Pine Labs

E-POS INTEGRATION GUIDE

Version – 2.2

Contents

Disclaimer & Legal Notice

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Revision History

Version	Modified	Description	Date
1.0	Pine Labs	Initial document creation	26-Dec-18
1.0.1	Pine Labs	Updated Constants in Section 8	05-Mar-19
1.0.2	Pine Labs	Updated Security Req.	05-Jul-19
2.0	Pine Labs	Re-formatting done, Remove Security & Validation testing section.	13-Apr-20
2.1	Pine Labs	Reference Section added with other minor changes.	13-Apr-20
2.2	Pine Labs	Remove irrelevant parameters from Request parameter table	14-Apr-20

1. Introduction

ePOS is an Android app that enables merchants to accept payments. It offers quick onboarding, fast transaction speed and intuitive interface. Integrate it with your apps for creating innovative solutions on merchant's Android device.

ePOS integration allows you to access the following features:
- Accept payments using multiple payment modes- credit card, debit card, UPI, digital wallets
- Simplified reconciliation for all your payment modes
- Create users on the go for expanding business
- Unified view of all payment's transactions

2. Sample Use Case

1. User has selected products and checkout for payment.

2. User selects payment mode and proceeds for payment.

3. Billing app call DoTransaction API with payment amount.

4. ePOS processes the payment and merchant receives notification on his mobile.

3. Inter-app Communication

Billing application will communicate with *EPOS APIs* for transactions. For communication, it will use *Messenger over Bound Service.*

In this process, the service defines a *Handler* that responds to different types of *Message* objects. This *Handler* is the basis for a *Messenger* that shares an *IBinder* with the client, allowing the client to send commands to the service using Message objects. Additionally, the client defines a *Messenger* of its own to send messages back. This technique allows the apps to perform Inter-Process Communication (IPC).

4. Getting Started On Developer Portal

To integrate your app(s) with ePOS API on the Android devices, following steps need to be followed:

1. Firstly, you need to create a developer account in (https://developer.pinelabs.com/) with Pine Labs using Signup option.
2. Once signed-up, sign-in to your developer account to proceed.
3. After signing-in, you need to create a billing application profile using 'Add APP' option.
4. Once the billing application profile is created, you can now proceed with the code integration and use test key for unit testing with the simulator application (available in GitHub).

5. Unit-testing using Simulator includes the below mentioned steps:
   a. First, you need to add your mobile device by using the 'Add Device' option, ignore if already done.
   b. You need to map the device with the billing application.
   c. Next, you need to download the simulator application available on the GitHub.
   d. Now, install this simulator application on your mobile and activate it. Simulator App Username is 1234 & Password is 1234.
   e. Post activation, the application is all set for testing.
   f. To proceed further, you will need to add the test-key in your billing application provided for application testing available on the portal. This test-key is unique for every application.
   g. For reference, you can download a sample billing application along with source code available on GitHub.
   h. During unit-testing phase, you can also download and execute sample test cases as available on GitHub.
6. Post development and unit-testing, you need to go for Certification on the Simulator App.
7. You need to create test plan for the billing application and run test steps to complete all the test cases under this test plan as guided on the developer portal.
8. Once you run the test cases, the logs will be uploaded through Simulator App for validation, and execution will be verified by system.
9. Post completion of test cases execution, you will get an option to proceed for the application Certification.
10. You will be given Production key for the application and you will be required to upload application APK with this key and other details.
11. Post above activity, your application is ready for production. Production ePOS App is available on Google Play Store.

5. API Integration Process

Messenger usage flow:

1. ePOS will host a service that will implement a *Handler* for receiving call-back from Billing App.
2. This handler will create a *Messenger* object which further creates an *IBinder* object which ePOS service returns to Billing App.
3. Billing App will use the *IBinder* object to create a *Messenger* object to send *Message*s.
4. The service running in ePOS will receive each Message in JSON string format in its Handler and corresponding API action is performed.
5. After processing the API request, the service will respond back in JSON string format to Billing App using *Messenger*.

Sample Code for calling ePOS API from Billing App

1. Billing App will bind to the **ePOS** service Handle

```
Intent intent = new Intent();
intent.setAction(EPOS_ACTION);
intent.setPackage(EPOS_PACKAGE);
bindService(intent, connection, BIND_AUTO_CREATE);
```

2. After successful binding, the Service will respond to the *ServiceConnection* by returning to *onServiceConnected()*. A new messenger will be created using returned *IBinder*.

```
private ServiceConnection connection = new ServiceConnection()  {

  @Override
  public  void onServiceConnected(ComponentName  name, IBinder service)
{
        mServerMessenger = new Messenger(service);
        isBound = true;
  }

  @Override
  public void onServiceDisconnected(ComponentName  name) {
        mServerMessenger = null;
        isBound = false;
  }
}
```

3. A message will be created and sent using the above *mServerMessenger*. This message will contain the API request information.

```
Message message = Message.obtain(null, MESSAGE_CODE);
Bundle data = newBundle();
String value = {
  "Header" : "{
        "ApplicationId" : "abcdefgh",
        "UserId" : "user1234",
        "MethodId" : "1004",
        "VersionNo" : "1.0"
        }
  }"; // sample json request
data.putString(BILLING _REQUEST_TAG, value);
message.setData(data);
try  {
    message.replyTo = new Messenger(new IncomingHandler());
    mServerMessenger.send(message);
} catch (RemoteException e) {
    e.printStackTrace();
}
```

4. On receiving the response back from Service, Billing App will process the response in *IncomingHandler*.

```
private class IncomingHandler extends Handler {
  @Override
  public void handleMessage(Message msg) {
        Bundle bundle = msg.getData();
        String value = bundle.getString(BILLING_RESPONSE_TAG);
        // process the response Json as required.
  }
}
```

List of Constants:

Name	Value
EPOS_PACKAGE	com.pinelabs.epos
EPOS_ACTION	com.pinelabs.masterapp.SERVER
MESSAGE_CODE	1001
BILLING _REQUEST_TAG	MASTERAPPREQUEST
BILLING_RESPONSE_TAG	MASTERAPPRESPONSE

6. Request – Header Information

Below are the parameters of *Header* which will be common for all API requests.

Parameter Name	Description	Data Type	Is Mandatory
ApplicationId	Unique application Id issued by Pine Labs	String (100)	Yes
UserId	Billing app user-Id/name	String (100)	No
MethodId	Unique Method Id. Refer Method List in Glossary sections	String (10)	Yes
VersionNo	API version number. For e.g. "1.0"	String (10)	Yes

Sample Request

```
{
   "Header": {
      "ApplicationId": "abcdefgh",
      "UserId": "user1234",
      "MethodId": "1001",
      "VersionNo": "1.0"
   }
}
```

7. Response – Header Information

Below are the parameters of *Header* data which will be common for all API responses.

Parameter Name	Description	Data Type
ApplicationId	Unique application Id issued by Pine Labs	String (100)
UserId	Billing app user-Id/name	String (100)
MethodId	Unique Method Id. Refer Method List in Glossary section.	String (10)
VersionNo	API version number. For e.g. "1.0"	String (10)

Below are the parameters of *Response* data which will be common for the entire APIs response.

Parameter Name	Description	Data Type
ResponseCode	Response code	String (10)
ResponseMsg	Response message	String (255)

```
{
"Header": {
    "ApplicationId": "abcdefgh",
    "UserId": "user1234",
    "MethodId": "1001",
    "VersionNo": "1.0"
  },
  "Response": {
    "ResponseCode": "00",
    "ResponseMsg": "Success"
  }

}
```

8. API Details

8.1 DoTransaction

This API will be called when Billing App completes the product selection and is ready to accept payment from the customer. Billing App will add all required tender options in its App and call this API with specific tender such as Sale.

Refer Transaction Types for complete list of transactions supported.

8.1.1 Request Parameter

S. No.	Tag Name	Description	Data Type	Is Mandatory
1	TransactionType	The type of payment transaction to be processed. Refer Transaction Types section for all possible values.	Long	Yes
2	BillingRefNo	Transaction reference number from external application.	String (10)	Yes
3	PaymentAmount	Amount to be charged to customer – expressed as a whole number in lowest currency unit (i.e. in paise)	Long	Yes
4	BankCode	Payment mode for accepting payment. See payment modes for possible values.		
5	InvoiceNo	If independent transaction, then it is not required. Else in case of dependent transaction, it is the Invoice number of parent transition.	String (6)	No

6	BatchNo	If independent transaction, then it is not required. Else in case of dependent transaction, it is the Batch Id of parent transition.	Integer (9001-99999)	No
7	Roc	If independent transaction, then it is not required. Else in case of dependent transaction, it is the Roc of parent transition.	Integer (101-999)	No

Sample JSON Request

8.1.1.1 UPI Sale

```
{
  "Detail": {
        "BillingRefNo": "155237781",
        "BankCode": 4,  //ICICI UPI
        "PaymentAmount": 1411,   // Requested amount Rs.14.11
        "TransactionType": 5120
  },
  "Header": {
   "ApplicationId": "1001",
   "MethodId": "1001",
   "UserId": "UserId",
   "VersionNo": "1.0"
  }
}
```

Response:
```
{
  "Header": {
   "MethodId": "1001",
   "ApplicationId": "1001",
   "UserId": "userId",
   "VersionNo": "1.0"
  },
  "Detail": {
   "HostResponse": "TRANSACTION INITIATED CHECK GET STATUS",
   "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
   "MerchantCity": "Delhi",
   "AcquiringBankCode": "4",
   "PlutusVersion": "v1.0.0",
   "Remark": "TRANSACTION INITIATED CHECK GET STATUS",
   "LoyaltyPointsAwarded": 0,
   "MerchantId": "ICIC000000649003",
   "BillingRefNo": "upi1234",
   "TerminalId": "20020000172",
   "InvoiceNumber": 105,
   "AmountProcessed": "2000",
   "PrintCardholderName": 0,
   "TransactionTime": "001109",
   "PineLabsBatchId": 2000,
```

```
    "CardType": "UPI",
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 5120,
    "BatchNumber": 9007,
    "AcquirerName": "ICICI UPI"
  },
  "Response": {
    "ParameterJson": "parameter",
    "ResponseCode": 100,
    "AppVersion": "190618",
    "ResponseMsg": "TRANSACTION INITIATED CHECK GET STATUS"
  }
}
```

8.1.1.2 Get Status of UPI

Request:
```
{
  "Detail": {
    "BankCode": "04",
    "BatchNo": 9007,
    "BillingRefNo": "upi1234",
    "PaymentAmount": 2000,
    "Roc": 105,
    "TransactionType": 5122
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  }
}
```

Response:
```
{
  "Header": {
    "MethodId": "1001",
    "ApplicationId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  },
  "Detail": {
    "HostResponse": "APPROVED",
    "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
    "MerchantCity": "Delhi",
    "AcquiringBankCode": "4",
    "PlutusVersion": "v1.0.0",
    "Remark": "APPROVED",
    "LoyaltyPointsAwarded": 0,
```

```
    "MerchantId": "ICIC000000649003",
    "BillingRefNo": "upi1234",
    "TerminalId": "20020000172",
    "InvoiceNumber": 106,
    "AmountProcessed": "2000",
    "RetrievalReferenceNumber": "009900415668",
    "PrintCardholderName": 0,
    "TransactionTime": "001436",
    "ApprovalCode": "000039",
    "CardNumber": "1234****dfcbank",
    "PineLabsBatchId": 2000,
    "CardType": "UPI",
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 5122,
    "BatchNumber": 9007,
    "AcquirerName": "ICICI UPI"
  },
  "Response": {
    "ParameterJson": "parameter",
    "ResponseCode": 0,
    "AppVersion": "190618",
    "ResponseMsg": "APPROVED"
  }
}
```

8.1.1.3 UPI Void

Request:
```
{
  "Detail": {
    "BankCode": "01",
    "BatchNo": 9007,
    "BillingRefNo": "card1234",
    "PaymentAmount": 2000,
    "Roc": 105,
    "TransactionType": 5121
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  }
}
```

Response:
```
{
  "Header": {
    "MethodId": "1001",
    "ApplicationId": "1001",
```

```json
    "UserId": "userId",
    "VersionNo": "1.0"
  },
  "Detail": {
    "HostResponse": "APPROVED",
    "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
    "MerchantCity": "Delhi",
    "AcquiringBankCode": "2",
    "PlutusVersion": "v1.0.0",
    "Remark": "APPROVED",
    "LoyaltyPointsAwarded": 0,
    "MerchantId": "ICICI000000649003",
    "BillingRefNo": "upi1234",
    "TerminalId": "20020000172",
    "InvoiceNumber": 107,
    "AmountProcessed": "2000",
    "RetrievalReferenceNumber": "009900415668",
    "PrintCardholderName": 0,
    "TransactionTime": "001550",
    "ApprovalCode": "000040",
    "CardNumber": "1234****dfcbank",
    "PineLabsBatchId": 2000,
    "CardType": "UPI",
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 5121,
    "BatchNumber": 9007,
    "AcquirerName": "ICICI UPI"
  },
  "Response": {
    "ParameterJson": "parameter",
    "ResponseCode": 0,
    "AppVersion": "190618",
    "ResponseMsg": "APPROVED"
  }
}
```

8.1.1.4 PhonePe Wallet Sale

Request:
```json
{
  "Detail": {
    "BillingRefNo": "TX12345678",
    "PaymentAmount": 10000,  //For Amount Rs.100.00
    "BankCode": 105,   //PhonePe
    "TransactionType": 5102
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "UserId",
```

```
    "VersionNo": "1.0"
  }
}
```

8.1.1.5 Freecharge Wallet Sale

Request:
```
{
  "Detail": {
    "BillingRefNo": "TX12345678",
    "PaymentAmount": 10000,   //For Amount Rs.100.00
    "BankCode": 103,   //Freecharge
    "TransactionType": 5102
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "UserId",
    "VersionNo": "1.0"
  }
}
```

Wallet Response Sample:
```
{
  "Header": {
    "MethodId": "1001",
    "ApplicationId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  },
  "Detail": {
    "HostResponse": "TRANSACTION INITIATED CHECK GET STATUS",
    "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
    "MerchantCity": "Delhi",
    "AcquiringBankCode": "105",
    "PlutusVersion": "v1.0.0",
    "MerchantId": "PINELABSEPOS",
    "BillingRefNo": "phonepe1234",
    "TerminalId": "21050000154",
    "InvoiceNumber": 109,
    "AmountProcessed": "3000",
    "PrintCardholderName": 0,
    "TransactionTime": "002306",
    "CardNumber": "******2806",
    "PineLabsBatchId": 3000,
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 25393,
    "BatchNumber": 9007,
    "AcquirerName": "PHONE PE"
  },
```

```
  "Response": {
   "ParameterJson": "parameter",
   "ResponseCode": 100,
   "AppVersion": "190618",
   "ResponseMsg": "TRANSACTION INITIATED CHECK GET STATUS"
  }
}
```

8.1.1.6 Wallet Get status

Request:
```
{
 "Detail": {
   "BankCode": "105",
   "BatchNo": 9007,
   "BillingRefNo": "phonepe1234",
   "PaymentAmount": 3000,
   "Roc": 109,
   "TransactionType": 5112
 },
 "Header": {
   "ApplicationId": "1001",
   "MethodId": "1001",
   "UserId": "userId",
   "VersionNo": "1.0"
 }
}
```

Resposne:
```
{
 "Header": {
   "MethodId": "1001",
   "ApplicationId": "1001",
   "UserId": "userId",
   "VersionNo": "1.0"
 },
 "Detail": {
   "HostResponse": "APPROVED",
   "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
   "MerchantCity": "Delhi",
   "AcquiringBankCode": "11",
   "PlutusVersion": "v1.0.0",
   "Remark": "APPROVED",
   "LoyaltyPointsAwarded": 0,
   "MerchantId": "180704",
   "BillingRefNo": "airtel1234",
   "TerminalId": "20110000155",
   "InvoiceNumber": 117,
   "AmountProcessed": "200",
   "RetrievalReferenceNumber": "42438940",
   "PrintCardholderName": 0,
   "TransactionTime": "003737",
```

```
  "ApprovalCode": "000022",
  "CardNumber": "9739****04",
  "PineLabsBatchId": 200,
  "CardType": "Freecharge",
  "MerchantName": "PANEX OVERSEASE",
  "TransactionDate": "04082020",
  "PineLabsRoc": 5127,
  "BatchNumber": 9007,
  "AcquirerName": "freecharge"
 },
 "Response": {
  "ParameterJson": "parameter",
  "ResponseCode": 0,
  "AppVersion": "190618",
  "ResponseMsg": "APPROVED"
 }
}
```

8.1.1.7 Airtel Money Sale

```
{
 "Detail": {
  "BillingRefNo": "TX12345678",
  "PaymentAmount": 10000,
  "TransactionType": 5127
 },
 "Header": {
  "ApplicationId": "1001",
  "MethodId": "1001",
  "UserId": "UserId",
  "VersionNo": "1.0"
 }
}
```

Response:
```
{
 "Detail": {
  "BatchNumber": 9015,
  "MerchantAddress": "2ND AND 3RD FLOOR BUILDING NO.2 UNITECH ",
  "PlutusVersion": "v1.0.0",
  "AcquiringBankCode": "11",
  "CardNumber": "9739****04",
  "AmountProcessed": "100",
  "TerminalId": "11100000838",
  "Remark": "APPROVED",
  "PineLabsBatchId": 100,
  "LoyaltyPointsAwarded": 0,
  "TransactionTime": "175329",
  "HostResponse": "APPROVED",
  "TransactionDate": "07012019",
  "PineLabsRoc": 5127,
  "RetrievalReferenceNumber": "561374",
```

```
    "AcquirerName": "AIRTEL BANK",
    "ApprovalCode": "000010",
    "MerchantId": "180704",
    "MerchantCity": "ALIGARH",
    "PrintCardholderName": 0,
    "InvoiceNumber": 107,
    "CardType": "Airtel Bank",
    "MerchantName": "vivek PRIVATE LIMITED"
  },
  "Header": {
    "ApplicationId": "1001",
    "UserId": "***123**123***",
    "MethodId": "1001",
    "VersionNo": "1.0"
  },
  "Response": {
    "ResponseMsg": "APPROVED",
    "ResponseCode": 0,
    "AppVersion": "-1",
    "ParameterJson": "parameter"
  }
}
```

8.1.1.8 Credit/Debit Sale

Sample request:

If billing application triggers the transaction using card
```
{
  "Detail": {
    "BillingRefNo": "1552377816904",
    "PaymentAmount": 100,
    "TransactionType": 5561
  },
  "Header": {
    "ApplicationId": "abcdefgh",
    "MethodId": "1001",
    "UserId": "UserId",
    "VersionNo": "1.0"
  }
}
```

8.1.1.9 Bank EMI Sale

If billing application triggers the transaction for Bank EMI
```
{
  "Detail": {
    "BillingRefNo": "1552377816904",
    "PaymentAmount": 100,
    "TransactionType": 5566
    "BankCode" : 1,
```

```
  },
  "Header": {
   "ApplicationId": "abcdefgh",
   "MethodId": "1001",
   "UserId": "UserId",
   "VersionNo": "1.0"
  }
}
```

8.1.1.10   Brand EMI Sale

If billing application triggers the transaction for Brand EMI
```
{
  "Detail": {
   "BillingRefNo": "1552377816904",
   "PaymentAmount": 100,
   "TransactionType": 5567
   "BankCode" : 1,
  },
  "Header": {
   "ApplicationId": "abcdefgh",
   "MethodId": "1001",
   "UserId": "UserId",
   "VersionNo": "1.0"
  }
}
```

Response:
```
{
  "Header": {
   "MethodId": "1001",
   "ApplicationId": "1001",
   "UserId": "userId",
   "VersionNo": "1.0"
  },
  "Detail": {
   "HostResponse": "TRANSACTION INITIATED CHECK GET STATUS",
   "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
   "MerchantCity": "Delhi",
   "PlutusVersion": "v1.0.0",
   "Remark": "TRANSACTION INITIATED CHECK GET STATUS",
   "LoyaltyPointsAwarded": 0,
   "RewardRedeemedPoints": 0,
   "RewardBalancePoints": 0,
   "MerchantId": "7764",
   "BillingRefNo": "card1234",
   "TerminalId": "30400000672",
   "InvoiceNumber": 102,
   "AmountProcessed": "1500",
   "PrintCardholderName": 0,
   "RewardRedeemedAmount": 0,
```

```
    "TransactionTime": "000350",
    "PineLabsBatchId": 1500,
    "CardType": "PG",
    "PineLabsClientId": 3525,
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 5561,
    "BatchNumber": 9007,
    "AcquirerName": "PG"
  },
  "Response": {
    "ParameterJson": "parameter",
    "ResponseCode": 100,
    "AppVersion": "190618",
    "ResponseMsg": "TRANSACTION INITIATED CHECK GET STATUS"
  }
}
```

8.1.1.11   Get Status – Credit/Debit, Bank & Brand EMI

Request:
```
{
  "Detail": {
    "BankCode": "01",
    "BillingRefNo": "TX55555",
    "PaymentAmount": 2000,
    "TransactionType": 5563,
    "BatchNo": 9010,
    "Roc": 102
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "***123**123***",
    "VersionNo": "1.0"
  }
}
```

Response:
```
{
  "Response": {
    "AppVersion": "-1",
    "ParameterJson": "parameter",
    "ResponseMsg": "Approved",
    "ResponseCode": 0
  },
  "Header": {
    "MethodId": "1001",
    "ApplicationId": "1001",
    "VersionNo": "1.0",
    "UserId": "***123**123***"
```

```
  },
  "Detail": {
    "BatchNumber": 9010,
    "CardType": "PG",
    "RewardRedeemedPoints": 0,
    "RewardRedeemedAmount": 0,
    "PlutusVersion": "v1.0.0",
    "Remark": "Approved",
    "RewardBalancePoints": 0,
    "AmountProcessed": "2000",
    "CardNumber": "401200******1112",
    "PineLabsClientId": 2901,
    "MerchantId": "4569",
    "TransactionTime": "181706",
    "PineLabsBatchId": 2000,
    "TransactionDate": "07042019",
    "BillingRefNo": "5",
    "PineLabsRoc": 5563,
    "AcquirerName": "PG",
    "LoyaltyPointsAwarded": 0,
    "HostResponse": "DUPLICATE BILL",
    "RetrievalReferenceNumber": "918510001041",
    "PrintCardholderName": 0,
    "MerchantName": "Squat team",
    "InvoiceNumber": 105,
    "MerchantAddress": "2ND AND 3RD FLOOR BUILDING NO.2 UNITECH ",
    "CardholderName": "Anmol",
    "MerchantCity": "NOIDA"
  }
}
```

8.1.1.12   Sale Void – Credit/Debit, Bank & Brand EMI

Request:
```
{
  "Detail": {
    "BankCode": "01",
    "BatchNo": 9007,
    "BillingRefNo": "TX12345678",
    "PaymentAmount": 1500,
    "Roc": 102,
    "TransactionType": 5562
  },
  "Header": {
    "ApplicationId": "1001",
    "MethodId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  }
}
```

Response:

```json
{
  "Header": {
    "MethodId": "1001",
    "ApplicationId": "1001",
    "UserId": "userId",
    "VersionNo": "1.0"
  },
  "Detail": {
    "HostResponse": "APPROVED",
    "MerchantAddress": "OKHLA B 63 INDUSTRIAL AREA PHASE-1 SOUTH",
    "MerchantCity": "Delhi",
    "PlutusVersion": "v1.0.0",
    "Remark": "APPROVED",
    "LoyaltyPointsAwarded": 0,
    "RewardRedeemedPoints": 0,
    "RewardBalancePoints": 0,
    "MerchantId": "7764",
    "BillingRefNo": "card1234",
    "TerminalId": "30400000672",
    "InvoiceNumber": 104,
    "AmountProcessed": "1500",
    "PrintCardholderName": 0,
    "RewardRedeemedAmount": 0,
    "TransactionTime": "000913",
    "ApprovalCode": "384562",
    "PineLabsBatchId": 1500,
    "CardType": "PG",
    "PineLabsClientId": 3526,
    "MerchantName": "PANEX OVERSEASE",
    "TransactionDate": "04082020",
    "PineLabsRoc": 0,
    "BatchNumber": 9007,
    "AcquirerName": "PG"
  },
  "Response": {
    "ParameterJson": "parameter",
    "ResponseCode": 0,
    "AppVersion": "190618",
    "ResponseMsg": "APPROVED"
  }
}
```

8.1.2 Response Parameter

Tag Name	Description	Data Type
Payments	**Array of payments object**	**Object Array**
BillingRefNo	Transaction reference number from external application. ePOS will only use this value for printing on charge slip.	String (10)

ApprovalCode	Authorization code, if transaction was approved. Otherwise empty string. **Presence of non-zero length approval code string indicates successful authorization of transaction.**	String (6)
HostResponse	Response string if a response for transaction was received from customer's bank/UPI PSP or Wallet. Otherwise, if any error occurs before response is received, this is an empty string.	String (50)
CardNumber	Customer's Mobile Number / Empty string.	String (19)
ExpiryDate	Empty String	String (4)
CardholderName	Empty string	String (25)
CardType	Empty string	String (12)
InvoiceNumber	Transaction invoice number, if transaction authorized. Otherwise, 0/EDC ROC (the same is printed on chargeslip)	Long
BatchNumber	Transaction batch number, if transaction authorized. Otherwise, 0/EDC Batch ID (in case of Reward transaction)	Long
TerminalId	TID, if transaction authorized. Otherwise, empty string	String (8)
LoyaltyPointsAwarded	Loyalty point awarded, if any.	Long
Remark	Description of error, if an error occurs. Otherwise, empty string. **An empty string in this field DOES NOT imply successful transaction authorization**	String (100)
AcquirerName	Name of bank/UPI PSP/Wallet to which transaction was routed. E.g. "ICICI BANK"	String (48)
MerchantId	ME ID, if transaction authorized. Otherwise, empty string	String (15)
RetrievalReferenceNumber	RRN, if transaction authorized. Otherwise, empty string	String (12)
CardEntryMode	Not applicable	Integer
PrintCardholderName	Not applicable	Integer
MerchantName	Merchant name, if transaction authorized. Otherwise, empty string	String (23)
MerchantAddress	Merchant address line, if transaction authorized. Otherwise, empty string	String (23)
MerchantCity	Merchant city line, if transaction authorized. Otherwise, empty string	String (23)
PlutusVersion	App Version	String (40)
AcquiringBankCode	Code for bank used for processing transaction	Integer
RewardRedeemedAmount	Redeemed Amount in Paise	Long
RewardRedeemedPoints	Redeemed Points	Double
RewardBalanceAmount	Balance Amount	String (10)
RewardBalancePoints	Balance Points	Double
Field0	Multiple Usage Field	String
AmountProcessed	Amount will be in paise or lowest currency.	String (99)
Field3	Multiple Usage Field	String

Field4	Multiple Usage Field	String
TransactionDate	Date of the Transaction as per acquiring/UPI PSP/Wallet host. Date to be printed on chargeslip. In MMDDYYYY Format.	String (8)
TransactionTime	Time of the Transaction as per acquiring/UPI PSP/Wallet host. Time to be printed on chargeslip. HHMMSS where HH in 24 hour format.	String (6)
PineLabsClientId	Unique ID assigned to Pine Labs EDC.	Integer
PineLabsBatchId	Batch ID of Pine Labs EDC	Integer
PineLabsRoc	ROC of Pine Labs EDC	Integer
AdditionalInfo	**Reserved for Future use**	**Array []**
Key	Key Name	String (10)
Value	Value Text	String (100)

9. Glossary

9.1 Method IDs

Method ID Code	Message
1001	DoTransaction

9.2 Transaction Types

Sr. No.	Transaction Description	Transaction Type Value
1.	Wallet Sale	5102
2.	Wallet Void	5104
3.	Wallet Get Status	5112
4.	UPI Sale	5120
5.	UPI Void	5121
6.	UPI Get Status	5122
7.	Airtel Money Sale	5127
8.	Bank EMI Sale	5566
9.	Brand EMI Sale	5567
10.	Credit/Debit Card Sale	5561
11.	Void	5562
12.	Get Status	5563
13.	Resend SMS	5564

9.3 Wallet IDs – Bank Code Types

Sr. No.	Wallet Name	Bank Code
1	FreeCharge	103

2	Phone Pe	105

9.4   UPI – Bank Code Types

Sr. No.	Wallet Name	Bank Code
1	ICICI UPI	4

9.5 Response Codes

For all API successful responses, Response Code will be set to zero.

Response Code	Message
1	App not activated
2	Already activated
3	Invalid Method Id
4	Invalid User/Pin
5	User blocked for max attempt
6	Permission denied for this user
7	Invalid data-format
8	Permission denied for this user
100	Transaction Initiated Check Get Status

10.   References

- Relevant Documents, Sample App, Simulator App etc are available on GitHub: Click here

- ePOS FAQ: Click here

- Production ePOS App available on Google Play Store: Click Here