

# Secure Score Management for Peer-to-Peer Systems

No Institute Given

**Abstract.** We propose a secure method to manage digital currency and other types of scores in a P2P network. In this method, called  $\mathcal{S}$ , each peer  $i$  is assigned one or more *score managers* who mediate all transactions in which peer  $i$  is involved. Score managers are assigned to a peer using a Distributed Hash Table, so that peers may not choose their score manager. We show that this system has a very low probability of breach, even in highly adversarial conditions where large collections of malicious peers collaborate in an attempt to subvert the system. We also discuss how to make the system more efficient at the expense of decreased security.

Document not yet available.