Revolutionizing the security and usage of healthcare data

Learn more on how Deqode helped patients across the globe store their data securely, and healthcare institutions to access it safely.



Challenge

Client issues and requirements

- To securely store health records and maintain a single version of the truth so that different organizations such as doctors, hospitals, laboratories, pharmacists and health insurers can request permission to access a patient's record to serve their purpose
- S Manage privacy and access control of health records
- Improve doctor-patient interaction and reach to improve the quality of treatment
- Transparent licensing of health records, compliance of HIPAA laws - not just in the letter but also the spirit

Framework

Etherum cloned quorum, consensus Raft

Deqode's Solution Overview

How we helped the client realize his goals

- Developed a blockchain technology powered platform to record patient information on a distributed ledger which allowed different stakeholders, conditional access to a single source of truth, where each interaction with a patient's health data was recorded on the ledger as a transaction with a time- stamped audit trail
- Smart contracts employed on the healthcare-focused ledger in order to easily process surgery receipts between the hospital, patient and the insurance provider
- Integrated a distributed ledger for supervising drug intake and distribution, regulation compliance or managing healthcare supplies
- Integrated and encrypted digital assets, such as blockchain medical records, or processing claims on a ledger. In cases where sensitive matters require patient confidentiality, a healthcare ledger was a perfect solution in order to ensure relevant data gets protected and encrypted in a very sophisticated manner
- Stored research conducted via HIPAA laws (Health Insurance Portability and Accountability Act) i.e. in a confidential and secure manner, using a private blockchain which can be accessed with extra authorization by concerned parties

Tech Stack

Languages/ Runtimes/ Frame works: C++ , Node. js , Javascript, Solidity, BASH, C# , React.js

DevOps, DB, and Other Utilities: Kubernetes, Docker, IPFS, Nginx, Redis, Postgre SQL, GitLab, CI /CD Pipeline

deqode.

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