CMPSC 390
Bitcoin Interactions

Janyl Jumadinova

Credit: Authors of "Bitcoin and Cryptocurrency Technologies"

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Light Nodes (SPV Nodes)

Simple Payment Verification (SPV):

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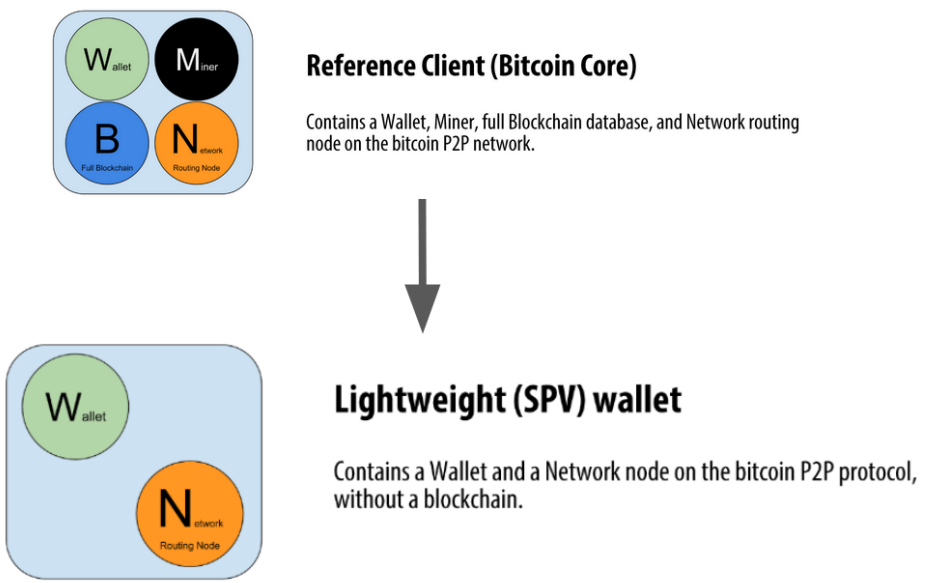
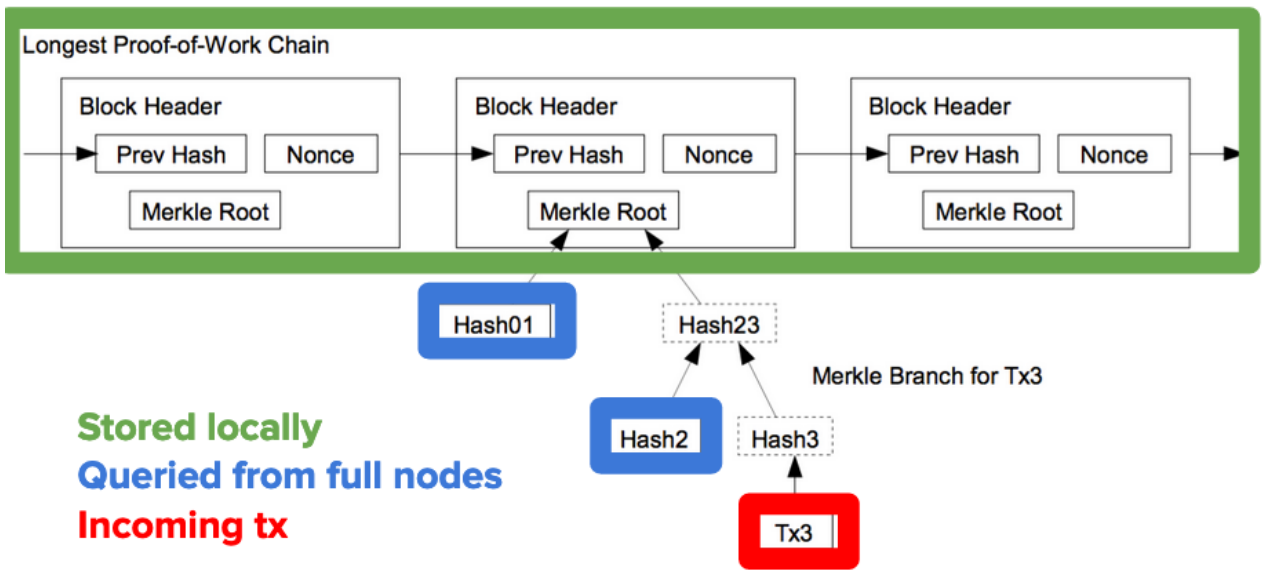


Simple Payment Verification

Assumption:

Incoming block headers are not from a false chain.



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- Provides a user interface to the blockchain
- Keep track of the private key
- Store, send, receive, and list transactions
- Maybe some other functionalities

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https://bitcoin.org/en/choose-your-wallet

Creating a Wallet

- Paper/hardware wallet (example: https://walletgenerator.net/)
- Digital wallet (example: https://login.blockchain.com/#/signup)

Getting bitcoin

- Bitcoin ATMs (https://coinucopia.io/)

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- Decentralized Exchanges (DEXs) (example: https://bisq.network/)

Best Practices

- Multisignature
- Never reuse pseudonyms, public keys
  - Wallet software can handle this

Hierarchical Deterministic (HD) Wallets

- Deterministic because all child keys are generated from a seed in the same way every time.
- **Hierarchical**: you can organize the keys in a tree-like structure, with levels.