Abstract

Traffic is increasing in all types of communication day by day. The challenge of maintaining seamless communication by avoiding congestion in a cost effective way has garnered much interest of present researchers. This challenge can be met by developing solutions for communication network based on internet technologies. This is done by developing Mobile Ad hoc Network (MANET). Mobile Ad hoc networks (MANETs) are infrastructure-less dynamic networks allowing mobile nodes to communicate beyond transmission range where mobile nodes act as gateway itself. In this research new network architecture is proposed which is combination of aeronautical and nautical communication network. This research will present a new paradigm for both aeronautical and nautical communication in air to ground and air to sea at future with mobile gateway. In this paper the performance of four routing protocols i.e. AODV, DSDV, DSR and AOMDV are compared to using various performance metrics. On the basis of these comparisons the best routing protocol for MANETs in heterogeneous communication environment has been proposed by performing simulation in Network Simulator (NS-2.35). By this approach it's possible to obtain seamless communication over the whole world.
Prominence of Different Routing Protocols in MANET for Heterogeneous Communication Environment

Index Terms

- Manual (formerly notes and documentation) of Network Simulator available online at http://www.isi.edu/nsnam/ns/index.html
- TEL-WIMAX-NS2 project documentation, Computer and Electronics Engineering Department at the University of Nebraska-Lincoln, Peter Kiewit Institute in Omaha, Nebraska (01.10.2012), available online at: http://www.TEL.unl.edu.
Keywords

Ad-hoc On-demand Distance Vector (AODV)  Destination Sequenced Distance Dynamic Source Routing (DSR)
Ad-hoc On-demand Multipath Distance Vector (AOMDV)
Mobile Ad hoc Network (MANET)
Network Simulator.