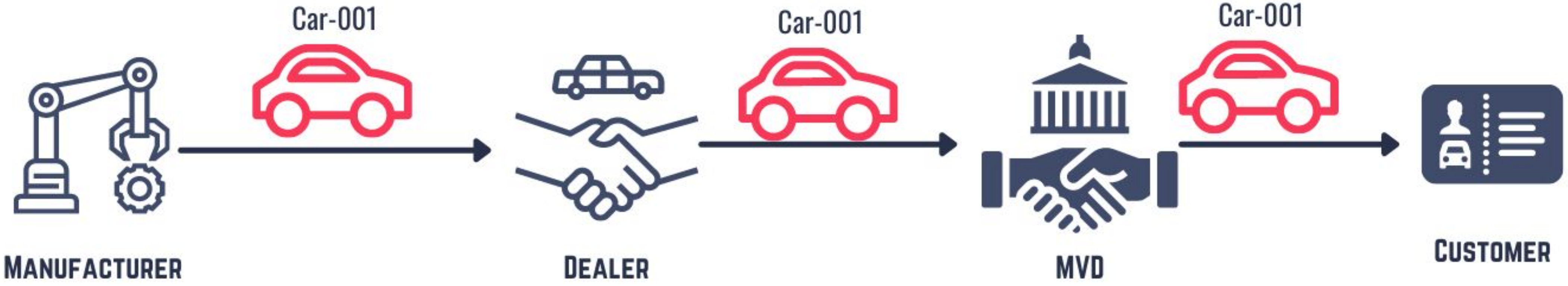
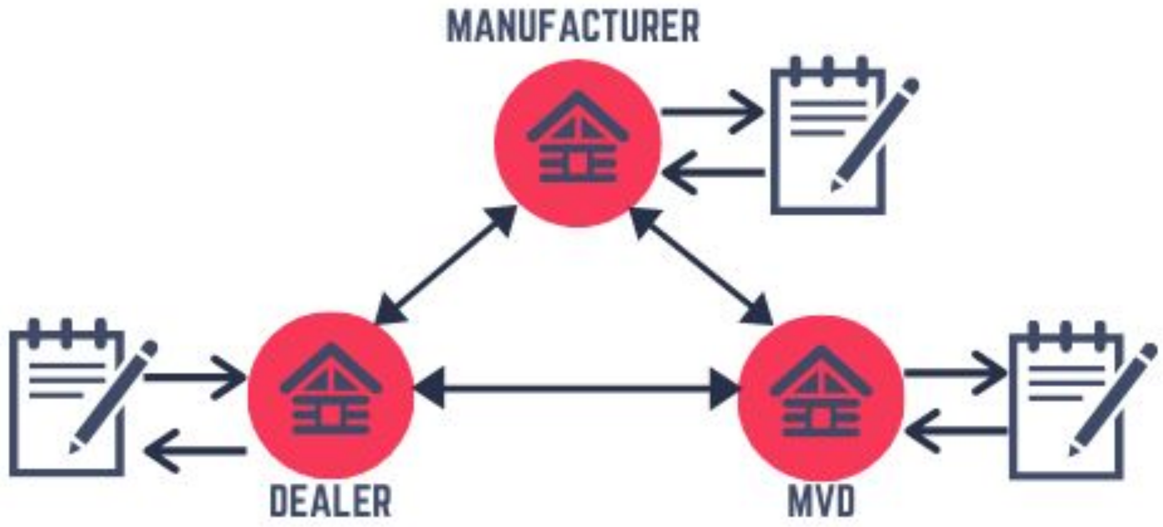
Automobile Use-case

Use Case - Automobile network



Implement DLT - Blockchain



Why Hyperledger Fabric?

- Hyperledger Fabric is a **Permissioned** distributed ledger technology.
- Every business have their own trade secrets and other confidential information. They might not want to disclose to the other businesses in the network.
- Hence, Fabric allows us to use the concept of **Channels** here.
- There is another powerful concept called **Private Data Collections(PDC)**.
- The shared ledger in Hyperledger Fabric offers two promising components:
  - **World State**
  - **Transaction Log**

Understanding the Business Logic

- Create a car by the Manufacturer.
- Create an order request by the Dealer.
- Match the dealer's order with the appropriate car in the manufacturer's inventory.
- MVD assigns the car to an end-user by giving it a number.

Network participants

MANUFACTURER

DEALER

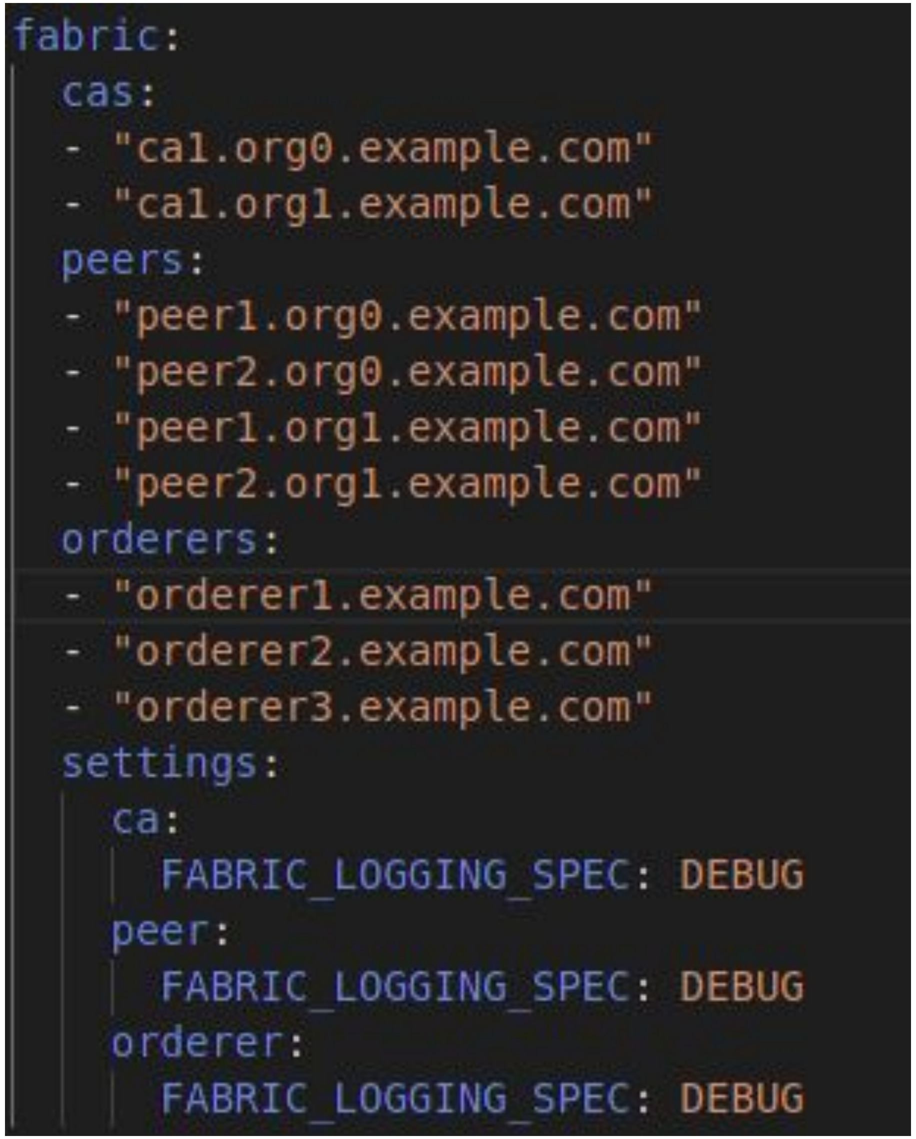
MVD

Minifabric

Introduction to Minifabric

- Minifabric is a tool developed by **Hyperledger Labs** in order to give Hyperledger Fabric **DEVELOPER** to experience the full capabilities of Hyperledger Fabric.
- A developer does not need the Admin side of Hyperledger Fabric to use Minifabric.
- It is completely **Developer Friendly tool** where they can leverage network features with simple commands and single file called as **spec.yaml**
- Github repo : https://github.com/hyperledger-labs/minifabric

spec.yaml



```yaml
fabric:
  cas:
  - "ca1.org0.example.com"
  - "ca1.org1.example.com"
  peers:
  - "peer1.org0.example.com"
  - "peer2.org0.example.com"
  - "peer1.org1.example.com"
  - "peer2.org1.example.com"
  orderers:
  - "orderer1.example.com"
  - "orderer2.example.com"
  - "orderer3.example.com"
  settings:
    ca:
      FABRIC_LOGGING_SPEC: DEBUG
    peer:
      FABRIC_LOGGING_SPEC: DEBUG
    orderer:
      FABRIC_LOGGING_SPEC: DEBUG
```

Commands

- Start the network

  minifab netup -s couchdb -e true -i 2.4.8 -o org1.example.com
- Create the channel

  minifab create -c mychannel
- Join the peers to the channel

  minifab join -c mychannel
- Update the Anchor peer for the organisations

  minifab anchorupdate
- Generate profiles

  minifab profilegen
- Tear down the network and cleanup everything

  minifab cleanup
- Tear down the network and restart it

  minifab down

  minifab restart

THANK YOU