TNPS? Aug 10, 2018

49.

# Jonathan Goldberg

Hi to all people posting general queries on Open API usage.

Can I suggest that you consider using the community forum for posting queries, at https://engage.tmforum.org/communities/community-home? CommunityKey=d543b8ba-9d3a-4121-85ce-5b68e6c31ce5

I think that the forum framework is more suited than this Confluence page for such queries, for example each conversation can be given a title. Aug 10, 2018



50.

# **Serge Bykov**

Wondering why the TMF 636 Billing Management API is no longer present in the Open API table. It is only available in Billing Management API REST Specification (TMF636) R14.5.1

TMF 678 ()TMF678 Customer Bill Management API REST Specification R17.5.0 is available, but they are not the same.

thanks Aug 12, 2018 a.

# Jonathan Goldberg

Hi Serge

The 636 specification was retired and divided into two specifications:

• TMF 678 for bill management

This API allows operations to find and retrieve one or several customer bills (also called invoices) produced for a customer also allows operations to find and retrieve the details of applied customer billing rates presented on a customer bill.

TMF 666 for account management

Provides standardized mechanism for the management of billing and settlement accounts, as well as for financial accounting (account receivable) either in B2B or B2B2C contexts

Hope this helps.

Aug 12, 2018



# Serge Bykov

Thank you Jonathan.

I was starting to suspect that it might have been the case. What was I looking for in the TMF636 is the /appliedCustomerBillingCharge sub resource which covered further had links to serviceIds, productSpecification, period.

The TMF678 seems to introduce the concept of appliedCustomerBillingRate (or align closer to SID objects...) which can have charges & fees includign credits/promos, etc but it seems to delegate all but the AppliedBillingTaxRate to the Characteristic VS having explit reference to serivce and productSpec.

Most of our billing events fit squarely into the previous version: they consist of serviceld, ProductSpec, Time period. Was the intent to move these 3 object into the AppliedBillingRateCharacteristic?

```
{
"id": "25",
"href": "http://serverlocation:port/BillingManagement/appliedCustomerBillingCharge/25", "date": "2013-04-19T16:42:23.0Z",
"description": "Partner Premium monthly fee",
"type": "Recurring",
"currencyCode": "USD",
"taxIncludedAmount": 2.4,
"taxExcludedAmount": 2,
"appliedCustomerBillingTaxRate": [
"amount": 0.4,
"taxCategory": "VAT"
"serviceId": [
"id": "0601020304",
"type": "Mobile number"
productSpecification": [
"name": "Partner Premium",
"productNumber": "P001"
"period": [
"startPeriod": "2013-10-01T00:00:00.0Z",
"endPeriod": "2013-10-31T00:00:00.0Z"
```



#### tudor stanciu

Hi guys, any idea on how to pass the catalog if i want an offering from a particular catalog (TMF620 Product Catalog Management); the api seems not to allow that as part of the request paramaters? Aug 17, 2018



#### amol Lekurwale

Which is the API which has provision for (mobile) number portability? Aug 20, 2018

a.

# Jonathan Goldberg

Hi Amol

As per my comment above, please use the community forum for posting queries, at https://engage.tmforum.org/communities/communityhome?CommunityKey=d543b8ba-9d3a-4121-85ce-5b68e6c31ce5

Specifically for your question, number portability (in and out) is a complex business process and not handled by a single API. Candidate APIs that might be involved in the process would include Resource Inventory Management, Product Order Management, and more. My recommendation to approach this would be draw out the port-in and port-out processes for your business, end-to-end, as sequence diagrams, and thus identify the business operations that would be needed. These could then be mapped into APIs from the Open API suite.

Aug 23, 2018



#### Thuso Lehihi

Which is the API for get and reserve the stock in inventory, is there anything available regarding the stock management which can provide details regarding the implementation of Stock availability and stock reservation in inventory. Aug 23, 2018

a.

# Jonathan Goldberg

Hi Thuso

As per my comment above, please use the community forum for posting queries, at https://engage.tmforum.org/communities/communityhome?CommunityKey=d543b8ba-9d3a-4121-85ce-5b68e6c31ce5

Specifically for your question, the API team is considering possible creation of a new API for stock management for tangible goods, based on work done by Vodafone - please reach out to Stephen Harrop for more details. Aug 23, 2018