



Topic of the Speech:

The Distributed Traceability Model (APO) for Industrial Products Based on Blockchain Technology

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Aris Huang, Founder of Chengdu Swiftchain Technology Co., Ltd., Senior system architect, Visiting associate professor of Xihua University, Columnist of "JINSE" and "8BTC" and "WHOSHIPM" and "WEIYANGX", Blockchain expert of AISINO Co., Ltd, Senior researcher of Blockchain Economic Research Center of Sichuan Quality Development Research Institute, Blockchain expert of Beijing Informationization and Industrialization International Information Technology Research Institute, Chief Blockchain Consultant of Gandao Intelligence Co., Ltd, The initiator and technical leader of the project "Application of Blockchain Technology to Improve China's Infectious Disease Surveillance System" of NSSFC, and the initiator and solution writer of "Blockchain-based Industrial Products Anti-counterfeit Traceability Platform" of 2020 Industrial Internet Innovation and Development Project-Blockchain Public Service Platform Project of MIIT, core team member of "Non-Bank Financial Business Credit Technology Path Research" (2019) of Baihang Credit, and former CRM system expert of AsiaInfo (China) Co., Ltd. He has participated in more than 20 large-scale domestic and foreign large-scale telecommunications, finance and blockchain industry application projects, and published many high-quality, industry-influential papers and Internet articles.

2020.11-Present The blockchain expert of Special appointment of AISINO Co., Ltd. Responsible for consult in the "Blockchain-based Industrial Products Anti-counterfeit Traceability Platform" of 2020 Industrial Internet Innovation and Development Project-Blockchain Public Service Platform Project of MIIT of China.

2020.9-Present Visiting associate professor of XIHUA University of China. Responsible for Research the application of blockchain in the real industry.

2020.2-Present The project technical director of the project "Application of Blockchain Technology to Improve China's Infectious Disease Surveillance System" of NSSFC of China.

2018.11-2019.8 System architect of "Non-Bank Financial Business Credit Technology Path Research" (2019) of Baihang Credit Co., Ltd. Responsible for Blockchain credit system architecture design.

2018.3-2018.11 Solution Manager, Product Director of Higgs Chain Co., Ltd. Responsible for the expansion of blockchain technology in the physical industry and the design of blockchain products and solutions.

2011.6-2017.9 Solution architect, product architect, R&D director of AsiaInfo Technology (China) Co., Ltd. Responsible for telecom BOSS system R&D

2004.4-2011.6 Project implementation engineer, product development engineer, project manager, technical manager of Linkage Technology (Nanjing) Co., Ltd. Responsible for project implementation.

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ABSTRACT (NO MORE THAN 500 WORDS:)

The blockchain technology has the advantages of centering, data tamper-proofing, network openness and decision-making autonomy, and as a new technology, it is becoming the focus of domestic and international research. According to Gartner's 2019 blockchain technology maturity graph, blockchain technology will gradually become commercialized and mature in the next 2-3 years. This study applies blockchain technology to the field of anti-counterfeiting traceability of industrial products, mainly using the characteristics of blockchain in distributed high-trust collaboration, to establish a complete industrial chain based on suppliers, manufacturing enterprises, sales enterprises, logistics enterprises, consumers and after-sales enterprises, product production, sales, use of the full life cycle, cross-equity entities anti-counterfeiting traceability verification network. Make full use of the authenticity and authenticity traceability of blockchain transaction network, link the interests of all parties in the industrial chain through the blockchain consensus mechanism, and replace the consumer self-verification mode with network cross-verification. At present, products from the production enterprises, to consumer use process, the biggest risk of counterfeiting in the circulation link, through the industry chain stakeholders to protect their own interests driven, to promote the industrial chain to carry out self-examination and verification of counterfeit goods. This research innovative use of blockchain intelligent contracts based on the product digital authentication, trace-code authenticity verification, trace-code validity verification, air code verification, trace-code multi-use verification, sprang verification, production and marketing consistency verification, quality inspection report verification and other 8 verification models, to achieve counterfeit code, fake real code, one-yard multi-goods and counterfeit products such as fraud violations, violations of the active barrier and supervision.