

# A Blockchain-based Product Information Traceability System

*Research-in-Progress*

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## **Abstract**

*Product information traceability is a critical issue in supply chain management, product quality management, logistics management and many related business and research areas. Existing solutions based on techniques like RFID and Internet of Things (IoT) cannot fully meet the new emerging business requirements, such as multiple stakeholder involvement, untrusted collaboration and decentralized management. Blockchain technology provides a decentralized, transparency and immutability technical foundation for this problem. In this research, we formally propose a framework named as blockchain-based product information traceability scheme. We introduce a multi-chain based data structure to separately store and organize the product information. The product information is divided into three categories in the cross-border e-commerce case, namely account information, transaction information and logistics information. The block data structure is formally defined. The data flow process among the multiple chains is also designed.*

**Keywords:** blockchain technology, product information traceability, multi-chain structure