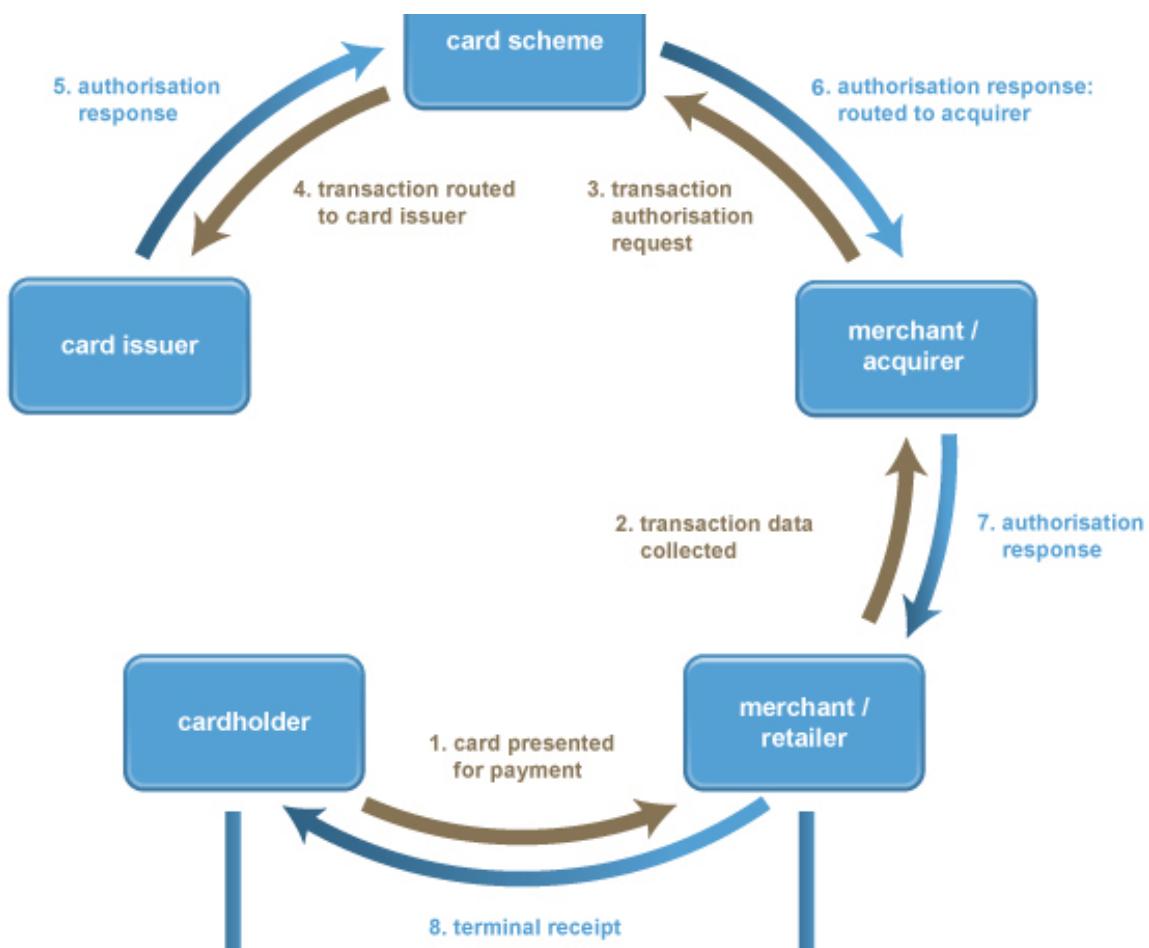


## Transaction life cycle (Traditional Arch)



Our Traditional Banking Includes Multiple Parameters to Initiate or process the Transactions.

Today we have, Money Transfers (Domestic), Remittances (International), Credit and Debit Purchases (within and across the countries).

Back then when ATM was landed in India, there was no sharing among the network. we can't use Other Bank cards in other Bank ATMs (We can't use HDFC card in Canara Bank ATMs)

by 2003, FSS has launched an Architecture called 'FSS Mitr' - sharing network Among ATMs (which is almost like a consortium) by 2010, NPCI has undertaken the architecture.

# Digital Transactions



Post demonetization, UPI Volumes has been surged in India.

The shift to digital payments has also been boosted by the rapid expansion of the Unified Payments Interface (UPI). National Payments Corporation of India (NPCI), which manages the platform, has recorded **482 million** UPI transactions in October 2018 as against 0.2 million in November 2016.

Digital Transaction can be Initiated in multiple ways.

- UPI
- Mobile Pay (NEFT, IMPS)
- Aadhar Enabled Pay
- Point of sale
- Net Banking

We have Mobile applications like PayTm,PhonePe which serves as middle layer between the banks and customers.

PayTM has 42 Million customers. which is one of the the biggest Financial services in India.

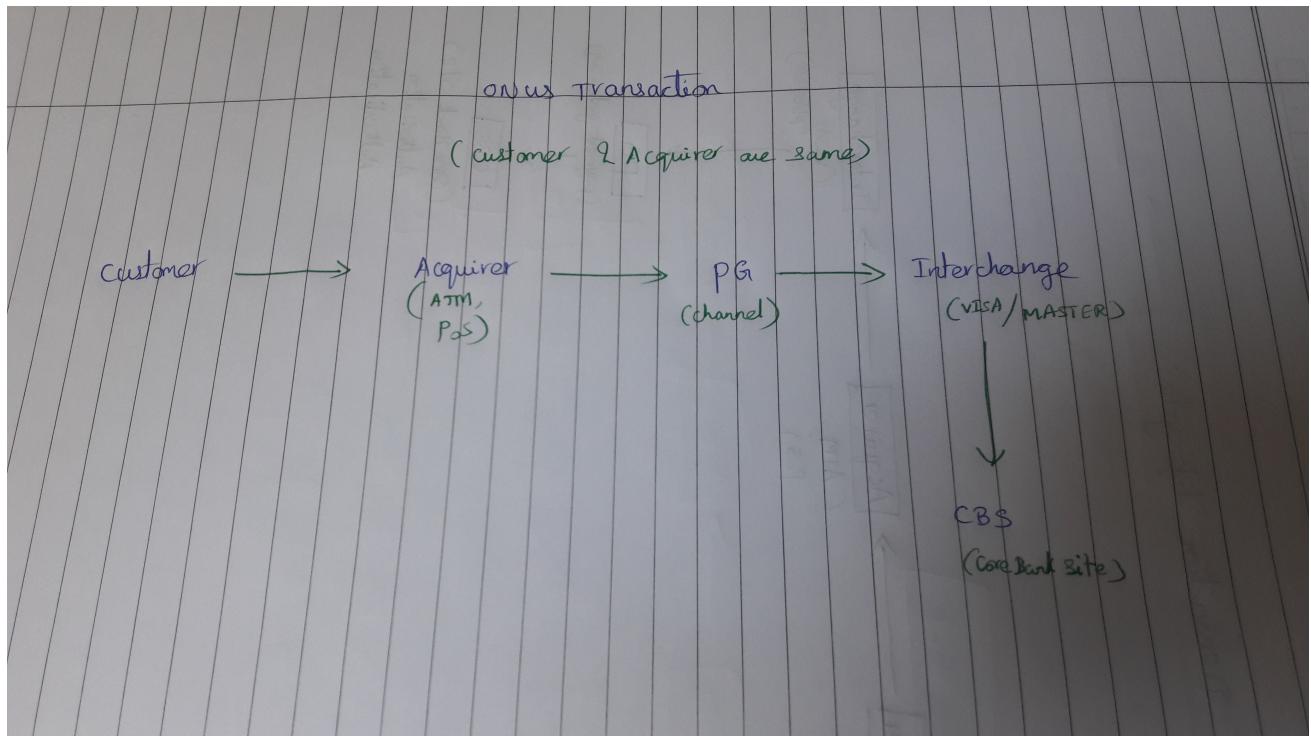
In traditional Transaction cycle, A transaction must pass through channels and Interchanges to complete transaction life cycle. which also takes transaction fee for their service.

## Problems:

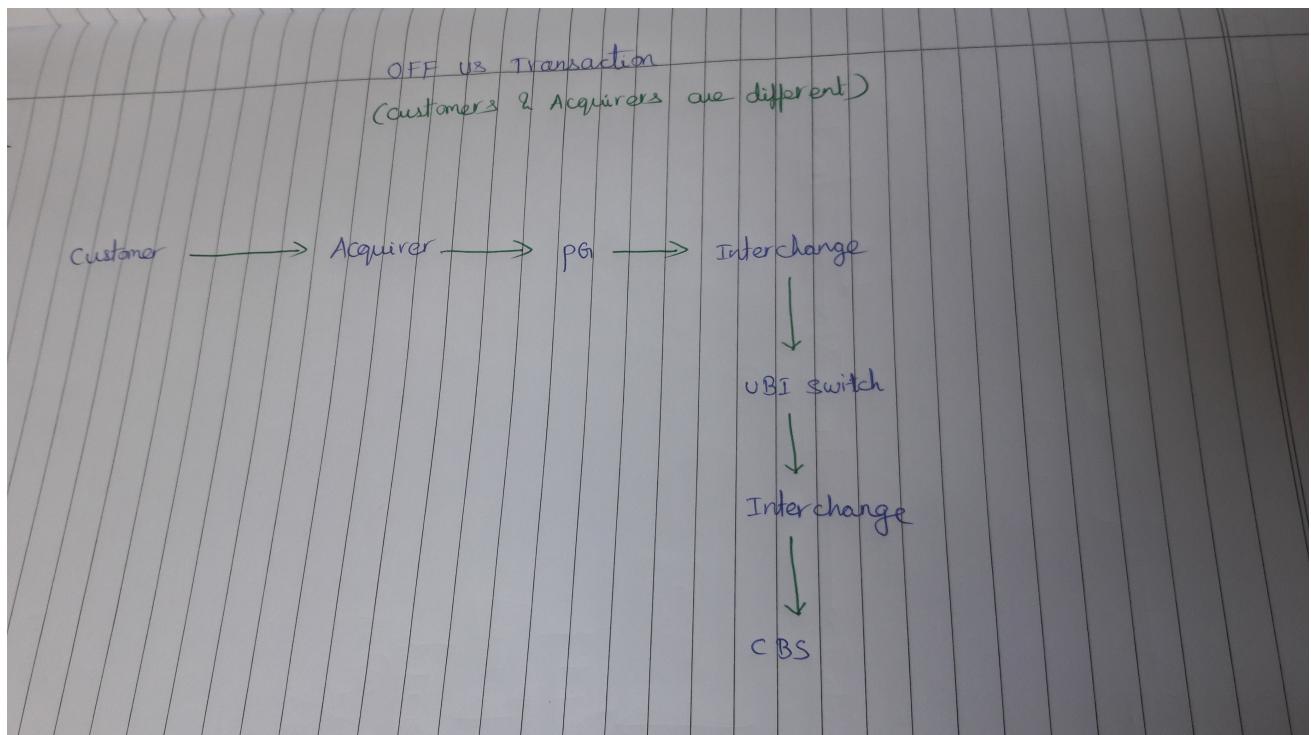
- When Customer and Acquirer are from same banks (**ON US**), Transaction fee is pretty less as we don't need to pass the Interchange twice.
- When Customer and Acquirer are from Different Banks (**OFF US**), we need to pass through Interchanges Twice.
- Off Us Transaction Requires **Reconciliation** at the end of day.
- Transaction also need support from **Payment Gateway channels (PG)** which also charges fee from our transaction.
- There is **limit** in Transactions Per day.

## Problems with Traditional Architecture

### On Us Transaction

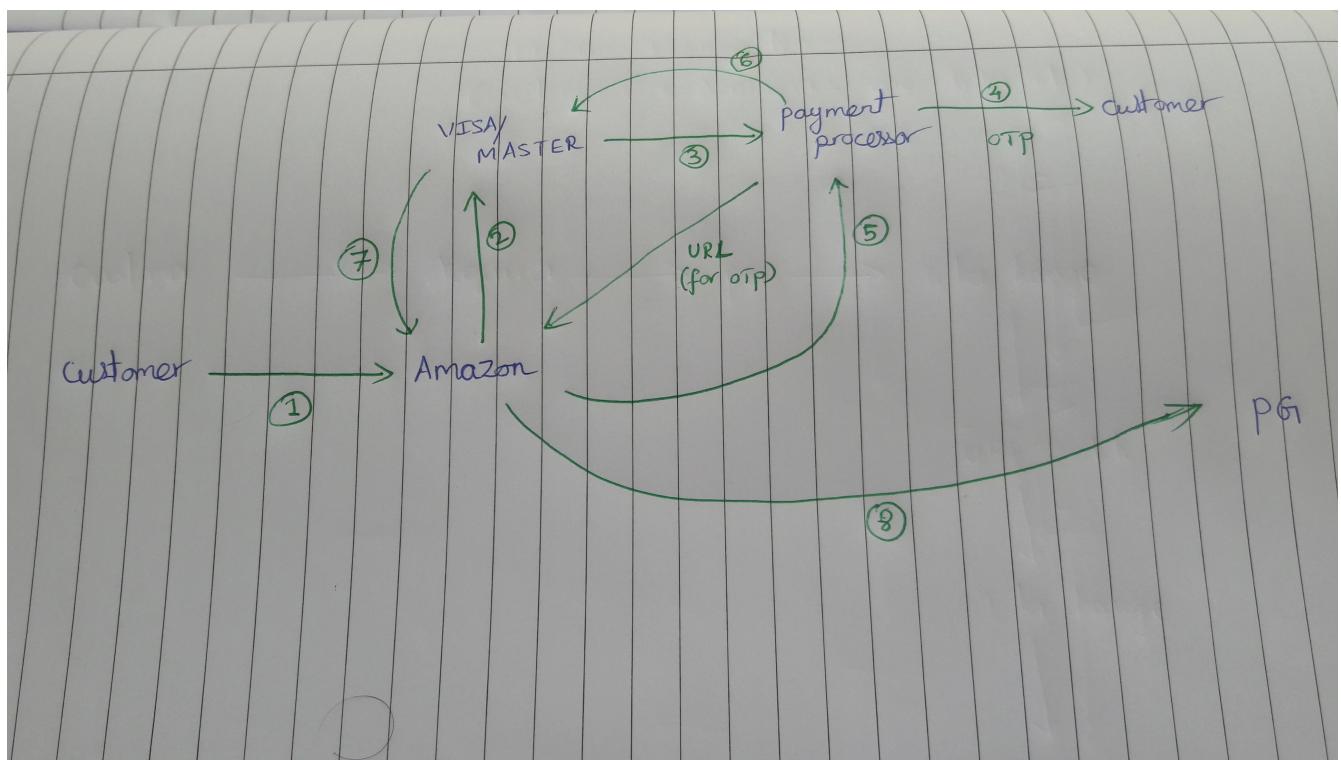


### Off Us Transactions



## An Example of E-Commerce Transaction

Ordering a book from Amazon app.



Customer is Amazon Mobile app and Merchant is Amazon

**Steps :**

1. Placing an order
2. Merchant **forwards** the transaction to Interchange for Verification
3. Interchange to Payment processing services for **Auth**
4. Step 4 happens parallel. **Sending OTP to customer and sending URL page for Amazon app**
5. Once again Amazon App to Payment processor for **OTP Verification**
6. Payment Processor to Interchange
7. Interchange to Merchant
8. Merchant to Payment Gateway (where lifecycle gets completed) and Order gets Placed.

A transaction of Placing an order has to follow all the steps in order to process/Verify the transactions

Our transaction will also be charged by Payment Processors.

Also In this transaction, we have Interchanges (VISA/MASTER) to pass through our transactions.

**Crypto may by-pass this flow, as we don't need Auth Module and Interchanges to process the transaction.**

## Remittances

- *Cross border Money Transfers.*
- *The funds sent by an expatriate or immigrant to his country of origin.*



Remittances are a major source of foreign cash inflow in a country's Economy.

- By the year 2017, Global Remittances has reached **466 Billion**.
- Countries like Africa alone has raised **65 Billion** through remittance inflows.

If an Immigrant is sending a cheque to his parent/child via email or any other medium, the Time taken to send, Present it to the banks, Depositing the money to beneficiary's bank account is **Remittance Float**.

Mobile Money Transfers play a major role in reducing the Remittance float.

Cross Border Money Transfers can be possible in three ways,

- **International Wire Transfer**
  - Uses Swift Network.
  - Sender Uses Banks Mobile app to Initiate the Transaction
  - This Transaction is **Expensive**, in terms of Transaction Fees
- **Sending Cash / Cheque**
  - Slow method
  - High chance of Cheque is getting Stolen/Misplaced.
- **Online Transfer**
  - Requires sender and receiver to create an account with MTO (like Paypal)
  - The transfer costs can range between **3-13%**.

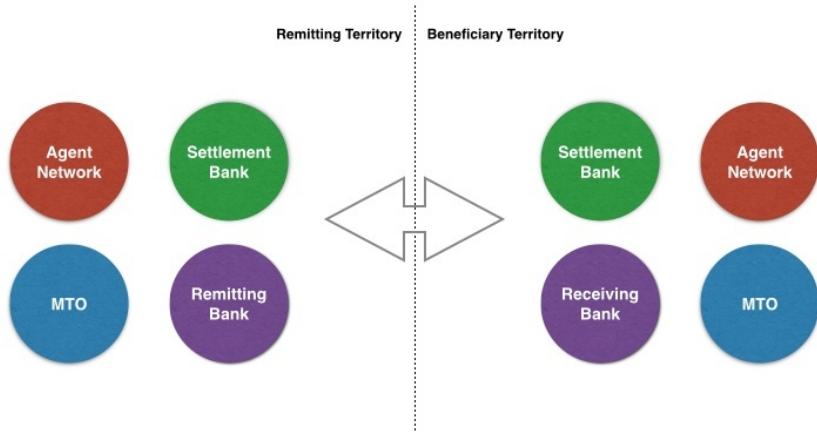
If you work in San Francisco and want to send money to your family in London, you may have to pay a \$25 transfer fees, with an additional service charge of up to 7%.

Besides paying all the heavy fees and with the cut-off times between yours and the receiving bank, your family will not receive the money until a week later.

Typical transaction costs for senders are 7.68%, which consist of unnecessary payments such as transfer fees or hidden margin gains.

Facilitating payments is very profitable for all the centralized banks which give them very little incentives to reduce their rates. Cross-border transactions, from payment to letter of credit, accounted for 40% of the total revenues of global payment transactions in 2016.

## Cross-Border Money Transfer



The traditional (i.e. simplest) money-transfer model.

MTO (Money Transfer Operator) collects Money and transfers to settlement bank at the End of the day.

From the sender Side, remitting bank acts as Correspondent bank.

This traditional Model halts money from Sender to Beneficiary for 3 or 4 days.

Instant settlements is yet to be explored as the banks needs to trust each other.

Instant settlements may avoid the necessity of NOSTRO and VOSTRO Accounts.

**By eliminating the need for agents to approve consumer-to-consumer transactions, blockchain technology could allow for faster payments at lower rates than banks.**

Sources :

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from=mdr&utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://economictimes.indiatimes.com/articleshow/66550675.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

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