Blockchain

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Introduction

Blockchain

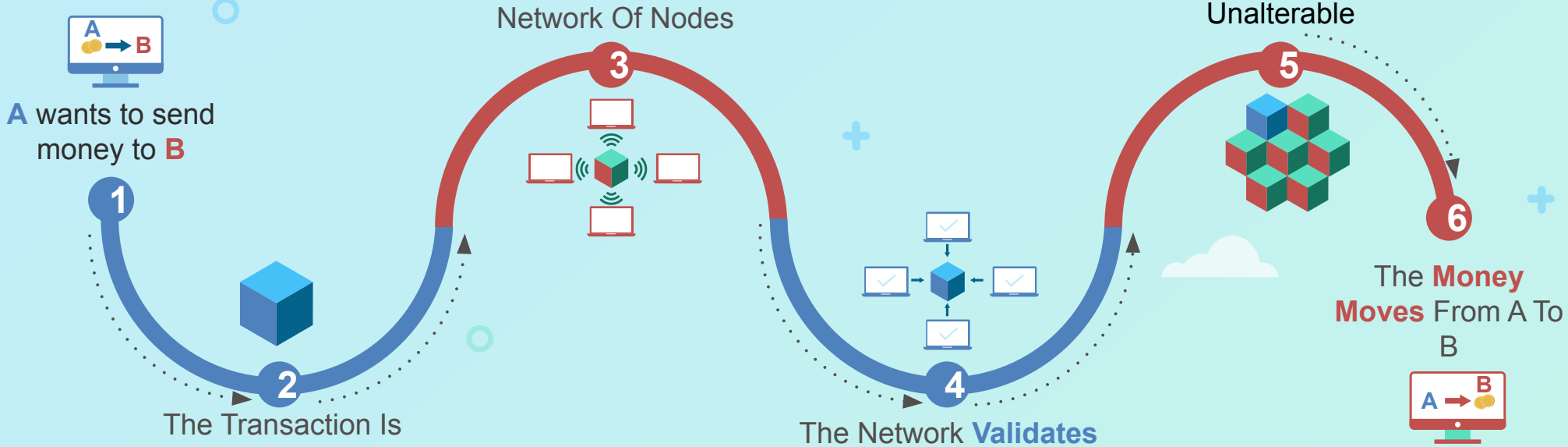
- A system of recording information in a way that makes it difficult or impossible to change , hack or cheat the system.
- A digital ledger of transactions where the ledger is duplicated and distributed across the computer systems on the network.
- Each block consisting of a number of transactions and each time a new transaction occurs its record is added to every participants ledger.

Introduction Cont....

- **Properties of Blockchain**

- Distributed
- Decentralized
- Immutable
- Transparent

What is Transaction?



Transaction continue…..

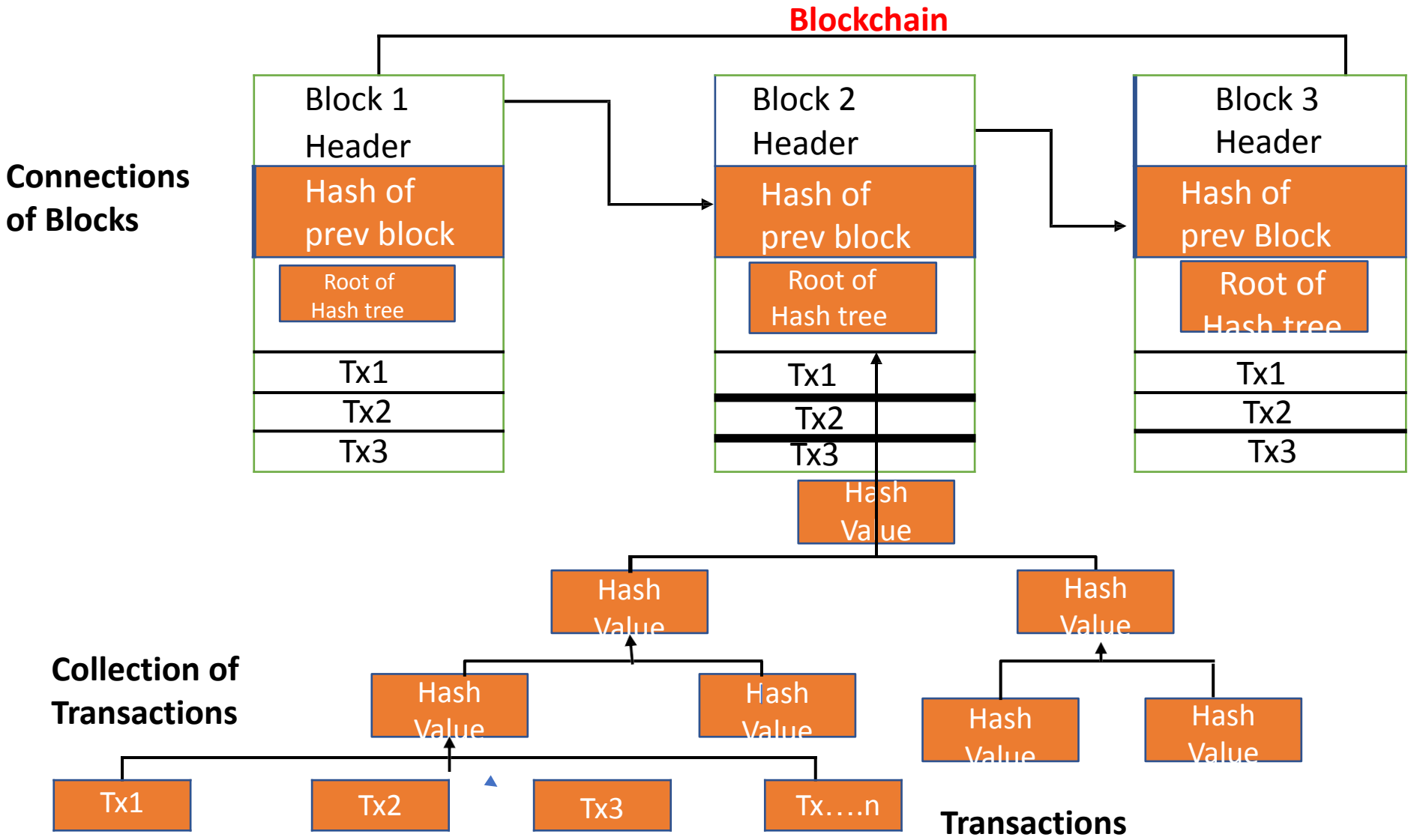


Figure : Blockchain Architecture

Literature

Raikwar, Mayank, et al. designed a distributed platform with blockchain as a system service for supporting transaction execution in insurance processes.[1]

- In this paper, the design of an efficient approach was developed for processing insurance related transactions based on a blockchain-enabled platform.
- The main design requirements and corresponding design propositions were discussed, and various insurance processes was encoded as smart contracts.
- Extensive experiments were conducted to analyze performance of our framework and security of the proposed design.

[1]Raikwar, Mayank, et al. "A blockchain framework for insurance processes." *2018 9th IFIP International Conference on New Technologies, Mobility and Security (NTMS)*. IEEE, 2018.

Literature

Anandkumar Balasubramaniam, et al. designed a Blockchain For Intelligent Transport System.

- In this paper we studied about how to solve the problem of accident insurance claim using blockchain and machine learning .
- Data safety and integrity was the matter of concern .
- The paper also discusses the different analyses on road accident data, and analysis using various dimensionality reduction techniques for road traffic dataset

Anandkumar Balasubramaniam, Malik Junaid Jami Gul, Varun G. Menon & Anand Paul (2021) Blockchain For Intelligent Transport System, IETE Technical Review, 38:4, 438-449, DOI: 10.1080/02564602.2020.1766385 [2]

Challenges in Centralized Application

- **Data insecurity**

  According to the Identity Theft Resource Center's
  In 2021 Data Breach Report, there were **1,862 data breaches last year**,
  In 2020's total of 1,108

- **Data loss**

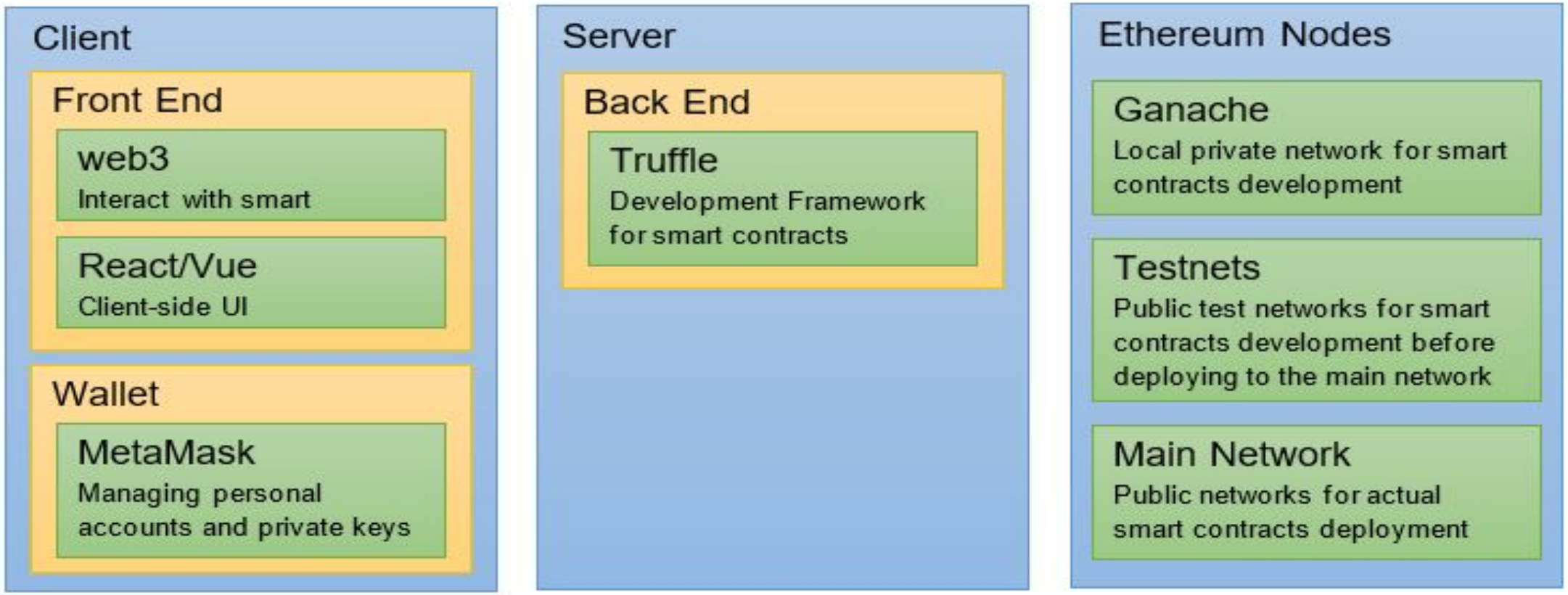
  67 percent of data loss is caused by hard drive crashes or system failure

- **Trust issue**
- **Data is not transparent**

How Blockchain help

- Data is secured
- Prevents from data loss.
- Trust
- Data transparency

Tech View



Ethereum Decentralized Application (Dapp) Architecture and Frameworks

Conclusion

As shown there are many benefits using Blockchain technology in the insurance industry

If combined with other state-of-the-art technology the process of insurance transactions can be significantly optimized.

The answer to the question "Blockchain, a Feasible Technology for Insurance Administration?" is "Yes!". However, a lot of challenges (technical, organizational) have to be tackled.

Future work

For the future, we plan to implement the following things in existing system.

- Public blockchain deployment
- IPFS implementation
- Security Analysis
- Different Types of Insurance Claims at one place
- Different type of policy extension with same id.


thank you