

TM Forum Specification

Self-Care Component Suite API Sample Messages

TMF910C
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Self-Care Component Suite API Sample Messages

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N/A

EXECUTIVE SUMMARY

This document describes the example data model that could be used to simulate an implementation of the API Component Suite for SelfCare app

INTRODUCTION

This document describes the example data model that could be used to simulate an implementation of the API Component Suite for SelfCare app (TMF910).

This document includes examples for request and responses for the different functions included in each of the use cases defined within the corresponding component suite specification document.

The sample data within each request/response is defined to simulate each use case based on the data model defined for the corresponding TM Forum Open API that is referenced in the component suite use case.

USE CASES

1.1. USER MANAGES HIS ACCOUNT

This example is based on an individual that holds a customer entity in the BSS system and is subscribed to two different mobile lines, both of them associated to the same billing account

userId = u123

customerId = cst111

accountId = acc111

productId = mobile999 & mobile555

publicids for products = 447123456999 & 447123456555

- **getIdentity**

Request

GET <https://{serverRoot}/openid/v1/userinfo>

Authorization: Bearer <token associated to user u123>

Response - Identity Provided

```
{
  "sub": "u123",
  "name": "John Doe",
  "phone_number": "+447123456999",
  "email": "johndoe@myserver.com",
```


Self-Care Component Suite API Sample Messages

```
"userAssets": [  
  {  
    "id": "cst111",  
    "entityType": "customer",  
    "role": "owner"  
  },  
  {  
    "id": "acc111",  
    "entityType": "billingAccount",  
    "role": "owner"  
  },  
  {  
    "id": "mobile999",  
    "entityType": "product",  
    "assetType": "mobile",  
    "role": "owner"  
  },  
  {  
    "id": "mobile555",  
    "entityType": "product",  
    "assetType": "mobile",  
    "role": "owner"  
  }  
]
```

- **getAssets**

Only required if response to getIdentity does not include the list of userAssets (which is an optional)

Request

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

Authorization: Bearer <token associated to user u123>

Assets Provided

```
{
  "userAssets": [
    {
      "id": "cst111",
      "entityType": "customer",
      "role": "owner"
    },
    {
      "id": "acc111",
      "entityType": "billingAccount",
      "role": "owner"
    },
    {
      "id": "mobile999",
      "entityType": "product",
      "assetType": "mobile",
```

Self-Care Component Suite API Sample Messages

```
        "role": "owner"
      },
      {
        "id": "mobile555",
        "entityType": "product",
        "assetType": "mobile",
        "role": "owner"
      }
    ]
  }
}
```

- **getAccountInfo**

Request

```
GET
https://{serverRoot}/accountManagement/v1/billingAccount/acc111?fields=name,sta
te,type,accountBalance

Authorization: Bearer <token associated to user u123>
```

Response – account info provided

```
{
  "name": "Residential Account",
  "state": "Active",
  "type": "Residential",
  "accountBalance": [
```

Self-Care Component Suite API Sample Messages

```
{
  "amount": 54.88,
  "type": "ReceivableBalance",
  "validFor": {
    "startDateTime": "2018-04-01T00:00",
    "endDateTime": "2018-04-30T00:00"
  }
}
]
```

- **getUsageReport**

Two independent requests, one for each of the products owned by the individual

Request 1

```
GET https://{serverRoot}/usageManagement/v1/
usageConsumptionReport?product.id=mobile999
```

Authorization: Bearer <token associated to user u123>

Response 1 – consumption info provided

```
[
  {
    "name": "Usage consumption report ",
    "effectiveDate": "2018-04-16T:15:44:28",
```

Self-Care Component Suite API Sample Messages

```
"bucket": [  
  {  
    "id": " mobile999-bkt001",  
    "name": "voice bucket",  
    "usageType": "voice",  
    "isShared": "false",  
    "product": {  
      "id": "mobile999",  
      "publicIdentifier": "447123456999"  
    },  
    "bucketBalance": [  
      {  
        "unit": "sec",  
        "remainingValue": 121  
      }  
    ],  
    "bucketCounter": [  
      {  
        "unit": "sec",  
        "value": 2879  
      }  
    ]  
  },  
  {  
    "id": " mobile999-bkt002",  
    "name": "data bucket",  
    "usageType": "data",
```

Self-Care Component Suite API Sample Messages

```
"isShared": "false",
"product": {
  "id": "mobile999",
  "publicIdentifier": "447123456999"
},
"bucketBalance": [
  {
    "unit": "MB",
    "remainingValue": 225
  }
],
"bucketCounter": [
  {
    "unit": "MB",
    "value": 799
  }
]
},
{
  "id": " mobile999-bkt003",
  "name": "sms bucket",
  "usageType": "sms",
  "isShared": "false",
  "product": {
    "id": "mobile999",
    "publicIdentifier": "447123456999"
  }
},
```

Self-Care Component Suite API Sample Messages

```
    "bucketBalance": [  
      {  
        "unit": "sms",  
        "remainingValue": 200  
      }  
    ],  
    "bucketCounter": [  
      {  
        "unit": "sms",  
        "value": 0  
      }  
    ]  
  }  
]
```

Request 2

```
GET https://{serverRoot}/usageManagement/v1/  
usageConsumptionReport?product.id=mobile555
```

```
Authorization: Bearer <token associated to user u123>
```

Response 2 – consumption info provided

```
[  
  {  
    "name": "Usage consumption report ",  
    "effectiveDate": "2018-04-16T:15:44:29",
```

Self-Care Component Suite API Sample Messages

```
"bucket": [  
  {  
    "id": " mobile555-bkt001",  
    "name": "voice bucket",  
    "usageType": "voice",  
    "isShared": "false",  
    "product": {  
      "id": "mobile555",  
      "publicIdentifier": "447123456555"  
    },  
    "bucketBalance": [  
      {  
        "unit": "sec",  
        "remainingValue": 2500  
      }  
    ],  
    "bucketCounter": [  
      {  
        "unit": "sec",  
        "value": 500  
      }  
    ]  
  },  
  {  
    "id": " mobile555-bkt002",  
    "name": "data bucket",  
    "usageType": "data",
```


Self-Care Component Suite API Sample Messages

```
"isShared": "false",
"product": {
  "id": "mobile555",
  "publicIdentifier": "447123456555"
},
"bucketBalance": [
  {
    "unit": "MB",
    "remainingValue": 3096
  }
],
"bucketCounter": [
  {
    "unit": "MB",
    "value": 1000
  }
]
},
{
  "id": " mobile555-bkt003",
  "name": "sms bucket",
  "usageType": "sms",
  "isShared": "false",
  "product": {
    "id": "mobile555",
    "publicIdentifier": "447123456555"
  },
}
```

Self-Care Component Suite API Sample Messages

```
"bucketBalance": [  
  {  
    "unit": "sms",  
    "remainingValue": 190  
  }  
],  
"bucketCounter": [  
  {  
    "unit": "sms",  
    "value": 10  
  }  
]
```

- **getBills**

Request

GET

[https://{serverRoot}/customerBillManagement/v2/customerBill?billingAccount.id=acc111&fields=id,href,state,billDate, amountDue,paymentDueDate](https://{serverRoot}/customerBillManagement/v2/customerBill?billingAccount.id=acc111&fields=id,href,state,billDate,amountDue,paymentDueDate)

Authorization: Bearer <token associated to user u123>

Response – list of bills provided

The number of elements provided in the response depends on the implementation. In this example the list includes the bills for the current year.

```
[
```

Self-Care Component Suite API Sample Messages

```
{
  "id": "acc111-18003",
  "href": "https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",
  "state": "sent",
  "billDate": "2018-04-01T:00:00:00",
  "amountDue": {
    "value": 43.5,
    "unit": "EUR"
  },
  "paymentDueDate": "2018-04-05T:12:00:00"
},
{
  "id": " acc111-18002",
  "href": "https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18002",
  "state": "settled",
  "billDate": "2018-03-01T:00:00:00",
  "amountDue": {
    "value": 40.5,
    "unit": "EUR"
  },
  "paymentDueDate": "2018-03-05T:12:00:00"
},
{
  "id": " acc111-18001",
  "href": "https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18001",
  "state": "settled",
  "billDate": "2018-02-01T:00:00:00",
  "amountDue": {
    "value": 45.0,
```

Self-Care Component Suite API Sample Messages

```

        "unit": "EUR"
    },
    "paymentDueDate": "2018-02-05T:12:00:00"
}
]

```

- **getBillInfo**

Independent requests for each one of the bills that the user wants to review. In this example the request is for the bill still not paid.

Request

GET

<https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003>

Authorization: Bearer <token associated to user u123>

Response – detailed bill info provided

```

{
    "id": "acc111-18003",
    "href": "https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",
    "billNo": "1516171800",
    "runType": "onCycle",
    "category": "normal",
    "state": "sent",
    "billDate": "2018-04-01T:00:00:00",
    "nextBillDate": "2018-05-01T:00:00:00",
    "billingPeriod": {
        "endDateTime": "2018-03-31T:23:59:59",
    }
}

```

Self-Care Component Suite API Sample Messages

```
    "startDateTime": "2018-03-01T:00:00:00"
  },
  "amountDue": {
    "value": 43.5,
    "unit": "EUR"
  },
  "paymentDueDate": "2018-04-05T:12:00:00",
  "taxExcludedAmount": {
    "value": 38.84,
    "unit": "EUR"
  },
  "taxIncludedAmount": {
    "value": 43.5,
    "unit": "EUR"
  },
  "@baseType": "bill",
  "@type": "customerBill",
  "billDocument": [
    {
      "name": "CustomeBill1516171800.pdf",
      "mimeType": "application/pdf",
      "sizeUnit": "KB",
      "size": 204,
      "url": "http://DocumentManager/6576342/CustomeBill1516171800.pdf",
    }
  ],
  "billingAccount": {
    "id": "acc111",
    "href": "https://{serverRoot}/accountManagement/billingAccount/acc111",
    "name": "Residential Account ",
    "@referredType": "billingAccount"
  },
  "taxItem": [
    [
```

Self-Care Component Suite API Sample Messages

```
{
  "taxCategory": "VAT",
  "taxRate": 12.0,
  "taxAmount": {
    "value": 4.66,
    "unit": "EUR"
  }
}
],
"relatedParty": [
  [
    {
      "href": "https://{serverRoot}/customerManagement/v1/customer/cst123",
      "role": "customer",
      "id": "cst123"
    }
  ]
]
}
```

- **getBillCharges**

Independent requests for each one of the bills that the user wants to review. In this example the request is for the bill still not paid.

Request

GET

[https://{serverRoot}/customerBillManagement/v2/
appliedCustomerBillingRate?bill.id=acc111-18003](https://{serverRoot}/customerBillManagement/v2/appliedCustomerBillingRate?bill.id=acc111-18003)

Authorization: Bearer <token associated to user u123>

Response – detailed bill charges provided

```
[
  {
    "id": "2080",
    "href":
    "https://{serverRoot}/customerBillManagement/v2/appliedCustomerBillingRate/2080",
    "name": "Monthly Charge",
    "description": "Monthly plan amount charged",
    "date": "2018-03-31T23:59:59",
    "type": "recurringCharge",

    "taxExcludedAmount": {
      "value": 22.32,
      "unit": "EUR"
    },

    "bill": {
      "id": "acc111-18003",
      "href": "
      https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",

      "@referredType": "customerBill"
    }
  },
  {
    "id": "2082",
    "href":
    "https://{serverRoot}/customerBillManagement/v2/appliedCustomerBillingRate/2082",
    "name": "Voice Usage",
    "description": "Voice Usage amount charged",
    "date": "2018-03-31T23:59:59",
    "type": "usageCharge",

    "taxExcludedAmount": {
      "value": 0.625,
      "unit": "EUR"
    },
  },
]
```

Self-Care Component Suite API Sample Messages

```
"bill": {
  "id": " acc111-18003",
  "href": "
https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",

  "@referredType": "customerBill"
}
},
{
  "id": "2083",
  "href":
"https://{serverRoot}/customerBillManagement/v2/appliedCustomerBillingRate/208
3",
  "name": "Data Usage",
  "description": "Data Usage amount charged",
  "date": "2018-03-31T23:59:59",
  "type": "usageCharge",

  "taxExcludedAmount": {
    "value": 15.89,
    "unit": "EUR"
  },

  "bill": {
    "id": " acc111-18003",
    "href": "
https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",

    "@referredType": "customerBill"
  }
},
{
  "id": "2088",
  "href":
"https://{serverRoot}/customerBillManagement/v2/appliedCustomerBillingRate/208
8",
  "name": "SMS Usage",
  "description": "SMS Usage amount charged",
  "date": "2018-03-31T23:59:59",
  "type": "usageCharge",
```


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```
    "taxExcludedAmount": {
      "value": 0,
      "unit": "EUR"
    },

    "bill": {
      "id": "acc111-18003",
      "href": "
https://{serverRoot}/customerBillManagement/v2/customerBill/acc111-18003",
      "@referredType": "customerBill"
    }
  }
}
```

- **getBillingEvents**

Independent requests for each type of events that the user wants to review. In this example, the request is for voice events (i.e.: calls) after a specific date.

Request

GET

```
https://{serverRoot}/usageManagement/v1/usage?relatedParty.role=customer&relatedParty.id=cst123&type=voice&date.gt=2018-04-10"
```

```
Authorization: Bearer <token associated to user u123>
```

Response – billing events provided

[

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```
{
  "id": "2018-0015",
  "href": " https://{serverRoot}/usageManagement/v1/usage/2018-0015",
  "date": "2018-04-05T16:42:23",
  "type": "voice",
  "status": "rated",

  "usageCharacteristic": [
    {
      "name": "originatingNumber",
      "value": "447123456999"
    }, {
      "name": "destinationNumber",
      "value": "447987654321"
    }, {
      "name": "duration",
      "value": "20"
    }, {
      "name": "unit",
      "value": "sec"
    }, {
      "name": "startDateTime",
      "value": "2018-04-05T16:42:23"
    }, {
      "name": "endDateTime",
      "value": "2018-04-05T16:42:43"
    }
  ],
  "relatedParty": [{
    "role": "customer",
    "id": "cst123",
    "href": " https://{serverRoot}/customerManagement/v1/customer/cst123"
  }],
  "ratedProductUsage": [
    {
      "ratingDate": "2018-04-05T23:59:59",
      "usageRatingTag": "Usage",
      "isBilled": "False",

      "taxExcludedRatingAmount": "0.05",

      "currencyCode": "EUR"
    }
  ]
}
```

Self-Care Component Suite API Sample Messages

```

    ]]
  },
  {
    "id": "2018-0016",
    "href": " https://{serverRoot}/usageManagement/v1/usage/2018-0016",
    "date": "2018-04-07T14:02:17",
    "type": "voice",
    "status": "rated",

    "usageCharacteristic": [
      {
        "name": "originatingNumber",
        "value": "447123456999"
      }, {
        "name": "destinationNumber",
        "value": "447987654321"
      }, {
        "name": "duration",
        "value": "205"
      }, {
        "name": "unit",
        "value": "sec"
      }, {
        "name": "startDateTime",
        "value": "2018-04-07T14:02:17"
      }, {
        "name": "endDateTime",
        "value": "2018-04-07T14:05:42"
      }
    ],
    "relatedParty": [{
      "role": "customer",
      "id": "cst123",
      "href": " https://{serverRoot}/customerManagement/v1/customer/cst123"
    }],
    "ratedProductUsage": [
      {
        "ratingDate": "2018-04-07T23:59:59",
        "usageRatingTag": "Usage",
        "isBilled": "False",

        "taxExcludedRatingAmount": "0.56",

```

Self-Care Component Suite API Sample Messages

```

        "currencyCode": "EUR"
    }
},
{
    "id": "2018-0085",
    "href": " https://{serverRoot}/usageManagement/v1/usage/2018-0085",
    "date": "2018-04-07T18:12:17",
    "type": "voice",
    "status": "rated",

    "usageCharacteristic": [
        {
            "name": "originatingNumber",
            "value": "447123456555"
        }, {
            "name": "destinationNumber",
            "value": "447987654321"
        }, {
            "name": "duration",
            "value": "5"
        }, {
            "name": "unit",
            "value": "sec"
        }, {
            "name": "startDateTime",
            "value": "2018-04-07T18:12:17"
        }, {
            "name": "endDateTime",
            "value": "2018-04-07T18:12:22"
        }
    ],
    "relatedParty": [{
        "role": "customer",
        "id": "cst123",
        "href": " https://{serverRoot}/customerManagement/v1/customer/cst123"
    }],
    "ratedProductUsage": [
        {
            "ratingDate": "2018-04-07T23:59:59",
            "usageRatingTag": "Usage",
            "isBilled": "False",

```

Self-Care Component Suite API Sample Messages

```

        "taxExcludedRatingAmount": "0.05",

        "currencyCode": "EUR"

    }
},

{
    "id": "2018-0101",
    "href": " https://{serverRoot}/usageManagement/v1/usage/2018-0101",
    "date": "2018-04-08T20:02:23",
    "type": "voice",
    "status": "rated",

    "usageCharacteristic": [
        {
            "name": "originatingNumber",
            "value": "447123456999"
        }, {
            "name": "destinationNumber",
            "value": "447987633111"
        }, {
            "name": "duration",
            "value": "102"
        }, {
            "name": "unit",
            "value": "sec"
        }, {
            "name": "startDateTime",
            "value": "2018-04-08T20:02:23"
        }, {
            "name": "endDateTime",
            "value": "2018-04-08T20:04:05"
        }
    ],
    "relatedParty": [{
        "role": "customer",
        "id": "cst123",
        "href": " https://{serverRoot}/customerManagement/v1/customer/cst123"
    }],
    "ratedProductUsage": [
        {
            "ratingDate": "2018-04-08T23:59:59",

```

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```
        "usageRatingTag": "Usage",
        "isBilled": "False",

        "taxExcludedRatingAmount": "0.35",

        "currencyCode": "EUR"
    }}
}
```

1.2. USER RAISES AN ISSUE

To Be Completed

1.3. USER UPDATES HIS OFFER

To Be Completed

ACKNOWLEDGEMENTS

1.1. REFERENCES

Reference	Description	Source	Brief Use Summary
0			
1			
2			

1.2. DOCUMENT HISTORY

1.2.1. VERSION HISTORY

Version Number	Date Modified	Modified by:	Description of changes
0.1	07-Mar-2018	Luis Velarde	first issue of document
1.0	June 2018	Luis Velarde	Update reflecting R18 review comments
1.0.1	29-Jun-2018	Adrienne Walcott	Formatting/style edits prior to R18 publishing
1.0.2	10-Sep-2018	Adrienne Walcott	Updated to reflect TM Forum Approved Status

1.2.2. RELEASE HISTORY

Version Number	Date Modified	Modified by:	Description of changes
18.0.0	June 2018	Luis Velarde	Initial Release
18.0.1	10-Sep-2018	Adrienne Walcott	Updated to reflect TM Forum Approved Status

Self-Care Component Suite API Sample Messages

1.3. CONTRIBUTORS TO THIS DOCUMENT

This document was prepared by the members of the TM Forum Open API team:

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