Abstract

Peer-to-peer networks have become increasingly popular in the recent years. In an open peer-to-peer network peers often have to interact with unknown peers and need to manage the risk in their communications. It is very important for peers to select a trustworthy peer to accomplish a task. Peers must be able to determine the trustworthiness of other peers to increasing uncertainty and risk. Thus trust policies and trust evaluation mechanisms are needed for quantifying and comparing the trustworthiness of peers. In this paper we propose a trust evaluating model based on reputation and statistical technique. In the proposed trust model the measure of trust is evaluated with Dp,q-distance technique. This technique uses quad set of positive experience and negative experience and recommendation of other peers for evaluating and comparing of trustee peers.

References

- Gambetta, D. 1990. Can We Trust Trust? In Trust: Making and Breaking Cooperative
A Reputation-based Trust Model with Fuzzy Approach and Dp,q-Distance Technique for Peer-to-Peer Networks.

- Sadeghpour-Gildeh, B., and Gien, D. 2001. La Distance-Dp,q et le Coefficient de Correlation entre deux variables aléatoires floues, Rencontres Francophones sur la Logique Floue et ses Applications. LFA'01, 97-102.

Index Terms

Computer Science

Security

Keywords

P2P Network; Trust; Reputation; Fuzzy Trust.