Abstract

Routing in mobile ad hoc network is an ever demanding research area. The aim of this research work is to design and develop QoS aware reliable cluster based routing protocol (QoS-RCBRP) for heterogeneous mobile ad hoc networks. From the dense number of literatures it has been examined that when the mobility of nodes increases, the performance of several clustering routing protocols gets decreased. Hence the intended routing protocol QoS-RCBRP makes use of mobile backbone to lessen the impact of node mobility. The proposed routing mechanism gets rid of the delay caused by cluster head selection and starts the mobile nodes to initialize the communication instantly after joining the cluster. The QoS metrics packet delivery ratio, delay and throughput are taken into account for comparing the proposed QoS-RCBRP with Ad-hoc On-demand Distance Vector (AODV) routing protocol. From dense simulation results it can be observed that the proposed protocol attains better performance in terms of reduced delay, increased throughput and packet delivery ratio.
- M. Ni, Z. Zhong, D. Zhao, MPBC: A mobility prediction-based clustering scheme for ad


Index Terms

Computer Science    Mobile Networks

Keywords