Interface Specification

VOMS
Variable Voucher

Group: **Engineering**	Version: V0.1
Division **NSD: Network Service Development**	Department: Business Support Systems
Author: SD- BSS	

Title: Variable Voucher Spec
Author: Nozipho Nyandoro

DOCUMENT HISTORY

(SEE Appendix A: Document change detail FOR MORE INFO)

Revisions	Description of document history	Author	Signature	Date
0.1	Initial draft	Nozipho Nyandoro		17 April 2021

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1 INTRODUCTION

A variable voucher denomination is a product that allows a subscriber to recharge with a voucher that when supplied can have any associated denomination. The existing recharge channels are used.

VoMS is a Voucher Management System, which is responsibility of managing and validating recharge vouchers – both physical and virtual. Eng fusion forms the integration layer between 3rd Party Trade Vendors and the VOMS for the purchase and cancellation of variable vouchers.

- The Variable Voucher Purchase is a product that allows a subscriber to recharge with a pin of any variable amount supplied by the 3rd Party. The existing recharge channels will redeem the voucher pin from Fusion to VOMS.

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2 REQUIREMENT FEATURE LIST

2.1 BUSINESS RULES

2.1.1 GENERAL BUSINESS RULES

- Allow Rand's and cents as recharge values for Pin-base requests
- Request any denomination for Pin-base vouchers five rand and above.
- A minimum amount of two rand and a maximum amount of 1000 rand.
- Airtime transfer and gifting to remain on whole Rand denomination per product rules
- Existing recharge channels and notification will apply.
- If the Trade Limit has exceeded no further purchases are allowed until the limit is reset.

3 IMPACTED SYSTEMS

Below is system architecture diagram showing all systems that will be impacted by the development of this product:
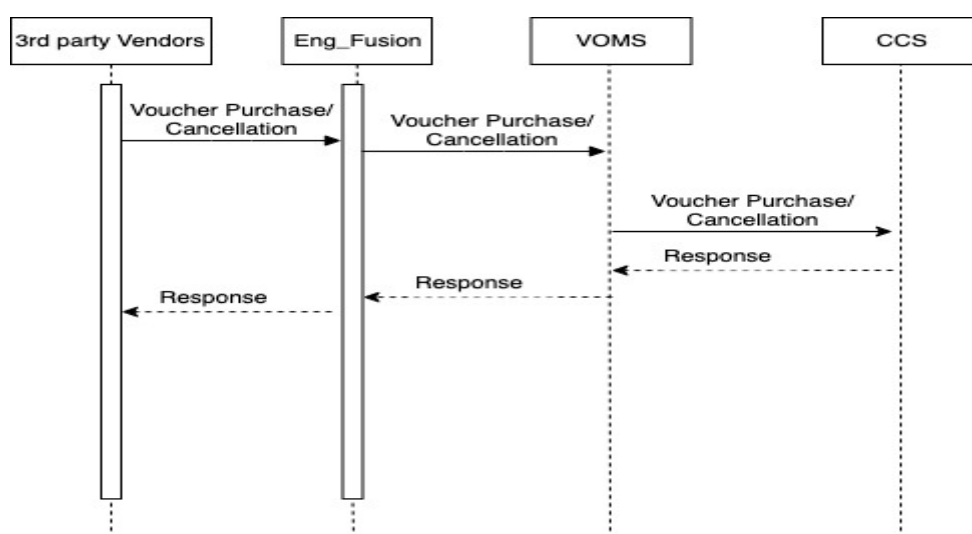
3.1 ARCHITECTURAL LAYOUT

Figure 1 - Architectural Overview

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Call Flow:

- The vendor initiates a voucher recharge/cancellation towards Eng Fusion.
- Eng Fusion Send the request to VOMS using a rest interface
- Voms validates the voucher/pin and purchases the voucher on CCS.
- On successful purchase Voms will return a successful response to Eng Fusion.

4   PROCESS FLOW

- Below are the flowcharts indicating the process for Generating Vouchers.

4.1   VOUCHER CREATION PROCESS
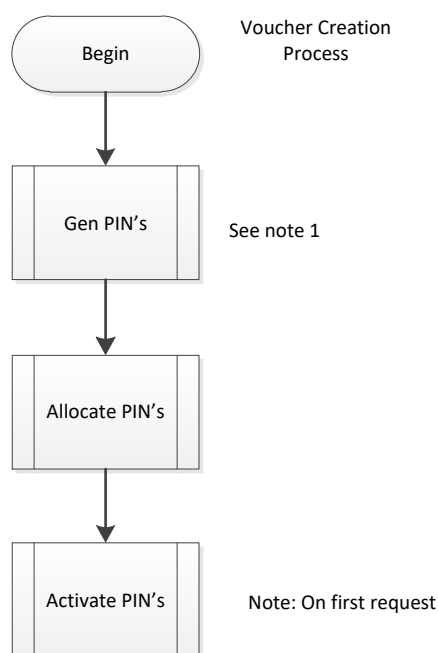
Note 1: This is the standard existing process of generating vouchers done by Vobil.. Vobil must first create a new voucher template with an expiry period of configurable number of years. These vouchers must be allocated to the new Service Provider and Dealer code for flexi voucher. The activation of the PIN,s will be an automatic process.

4.2   VARIABLE VOUCHER REQUEST

This is the process flow where vendor request a voucher from the VOMS of any denomination and type. The request is sent first to Eng Fusion as a XML message and Eng Fusion will forward the request to VOMs. VOMS will extract the next free voucher from the voucher pool and mark it as sold. Then VOMS will reply back to Eng Fusion with the voucher details, the transaction will also be logged.

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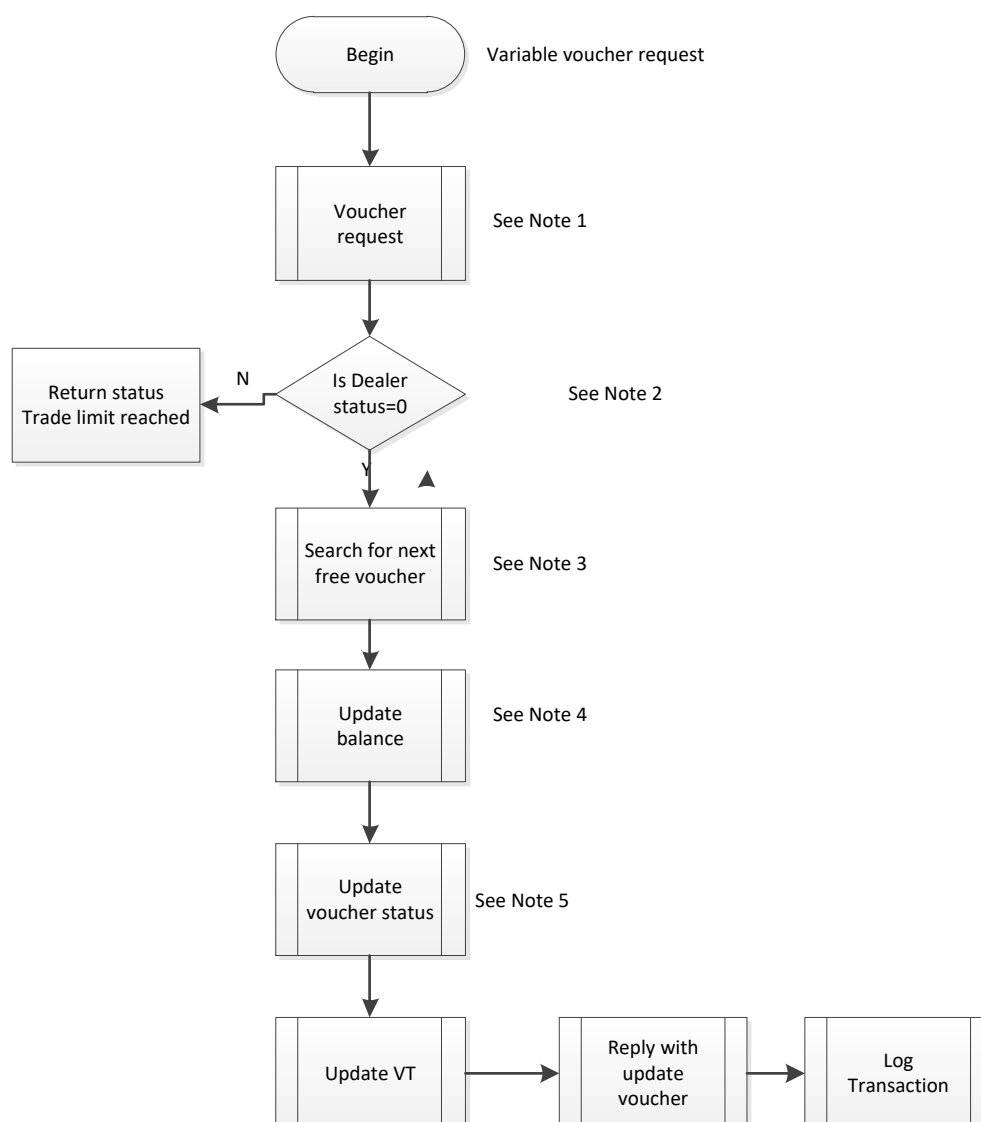
Note 1: This is the Eng Fusion URL requesting a voucher of a specific denomination. See section 5 for more details.

Note: 2 Then VOMS must check the STATUS field in VVP_DEALERINFO to see if it has been set to 1. If it has been set to 1 the purchase request must be rejected and the return message with responsecode=4 must be sent.

Note 3: The VOMS will search for the next free voucher in the allocated pool. A free voucher must be in status 1.

Note 4: Once the next free voucher is located the "BALANCE" field must be updated to whatever value is being requested.

Note 5: After the balance has been updated the status field must be changed to value 12 which means "SOLD" and the voucher type changed according to the incoming request.

Note 6: The associated batch record must be checked to see if it's active, status 0. If the batch is NOT active then the status value must be changed to active and the "ACTIVE_DATE" field must be updated with the current date.

Final: The voucher PIN, TID, amount etc. must be replied back to Eng Fusion and the transaction logged. See section 6 for details.

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4.3 REQUEST A VOUCHER

4.3.1 VOUCHER SAMPLE REQUEST

The following parameters are expected for a voucher request.

Parameter Name	Parameter Value	Mandatory
100	Request Id	N
Context	VariableAirtimeRequest	N
DNIS	260	N
ORIGINATOR	FUSION	Y
MESSAGE_ID	6503	Y
SERVICE_ID	99 *From Checkers	Y
partnerID	007 *From Checkers	Y
Product	60011464253 *From Checkers	Y
creationDate	2020-01-15 09:45:52.000 *From Checkers	Y
mmTransactionGuid	335j9347-8o5k-8b9c-85d2-80icbd6996k6 *From Checkers	Y
mmTransactionID	2007483200 *From Checkers	Y
Amount	9.7999999 *From Checkers	Y
branchCode	050356 *From Checkers	Y
ticketNumber	12345 *From Checkers	Y
sessionID	50 *From Checkers	Y
terminalID	95 *From Checkers	Y
operatorID	66 *From Checkers	Y
transactionType	ISSUE *From Checkers	Y
transactionSource	POS *From Checkers	Y
Provider	VODACOM *From Checkers	Y

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://www.shoprite.co.za/MoneyMarket/Vendors/Schemas/v1.0">
  <soapenv:Header/>
  <soapenv:Body>
    <v1:Request>
      <v1:partnerID>007</v1:partnerID>
      <v1:product>60011464253</v1:product>
      <v1:creationDate>${=new java.text.SimpleDateFormat("yyyy-MM-dd'T'HH:mm:ss.SSS").format(new Date())}</v1:creationDate>
      <v1:mmTransactionGuid>${=java.util.UUID.randomUUID()}</v1:mmTransactionGuid>
      <v1:mmTransactionID>${=String.format("%05d", new Random().nextInt(99999))}</v1:mmTransactionID>
      <v1:amount>200</v1:amount>
      <v1:branchCode>050356</v1:branchCode>
      <v1:ticketNumber>>${=String.format("%04d", new Random().nextInt(9999))}</v1:ticketNumber>
      <v1:sessionID>${=String.format("%04d", new Random().nextInt(9999))}</v1:sessionID>
      <v1:terminalID>99</v1:terminalID>
      <v1:operatorID>65</v1:operatorID>
      <v1:transactionType>ISSUE</v1:transactionType>
      <v1:transactionSource>POS</v1:transactionSource>
    </v1:Request>
  </soapenv:Body>
</soapenv:Envelope>
```

4.3.1 VOUCHER SAMPLE RESPONSE

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```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <vvp:Response responseCode="0" responseDescription="Success"
xmlns:vvp="http://www.shoprite.co.za/MoneyMarket/Vendors/Schemas/v1.0">
      <vvp:partnerID>007</vvp:partnerID>
      <vvp:creationDate>2021-07-09T13:42:42.465</vvp:creationDate>
      <vvp:mmTransactionGuid>cc572320-2be7-47a2-85ef-00bb96a6563c</vvp:mmTransactionGuid>
      <vvp:mmTransactionID>82740</vvp:mmTransactionID>
      <vvp:amount>200</vvp:amount>
      <vvp:branchCode>050356</vvp:branchCode>
      <vvp:ticketNumber>>8370</vvp:ticketNumber>
      <vvp:sessionID>2953</vvp:sessionID>
      <vvp:terminalID>99</vvp:terminalID>
      <vvp:transactionType>ISSUE</vvp:transactionType>
      <vvp:transactionSource>POS</vvp:transactionSource>
      <vvp:Message>
        <vvp:vendorReference>XP6YDM8H5HELAY</vvp:vendorReference>
        <vvp:VariableAirtimeResponse responseCode="0" responseDescription="Success">
          <vvp:voucherNumber>16797819451</vvp:voucherNumber>

<vvp:pinNumber>661623E84FB4EF8679786B2DE07B3C75F9193923EA7F3DE37DED5007CD4BC12132C7F30CF5
F21F0CBAF3482725E2928401D8FA2E177B327254C614E97FC640BD</vvp:pinNumber>
          <vvp:instructions>
            <vvp:line>To recharge your account</vvp:line>
            <vvp:line>Please dial *136*01*PIN#</vvp:line>
            <vvp:line>For queries dial 135</vvp:line>
          </vvp:instructions>
        </vvp:VariableAirtimeResponse>
      </vvp:Message>
    </vvp:Response>
  </soap:Body>
</soapenv:Envelope>
```

VV RESPONSE RETURN CODE ERRORS

SUCCESS Issued voucher	0
INVALID amount requested	1
Duplicate request	2
Voucher status incorrect	3
Transaction not found	4
Internal database / technical error	5
Dealer not authorized	6
Voucher canceled	99

4.4   CANCEL A VOUCHER

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Parameter Name	Parameter Value	Mandatory
100	Request Id	N
Context	VariableAirtimeCancelReq	N
DNIS	260	N
ORIGINATOR	FUSION	Y
MESSAGE_ID	6513	Y
SERVICE_ID	99 *From Checkers	Y
partnerID	001 *From Checkers	Y
product	6001001464253 *From Checkers	Y
creationDate	2011-11-15 09:45:52.000 *From Checkers	Y
mmTransactionGuid	335j9347-8o5k-8b9c-85d2-80icbd6996k6 *From Checkers	Y
mmTransactionID	2147483648 *From Checkers	Y
amount	65.90 *From Checkers	Y
branchCode	050356 *From Checkers	Y
ticketNumber	12345 *From Checkers	Y
sessionID	50 *From Checkers	Y
terminalID	95 *From Checkers	Y
operatorID	66 *From Checkers	Y
transactionType	CANCEL *From Checkers	Y
transactionSource	POS *From Checkers	Y
provider	VODACOM *From Checkers	Y
referenceNumber	23613RJJI7ERY8 *From Checkers	Y

4.4.1   REQUEST FOR VOUCHER CANCELLATION

Sample Cancel request message

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://www.shoprite.co.za/MoneyMarket/Vendors/Schemas/v1.0">
  <soapenv:Header/>
  <soapenv:Body>
    <v1:Request>
      <v1:partnerID>007</v1:partnerID>
      <v1:product>60011464253</v1:product>
      <v1:creationDate>${=new java.text.SimpleDateFormat("yyyy-MM-dd'T'HH:mm:ss.SSS").format(new
Date())}</v1:creationDate>
      <v1:mmTransactionGuid>a27ebc90-6109-48da-97fc-f871e56ec767</v1:mmTransactionGuid>
      <v1:mmTransactionID>82740</v1:mmTransactionID>
      <v1:amount>200</v1:amount>
      <v1:branchCode>050356</v1:branchCode>
      <v1:ticketNumber>8370</v1:ticketNumber>
      <v1:sessionID>2953</v1:sessionID>
      <v1:terminalID>99</v1:terminalID>
      <v1:operatorID>65</v1:operatorID>
      <v1:transactionType>CANCEL</v1:transactionType>
      <v1:transactionSource>POS</v1:transactionSource>
      <v1:Message>
        <v1:VariableAirtimeRequest>
          <v1:OriginalTransactionDetails>
            <v1:referenceNumber>XP6YDM8H5HELAY</v1:referenceNumber>
          </v1:OriginalTransactionDetails>
        </v1:VariableAirtimeRequest>
      </v1:Message>
    </v1:Request>
```

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```
  </soapenv:Body>
</soapenv:Envelope>
```

4.4.2   SUCCESSFUL RESPONSE FOR CANCELLING A VOUCHER

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <vvp:Response                responseCode="0"                responseDescription="Success"
xmlns:vvp="http://www.shoprite.co.za/MoneyMarket/Vendors/Schemas/v1.0">
      <vvp:partnerID>007</vvp:partnerID>
      <vvp:creationDate>2021-07-09T14:24:25.257</vvp:creationDate>
      <vvp:mmTransactionGuid>a27ebc90-6109-48da-97fc-f871e56ec767</vvp:mmTransactionGuid>
      <vvp:mmTransactionID>82740</vvp:mmTransactionID>
      <vvp:amount>200</vvp:amount>
      <vvp:branchCode>050356</vvp:branchCode>
      <vvp:ticketNumber>8370</vvp:ticketNumber>
      <vvp:sessionID>2953</vvp:sessionID>
      <vvp:terminalID>99</vvp:terminalID>
      <vvp:transactionType>CANCEL</vvp:transactionType>
      <vvp:transactionSource>POS</vvp:transactionSource>
      <vvp:Message>
        <vvp:vendorReference>INDMYZFBR72KIR</vvp:vendorReference>
        <vvp:VariableAirtimeResponse responseCode="0" responseDescription="Success">
          <vvp:instructions/>
        </vvp:VariableAirtimeResponse>
      </vvp:Message>
    </vvp:Response>
  </soap:Body>
</soapenv:Envelope>
```

STATUS_CODE	STATUS_DESCRIPTION
1	Active
3	Terminate
5	In-process
6	Used
7	Internet Recharge
9	Archived
12	**Sold**
13	**Recalled**

APPENDIX A: DOCUMENT CHANGE DETAILS

DOCUMENT HISTORY			
Revisions	**Section**	**Description of section change**	**Date**
0.1		Initial draft	

Title: Variable Voucher Spec
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| 1.0 | | First Version | |
| 1.1 | | New version | |

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