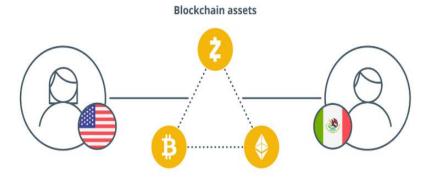
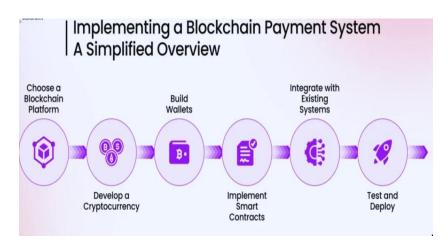
### **Enterprise Application of Blockchain**

#### **CROSS BORDER PAYMENTS**

## Blockchain enabled cross-border payments



Exchanges in sending/receiving countries. Non-Correlated Rates.





Cross Border Payments provides decentrtalised nature of and secure blockchain. This helps in transaction between two parties situated in different geographical region and using different currencies.

# Types of Cross Border Payments

- 1. Cryptocurrency to cryptocurrency payments
- 2. Stable based

Cryptocurrency

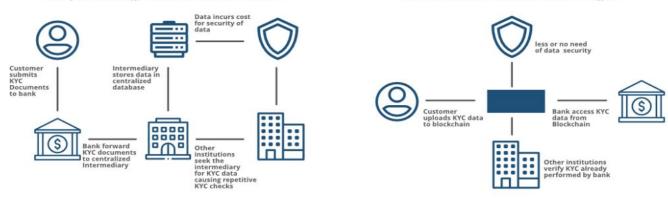
- 3. Blockchain based remittances.
- 4. Interbank blockchain payment
- 5. Central Bank digital

**KNOW YOUR CUSTOMER (KYC)** 

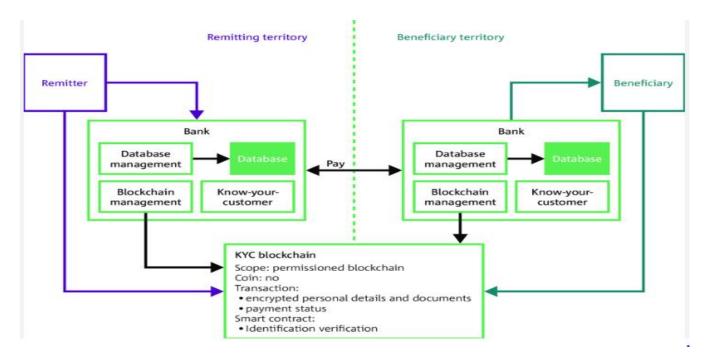
#### General diffrence between traditional KYC and Blockchain KYC



#### How Blockchain Saves Cost, Time and Effort



#### **Blockchain Based KYC**

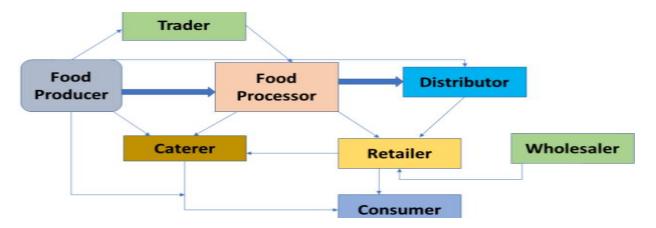


#### How Blockchain Enhances the KYC/AML Process

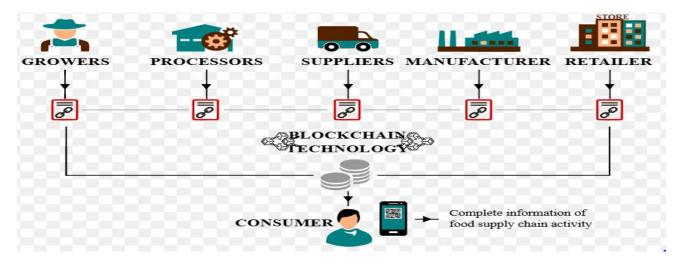


FOOD SECURITY IN BLOCKCHAIN

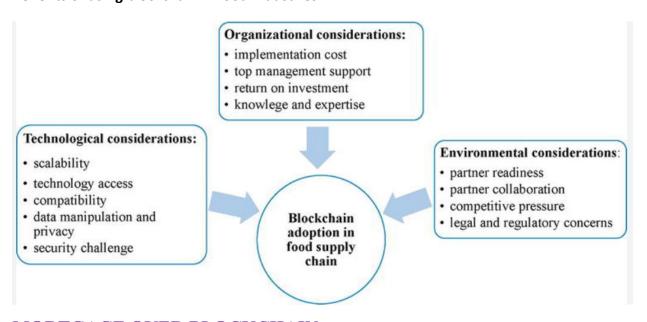
#### **Traditional Food Supply**



#### **Blockchain based Food supply**



#### Benefits of using blockchain in food industries



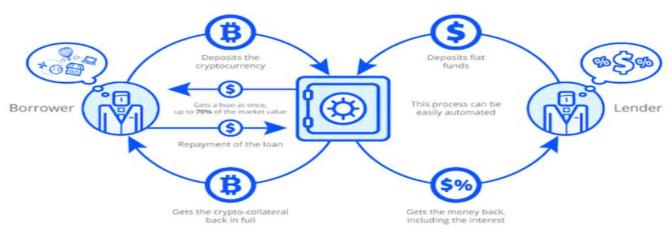
#### MORTGAGE OVER BLOCKCHAIN

## Diffrence between Traditional Mortgage and Blockchain Mortgage





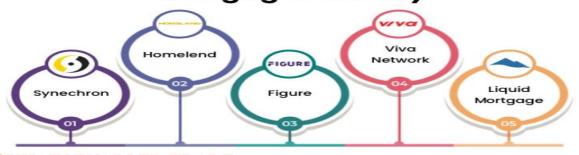
#### **How it Works**



# Benefits of Blockchain Mortgages

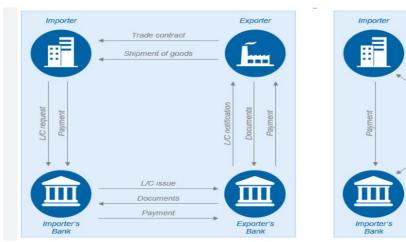


# Use-Cases of Blockchain in the Mortgage Industry

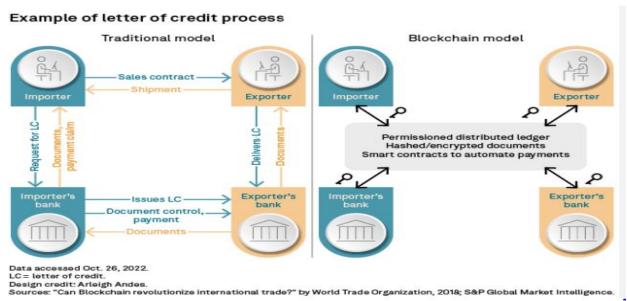


**BLOCKHAIN ENABLED TRADE** 

#### Diffrence between Traditional trade and Blockchain Trade







#### Benefits of blockchain in trade finance

A blockchain-based trade finance model offers significant benefits over the traditional model

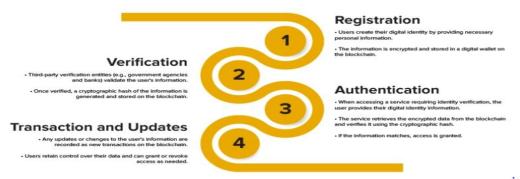
Activity	Traditional model	Blockchain- based model
Transaction settlement time	High	Low
Need for documentation	Large number of documents to be managed and reconciled	Only one document to be managed and reconciled
Need for correspondent banks	Required as intermediaries	Not required
Transaction cost	High	Low
Propensity for fraud	High	Low, due to added transparency and robustness
Mode of confirmation	Manual	Automatically triggered using smart contracts

#### **Blockchain for Digital Identity Management:**

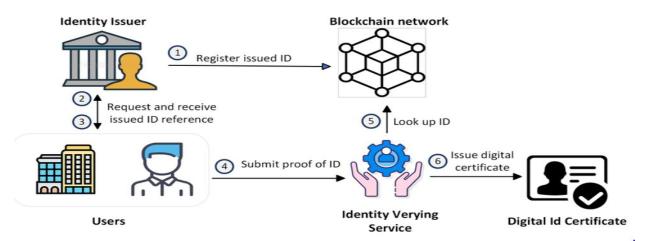
**Essential Components** 

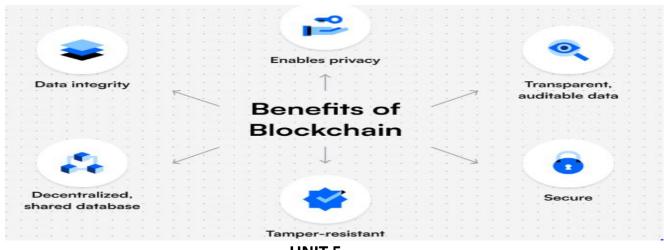


## Basic User Flow of a Digital Identity Blockchain



#### **Issuing Digital Certificate**



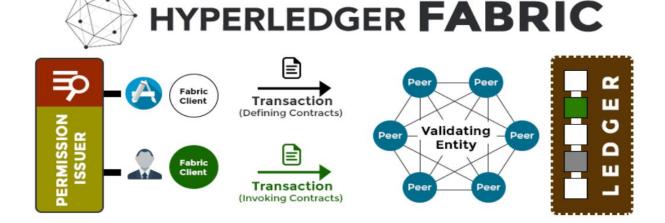


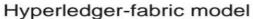
**UNIT 5** 

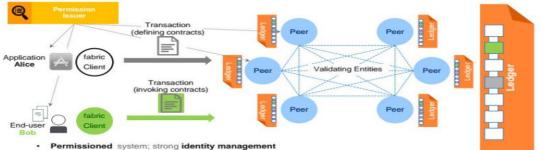
## **Blockchain Application Development**

#### **HYPERLEDGER FABRIC**

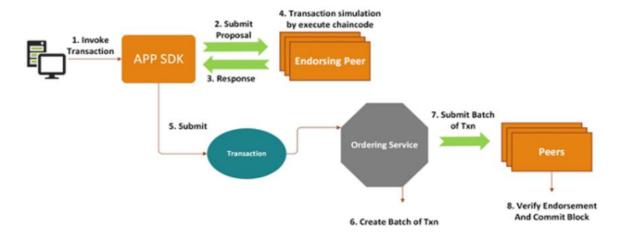
# **Block diagram of Hyperledger fabric**





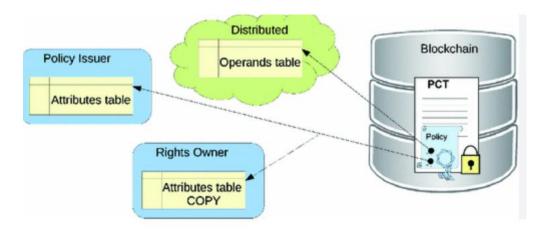


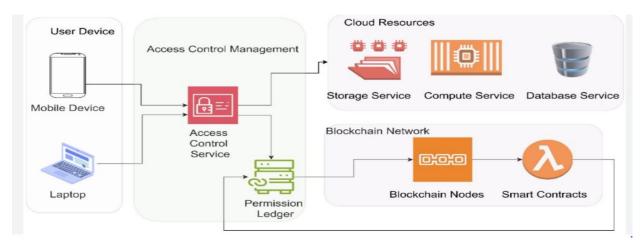
- Distinct roles of users, and validators
  Users deploy new pieces of code (chaincodes) and invoke them through deploy & invoke transaction Validators evaluate the effect of a transaction and reach consensus over the new version of the ledger Ledger = total order of transactions + hash (global state)
  Pluggable consensus protocol, currently PBFT & Sieve



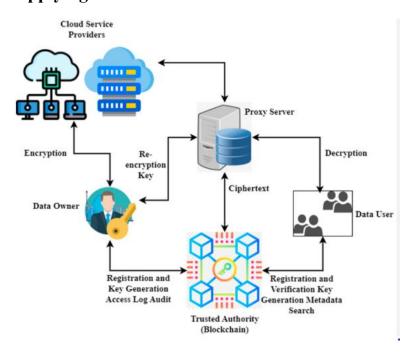
Hyperledger Fabric transaction flow

#### MEMBERSHIP AND ACCESS CONTROL



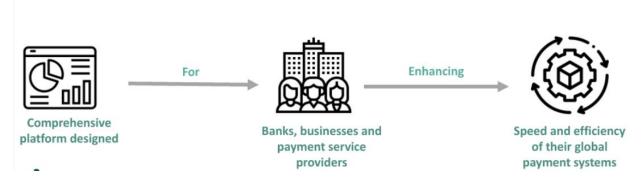


# **Applying Blockchain based access control**

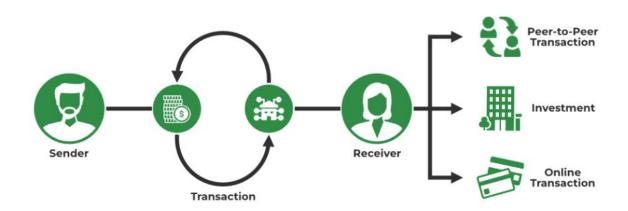


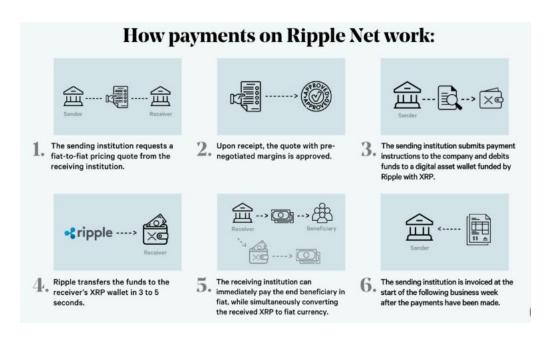
#### **RIPPLE**

# What Is Ripple?

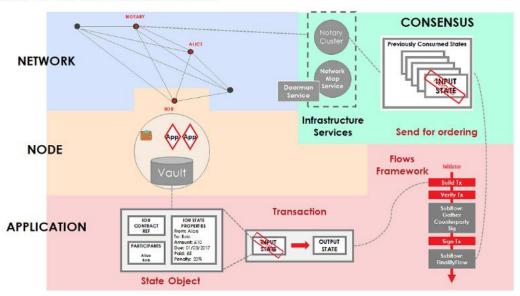


How Ripple Works?





# **CORDA ONE-PAGE SUMMARY**



# Why Corda is used?

