



## Blockchain Based E-Health System

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# BLOCKCHAIN BASED E-HEALTH SYSTEM

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**Abstract:** Smart contract is a particular programming code that is integrated into the Blockchain network and implemented by computers or nodes. Terms between the parties to the Smart Contract are written in the form of a code in the Blockchain. The people affected are confidential, but the contract itself has public assets. In the event of a beginning event for example, the occurrence of a certain date or the achievement of a given price, the contract shall be entered into on the basis of the conditions set out in its code. Following the terms of the deal, the network nodes can refresh the register. When all conditions are fulfilled, the contract is immediately closed and information about the actions taken is registered in the Blockchain.

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## I. INTRODUCTION

Privacy Authentication or networking, also referred to as cryptography, pushes the boundary between device networks, data and applications from the centralized cloud to the logical network edge stream. We will illuminate the operating environment as a highly virtualized computing architecture that gives hierarchical computing support for edge server nodes. Exactly where programming tools and information are stored is the main difference between the two architectures. A computer network that is open to anybody who runs an application controls the GUI. Blockchain is a pseudo anonymous process, but it still has privacy problems because all transactions are available to the public while tamper-proof in terms of data confidentiality. Proper preparation for the entry of heterogeneous patient information data through numerous healthcare facilities and technology is essential. The blockchain itself is not meant to be a broad-scale computer scheme. In the future, a common storage device will make an enormous contribution to the healthcare sector's blockchain instability. Blockchain can circumvent traditional processes, such as contracts, intellectual property protection, and corporate accounting. Personal health reports are covered to the highest degree possible. In recent years, as the number of cases alleging privacy violations has grown, general understanding of sensitive data security will start to rise. The need for privacy safeguards will be increased with the explosion of applications and smartphones recording our digital data pertaining to our personal identities.

## II. Motivation

The climate is evolving extremely quickly, and we're not even sure of it. Block Chain Technologies and Crypto Currency are irreversible developments that challenge existing markets and the way we communicate financially. For this cause, I assume that understanding and knowledge of this

block chain wave is extremely necessary. Current systems act as centralized architectures in the database system.

- Broad storage of data at the necessary level of decentralized data storage as well as information system
- Multiple attack problems in clustered database architectures.
- There is no automated attack recovery in core data architectures
- Decentralized infrastructure offers automated data recovery from a number of threats.

After the study of this method, we move into the creation of a decentralized system architecture, and privacy computing offers parallel computation in a distributed environment.

### **III. OBJECTIVE**

- To design approach for health insurance company where system store all historical data into blockchain manner.
- To create a distributed computing environment hierarchy for parallel data processing for end user's applications.
- To design implement own SHA family block for whole blockchain.
- Each transaction has stored on dependent blockchain in cloud environment.
- To design and implement a new mining technique for generate new block for each transaction.
- To implement a verification algorithm which can validate each peer on every access request.

### **IV. PROBLEM DEFINITION**

In the propsoed research work to design and implement a system for health care data, where user can store all information in single blockchain without any Trusted Third Party (TTP) in privacy computing environment. The system also carried out data integrity, confidentiality as well as eliminate the incinsistency for end user.

### **IV. LITURATURE SURVEY**

**1: Title:** Issues and Effectiveness of Blockchain Technology on Digital Voting

**Author:** Gupta A, Patel J, Gupta M, Gupta H.

**Description:-** System presented in the Issues and Effectiveness of Blockchain Technology on Digital Voting that block chain is a technology that enables moving digital coins or assets from one individual to another individual. Blockchain concept can be understand with the concept of linked list in Data Structure, because its next key address is stored in previous key and they are linked with each other.

**2: Title:** Design of Distributed Voting Systems

**Author:** Meter, Christian

**Description:-** System present the Design of Distributed Voting Systems. Electronic voting systems attempt to be as easy to use and secure as ideal traditional elections and attempt to eliminate the human errors described.

**3: Title:** E-Voting with Blockchain: An E-Voting Protocol with Decentralization and Voter Privacy

**Author:** Hardwick, Freya Sheer, Raja Naem Akram, and Konstantinos Mark antonakis

**Description:-** E-Voting with Blockchain: An E-Voting Protocol with Decentralization and Voter Privacy that a potential solution to the lack of interest in voting amongst the young tech savvy population. For e-voting to become more open, transparent, and independently auditable, a potential solution would be base it on block chain technology. This paper explores the potential of the block chain technology and its usefulness in the e-voting scheme. an e-voting scheme, which is then implemented.

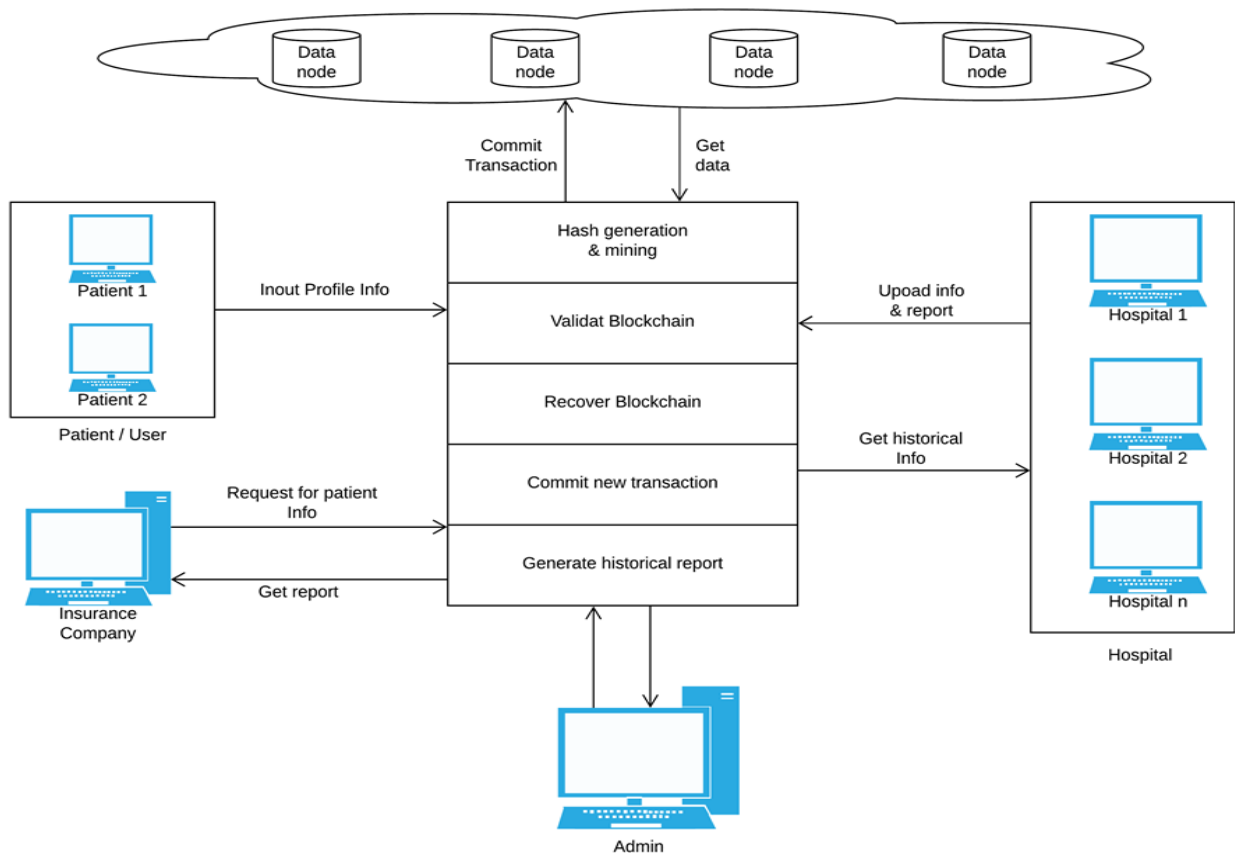


Figure 1. Block Diagram

## V. CONCLUSION AND FUTURE SCOPE

There are many research opportunities for adapting Blockchain technology to the healthcare industry due to the complexities of this field and the need for more efficient and effective information management systems. Using interoperable networks will undoubtedly play a crucial role in addressing the relevant challenges of data exchange and communication in many areas of health care. To identify the most realistic architecture strategy for building an interoperable network using Blockchain technology while maintaining essential health security and secrecy problems, even more strategic analysis is required. In order to inform software developers and domain experts about the possibilities and drawbacks of this emerging technology, further research on safe and reliable software experience for the use of Blockchain technology in healthcare is also needed to build a decentralized network utilizing Blockchain.

## VI. REFERENCES

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