**Interface Specification**

**Financial Institution**

Bundle purchase and Airtime allocation



|  |  |
| --- | --- |
| Group**: Engineering** | Version: 4.4 (swagger) |
| Division  **NSD: Network Service Development** | Department:  Business Support Systems |
| Author: SD BSS |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 1: Document history** | | | |
| **Version** | **Description** | **Author** | **Date** |
| 0.1 | Draft version of document | Nozipho Nyandoro | 09/06/2018 |
| 0.2 | Updated samples | Harvey Gathercole | 19/06/2018 |
| 0.3 | Added flow chart and changed order of flow | Harvey Gathercole | 11/07/2018 |
| 0.4 | Updated error responses | Harvey Gathercole | 23/08/2018 |
| 0.5 | Added JSON examples | Harvey Gathercole | 23/10/2018 |
| 06 | Updated JSON examples | Vusi Sibeko | 08/11/2018 |
| 07 | Added format | Harvey Gathercole | 09/11/2018 |
| 1.0 | Final | Harvey Gathercole | 09/11/2018 |
| 1.1 | Added return code 28 | Harvey Gathercole | 23/11/2018 |
| 2.0 | Final | Harvey Gathercole | 23/11/2018 |
| 3.0 | Updated Json XML | Harvey Gathercole | 19-02-2019 |
| 3.1 | Updated section 3.7 to include zero value | Harvey Gathercole | 27-02-2019 |
| 3.2 | Fixed spelling of “ConversationID” | Harvey Gathercole | 27-03-2019 |
| 3.3 | Updated “error codes” | Harvey Gathercole | 20-05-2019 |
| 3.4 | Updated Header info | Harvey Gathercole | 23-05-2019 |
| 3.5 | Updated retries with 24hr | Harvey Gathercole | 10-07-2019 |
| 3.6 | Added Base64 encryption | Harvey Gathercole | 22-10-2019 |
| 3.7 | Changed “debit” to “credit” for bundle purchase | Harvey Gathercole | 15-11-2019 |
| 3.8 | Updated Bundle purchase and Account adjust payload: added Price, validity ,dealerID and Allowance | Enock Maswanganyi | 23-01-2020 |
| 3.9 | Updated Bundle Product list and Bundle purchase header | Enock Maswanganyi | 24-01-2020 |
| 4.1 | Revised validity field and corrected endpoint in header sample. | Patrick Maloma | 18-02-2020 |
| 4.2 | Updated eligibility, Account adjust, Bundle purchase (subscription services) sample message to align with CSM API Vodafone standard. | Enock Maswanganyi | 24-02-2020 |
| 4.3 | Updated bundle purchase request | Enock Maswanganyi | 04/03/2020 |

|  |  |
| --- | --- |
| **Table 2: List of Abbreviations / Acronyms / Definitions** | |
| **Abbreviation** | **Description** |
| FMW | Fusion Middleware |
| Eng. | Engineering |
| OTT | Over The Top |
| CDR | Call Data Record |
| RTI | Real time Integration |
| FI | Financial institution |

**Table 3: List of key project stakeholders and contributors**

|  |  |  |
| --- | --- | --- |
| **Person(s)** | **Function** | **Area** |
| Nyandoro, Nozipho | Senior Specialist | Engineering |
| Pillay, Nethisha | Manager | Engineering |
| Harvey Gathercole | Principle Specialist | Engineering |

# Interface

The protocol to be used to communicate between Eng. Fusion and the channels is based on Representational state transfer (REST) over HTTP.

## Authentication and Authorization

***Authentication***

The consumer of the Web service needs to be registered and be provided with the username and password. TLS v1.2 will be utilised to authenticate the service provider to the service consumer which will verify the following concerning the server certificate:

* is issued by a trusted provider (i.e. CA)
* is not expired
* is not revoked
* matches the domain name of the service
* The server has proven that it has the private key associated with the public key certificate (by properly signing something or successfully decrypting something encrypted with the associated public key).

***Invalid Credentials***

Authenticating with invalid credentials will result in HTTP error code 401 Unauthorized:

HTTP/1.0 401 Unauthorized

***Base64 encryption applies, single authentication string (User name and PWD)***

***Authorization***

In addition to the service consumer being authenticated, the user need to be authorized to call a specific service or operation. An error response will be return if the authenticated user is not allowed to invoke the operation.

The following info concerning the server certificate has to be verified:

* is issued by a trusted provider (i.e. CA)
* is not expired
* is not revoked
* matches the domain name of the service
* The server has proven that it has the private key associated with the public key certificate (by properly signing something or successfully decrypting something encrypted with the associated public key).

***Security***

To ensure transport layer security for web services two-way TLS1.2 authentication will be utilized. The TLS client application verifies the identity of the TLS server application, and the TLS server application verifies the identity of the TLS client application using certificates.

Public-Key Infrastructure (PKI) will be used for encryption. Private key/public key pair will ensure that the data can be encrypted by one key but can only be decrypted by the other key pair.

***Invalid Credentials***

Authenticating with invalid credentials will result in HTTP error code 401 Unauthorized:

HTTP/1.0 401 Unauthorized

***Authorization***

In addition to the service consumer being authenticated, the user need to be authorized to call a specific service or operation. An error response will be return if the authenticated user is not allowed to invoke the operation.

## Validation

The Financial institution should ensure the following info is sent correctly.

* Valid Financial Institution ID code
* Valid Channel ID
* Unique Transaction ID
* Valid Recharge Amount (This is optional)

The financial institution should verify that an MSISDN is an active Vodacom pre-paid/hybrid subscriber number (MSISDN) before sending a purchase request. The subscriber profile lookup will be used for this customer verification

# Retries

Financial institution should retry a transaction after 5 seconds, with a maximum of three retries, if they don’t get a successful response from fusion. If a retry is sent, the MESS\_ID must be 001 with the same Transaction ID (Conversation ID). FMW will first perform a query against CCS to check if the transaction ID is the same, if the transaction ID is the same an error 26 response (Duplicate transaction) is returned. Once the charging system is on CCS-C a maximum of 24 hours is allowed for a retry, after 24 hours has elapsed the retry will be seen as a new transactions, the 24 hour period is specific per transaction.

# Retries

Financial institution should retry a transaction after 5 seconds, with a maximum of three retries, if they don’t get a successful response from fusion. If a retry is sent, the MESS\_ID must be 001 with the same Transaction ID (Conversation ID). FMW will first perform a query against CCS to check if the transaction ID is the same, if the transaction ID is the same an error 26 response (Duplicate transaction) is returned.

## Duplicate Transactions

Financial institution receives a time out or no response from Eng. Fusion (FMW). The FI can retry the transaction using the same transaction ID. For a retry or duplicate transaction, the Trans ID must be the same as the previous transaction and the Mess ID must be 001.

## No response

If no response is received for any of the messages, the exact same message must be repeated using the same TID, MSISDN, amount, etc. A response will be returned showing the request as duplicate and what the current status of the transaction is.

## Error codes

Return codes indicate the result of the attempted operation. The following return codes are possible.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Return code** | **Eligibility request** | **Adjustment request** | **Bundle Purchase** |
| Approved validation  Or Recharge completed successfully | 200 | X | X | X |
| Delay in processing the recharge | 10 |  | X | X |
| Invalid Recharge (e.g. Recharge attempt without activation, Business rule violation) | 12 |  | X |  |
| Invalid Recharge Denomination | 13 |  | X |  |
| Invalid Financial Institution Id | 15 | X | X | X |
| Vodacom related problem  This response code indicates that the transaction was not successfully processed due to a problem on the back-end system.  For single occurrences, the financial institution may re-submit the transaction with a **new** transaction id. For multiple occurrences in succession, the financial institution must report the problem to Vodacom by following the fault reporting procedure as specified in the SLA. | 22 | X | X | X |
| Invalid Retry (Trans\_id (Conversation ID and mess id 001) ARE NOT the same)  The FI Trans\_ID is the different | 25 |  | X | X |
| Duplicate transaction (Mess ID 001 same Trans ID)) | 26 |  | X | X |
| No. of retries exceeded. Max (3) retries | 27 |  | X | X |
| This is the result of a duplicate retry with Mess\_ID 001, the transaction ID exists but the full transaction failed, FI must submit a NEW transaction with a NEW TID. | 28 |  | X | X |
| Invalid MSISDN | 42 | X | X | X |
| Vodacom related problem  This response code indicates that the back-end system is either unavailable or did not respond in time.  For single occurrences, the financial institution may re-submit the transaction with the **same** transaction id. For multiple occurrences in succession, the financial institution must report the problem to Vodacom by following the fault reporting procedure as specified in the SLA. | 500 | X | X | X |

# Bundle Purchase

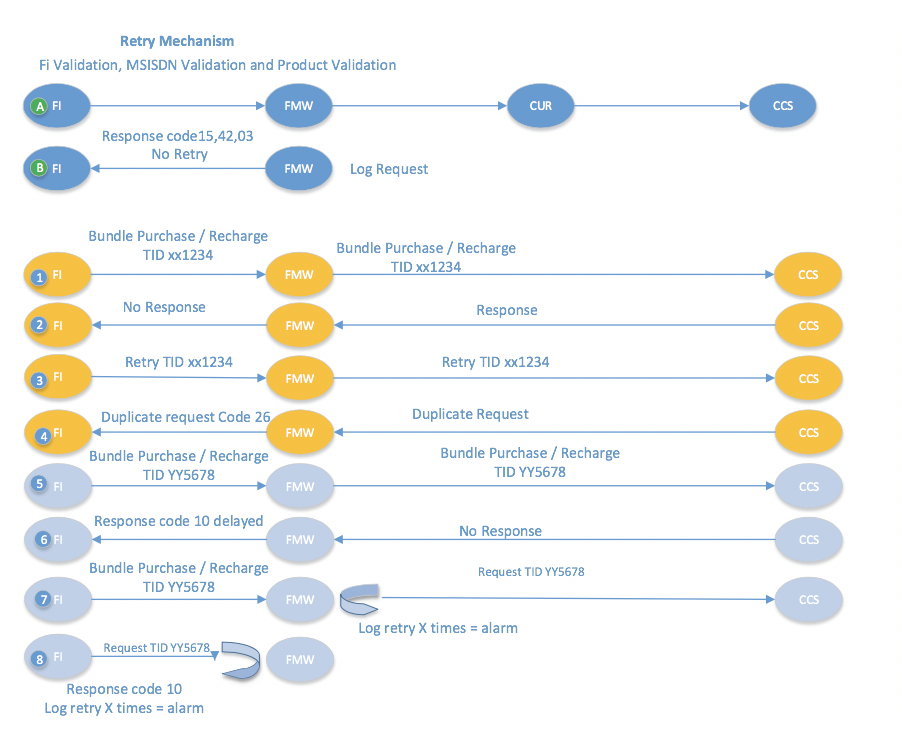
Vodacom channels will be able to purchase bundles and Airtime via Eng. Fusion using the CSM *service subscription* API for prepaid, hybrid and post-paid. Charging system categorise bundle as static and dynamic bundles, so third party systems when they send a request for purchasing dynamic bundles should pass the following parameters as Mandatory: Price, validity and allowance. Static bundles, third party are expected to send only SOIDs. Below are the Unit of Measure Data, Voice and SMS bundle.

* Unit of Measure of Data = KB, MB and GB.
* Unit of Measure of SMS = Units.
* Unit of Measure of Voice = Minutes.

## Description

This section refers to the general bundle provision for once off and recurring bundles. Bundles will be configured on CCS as static.

## call flow

**

*Figure 1 - FI Eligibility, Purchase, Recharge and Retry*

Validate Transaction.





**Bundle Purchase**



### Header parameters

The following header parameters is to identify the system or department making the call. It will presumable be static information based on the system used. ConversationID/UID however will be systems generated and must be unique to identify each transaction.

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **M/O** | **Description/Possible Values** |
| CountryCode | String | Mandatory | Defined as “ZA”, length of 2 |
| LanguageCode | String | Optional | Defined as “en” length of 2 |
| Operator | String | Mandatory | Example “Vodacom” or “ABSA” |
| Division | String | Optional | Defined as “Channels Division ” e.g. telecommunications |
| MessID | String | Mandatory | Messid-000 Initial, Messid-001 Retry. For each initial message the ID = 000, for a retry message the ID = 001 length of 3 |
| System | String | Mandatory | Defined as the systems using the service length of 6, e.g. FI\_FNB |
| |  |  | | --- | --- | | X-Correlation-ConversationID | 19052310042388899 | | String | Mandatory | Unique Transaction ID |

Format

|  |  |  |
| --- | --- | --- |
| Field Name | Data Type | Value |
| |  |  | | --- | --- | | X-Correlation-ConversationID |  | | String | The Unique ID generated by a 3rd party conforming to the following format:  YYMMDDHHMMSSabcde  with abcde a random generated number. |
|  |  |  |

Header Example:

**Note: The format is the same for Eligibility, Account Adjust and Bundle Purchase**

|  |
| --- |
| POST http://fusionfi-test.vodacom.co.za:7003/dev/subscriptionAPI/v3/subscription/27829808823 HTTP/1.1  Accept-Encoding: gzip,deflate  Content-Type: application/json  X-Global-Transaction-ID: 3a22c0065c9b6b710914a2f7  LanguageCode: en  CountyCode: ZA  Operator: FNB  MessID: 000  System: FNB  X-Correlation-ConversationID: 190523110592312345  Content-Length: 1273  Host: fusionfi-test.vodacom.co.za:7003  Connection: Keep-Alive  User-Agent: Apache-HttpClient/4.1.1 (java 1.5) |

Response

|  |
| --- |
| HTTP/1.1 200 OK  Date: Thu, 23 May 2019 08:53:33 GMT  Transfer-Encoding: chunked  Content-Type: application/json; charset=utf-8  X-ORACLE-DMS-ECID: 484e581d-08bb-4a18-92b9-fa0313f31ac8-000ae323  X-ORACLE-DMS-RID: 0  {  "SubscriptionVBO" : {  "IDs" : {  "ID" : [ {  "$" : "190523110592312345"  } ]  }  }  } |

# Eligibility Check Request

The financial institution should verify that an MSISDN is an active Vodacom pre-paid/hybrid subscriber before sending a purchase request. The eligibility check will be used for this customer verification, a check is also made for a valid product code, valid FI and valid airtime “10000”.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter Value** | **Type** | **M/O** | **Json Mapping** | **Mapping and Description** |
| MSISDN | Integer | M | $.parts.customerAccount.id[\*].value=27766488884 & $.parts.customerAccount.id[\*].schemeName=MSISDN | (A subscriber’s MSISDN) E.164 format |
| Product Code | String | O | $.parts.productOffering.id[\*].value=D344 & $.parts.productOffering.id[\*].schemeName=SOID | (Data Bundle Purchase product code (CCS SOID OFFER ID) as per Bundle product List. Section 6) |
| FI Code | String | M | $.channel.id[\*].value=D344 & $.parts.channel.id[\*].schemeName=FI Code" | (Financial Institute code) as provided by Vodacom |

## JSON SAMPLE ELIGIBILITY CHECK REQUEST:

{

"queryOptions": {

"filter":"",

"pagination": {

"count":0,

"limit":1

},

"sorting": "-$.createdDate"

},

"queries": [

{

"query": "$.parts.customerAccount.id[\*].value=27766488884 & $.parts.customerAccount.id[\*].schemeName=MSISDN & $.parts.productOffering.id[\*].value=D344 & $.parts.productOffering.id[\*].schemeName=SOID & $.channel.id[\*].value=D344 & $.parts.channel.id[\*].schemeName=FI Code"

}

]

}

## JSON ELIGIBILITY RESPONSE

[

{

"status": "Active",

"created": {

"value": "2020-02-24T13:31:37.825",

"format": "ISO8601"

},

"parts": {

"subscription": [

{

"id": [

{

"value": "27829800001",

"schemeName": "Subscription ID",

"schemeAgencyName": "Vodacom"

}

],

"eligibilitySpecification": {

"eligibilityIndicator": {

"indicator": true

}

}

}

]

}

}

]

## JSON ELIGIBILITY CHECK ERROR RESPONSE INVALID MSISDN

{

"@schemaLocation": "http://group.vodafone.com/contract/vfo/fault/v1 Schemas/Fault.xsd",

"Timestamp": "2019-02-19T09:47:35.092+02:00",

"ErrorCode": "500",

"Description": [{"$": "Business Validation Error/s"}],

"Severity": "Critical",

"Category": "Business",

"Failures": {"Failure": [ {

"Code": "42",

"Text": "Invalid MSISDN",

"DataRef": {

"PathName": "/CustomerEligibilityVBO/Parts/Subscriptions/Subscription/ID",

"PathValueText": "2782477876"

}

}]}

}

## JSON ELIGIBILITY ERROR RESPONSE INVALID PRODUCT

{

"@schemaLocation": "http://group.vodafone.com/contract/vfo/fault/v1 Schemas/Fault.xsd",

"Timestamp": "2019-02-19T09:48:20.853+02:00",

"ErrorCode": "500",

"Description": [{"$": "Business Validation Error/s"}],

"Severity": "Critical",

"Category": "Business",

"Failures": {"Failure": [ {

"Code": "03",

"Text": "Invalid Package Type",

"DataRef": {

"PathName": "/CustomerEligibilityVBO/Parts/ProductOffering/IDs/ID",

"PathValueText": "D0391"

}

}]}

}

## JSON ELIGIBILITY ERROR RESPONSE INVALID FI

{

"@schemaLocation": "http://group.vodafone.com/contract/vfo/fault/v1 Schemas/Fault.xsd",

"Timestamp": "2019-02-19T09:49:08.369+02:00",

"ErrorCode": "500",

"Description": [{"$": "Business Validation Error/s"}],

"Severity": "Critical",

"Category": "Business",

"Failures": {"Failure": [ {

"Code": "15",

"Text": "Invalid Financial Institution Id",

"DataRef": {

"PathName": "/CustomerEligibility/Roles/Customer/IDs/ID",

"PathValueText": "9010631"

}

}]}

}

## BUNDLE PURCHASE REQUEST

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **M/O** | **Json Mapping** | **Description/Possible Values** |
| MSISDN / Subscription ID | String | Mandatory | $.id[?(@.schemeName == Subscription ID)].value | MSISDN as 27821234567 |
| schemeName | String | Optional | /id/details/schemeName | "schemeName": "Customer Product ID", |
| ProductID | String | Mandatory | /lineItem/productElement/customerProduct/id/value | where : "schemeName": "Customer Product ID",  Vodacom Bundle Product ID |
| Name | String | Optional | /lineItem/productElement/customerProduct/id/schemeName | Name of the bundle e.g. Just for you |
| ChannelID | String | Optional | /id/value | where : "schemeName": "ChannelId",  Channel identifier or requestor ID of requesting system, for reporting systems. |
| Revenue | String | Optional | /id/value | Where "schemeName": "RevenueOriginId"  RevenueOriginId. Revenue origin Id for purchases. |
| FI Code | String | Mandatory | $.roles.agent.id[?(@.schemeName == FI Code)].value | Where "schemeName": "FI\_code",  Financial Institution Unique identifier |
| Price | String | Mandatory | $.lineItem[\*].price[\*].amount.value | Cost of the bundle e.g. where “schemeName”: "@currencyID" : "ZAR", |
| Validity | String | Mandatory | $.lineItem[\*].productElement.specification.characteristicsValue[?(@.characteristicName == Duration)].value | The validity of the bundle before it expires. Possible values for the "@unitCode" include either “HOUR”, “DAY”, “WEEK”, “MONTH”. Example of a 30 day bundle:  "@unitCode" : "DAY",  "$" : "30" |
| DealerID | String | Optional | $.roles.agent.id[?(@.schemeName == Dealer ID)].value | Where “SchemeName”:”Dealer\_ID”, Dealer\_ID of requesting system, for reporting systems. |
| Allowance | string | Mandatory | $.lineItem[\*].allowance.value | Where “SchemeName”:” "@unitCode" : "MB",  "$" : "500.00" |

## BUNDLE PURCHASE SAMPLE REQUEST

1. <ID schemeAgencyName="Vodafone" schemeName="packagename">
2. 24228.0
3. </ID>

|  |
| --- |
| Purchase Sample Request |
| {  "id": [  {  "value": "27829808820",  "schemeName": "Subscription ID",  "schemeAgencyName": "Vodacom"  }  ],  "roles": {  "agent": {  "id": [  {  "value": "01414",  "schemeName": "Dealer ID",  "schemeAgencyName": "Vodacom"  },  {  "value": "01414",  "schemeName": "FI Code",  "schemeAgencyName": "Vodacom"  }  ],  "name": "Name of Financial Institution"  }  },  "lineItem": [  {  "productElement": {  "customerProduct": {  "id": [  {  "value": "B123",  "schemeName": "SOID",  "schemeAgencyName": "Vodacom"  }  ]  },  "specification": {  "characteristicsValue": [  {  "characteristicName": "Duration",  "value": "P1D"  }  ]  }  },  "price": [  {  "type": "Financial Institution",  "amount": {  "value": "100.00",  "currencyID": "ZAR"  }  }  ],  "allowance": {  "value": "2",  "unitCode": "MB"  },  "netPrice": {  "value": "00.00",  "currencyID": "ZAR"  }  }  ]  } |
|  |

### SAMPLE SUCCESS RESPONSE

|  |
| --- |
| Purchase Samples Response |
| {"SubscriptionVBO": {"IDs": {"ID": [{  "@schemeAgencyName": "Vodafone",  "@schemeName": "Subscription ID",  "$": "27609916197"  }]}}} |

### SAMPLE FAILURE RESPONSE INVALID MSISDN

|  |
| --- |
| Purchase Samples Response |
| {  "Fault" : {  "Timestamp" : "2018-10-31T15:56:02.302+02:00",  "ErrorCode" : {  "dialect" : "CSM Error Code",  "text" : 101  },  "Description" : {  "lang" : "en",  "text" : "A request validation exception was thrown."  },  "Name" : "Invalid request",  "Severity" : "Critical",  "Category" : "Business",  "Message" : "Invalid request",  "Failures" : {  "Failure" : [ {  "Code" : 42,  "Text" : "Invalid MSISDN (Not Vodacom pre-paid, Hybrid)",  "DataRef" : {  "PathName" : "/CustomerEligibilityVBO/Parts/Subscriptions/Subscription/ID",  "PathValueText" : "278298040019"  }  } ]  }  }  } |

### SAMPLE FAILURE RESPONSE INVALID FI

|  |
| --- |
| Purchase Samples Response |
| "Fault" : {  "Timestamp" : "2018-11-08T21:00:04.008+02:00",  "ErrorCode" : {  "dialect" : "CSM Error Code",  "text" : 101  },  "Description" : {  "lang" : "en",  "text" : "A request validation exception was thrown."  },  "Name" : "Invalid request",  "Severity" : "Critical",  "Category" : "Business",  "Message" : "Invalid request",  "Failures" : {  "Failure" : [ {  "Code" : 15,  "Text" : "Invalid Financial Institution Id",  "DataRef" : {  "PathName" : "/vbm:ServiceAccountAdjustmentVBO/vbo:Parts/cmn:TriggeredBy/cmn:IDs/cmn:ID",  "PathValueText" : "90106399"  }  } ]  }  }  } |

### SAMPLE FAILURE RESPONSE INVALID PRODUCT

|  |
| --- |
| Purchase Samples Response |
| {  "Fault" : {  "Timestamp" : "2018-10-31T15:56:02.302+02:00",  "ErrorCode" : {  "dialect" : "CSM Error Code",  "text" : 101  },  "Description" : {  "lang" : "en",  "text" : "A request validation exception was thrown."  },  "Name" : "Invalid request",  "Severity" : "Critical",  "Category" : "Business",  "Message" : "Invalid request",  "Failures" : {  "Failure" : [ {  "Code" : 03,  "Text" : "Invalid Product",  "DataRef" : {  "PathName" : "/CustomerEligibilityVBO/Parts/Subscriptions/Subscription/ID",  "PathValueText" : "278298040019"  }  } ]  }  }  } |

# Balance Adjust

This operation will use serviceaccountadjustment to adjust the subscriber’s airtime balance.

The function can be used to add airtime for a subscriber

* + 1. **BALANCE ADJUST REQUEST**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Data Type** | **M/O** | **Json Mapping** | **Description/Possible Values** |
| Adjust ID | String | Mandatory | $.parts.adjust.id[?(@.schemeName == MSISDN)].value | Subscriber MSISDN  MSISDN as 27821234567 |
| AdjustmentAmount | Amount of airtime to be added | 5000.00 | $.details.adjustmentAmount.value | Mandatory |
| Type | String | Optional | /parts/adjust/type/value | FI\_recharge |
| FI Code | String | Mandatory | $.parts.triggeredBy.id[?(@.schemeName == Dealer ID)].value | FI code of the institute performing the purchase |
| ChannelId | String | Optional | /parts/adjustmentSpecification/ characteristicsValue/value | Where :  "characteristicName" = "ChannelId",  The systems channel Identifier to be provided by Vodacom |
| RevenueOriginId | String | Optional | /parts/adjustmentSpecification/ characteristicsValue/value | Where : “characteristicName" = "RevenueOriginId",  Revenue origin Id for purchases, to be provided by Vodacom |
| Dealer\_id | string | Optional | $.parts.triggeredBy.id[?(@.schemeName == Dealer ID)].value | Where “SchemeName”:”Dealer\_ID”, Dealer\_ID of requesting system, for reporting systems. |

* + 1. **BALANCE ADJUST REQUEST**

|  |
| --- |
| Sample Request |
| {  "type": "debit",  "details": {  "adjustmentAmount": {  "value": "20.00",  "currencyID": "ZAR"  }  },  "parts": {  "adjust": {  "id": [  {  "value": "27829808020",  "schemeName": "MSISDN",  "schemeAgencyName": "Vodacom"  }  ]  },  "triggeredBy": {  "id": [  {  "value": "93000",  "schemeName": "Dealer ID",  "schemeAgencyName": "Vodacom"  },  {  "value": "9300034",  "schemeName": "FI Code",  "schemeAgencyName": "Vodacom"  }  ],  "name": "Subscriber recharge",  "desc": "ABC Bank Recharge",  "businessObjectType": "ABC Bank Recharge"  }  }  } |

## JSON SUCCESS RESPONSE

{

"ServiceAccountAdjustmentVBO" : {

"IDs" : {

"ID" : [

{

"$" : "5260bf5f-3575-41fe-9540-3789594913ab"

}

]

}

}

}

## JSON ERROR RESPONSE INVALID MSISDN

{

"Fault" : {

"Timestamp" : "2018-10-31T15:56:02.302+02:00",

"ErrorCode" : {

"dialect" : "CSM Error Code",

"text" : 101

},

"Description" : {

"lang" : "en",

"text" : "A request validation exception was thrown."

},

"Name" : "Invalid request",

"Severity" : "Critical",

"Category" : "Business",

"Message" : "Invalid request",

"Failures" : {

"Failure" : [ {

"Code" : 42,

"Text" : "Invalid MSISDN (Not Vodacom pre-paid, Hybrid)",

"DataRef" : {

"PathName" : "/CustomerEligibilityVBO/Parts/Subscriptions/Subscription/ID",

"PathValueText" : "278298040019"

}

} ]

}

}

}

## JSON ERROR RESPONSE INVALID FI

"Fault" : {

"Timestamp" : "2018-11-08T21:00:04.008+02:00",

"ErrorCode" : {

"dialect" : "CSM Error Code",

"text" : 101

},

"Description" : {

"lang" : "en",

"text" : "A request validation exception was thrown."

},

"Name" : "Invalid request",

"Severity" : "Critical",

"Category" : "Business",

"Message" : "Invalid request",

"Failures" : {

"Failure" : [ {

"Code" : 15,

"Text" : "Invalid Financial Institution Id",

"DataRef" : {

"PathName" : "/vbm:ServiceAccountAdjustmentVBO/vbo:Parts/cmn:TriggeredBy/cmn:IDs/cmn:ID",

"PathValueText" : "90106399"

}

} ]

}

}

}

# Bundle Product List

For the full list of products, please refer to the appendix.

APPENDIX



# 7 Below are the Endpoints to use for eligibility, Bundle purchase and Airtime recharge.

**Eligibility Service:**

*Method: POST*

URL:http://{{host}}:{{port}}/dev/subscriptionAPI/v3/subscription/{{msisdn}}

**Subscription Service**

*Method: PUT*

     Endpoint: http://{{host}}:{{port}}//dev/subscriptionAPI/v3/subscription/{{msisdn}}

**Service Account Adjustment Service**:

*Method: POST*

     Endpoint: http://{{host}}:{{port}}/dev/serviceAccountAdjustmentAPI/v2/serviceAccountAdjustment