Performance investigation and analysis of routing protocols in MANET

ABSTRACT

Mobile Ad-hoc Network (MANET) is a significant and confirms research area. The routing protocol should distinguish and keep an exceptional route among source and target. There are several assailants that able to create problems in the network, for example, a flooding assailant that causes a sag in several packages. In this study, it creates an investigation and analysis of lateness, normalized routing loads and packet delivery fractions of MANET, 2 routing protocols using Transmission Control Protocol (TCP) and User Datagram Protocol (UDP), under normal conditions and under dropping packet cases. This comparison is important when choosing the better transfer package from the source to the target and the traffic kind in the network by routing protocol. The results show that AOMDV is better than AODV using TCP and UDP. In a normal condition, the delay of packets in AOMDV reaches its maximum at 0.1967, 0.3116 and 0.2832 with TCP and at 0.045, 0.0386 and 0.094 with UDP in the first, second and third scenarios, respectively. In dropping packets condition, the delay of packets in AOMDV reaches its maximum at 0.0162, 0.0587 and 0.0224 with TCP and at 0.0151, 0.0201 and 0.014 with UDP in the 1st-3rd scenarios, respectively.

Kayword: MANET; AODV; AOMDV; NS-2; Research; Exceptional.