








































## 6. Physical Point of Sale (PoS) and Mobile based Point of Sale (M-PoS)



## 6.1 Prerequisites

	Payer/Buyer			Receiver / Merchant			
		m-PoS	p-PoS		m-PoS		p-PoS
Smart Phone		Not Required. However, required for receiving updates, alerts	Not Required. However, required for receiving updates, alerts		Needed to connect the Mobile Point of Sale device		Not needed
Mobile App		Not Required	Not Required		Mobile App to support the Mobile PoS Attachment/ device		Not needed
Feature Phone		Not Required. However, required for receiving updates, alerts	Not Required. However, required for receiving updates, alerts		Not Supported		Not needed
Bank Account		Bank Account is needed	Bank Account is needed		Bank Account is required		Money is transferred to Merchant's Bank Account (Current Account)
Aadhaar		Not Required	Not Required		Not Needed		Not Required
Debit/ Credit/ Prepaid Cards		Cards to swipe on Point of Sale Device	Cards to swipe on Point of Sale Device		Not Required		Not Required

	Payer/Buyer		Receiver / Merchant				
		m-PoS	p-PoS		m-PoS	p-PoS	
PIN		Pin for Card required	Pin for Card required		Not Needed		Not Required
Aadhaar number registered with Bank		Not Required	Not Required		Not Needed		Not Required
Mobile Network		Not Required. However it is required for notifications for account updates	Not Required. However it is required for notifications for account updates		Mobile Network needed		Device needs to be connected via a phone line / mobile network
Internet		Not Required	Not Required		Data exchange over internet network for processing transaction		Data exchange over internet network for processing transaction.
Card Swipe Attachment		Not Required	Not Required		Hardware is needed to connect to Mobile		Physical PoS Device Needed with Merchant
MMID / Other Code		Not Required	Not Required		Not Needed		Not Needed
Mobile number registered with Bank		Not Required. However required for notifications for account updates	Not Required. However required for notifications for account updates		Not Required. However required for notifications for account updates		Optional. For getting notifications/SMS alerts

## 6.2 Steps Involved

### 6.2.1 For Merchant / Receiver

<p>I. Plug in the Device</p>	<p>Plug-in the m   swipe</p>  A black m swipe device with a screen displaying a home screen with various icons and a search bar. The device is plugged into a wall outlet.
<p>II. Launch the application</p>	<p>Launch the application</p>  The m swipe device screen shows a login form with fields for Merchant ID (0000000000), Password, and a checkbox for Remember me.
<p>III. Swipe Customer Card</p>	<p>Swipe your customers card</p>  The m swipe device screen shows a card payment interface. A Visa credit card is being swiped over the device's reader. The card number 0000 0000 0000 0420 is visible.

IV. Enter the Mobile number / email address of customer



V. Obtain your Customer Signature



VI. Check the SMS received



## 6.2.2 For Buyer/ Payer

Get a Debit/ Credit card form the Bank



Ask seller to Swipe your debit/credit card on the POS machine.  
(Two type: Swipe and Insert)





Check the Amount Entered to be paid entered by the seller and put PIN.

Make sure no one sees your PIN.



### I. Generate Receipt



## 6.3 Frequently Asked Questions on Point of Sale Transactions

### **Q) What does PoS mean?**

Point of sale commonly known as “Checkout” is the location where transaction occurs for the sale of goods or services and customers can pay for their purchases. It is an alternative for an electronic cash register and is referred as POS Terminal, which is nothing but a combination of both the hardware and software used for the checkouts.

### **Q) What does Point of sale Hardware do?**

Point of sale hardware is equipment for POS system, which includes card-reading machines, printers, cash registers and computer systems.

### **Q) How do credit/debit card machines work?**

Credit card machines are typically connected to the Internet, phone line, mobile device or computer to send data to the processor. For most credit card processors, funds are transferred from the customer’s bank to the business’s merchant account. In some cases, the credit card processor uses a merchant account and holds funds on your behalf, and then directly deposits them into your checking account at your discretion.

### **Q) What is the difference between a credit/debit card machine and a POS system?**

A card machine is simply a card reader and PIN pad whereas a PoS system is a complete checkout terminal that comes with a credit card machine, monitor or tablet, cash register, printer and other peripherals. POS systems also come with additional software or Apps that track inventory, monitor sales, generate discounts, create financial reports, help with marketing and other features

### **Q) What is a merchant account?**

A merchant account lets businesses accept credit cards. It transmits payment data from a customer’s bank to your bank and authorises credit card transactions. Merchant accounts are offered by the credit card processor or directly by a financial institution, typically a bank. Usually, businesses will have to apply and get approved for a merchant account. As mentioned above, however, not all credit card processors require a merchant account.



**Q) Can I use an iPhone, iPad, Android and other mobile devices with a credit card machine?**

Some credit card machines are compatible with tablets, but the most common way to accept credit cards with an iPhone, iPad, Android and other mobile devices is by using a credit card swiper. This small dongle attaches to the headphone or auxiliary plug on a mobile phone or tablet, and processes credit cards using the processor's Mobile App. Another way to accept credit cards using a mobile device is by using a virtual terminal, a feature that lets you manually input credit cards into the App.

**Q) What is NFC?**

NFC technology lets businesses accept credit cards without swiping them. To accept mobile payments, you'll need an NFC-enabled credit card machine, such as Apple Pay, Android Pay or Samsung Pay.

**Q) What are debit cards?**

Debit cards are another payment method. When goods or services are purchased with a debit card, the funds are removed from the customer's checking account. In addition to standard ATM cards, many banks also issue Visa® Check Cards and/or MasterCard® Check Cards - both of which can be used at the point of sale or online.

**Q) What are the major types of debit card transactions?**

Debit card transactions can be accomplished through PIN debit (requires the consumer to enter a PIN), signature debit (no PIN required), online bill payment and online debit. Debit card transactions are the fastest growing point-of-sale payment method today. The acceptance of this payment method continues to remain popular because customers and merchants both appreciate the convenience and ease of using debit cards to purchase merchandise and services.

**Q) What is the difference between PIN debit and signature debit?**

The difference between these two debit choices is whether a PIN (personal identification number) is used at the point of sale. When a PIN is used, the payment is immediately withdrawn from the cardholder's available funds. When a signature debit transaction occurs, funds are not withdrawn until the transaction processes - usually 2 to 4 days after the sale.

**Q) What is the process flow involved in a swipe transaction?**

To complete transaction via debit/credit card, the card is swiped at the Card reader (PoS) and the amount is entered followed by a PIN to be manually punched in by the card holder. Upon authentication the receipt is generated and payment completed.

**Q) What are the connectivity choices available for a PoS?**

IP (Internet Protocol), PSTN (Public switched telephone network) and GPRS

**Q) What is the difference between the various connectivity choices?**

IP

Card payment terminals connected directly to a local area network (LAN) or wide area network (WAN). This will require a broadband connection and provides card processing authorisation in approximately 5 seconds.

PSTN (Public Switched Telephone Network)

Card payment terminals connected through a telephone line. This involves telephone line rental and provides card processing authorisation in approximately 30 seconds. We recommend one telephone line per terminal.

GPRS (General Packet Radio Service)

Card payment terminals connected through a mobile network (using a SIM card) enables you to take the terminal to wherever the customer needs to pay and provides card payment authorisation in approximately 10 seconds.

**Q) What is an mPOS solution?**

A mobile Point of Sale (mPOS) is a consumer grade handheld device (e.g. a smart phone or tablet) with wireless connectivity that is used for the acceptance of payment cards. An mPOS solution typically comprises:

- A mobile device – consumer grade mobile phone or tablet device with wireless connectivity
- Card Reading functionality (contact, contactless or both)

- Mobile App/s supporting the payment functionality
- Server-side software
- CVM capture capability (e.g. PIN entry, signature capture)

**Q) Is an mPOS solution required to deliver a receipt to the cardholder?**

An mPOS solution must support delivery of a receipt to the cardholder.

**Q) Do I need to have an internet data plan for the application to work on Android devices?**

Yes, your Android device will require an internet data connection (CDMA, GPRS, EDGE, 3G, 4G) or access to an active Wi-Fi network.

**Q) What is MDR?**

It is the percentage of the transaction amount that the acquiring bank charges to the merchant for providing authorisation to accept credit cards.

**Q) What are the components of MDR?**

Merchant discount rate = Interchange fee + Processing fees + Network brand fees

Merchant discount rate is what merchant pays to acquirer. Interchange fee is what acquirer pays to issuer. Processing fees are those paid by issuing and acquiring bank to their processors. Network brand fees are those paid by issuing and acquiring bank to the card associations such as Visa/MasterCard.

**Q) What is the Merchant Establishment Agreement?**

A contract between a business and a credit card service provider. The merchant agreement states the rules and responsibilities that apply to each party regarding payment card acceptance, authorisation, processing and settlement. The merchant agreement also sets out the fees and charges that the merchant will pay the service provider. It explains how the service provider determines the rates for handling payment card transactions, and it defines the terms under which each party may renew or cancel the contract.

### **Q) What is a QR Code?**

QR code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode (or two-dimensional barcode). A barcode is a machine-readable optical label that contains information about the item to which it is attached. This code was so named because the main purpose of the code development was to create a code that could be read quickly.

### **Q) What are various uses of QR codes?**

QR codes can be used on various mobile device operating systems.

QR codes can be used to store bank account information or credit card information, or they can be specifically designed to work with particular payment provider applications.

QR codes can be used to log in into websites

### **Q) How to scan the QR Code and complete payment transaction?**

For your phone to be able to read QR Codes you will need to have a QR Code scanning App or QR Code scanning software installed on it.

#### **Steps:**

- Go to the Google Play store and download the free QR Code Reader App – the file size should be around 3MB depending on your smart phone.
- Launch the App.

It will automatically scan the QR code and provide/fill in required information and complete the transaction.