

A Review On A Study of Block Chain Based Solutions for Secure Networking

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Abstract: *Blockchain technology was invented originally to support the completion of cryptographic transactions to cryptocurrencies but now opens new frontiers in several areas such as secure networking. This paper does a comprehensive survey on the potential for blockchain to tackle fundamental security issues that are always encountered in today's environment of networking. Its particular, immutable, and consent-based architecture also presents an alternative for reliable centralised security architectures which normally lay all vulnerabilities in singled points of failure, data breaches, and attacks. Key application domains are Internet of Things (IoT), peer-to-peer (P2P), decentralized network management, and data integrity. Blockchain for IoT networks improves security by means of decentralized authentication, immutable device logs, and smart contract developed communication protocols. In the P2P domain, a blockchain eliminates the need for trusted intermediaries for verifying identity, maintains data integrity, and constructs public key infrastructure (PKI) in a decentralized way. Moreover, in network management, blockchain provides decentralized Domain Name System (DNS) services coupled with secure access control while minimizing the risks involved with centralized control points. Then, there's the role of blockchain-based cryptography techniques that ensure end-to-end encryption and tamper-proof audit trails, perfect for secure communication and data transmission*

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