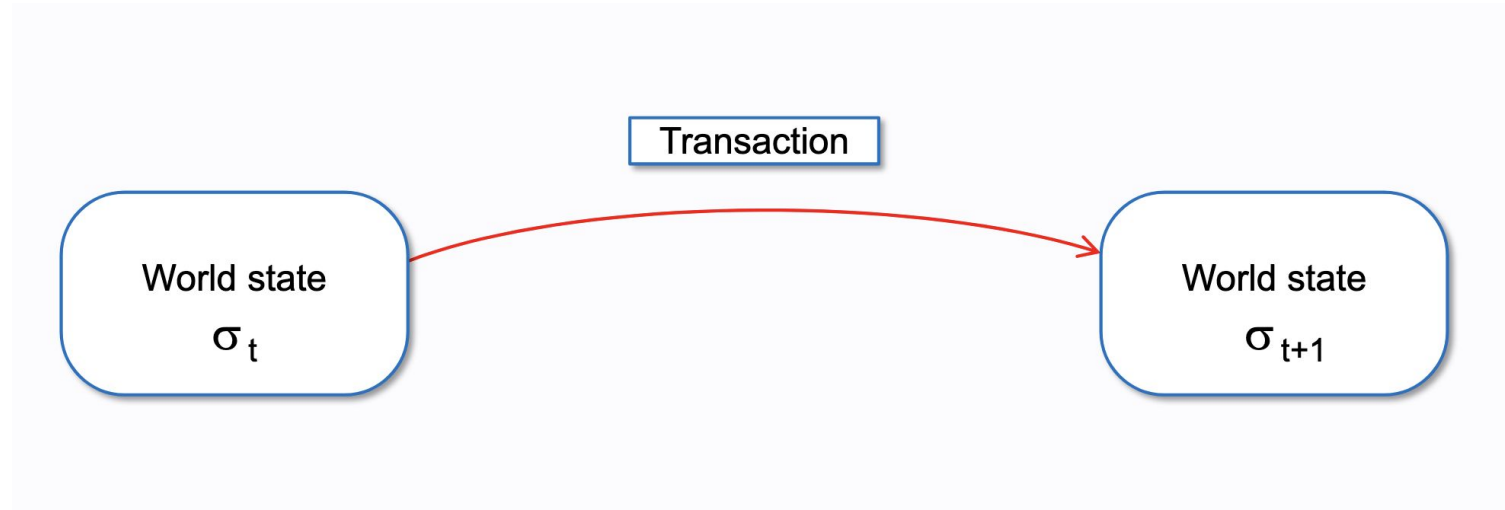


# Smart Contract 101

Zion 2025.11.13

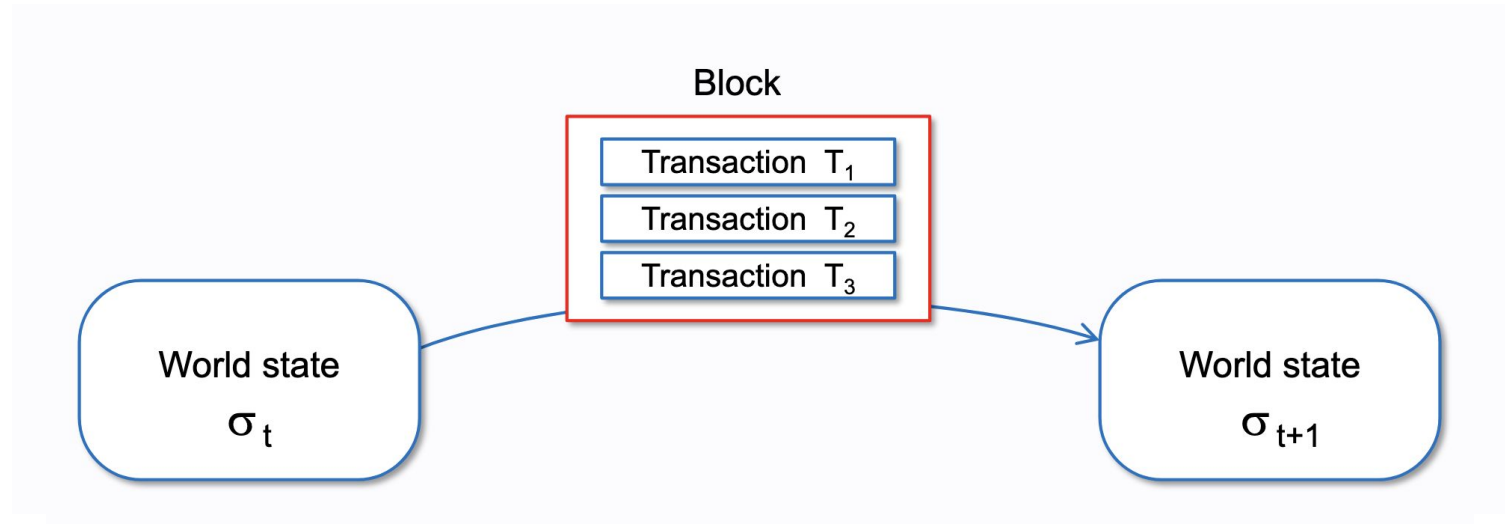
# State Machine

- Blockchain is a state machine



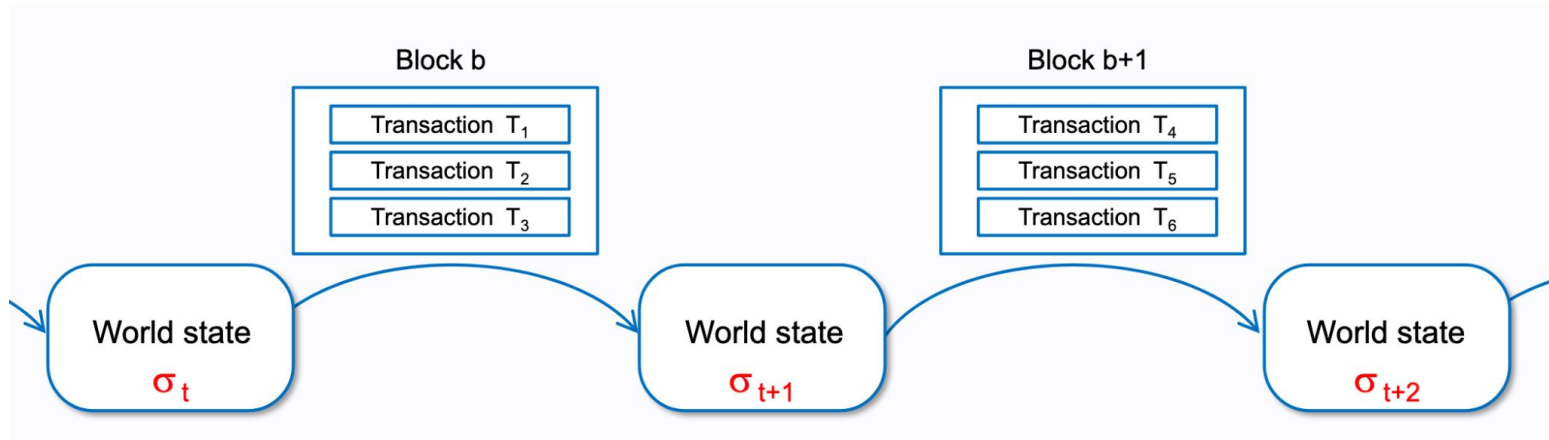
# State Machine

- Transactions are input data



# State Machine

- Chain of States



# Account Address

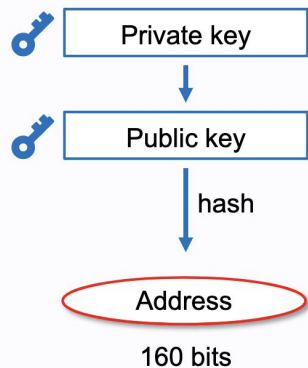
- Externally Owned Account

- Private key  $\rightarrow$  Public key  $\rightarrow$  Address (0x1234...def)
- **Not your key, not your coin**

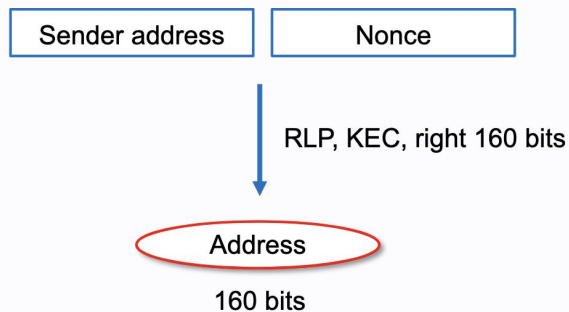
- Smart Contract

- No key behind SC address

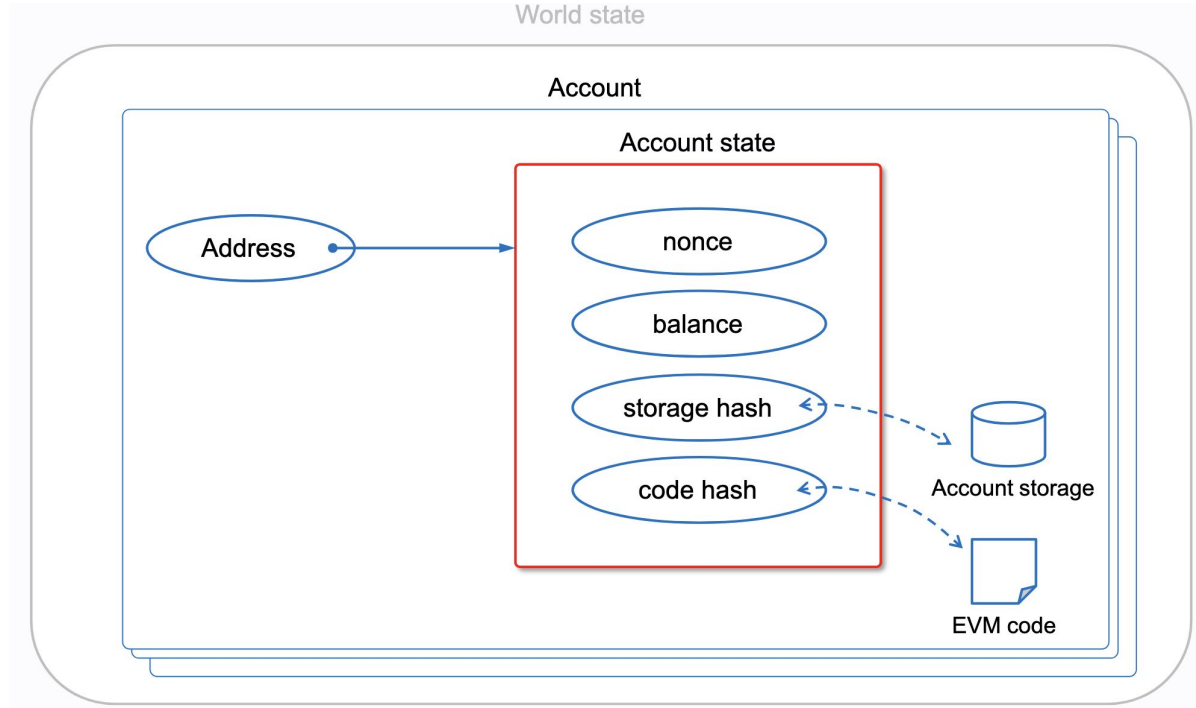
Externally owned account (EOA)



Contract account

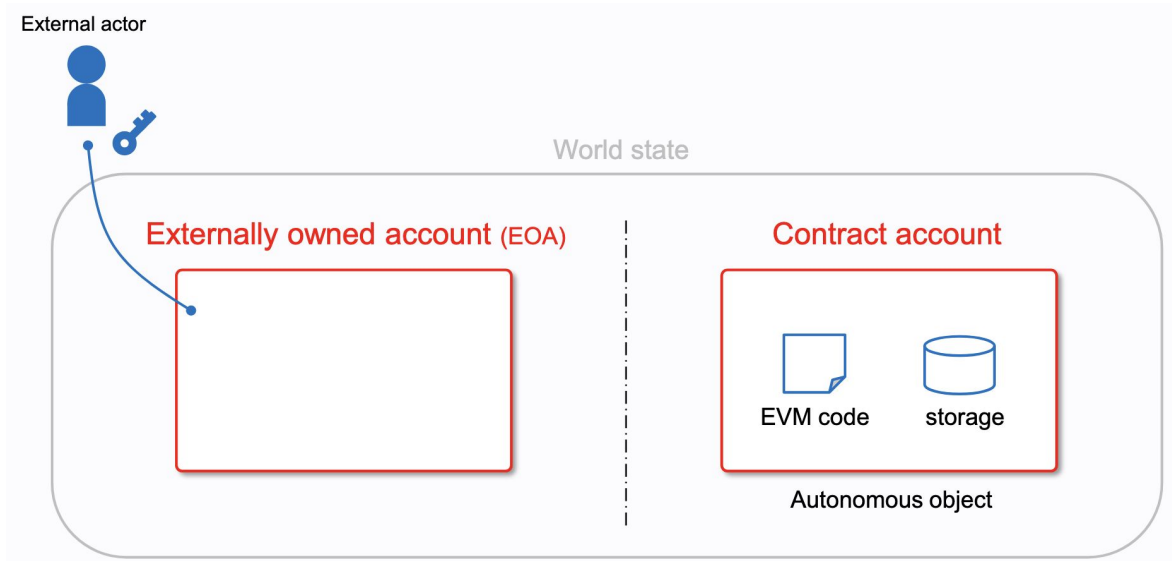


# Account State

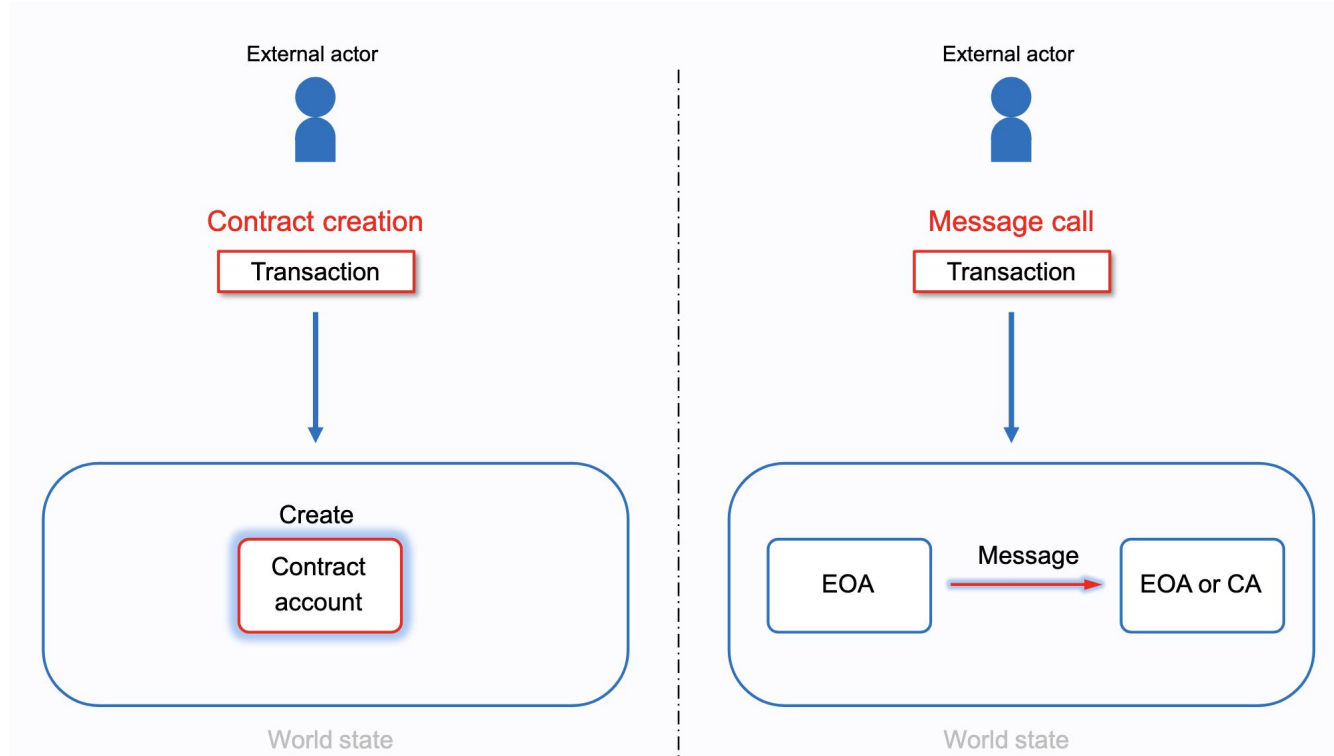


# EOA vs. SC

- EOA: No code, no storage
- SC: Immutable code, variable storage

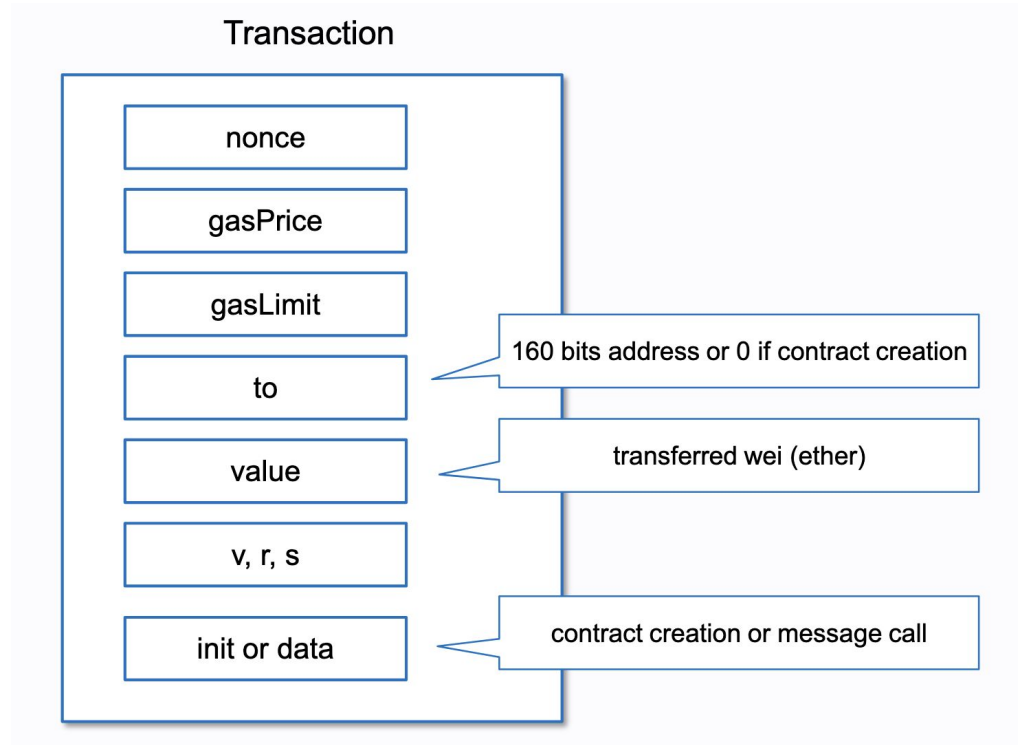


# Transaction





# Transaction



# Contract Interaction

- RPC + Contract Address + Contract ABI
- ERC-20
  - USDC on Ethereum
  - Transfer Call
- Orderly Vault
  - Orderly Vault on Ethereum
  - Deposit Call

