Decentralized Social Network with Location Privacy Preservation

In this report, we define a new security problem of user server location privacy in distributed social network where user’s privacy profiles are stored. We also proposed a new distributed social network system to solve the problem of user server location privacy. This system not only achieves the anonymity of user servers and user data confidentiality, but also it provides efficient social network functionalities to user. Extensive theoretical analysis and experiments have been conducted to evaluate the proposed scheme and compare the scheme with the state-of-the-art, and the results verify the security and performance of our proposed system.