

A SOCIALLY CONSTRUCTED TRADING INFRASTRUCTURE FOR DECENTRALIZED P2P NETWORKS

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Abstract

This paper proposes a framework that enables P2P users to trade for mutual benefit. The transaction system is based on the concept of so-called institutional facts to socially present accounts of finances as well as to govern the transaction. Set of protocols are developed as implementation of the transaction concept which utilizes distributed cryptography to achieve mutual authentication. Finally, an architecture of trading network is proposed. It is built as overlay network which utilizes existing P2P network for searching and delivery infrastructure.

Keywords : P2P, decentralized, community, trading, transactions, institutional facts, distributed cryptography, web service