DEFINE PROBLEM/PROBLEM UNDERSTANDING

SPECIFY THE BUSINESS PROBLEM

DATE	23.10.2023
TEAM ID	NM2023TMID08554
PROJECT NAME	Blockchain Technology For Electronic Health Records

The problem that blockchain technology aims to address in the context of electronic health records (EHRs) is the lack of a secure, efficient, and interoperable system for managing, sharing, and maintaining patient health data. The specific business problem includes:

1. Data Fragmentation and Interoperability: Healthcare institutions, laboratories, and medical professionals often use disparate EHR systems, leading to data fragmentation. This fragmentation makes it difficult to exchange patient data seamlessly, hindering the efficiency of patient care and decision-making.

2. Data Security and Privacy:Traditional centralized EHR systems are vulnerable to data breaches, unauthorized access, and cyberattacks. Protecting sensitive patient data and ensuring privacy is a critical business concern, especially given the stringent regulations governing health data (e.g., HIPAA).

3. Patient Empowerment and Control:Patients often lack direct access to and control over their health records. This lack of empowerment limits their ability to actively manage their healthcare, access their records, and share them with healthcare providers as needed.

4. Data Accuracy and Integrity:Ensuring the accuracy and integrity of EHRs is paramount. Inaccurate or incomplete data can have serious consequences for patient care. Maintaining data accuracy and integrity is a pressing business challenge.

5. Compliance with Regulations: The healthcare industry must adhere to numerous regulations related to data security and privacy, such as HIPAA in the United States. Achieving and maintaining compliance can be complex and costly.

6. Inefficiencies in Data Exchange:Current methods of sharing patient data involve duplication, manual data entry, and time-consuming requests for records. This inefficiency affects the speed and quality of healthcare delivery.

7. Cost of Data Management: Traditional EHR systems involve significant administrative overhead, including data reconciliation and maintenance. Reducing the cost of data management while maintaining high standards of data security is a key business goal.

Blockchain technology is considered a potential solution to these problems in EHR management by providing a decentralized, secure, and interoperable platform. It has the potential to empower patients, enhance data security, improve data accuracy, and streamline the exchange of health information while maintaining compliance with regulations. However, its successful implementation requires addressing technical, regulatory, and adoption challenges.