首页　　|期刊简介|编委会|投稿须知|期刊订阅|资料下载|编委论坛

基于物联网节点行为检测的信任评估方法
Trust system based on node behaviordetection in Internet of Things

作者	单位
刘宴兵，龚雪红，冯艳芬	重庆邮电大学 计算机科学与技术学院，重庆 400065

中文摘要：

　针对物联网感知层节点的信任研究未能兼顾信任评估的主客观性且信任传递能耗大的问题，提出一种基于节点行为检测的低能耗信任评估模型。该模型采用事件触发检测与周期性检测相结合的方式，通过直接信任值、统计信任值与推荐信任值3种信任因子计算综合信任值，进而判断节点行为是否发生异常。仿真实验结果表明本方法有效兼顾信任评估的主客观性，同时可以快速规避恶意节点并降低信任传递能耗。

英文摘要：

　Establishing a trust system, which considers energy efficiency and a trust metric aware both subjectivity and objectivity in the Internet of Things, is a powerful technique to defend against malicious attacks and improve the performance of network. A trust system based on behavior detection was proposed, which takes direct trust, recommended trust as well as history statistical trust into trust evaluation periodically and in communication. Recommended trust and history statistical trust were calculated by evidence combination and Bayes respectively. Simulation results show that nodes occur abnormal behavior could be quickly detected by the proposed trust system and the energy consumption of transmitting recommended trust was saved greatly.

查看全文 查看/发表评论 下载PDF阅读器

关闭