

# E-POS INTEGRATION GUIDE

Version – 2.3

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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
2.3	Pine Labs	Getting Started Section Updated	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

- User has selected products and checkout for payment
- User selects payment mode and proceeds for payment
- Billing app call DoTransaction API with payment amount
- ePOS processes the payment and merchant receives notification on his mobile

## 3. Inter-application 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 application(s) with Pine Labs' ePOS API on the Android devices, following steps need to be followed:

1. Firstly, you need to create a developer account with Pine Labs using Signup option.
2. Once signed-up, sign-in to your developer account to proceed.
3. Unit-testing using Simulator includes the below mentioned steps:
  - a. First, you need to add your mobile device by using the Add device option.
  - b. Next, you need to download the simulator application available on the GitHub [Click Here](#).
  - c. Now, install the simulator application on your mobile.

- d. To activate the app, use your mobile number and 1234 as password. On successful activation home screen of app will be displayed. Now, the application is all set for testing.
4. After signing-in to test your app, you need to create a billing application profile.
5. Once the billing application profile is created, a unique test key will be displayed in app profile
6. To proceed further, you will need to add the test key in your billing application code which has been registered on the portal. This test-key is unique for every application.
7. For reference, you can download a sample billing application along with source code available using this GitHub [Click Here](#).
8. During unit-testing phase, you can also download and execute sample test cases using this GitHub [Click Here](#).
9. Post development and unit-testing, you need to go for Certification in the developer portal account.
10. 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 portal.
11. Once you run the test cases, the logs will be uploaded through Simulator App for validation, and execution will be verified.
12. Post completion of test cases execution, you will get an option to proceed for the application Certification.
13. You will be given Production key for the application and you shall use this in application APK and your app is ready to be uploaded on Google Play store.
14. Pine Labs' production ePOS Mobile App can be download from [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 *Messages*.
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**

##### **Request:**

```
{
  "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 UPI Get Status

##### 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",
"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:

```

{
  "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"
  }
}
```

**PhonePe/Freecharge 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"
  }
}
```

##### 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": "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 For Credit/Debit, Bank & Brand EMI:**

```
{
  "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:**

```
{
  "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

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

<b>AmountProcessed</b>	Amount will be in paise or lowest currency.	String (99)
<b>Field3</b>	Multiple Usage Field	String
<b>Field4</b>	Multiple Usage Field	String
<b>TransactionDate</b>	Date of the Transaction as per acquiring/UPI PSP/Wallet host. Date to be printed on chargeslip. In MMDDYYYY Format.	String (8)
<b>TransactionTime</b>	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)
<b>PineLabsClientId</b>	Unique ID assigned to Pine Labs EDC.	Integer
<b>PineLabsBatchId</b>	Batch ID of Pine Labs EDC	Integer
<b>PineLabsRoc</b>	ROC of Pine Labs EDC	Integer
<b>AdditionalInfo</b>	<b>Reserved for Future use</b>	<b>Array []</b>
<b>Key</b>	Key Name	String (10)
<b>Value</b>	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](#)