A critical review of Block chain technology to store and process data in the healthcare sector.

Introduction

The health care industry is one of the largest growing industry in the world, with an estimate of 25 000 petabytes of data in 2020. The biggest problem with this industry is that patients have no control over their data, not only do they not have control, but patient data is scattered across different health care entries and systems, and patients are not able to access or retrieve their data.

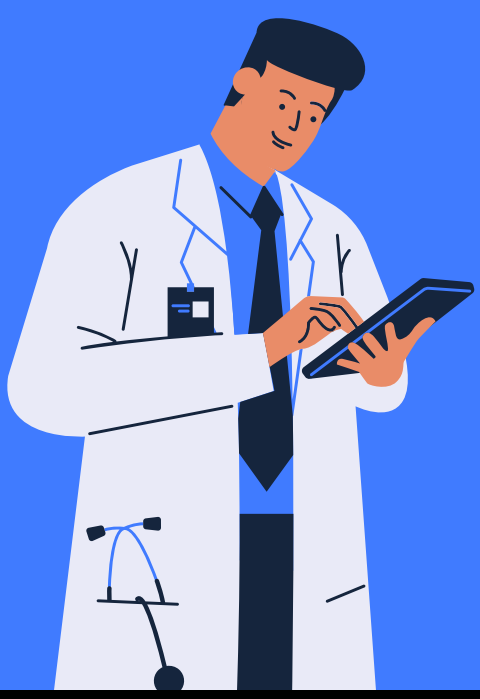
Block chain technology offers a more efficient and scalable way of storing data through its decentralized peer to peer architecture. It can be used to create a record management system that can be used as an electronic health record to store patient data.

Justification

The research papers by Azari et al(2016) and Yue et al(2016) focus on developing systems that help store and process data in the healthcare sector through the use of block chain. both of the papers are more relavent to the selected topic.

A Critical Review and comparison of research

Both research propose to develop method using blockchain to store, process and retrieve data. Azari et al (2016) proposed and developed a healthcare management system called MedRec. This system uses block chain technology to save, manage and process medical data used in the healthcare industry. Yue et al (2016) proposed and developed an app called Healthcare data Gateway. This App uses block chain to help patients have complete control over their data, the patient can share their data without any violations of privacy and in a secure manner keeping patient data private. Azari et (2016) system is more scalable and flexible and connected to different database architecture. Yue et al(2016) app uses a gateway that is used a storage and the architecture uses one access model



Conclusion

In conclusion the two research papers need a lot of work until there can fully store and process data. for future improvements, through block chain both methods can authenticate patient log which governs all the medical record. This will provide patients access to their records, they can review and share the data giving them full control over what to do with their data.

Biblography

Yue, X., Wang, H., Jin, D., Li, M. & Jiang, W. 2016, "Healthcare Data Gateways: Found Healthcare Intelligence on Blockchain with Novel Privacy Risk Control", Journal of medical systems, vol. 40, no. 10, pp. 1-8.

A. Azaria, A. Ekblaw, T. Vieira and A. Lippman, "MedRec: Using Blockchain for Medical Data Access and Permission Management," 2016 pp. 25-30, doi: 10.1109/OBD.2016.11.