



Smart Contracts in Healthcare

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LIST OF CONTENTS:

1. Introduction

- Purposes
- Report's Purpose

2. Overview of Smart Contracts

- What are Smart Contracts, exactly?
- Healthcare Benefits

3. Using Case Studies in Healthcare

- Management of Healthcare Records
- Processing Insurance Claims
- Management of Patient Consent

4. Implementation Difficulties

- Adherence to Regulations
- Data Security and Privacy
- System integration with current systems

5. Case Studies

- Actual instances of the use of smart contracts in the healthcare industry

6. Recommendation

- Implementing Smart Contracts: Steps
- Adoption Best Practices
- Future Developments that might occur

7. Summary

INTRODUCTION

Managing healthcare data, collecting insurance claims, and securing patient consent are just a few of the difficulties the healthcare sector must overcome. Traditional systems frequently exhibit inefficiencies, lack transparency, and security flaws. Smart contracts and the adoption of block chain technology offer a potentially effective remedy for these problems.

PURPOSES

The following are this project's main goals:

- To examine the idea of smart contracts and possible uses for them in the healthcare industry.
- To pinpoint the precise applications of smart contracts in the healthcare industry, with a focus on patient consent, insurance claims, and medical data.
- To investigate the difficulties and impediments to the use of smart contracts in the healthcare industry.
- To offer advice and best practices for implementing smart contracts in the healthcare industry.

REPORT'S PURPOSE

In this research, the utility of smart contracts in healthcare is examined, with a focus on three crucial areas: patient consent management, insurance claim processing, and management of medical data. To demonstrate the viability of smart contracts in the healthcare industry, it includes an examination of the advantages and disadvantages of each as well as case studies from the actual world.

OVERVIEW OF SMART CONTRACTS

Smart contracts are agreements that automatically carry out their obligations because they are encoded in code. When certain criteria are met, they automatically execute and enforce contractual agreements. Because these contracts are kept on a blockchain, immutability, transparency, and trust are all guaranteed.

HEALTHCARE USE CASES

Management of Healthcare Records

Healthcare records may be managed and shared securely between patients, providers, and insurance via smart contracts. Patients maintain ownership of their information while allowing access.

Processing Insurance Claims

Both insurers and policyholders stand to gain from the automation of insurance claims through smart contracts, which speeds up claim acceptance, lowers fraud, and improves payment accuracy.

MANAGEMENT OF PATIENT CONSENT

By using smart contracts to manage patient permission, it is possible to comply with regulations like the GDPR while giving patients choice over who has access to their data and for what purposes.

SUMMARY

By tackling persistent issues with record administration, insurance claims, and patient consent, smart contracts in healthcare have the potential to change the sector. Although there are difficulties, the advantages of greater security, openness, and effectiveness make smart contracts an attractive potential for healthcare organizations open to innovation.