



# SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

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by AICTE, New Delhi & Affiliated to Anna University, Chennai



## DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

**COURSE NAME: 19CS622-Blockchain Technology**

III YEAR /VI SEMESTER

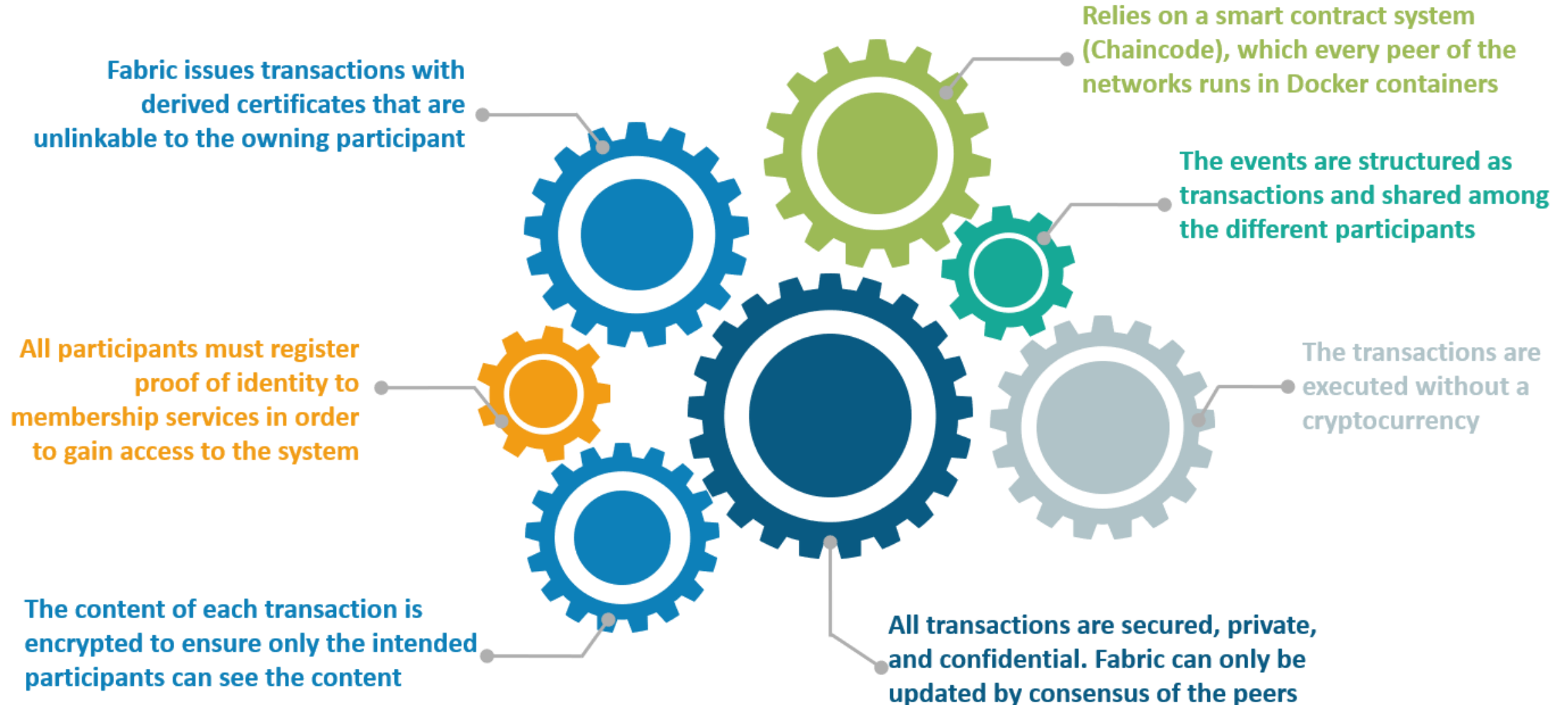
Unit 4- HYPERLEDGER

**Hyperledger Fabric workflow in Blockchain**

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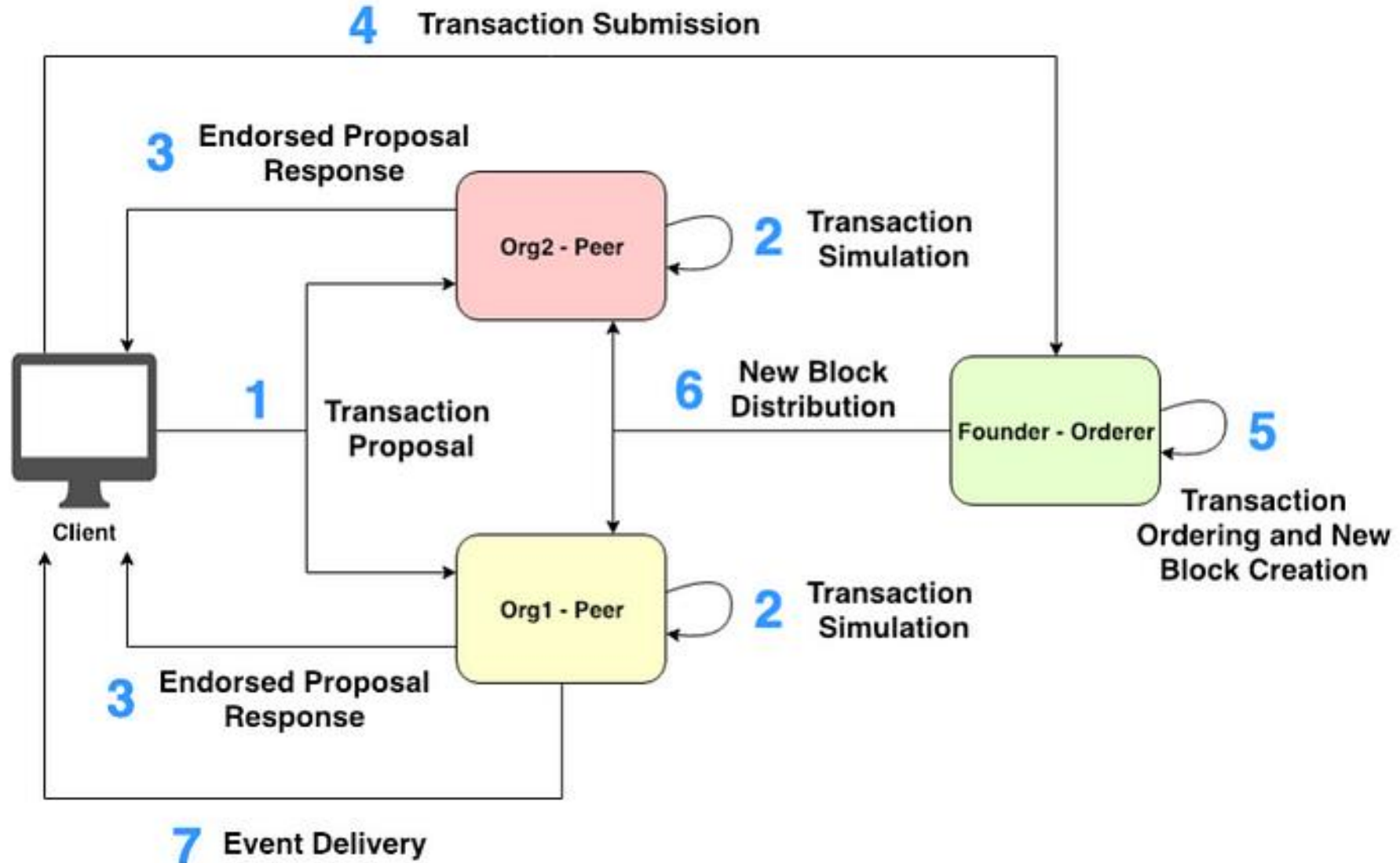


# So far.....





# HYPERLEDGER FABRIC TRANSACTION WORKFLOW



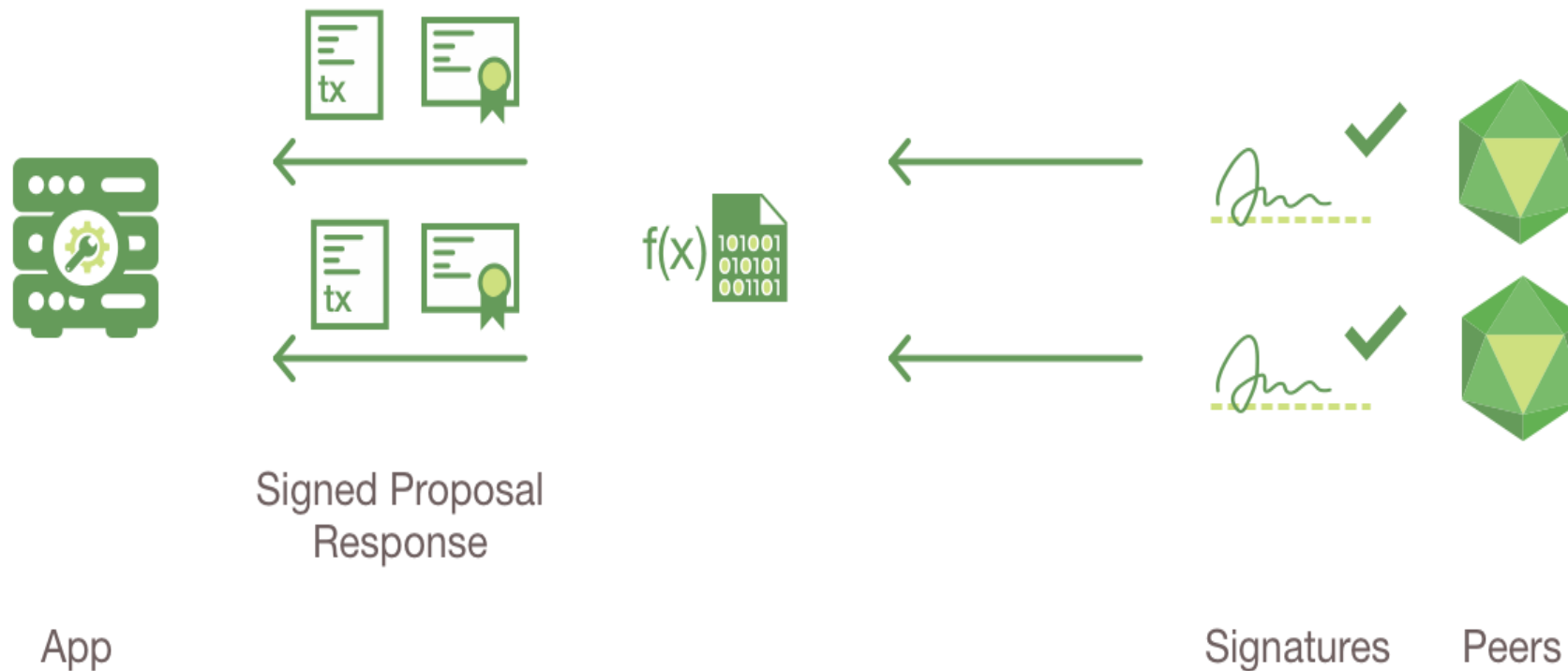
# Hyperledger Fabric Workflow

1. First, *Client* broadcasts the transaction invocation request to the Endorser peer.



# Hyperledger Fabric Workflow

2. Endorser peer checks the Certificate details and others to validate the transaction.



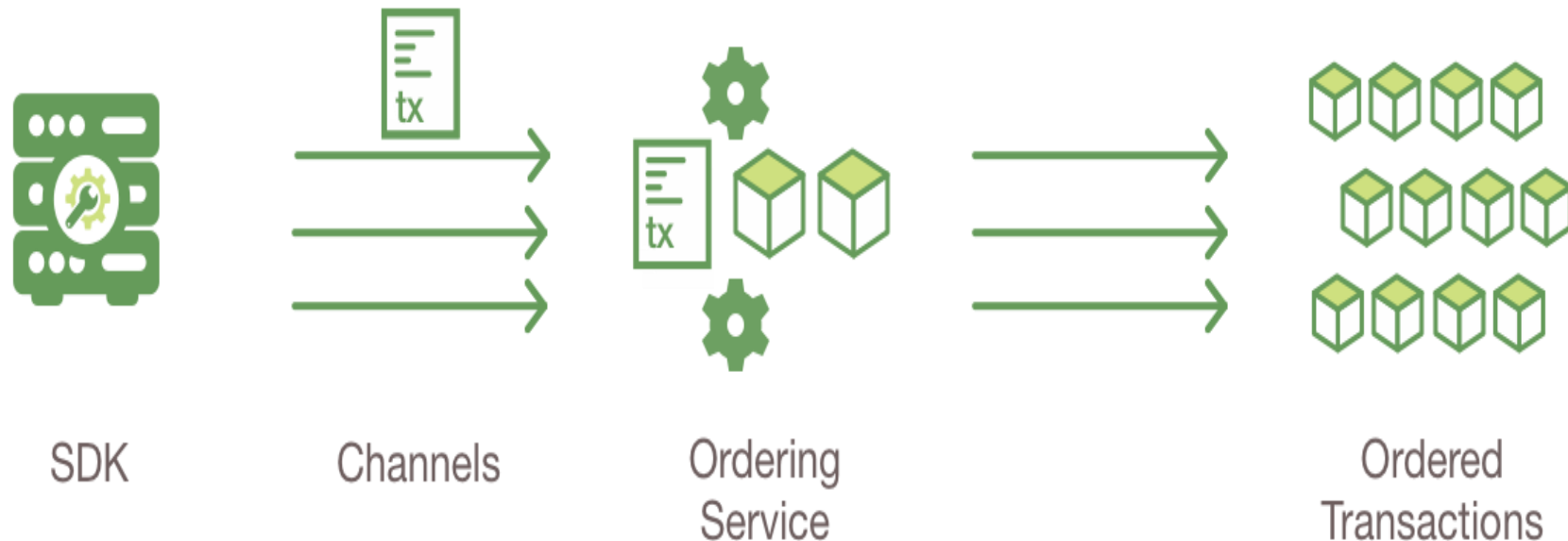
# Hyperledger Fabric Workflow

- If the verification check passes, Endorsing Peer simulates the transaction, generates a response together with a read-write set, and endorses the generated response using its certificate.
- otherwise rejection as part of the endorsement response.



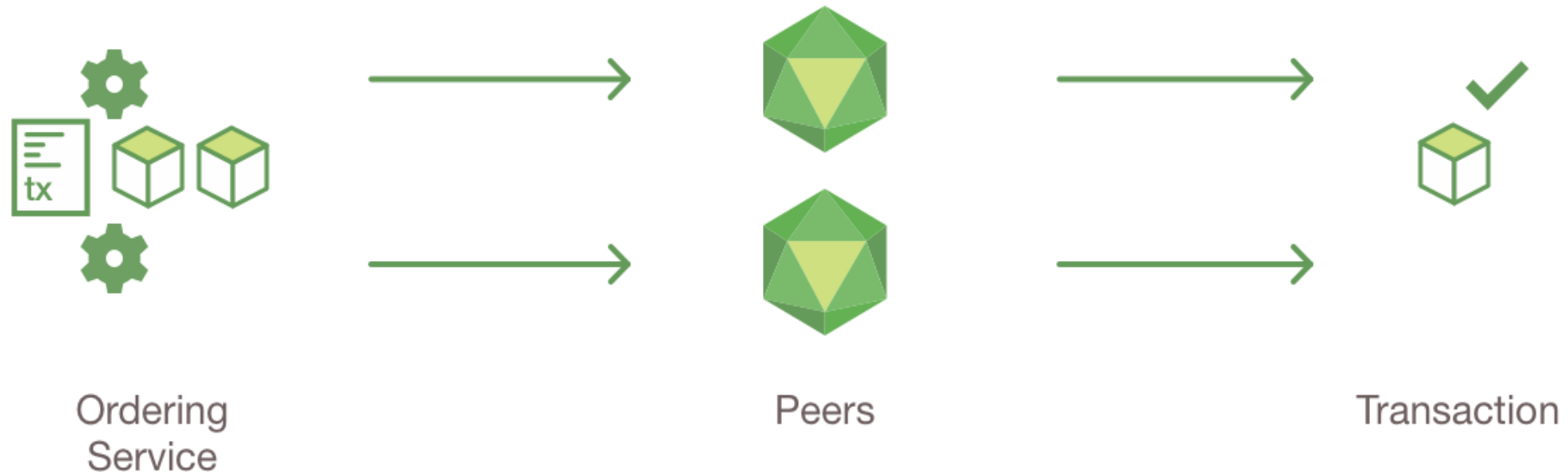
# Hyperledger Fabric Workflow

3. Client receives the endorsed proposal responses from Endorsing Peers.



# Hyperledger Fabric Workflow

4. Client now sends the approved transaction to the Orderer peer for this to be properly ordered and be included in a block.

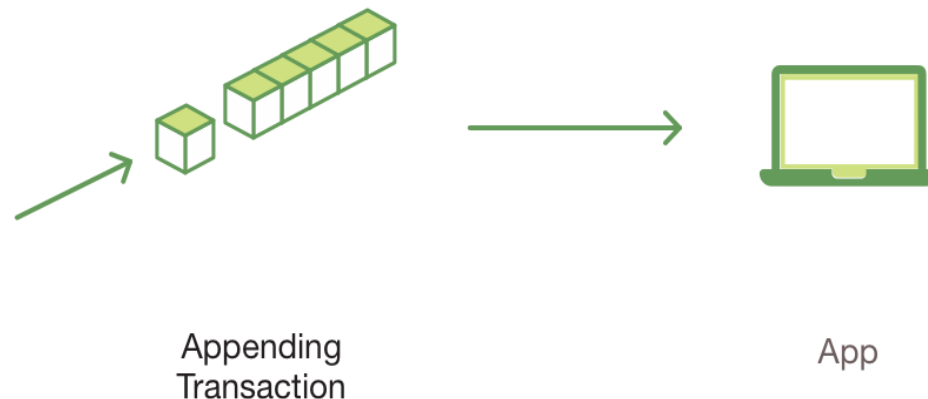




# Hyperledger Fabric Workflow

5. Orderer node includes the transaction into a block and forward the block to the Anchor nodes of different member Organizations of the Hyperledger Fabric network.

1. Orderer broadcasts the generated block to all Peers (to both Endorsing Peers and Committing Peers) on the relevant channel.
2. Then, each Peer ensures that each transaction in the received block was signed by the appropriate Endorsing Peers.



# Hyperledger Fabric Workflow

6. These individual peers then update their local ledger with the latest block. Thus all the network gets the ledger synced.

7. Client receives any subscribed events from EventHub service.

# Swim lane sequence diagram for transactional flow

