**JS Integration API – Documentation**

Inov8 Limited

7/11/2018



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Table of Contents

[Revision History 3](#_Toc519094472)

[1 Introduction 4](#_Toc519094473)

[2 Connectivity 4](#_Toc519094474)

[3 Security 4](#_Toc519094475)

[4 Test System Account and URL 5](#_Toc519094476)

[5 Guideline 5](#_Toc519094477)

[6 JS Account Opening API 6](#_Toc519094478)

[6.1 Cash In 6](#_Toc519094479)

[6.2 Title Fetch 8](#_Toc519094480)

6.2 Title Fetch………………………………………………………………………………………………………………………………………………………..8

[7 Error code l***is***t 10](#_Toc519094481)

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## Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Author** | **Description** | | **Version** |
| 7/11/2018 | M Ahsan Raza | Initial Draft | 1.0 | |

# Introduction

This document provides an overview of Inov8’s JS Account Opening API via Fone Pay. This API provides features for interconnectivity between disparate global systems for availability JS Account Opening.

# Connectivity

The service is made available to the partner systems via a SOAP service. To access this API the partner system is provided a user name and password which is required to be supplied for each transaction request. Because of the fact that SOAP service are platform independent the system allows for integration with heterogeneous systems developed in any technology.

This API is developed using J2EE 1.6 on top of Apache CXF framework. It has a SOAP based interface which is a worldwide standard. Apache CXF promises high performance and scalability and provides very flexible deployment options.

# Security

The service is not available over the internet so the access is only granted to the allowed IP addresses. The partner is provided a user name and a password which is mandatory for every transaction and a transaction is carried out only after the partner is authenticated using the provided user name and password. Following are the salient security features of the system.

* The system employs industry standard security techniques to prevent disclosure of sensitive data and to avoid malicious attacks.
* The system is capable of using public-private key encryption between the client and the server.
* The public / private key pairs are changed periodically.
* All user passwords are encrypted using one way encryption.
* For the web users ACEGI framework is used for user authentication and authorization.
* All communication is done over Secure Socket Layer (SSL)
* Values input into every field are validated before use.
* Actions that seem to destroy data actually move it to a place where it can still be reviewed by administrators.
* The data access layer will be responsible for preventing SQL injection attacks (i.e., hackers attempting to enter SQL statements through application UI fields) (By Using Hibernate)
* The data access layer will allow read-only connections, which will be used for most requests, as well as write connections for requests that update the database

# Test System Account and URL

The test bed provided by Inov8 for JS Account Opening API provides the exact functionality as that of the live system except for the fact that the transactions sent to test systems do not debit/credit real accounts. The purpose of the test system is to verify the integration mechanics and transaction flow.

Once the partner is integrated with the test system, they are asked to run all the transaction scenarios and share the results so as to move forward towards the live cutover. Once the tests are successful on the test bed, moving to the live systems is only a matter of accessing the service on a different VPN. The rest of everything remains the same.

# Guideline

|  |  |  |
| --- | --- | --- |
| 1 | Channel ID | e.g. FonePay, APIGEE |
| 2 | Terminal ID | Third party (Careem etc.) |
| 3 | RRN | 12 digit unique number |
| 4 | Payment Type | 02 (for Wallet) |

# JS Account Opening API

## Cash In

Request Fields

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Serial # | Data Element Name | Attribute Type | Mandatory(M/N) | Sample Request Value | Comments |
| 1 | User Name | String(AN) | M(AES Encrypted) | APIGEE | User Name required for authentication |
| 2 | Password | String(AN) | M(AES Encrypted) | APIGEE@123 | Password required for authentication |
| 3 | Mobile Number | String | M | 03421654789 | Consumer mobile number |
| 4 | Date Time | String | M | 20170706121212 | Transaction initiate date time required in the following format  yyyyMMddHHmmss |
| 5 | Retrieval Reference Number | String(N) | M | 265974513254 | Transaction unique identifier |
| 6 | Channel ID | String | M | APIGEE | To identify from which channel we received request |
| 7 | Terminal ID | String | M | Daraz.pk, Careem etc. | Third party Id – Careem etc. |
| 8 | OTP (Removed from request) | String | O | 12345 | OTP code sent on mobile number |
| 9 | Amount | String | M | 2000.00 | Cash In amount |
| 10 | Payment Source | String | O | HRA | Payment mode should be HRA incase if Cash in call is being used to transfer remittances in HRA Account. |
| 11 | Segment Code | String | O | 10002 | Segment Code created on JS BLB Admin portal |
| 12 | Reserved1 | String(255) | O |  |  |
| 13 | Reserved2 | String (255) | O |  |  |
| 14 | Reserved3 | String (255) | O |  |  |
| 15 | Reserved4 | String(255) | O |  |  |
| 16 | Reserved5 | Byte Array | O |  |  |
| 17 | Data Hash | String(255) | M |  | Hash code of the all above data (concatenated data) hashed using SHA256 |

Response Fields

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Serial # | Data Element Name | Attribute Type | Mandatory(M/N) | Sample Request Value | Comments |
| 1 | Retrieval Reference Number | String(N) | M | 265974513254 | Transaction unique identifier |
| 2 | Response Code | String | M | 00 | Transaction successfully done , failure code |
| 3 | Response Description | String | M | Successful , transaction failure | Transaction successfully done , failure Description according to the response code |
| 4 | Customer Mobile | String | O | 03115020156 | Customer mobile number |
| 5 | CNIC | String | O | 3410311813043 | Customer CNIC number |
| 6 | Transaction date time | String | O | 20170706121212 | Transaction date and time when processed |
| 7 | Transaction Processing Amount | String | O | 20.00 | Transaction processing fee charges |
| 8 | Commission Amount | String | O | 0.00 | Commission amount |
| 9 | Total Amount | String | O | 2020.00 | Total accumulated amount |
| 10 | Transaction ID | String | O | 396382751019 | Transaction ID for tracking |
| 11 | Transaction Amount | String | O | 2020.00 | Total Transaction amount |
| 12 | Remaining Balance | String | O | 6,977.00 | Remaining balance of account after transaction processing. |
| 13 | Data Hash | String(255) | M |  | Hash code of the all above data (concatenated data) hashed using SHA256 |

## Title Fetch

Request Fields

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Serial # | Data Element Name | Attribute Type | Mandatory(M/N) | Sample Request Value | Comments |
| 1 | User Name | String(AN) | M(AES Encrypted) | APIGEE | User Name required for authentication |
| 2 | Password | String(AN) | M(AES Encrypted) | APIGEE@123 | Password required for authentication |
| 3 | Mobile Number | String | M | 03421654789 | Consumer mobile number |
| 4 | Date Time | String | M | 20170706121212 | Transaction initiate date time required in the following format  yyyyMMddHHmmss |
| 5 | Retrieval Reference Number | String(N) | M | 265974513254 | Transaction unique identifier |
| 6 | Channel ID | String | M | APIGEE | To identify from which channel we received request |
| 7 | Terminal ID | String | M | Daraz.pk, Careem etc. | Third party Id – Careem etc. |
| 8 | Payment Source | String | O | HRA/BLB  Default BLB | There are two payment methods HRA,BLB |
| 9 | Segment Code | String | O | 10002 | Segment Code created on JS BLB Admin portal |
| 10 | Reserved1 | String(255) |  |  |  |
| 11 | Reserved2 | String(255) | O |  |  |
| 12 | Reseved3 | String(255) | O |  |  |
| 13 | Reserved4 | String(255) | O |  |  |
| 14 | Reserved5 | byte Array | O |  |  |
| 15 | data Hash | String(255) | M |  | Hash code of the all above data (concatenated data) hashedusing SHA256 |

Response Fields

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Serial # | Data Element Name | Attribute Type | Mandatory(M/N) | Sample Request Value | Comments |
| 1 | Retrieval Reference Number | String(N) | M | 265974513254 | Transaction unique identifier |
| 2 | Response Code | String | M | 00 | Transaction successfully done , failure code |
| 3 | Response Description | String | M | Successful , transaction failure | Transaction successfully done , failure Description according to the response code |
| 4 | Customer Mobile | String | O | 03115020156 | Customer mobile number |
| 5 | Cnic | String | M | 35202548964568 | Customer Cnic Number |
| 6 | Customer Name | String | M | John | Customer Name |
| 7 | Account Title | String | M | Mr john Michel | Customer First+middle+last Name |
| 8 | Transaction date time | String | O | 20170706121212 | Transaction date and time when processed |
| 9 | Balance | String | O | 6,977.00 | Remaining Account Balance |
| 10 | Remaining Credit Limit | String | O | 10000,50000,100000 | Daily,monthly,yearly |
| 11 | Remaining Debit limit | String | O | 10000,50000,100000 | Daily,monthly,yearly |
| 12 | Consumed Velocity | String (N) | O | 3 or 5 | Initially this parameter will accept null value also though velocity pricing functionality is not fully implemented in Js system. |
| 13 | Data Hash | String(255) | M |  | Hash code of the all above data (concatenated data) hashed using SHA256 |

# Error code list

|  |  |
| --- | --- |
| Response Code | Description |
| 09 | Invalid input |
| 10 | General Error |
| 11 | An error has occurred, please try again or contact your service provider. |
| 12 | An error has occurred, please try again or contact your service provider. |
| 13 | Account is not Active |
| 14 | No Customer found against given CNIC/Mobile Number |
| 15 | Customer account has been Closed |
| 16 | Customer account has expired |
| 17 | Customer account has been blocked |
| 18 | Customer credentials have been expired |
| 19 | Customer account has been deactivated |
| 20 | No Credentials Exist Against Customer |
| 21 | Invalid Credentials against Customer |
| 22 | Customer CNIC is blacklisted. Please contact your service provider |
| 23 | Mobile No is already in use |
| 24 | CNIC is already in use |
| 25 | Service disabled |
| 26 | Invalid input provide |
| 27 | An error has occurred, please try again or contact your service provider |
| 28 | FonePay service not enabled |
| 51 | Virtual Card Already Tagged |
| 52 | Provided Card Is Blocked |
| 53 | Provided Card Has Been Expired |
| 54 | Provided Card's Expiry Date Is Incorrect |
| 55 | Provided Card Does Not Exist |
| 56 | Transaction code Does not exist |
| 57 | Transaction code Invalid |
| 58 | OTP is Invalid |
| 59 | OTP Expired |
| 62 | MPIN retries limit exhausted. Please contact service provider to regenerate MPIN. |
| 63 | Invalid PIN, Please retry. |
| 64 | Account Pin Change Required |
| 65 | Your Account Is Inactive. |
| 66 | Account Is Not Activated. |
| 67 | Mobile No is already registered as a customer |
| 68 | Mobile No is already registered as a retailer |
| 69 | Mobile No is already registered as a handler |
| 70 | CNIC is already registered as a customer |
| 71 | CNIC is already registered as a retailer |
| 72 | CNIC is already registered as a handler |
| 73 | Provided CNIC is blacklisted. Please contact your Administrator. |
| 74 | Your account has been closed. Please contact service provider. |
| 75 | Your account has expired |