A reputation and trust model for multi-agent system

Résumé du projet de recherche (Langue 1)

In this thesis, we are interested in the reputation-based trust for secure systems in Multi Agent Systems (MAS). In such systems, cooperation between agents is needed to achieve personal goals. The main objective is to establish an appropriate reputation model applied to the domain of MANET (Mobile Ad-hoc Networks) taking into account the following constraints: · Interpretation and source of information used to compute trust; · Aggregation techniques used to assess the trustworthiness value of a given entity; · Decentralized-based approach; · How each model deals with both credibility of third party as a recommender and its intrinsic reputation? The application domain of MANET is mainly characterized by the lack of predefined architecture and by its dynamic topology. In these networks one interest lies on the willingness to put together individual resources such as memory in support of common goal. Another interest is the use of information to predict what could influence any rational entity to lie in providing opinion about another entity or simply predicts the future behavior of a given entity.