**KCB B2C 1.0**

**Service Specification Document**

**Date: 12th November 2020**

**Version: 1.0**

**Revision History**

|  |  |  |  |
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**Sign Off required**

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# Introduction

**Scope of this document**

The purpose of this document is to provide a comprehensive specification for the KCB B2C Engine and supporting services. Therefore the scope covered in the document include:

1. B2C Engine database structure
2. B2C Partner Onboarding and subscription
3. B2C Transactions
4. B2C Engine Web Services

# Design Constraints, Assumptions, Dependencies and Risks

**Design Constraints and Assumptions**

**Assumptions**

|  |  |
| --- | --- |
| # | Description |
| 1. | There exists interface to core banking for B2C transactions |
| 2. | The channels will interface to core banking then the Core banking will forward the request to B2C engine |
|  |  |

**Dependencies**

1. Core bank integration test platform and service specifications
2. B2C Partner test platforms

**Risks**

1. Network connection failure
2. Network latency leading to increased timeouts and reversals.

**Logging**

Standard Logging guidelines will be followed while implementing logging for the KCB B2C Solution, as follows.

1. The Input, Output and Error messages will be logged.
2. Any sensitive information (e.g. passwords, keys) will not be stored in the logs
3. An audit trail of privileged and user accounts activities will be maintained (including successful and failed login attempts).
4. The audit trail will contain the following; who (User Id)? Did what (action performed, value changed from what to what)? When (Date and time)? From Where (IP Address)?
5. All system components will have logging in place.

# Solution Platform Overview

**High level architecture**

**Process Flow:**

1.Core banking System sends JSON request to B2C Engine.

2.The Engine checks the Source System IP to confirm that its for KCB Core banking. If ok, It insert the request into Transactional Database.

3.After security checks, the engine sends the request to Safaricom Daraja for B2C transaction.

4.The engine will then wait for the Callback incase the transaction was a success.

5.B2C Engine then respond to the Core banking System after updating the transaction status on the transaction DB.

N/B:

Safaricom B2C API is Asynchronous, so the engine will expose endpoint for Call backs. Engine will send the final status of the transaction to Core banking after receiving callback from Safaricom.

**Non-Functional Requirements**

**Exception Handling**

Exceptions are handled using standard Error handling guidelines. In case of exception proper fault message will be returned to end user.

|  |  |  |
| --- | --- | --- |
| # | ExceptionType | Fault Message |
|  | InvalidAccountException | Validation error: Invalid Account Provided |
|  | InvalidReferenceException | Validation error: Invalid Reference ID provided |
|  | ConnectionTimeoutException | Unable to establish connection |
|  |  |  |

Sample Request I/O to the B2C Engine:

Request:

{

"header": {

"messageID": "12345666",

"featureCode": "201",

"featureName": "FinancialTransactions",

"serviceCode": "2001",

"serviceName": "FundsTransfer",

"serviceSubCategory":"Account",

"minorServiceVersion": "1.0",

"channelCode": "01",

"channelName": "atm",

"routeCode": "01",

"timeStamp": "22222",

"serviceMode": "sync",

"subscribeEvents": "1",

"callBackURL": ""

},

"requestPayload": {

"transactionInfo": {

"companyCode": "KE0010001",

"transactionType": "Payment Notification",

"creditAccountNumber": "",

"credintMobileNumber":"",

"transactionAmount": "",

"transactionReference": "",

"currencyCode": "",

"amountCurrency": "",

"dateTime": "",

"dateString": "",

}

}

}

Response:

{

"header": {

"messageID": "12345666",

"conversationID": "123123131312",

"targetSystemID": "123123131312",

"routeCode": "01",

"statusCode":"0",

"statusDescription":"Success",

"statusMessage":"TRANACTION FOR TYPE ACZW SUCCESSFUL"

},

"responsePayload": {

"transactionInfo": {

"transactionId": "FT20114XHFQF",

"falconBalance":"10.00"

}

}

}