

**MOBILE
PAYMENT SYSTEM
SECURITY**

**By
RAGHUNATH PASUMARTHI**

INTRODUCTION

- Mobile replaced alarms clocks, calculators, now its credit cards
- An application aggregates multiple credit cards into mobile
- These applications secure our credit card information from cashier
- Transactions became faster
- Applications have very sensitive credit cards information, security in these plays a vital role

Applications

➤ Google wallet

- Launched on : September 19, 2011

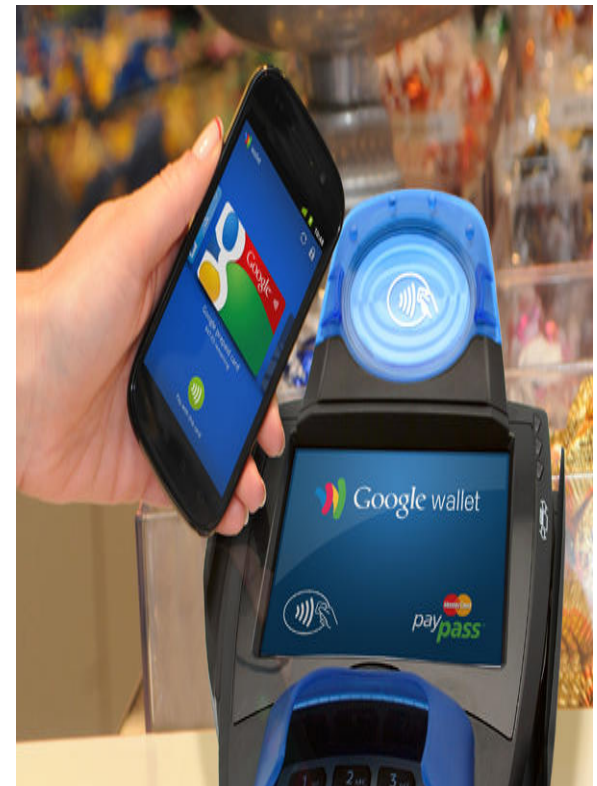
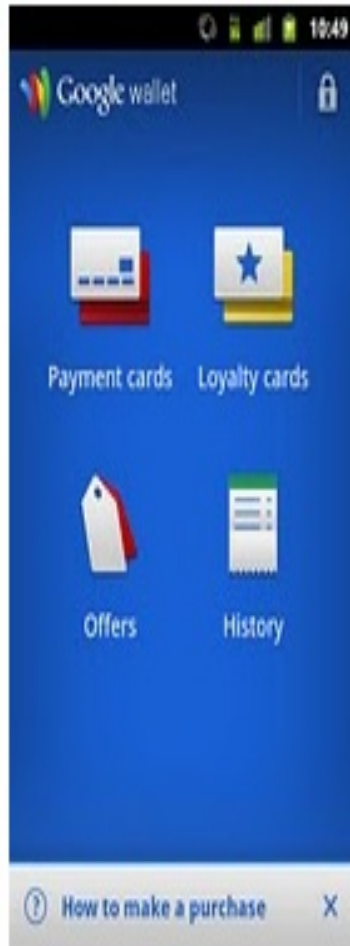
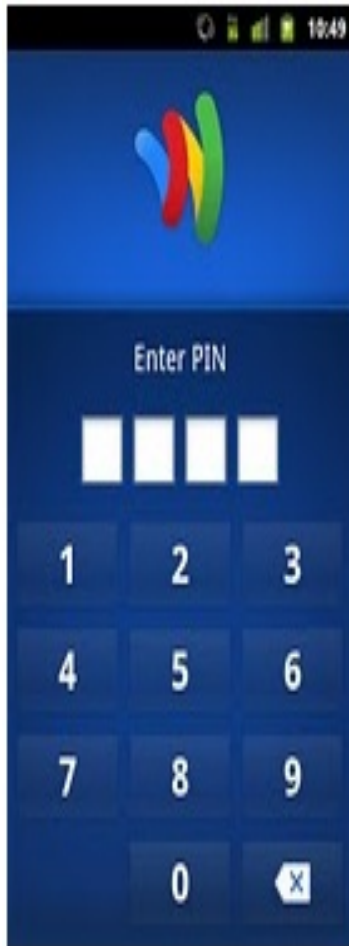
➤ Apple Pay

- Launched on : October 20, 2014

➤ CurrentC

- Launch date :
 - For testing : September 2, 2014
 - Release : Early 2015

GOOGLE WALLET



GOOGLE WALLET CARD



GOOGLE WALLET

Security Schemes in Google Wallet:

- Credit card information is never stored in mobile
- Credit card information is encrypted and transmitted to secured google servers
- Industrial standard SSL is used in transmission
- Every transaction is monitored by Google
- Four digit pin is generated during installation
- This pin authorizes the transaction

APPLE PAY



APPLE PAY(1)

Security Schemes in Apple Pay:

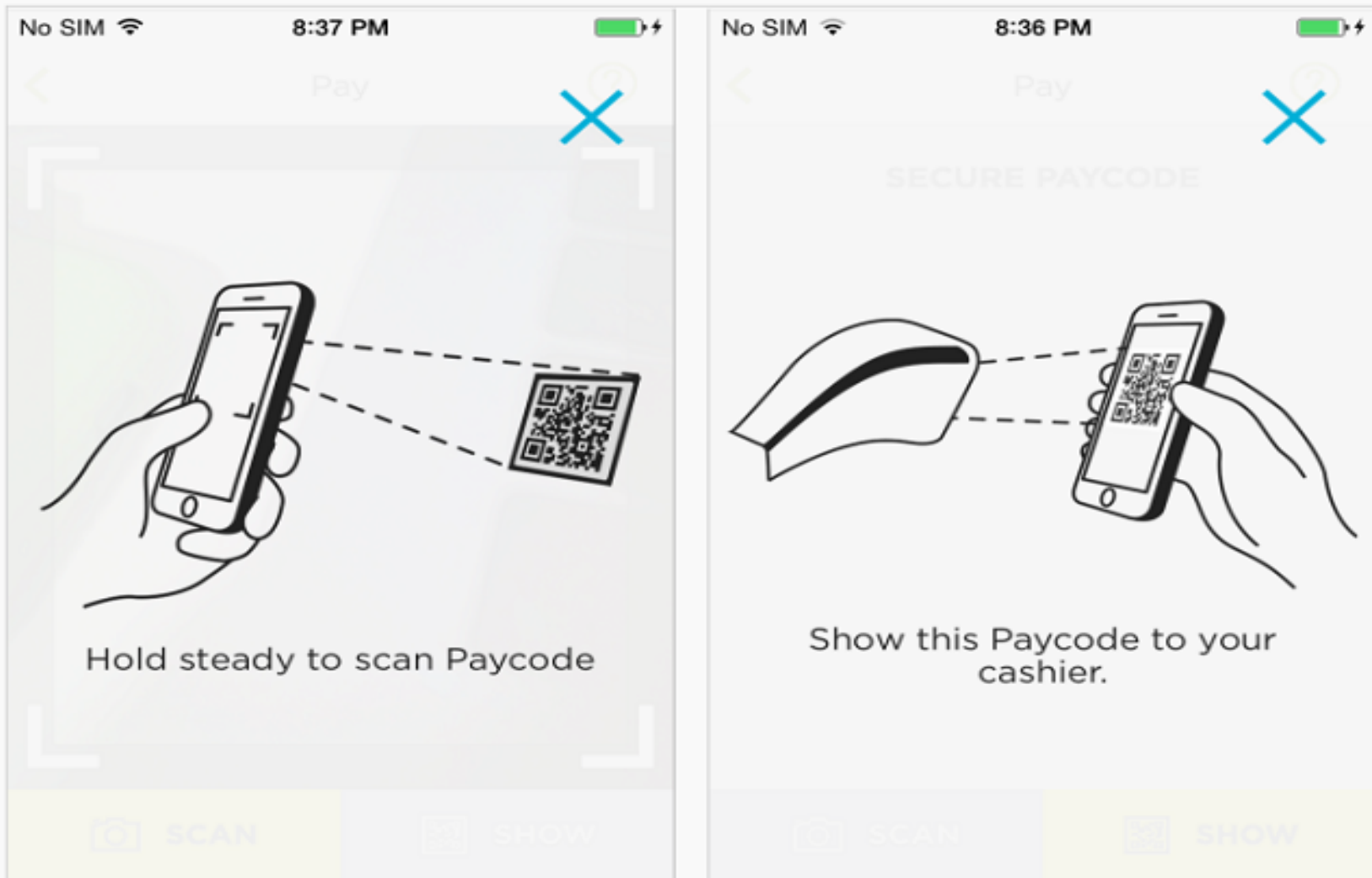
When adding the cards:

- Manually or using iSight Camera card details are entered
- These are encrypted and sent to apple servers
- Apple decrypts and re-encrypts with a key only our bank can decrypt
- Apple sends this data along with iTunes account and mobile info to bank
- Bank decrypts the data verifies and approves the card

APPLE PAY(2)

- Bank then creates a device specific number
- Bank encrypts the number with the device details and sends to apple servers
- Apple cannot decrypt this number
- Apple adds this to secure element in device
- Credit card details are not stored in apple servers or mobile.

CurrentC



CurrentC

Security in CurrentC:

- Our credit card information is never stored in mobile
- Transactions are done using Quick Response codes
- Every transaction has different QR code
- Our credit card information stored in highly secure cloud.
- Four digit pin is created during installation
- Pin authenticates every transaction

COMPARISION(1)

Property	Google wallet	Apple Pay	CurrentC
Type	In-store & online	In-store & in app-store	In-store
Available for	Android phones and apple phones	Only some apple devices	Almost all devices.
Used as	As an app and as a card.	Only as an app	Only as an app

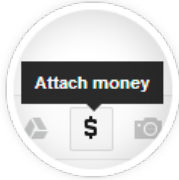
COMPARISION(2)

Property	Google wallet	Apple Pay	CurrentC
Technology used	Near Field Communication	Near Field Communication	(QR codes Quick response)
Check out	Enter Pin and place mobile	Fingerprint	QR codes scanning.
Payment Acknowledgment	Message and email	Beep sound & Vibration alert	Message

COMPARISION(3)

Property	Google wallet	Apple Pay	CurrentC
Transaction Time	More (5-10sec)	Less (1.8 Sec)	High (Depends)
Transaction Fee	Yes	No(For now)	No
Device Lost	Remote Lock	Remote Lock	Remote lock not available

COMPARISION(4)

Property	Google wallet	Apple Pay	CurrentC
Transfer of Money	Yes 	No	No
Locations	Entire USA	Entire USA	Entire USA
Information Stored in	Google servers	Not at all stored.	Dedicated Cloud
Online Shopping	Yes	No	No
Cash withdrawals	Yes	No	No

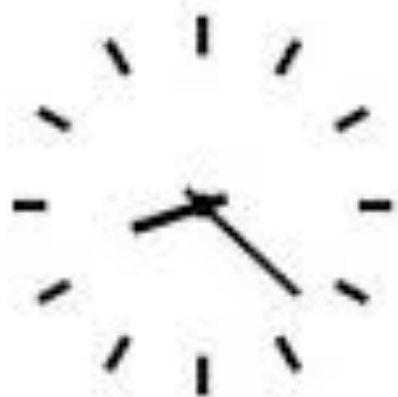
CONCLUSION

By aforementioned properties and differences the conclusions made:

- Google wallet is the best payment service
- Apple Pay is the fastest Payment service
- CurrentC is not user friendly

Advantages of Google wallet over other two:

- Available in more number of stores
- Available in different varieties of mobiles
- Can purchase online and in store
- Can send and receive money
- Can withdraw money from any ATM



Q & A time



© Presentation-Pros.com



Thank you...

