

BLOCKCHAIN-BASED ACCESS CONTROL SYSTEM

Project Title: Blockchain-Based Access Control System

Summary

This proposal introduces a project that applies blockchain technology to modern access control systems. By leveraging blockchain for identity verification and transaction validation, the system provides a secure, transparent, and scalable solution suitable for buildings, events, and enterprise facilities. The design avoids reliance on any single blockchain, ensuring compatibility across multiple networks and greater flexibility for future expansion.

Project Background

As blockchain continues to mature, its use has extended beyond digital assets into practical infrastructure solutions. One powerful application is access management, where blockchain can serve as a trusted layer for verifying identities, authorizing entry, and recording actions immutably. Access control systems, widely used for security in offices, campuses, events, and smart facilities, can benefit greatly from the transparency and resilience of blockchain technology.

Project Objectives

The objectives of this project are to apply blockchain to access control in order to achieve the following:

Enhanced Security: Use blockchain-based identifiers to prevent unauthorized access and ensure tamper-proof verification.

Multi-chain Compatibility: Operate across different blockchain networks, enabling adaptability and long-term sustainability.

Flexible Access: Support both pre-authorized entry and on-demand access through blockchain-based validation.

Configurable Rules: Administrators can define permissions, policies, and access conditions dynamically.

Scalability: Easily scale the system across multiple facilities and expand functionality as new requirements emerge.

Project Plan

Requirements Analysis – Define security and access needs for different facilities, including verification methods, permissions, and record-keeping.

Blockchain Identity & Validation – Implement blockchain-based verification to serve as the foundation for secure access.

Access Control Integration – Connect blockchain validation with physical access devices such as doors, gates, and turnstiles.

Recording and Auditing – Maintain immutable logs of access activities, enabling reliable auditing and compliance.

Testing and Optimization – Deploy pilot environments, test real-world use cases, and optimize based on feedback.

Expansion – Extend the system to new facilities, industries, and supported blockchain networks.

Conclusion

This proposal seeks to combine blockchain technology with access control systems to enhance security and control. We look forward to your support and approval to move forward with the implementation of this innovative project.

If you require a more detailed proposal or have specific requirements, please feel free to contact us, and we will adjust and refine it according to your needs.

Appendix

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Team Member

HERO KOO - PandaV Founder

- ❖ **Achievements:** 5Years experience in security system such Alarm & Automation, CCTV, Door Access System, Auto-gate System & PC Networking. Created several successful popular forums, such as the Malaysia Android Forum and the M-Girls Artist Fan's Forum. In addition, participated in the development of various FinTech projects, such as iRemit, PayNGo, and Lvyou wallet.
- ❖ **Graduate:** Tunku Abdul Rahman University
- ❖ **Social Link:** https://twitter.com/cwkkoo_my

C.S.TEH - PandaV Co-Founder

- ❖ **Achievements:** In addition to being a primary school teacher, I founded a charitable organization called Foodbank to assist local impoverished families. Previously, I served as a Key Opinion Leader (KOL) for the PIONEX crypto exchange platform and was an angel investor for the LBank crypto exchange platform in 2023. I am also one of the core members of DiscussWeb3. Additionally, I served as the Chief Operating Officer of a clothing manufacturing factory from 2004 to 2016.
- ❖ **Graduate:** University Pendidikan Sultan Idris
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JOEZONE JOE - PandaV IT Technician

- ❖ **Achievements:** Over 10 years experience in security system such Alarm & Automation, CCTV, Door Access System, Auto-gate System & Electrical.
- ❖ **Graduate:** INTI International University
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JACK - PandaV Full Stack Developer

- ❖ **Achievements:** Successfully led the development of a full-fledged e-commerce website from scratch, including front-end, back-end, and database design. Resulted in a 30% increase in online sales within the first quarter after launch.
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