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## **Blockchain Deployment for Supply Chain Management in Agriculture**

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Abstract: As a digital system that integrates cryptography, data management, networking, and incentive mechanisms to allow the verification, execution, and recording of transactions between parties, block chains are now firmly established. Block chain technologies have significant potential as a new basis for all types of transactions, even though its initial purpose was to support new kinds of digital currency enabling simpler and more secure payments. By using this technology as a platform to carry out "smart contracts" for transactions, particularly for high-value products, agribusiness stands to become a primary benefactor. Prior to further discussion, it is crucial to make a distinction between private digital currencies and the underlying distributed ledger and block chain technology. Since digital currencies like Bitcoin are dispersed and international in nature, central banks are unlikely to be able to effectively regulate their underlying protocols. Instead than being able to monitor and control the money itself, monetary authorities are more concerned with comprehending the "on-ramps" and "off-ramps" that make up the linkages to the conventional payments system. Contrary to the block chain's digital currency component, the distributed ledger feature has the potential to be widely used in agricultural and trade financing, particularly if processes involve several partners and there is no reliable central authority.

Keywords: Advanced Encryption Standard, block-chain (AES).

## REFERENCES

- [1]. L. Guo, C. Zhang, J. Sun, Y. Fang. "A privacy-preserving attribute based authentication System for Mobile Health Networks", IEEE Transactions on Mobile Computing, 2014.
- [2]. A. Abbas, S. Khan, "A review on the state-of-the-art privacy preserving approaches in e-health clouds", IEEE Journal of Biomedical Health Informatics,2014
- [3]. Ashutosh Samantararay, Sanjay Kumar Nayak, Ashis Kumar Mishra, "Hand Gesture Recognition using Computer Vision",(2013)
- [4]. V. Goyal, O. Pandey, A. Sahai, B. Waters, "Attribute-based encryption for fine-grained access control of encrypted data", Proc. 13thm ACM Conf. Computer and Comm. Security (CCS06), 2006.
- [5]. R. Ostrovsky, A. Sahai, B.Waters, "Attribute-based encryption with non-monotonic access structures ", in: Proceedings of the 14th ACM Conference on Computer and Communications Security, ACM, 2007.
- [6]. J. Han, W. Susilo, Y. Mu. "Improving privacy and security in decentralized ciphertext-policy attribute-based encryption", IEEE Transactions on on Information Forensics and Security, 2015.
- [7]. M. Li, S. Yu, Y. Zheng, K. Ren, W. Lou, "Scalable and secure sharing of personal health records in cloud computing using attribute based encryption", IEEE transactions on parallel and distributed systems, 2013