

Secure Network Coding-Based Named Data Network Mutual Anonymity Transfer Protocol

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Abstract : NDN is a kind of future Internet architecture. Due to the NDN design introduces four privacy challenges, Many research institutions began to care about the privacy issues of naming data network(NDN). In this paper, we are in view of the major NDN's privacy issues to investigate privacy protection, then put forwards more effectively anonymous transfer policy for NDN. Firstly, based on mutual anonymity communication for MP2P networks, we propose NDN mutual anonymity protocol. Secondly, we add interest package authentication mechanism in the protocol and encrypt the coding coefficient, security of this protocol is improved by this way. Finally, we proof the proposed anonymous transfer protocol security and anonymity.

Keywords : NDN, mutual anonymity, anonymous routing, network coding, authentication mechanism

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