AU Small Finance Bank

API Banking Integration Document

Penny Drop API

Contents

Project – API Banking.
Document Type – Integration Specification Document.

Prepared by	Reviewed by	Approved by
Kunal Boriwal	Anil Kumar Neelam	

Change History -

Version	Changed by	Date	Change Information.
1.0	Vishal Tyagi	21/10/2024	Updated Penny drop URL
2.0			

Introduction:

The world is evolving with newer technologies at fast-moving speeds and the banking industry is often the first to jump in to experiment with this. Among them, API has been the biggest advancement in the banking segment. Open banking enables Corporates/SMEs, to access consumer's banking and other financial data by using open APIs.

AU Small Finance Bank API Banking enables its partner organizations to seamlessly co-create unique client solutions, enhancing their productivity. API Banking enables to manage your relevant banking activities from your server (such as collections, payments, reconciliations, account balance and retrieving bank statements). That's not all, it links appropriate APIs with your server based on your business needs to give you an integrated banking solution thus saving time on bank branch visits.

Penny Drop API

It uses IMPS mode to validate the beneficiary of a transaction where in Rs 1 is deposited into the beneficiary account and the resultant response confirms the beneficiary.

1. This service is used for validating the beneficiary account holder name.
2. Basis on beneficiary account holder name & IFSC code, account holder name is getting displayed.
3. One rupee is deducted from sender account and getting credited to beneficiary account.

Primary purpose of Penny Drop

1. To ensure beneficiary bank account existence
2. To ensure bank account belongs to the same customer or not (through the account holder's name validation)
3. To ensure bank account is active, i.e., the account is not frozen/closed and is accepting credits

Pre -requisite mandatory details to share (Need to share Duly for UAT / Prod) -

- Public IP.

Encryption – Decryption Methodology:

- Follow the Symmetric Encryption AES 256 bits -CBC (64 bytes key).

Token OAuth generation service.

Generate Access token by calling URL and select GET method (Query string) –

https://api.aubankuat.in/oauth/accesstoken?grant_type=client_credentials

Headers: Authorization: Basic <User:Password> (Bank will provide the credentials)

Refer the sample response –


```
{
   "refresh_token_expires_in": "0",
   "api_product_list": "[LDAP, Oauth, Payment, Customer Onboarding, karza,
CBSMiniStatementService, test]",
   "api_product_list_json": [
      "LDAP",
      "Oauth",
      "Payment",
      "Customer Onboarding",
      "karza",
      "CBSMiniStatementService",
      "test"
   ],
   "organization_name": "au-apigee-nprod",
   "developer.email": kunal.boriwal@aubank.in,
   "token_type": "BearerToken",
   "issued_at": "1704950669618",
   "client_id": "2I7UVNalTfFBxm3ZYxOtzYXwXX1PMIJCSSFf6AMipK0H0zR9",
   "access_token": "lEbnG39cJwC4lKUe5fliVA9HFcyR",
   "application_name": "f0556c9d-6c97-40aa-8d4e-c6bb190ef2ce",
   "scope": "",
   "expires_in": "86399",
   "refresh_count": "0",
   "status": "approved"
}
```


***Note: Token will valid upto 24hrs in UAT and 06 months in production.*

Error code handling –

Error Code	Description	Message
401	Unauthorized	Invalid authentication credentials
404	Not Found	Not found
500	Internal Server Error	Something went wrong

Request Payload Parameter –

Field Name	Data Type	Length	Mandatory	Description
RequestId	String	--	Y	Unique id of the API request.
OriginatingChannel	String	--	Y	Source Channel- Provided by bank
ReferenceNumber	String		Y	Unique Reference no.
RemitterAccountNo	String	--	Y	Remitter's account number
BeneficiaryIFSCCode	String	--	Y	IFSC code of beneficiary
TransactionBranch	String	--	Y	Transaction branch number
BeneficiaryAccountNo	String	--	Y	Account number to be verified.

Response Payload Parameter –

Field Name	DataType	Length	Mandatory	Description
MSGSTATUS	String	--	Y	Internal Status Code that denotes the status of the request.
txnRefNo	String	--	Y	Bank transaction Ref. no.
TXNID	String	--	Y	Bank transaction ID.
resp	Object	--	Y	Response object for the given inputs.
respDesc	String	--	Y	Response message of API
benName	String	--	Y	Name of the account holder.
respCode	String	--	Y	bankResponse code

Refer Sample Payload –

UAT End point URL (This service will be called by selecting POST method).
https://api.aubankuat.in/cbs/IMPSPennyDropService/pennydrop

Request	Response

{
"RemitterAccountNo": "1000000000000048",
"RequestId": "12345654327",
"OriginatingChannel": "CIB",
"ReferenceNumber": "12345654327",
"BeneficiaryAccountNo": "123456042",
"TransactionBranch": "2011",
"BeneficiaryIFSCCode": "DNSB0000001"
}
	{
	"MSGSTATUS": "SUCCESS",
	"resp": [
	{
	"respDesc": "Beneficiary Available",
	"benName": "Kiran Kumar",
	"respCode": "00"
	}
	],
	"txnRefNo": "2432502906452251",
	"TXNID": "2432502906452252"
	}

Authentication Methods:

1. For secure access & seamless experience, we do follow OAuth 2.0 authenticated method prior to every API services call.
2. During the onboarding process, AU Bank will share the credential file (Contract note) separate for both UAT & Prod.
3. Client id, Client secret & encryption key is mentioned over here. This would be primary level of authentication mode.
4. Partner needs to pass these values for end-to-end integration testing.

Procedure to call the OAuth 2.0 Access Token API:

Step #1: Generate Access token by calling URL –
https://api.aubankuat.in/oauth/accesstoken?grant_type=client_credentials
Authorization Type as basic set the Username and password.

#Sample case

Username	Vit8FwGcDwvRJzq6eHoP9G6XFA7LmtTr6eABGbaQ33N1Ht3H
Password	eMRE4ldU2goAr2uZvm5XeRnbQki0WDTgvPXQpQyHJvJeaFi8Ip4TAghI9wBa7PxA

** Note: Username and password will be available as client id and client secret.

Response: Copy the Access Token Field from the response payload

Step #2: To Make respective Service call, Copy the endpoint URL from contract note-
URL : *******
Header: Key- Authorization
Value-<<Bearer Token>>

Body: JSon request Body with encrypted payload as value

Format:
{
"encvalue":"<<response from aesencrypt>>"
}
Response: Copy the response - which will be in encrypted format

1. **Endpoints and Request/Response Formats:**

   - Penny drop API services is having specific endpoint urls which is mentioned against each API service description.
   - All services payload is defined in Rest based API- Json format payload.
   - OAuth Token generation would make use of GET method as query parameter.
   - It is advisable to initiate the integration testing i.e. 1st level through postman tool then, followed with application-level testing.

2. **Error Handling**

   - Penny drop API service is defined with appropriate response i.e. Success or failure.
   - In case of failure or error encounter- various error code/ messages are mentioned in each respective service content.
   - This would be helpful in troubleshooting & debugging the issue and getting the expected response.
   - For feasible analysis, you must share the plain text payload with proper timestamp and error screenshot.

3. **Data Security Measures**

   - For Penny drop API services - bank follows encryption – Decryption methodology.
   - Algorithm keyword: Symmetric encryption AES – 256 bits -CBC – 64 bytes key

4. **Testing and Sandbox Environment:**
   - 1st level – Partner needs to execute the end-to-end testing in UAT through postman tool and then, follow with application-level testing. Post result Partner needs to share the Test results with bank.
   - Post test-Results reviewing, we will be considered the UAT sign off.
   - Once UAT is cleared, then partner will be moved to production environment.

5. **Troubleshooting and Support:**
   - Partner needs to share the error encountered plain text request and response payload, IP address, API key in notepad for debugging over mail.
   - If the issue persists again, we can connect jointly over MS Teams to close the issue.

FAQs

1. Is Penny drop follows Maker- Checker mode?
   - No, as per current functionality, Penny drop API is always Straight Through Processing (STP) mode
2. Are the Corporate account gets debited in Penny Drop API?
   - Corporate account gets debited with Rs 1 and beneficiary account gets credited.

Important Notes:

1. Post receiving the prerequisite details, UAT integration details will be shared within 4 working days.
2. For any integration issue, please check the "Troubleshooting and Support" section of the document. For any further query please write a mail to **api.dev-team@aubank.in**
3. Partner needs to test all the scenarios and provide signoff to proceed with Production deployment.
4. Post receiving UAT signoff, Bank will require 4- 5 Working days for production deployment and sharing production contract notes. Production movement slot can be raised either on Monday or Thursday in week and next day will confirm and share the contract note.
5. There will be a production deployment freeze on every month end from 25th to 4th day of next month.
6. For any queries on the transaction status post go live, please write an email to customercare@aubank.in with transaction details.