Abstract

In the competition of this modern technology the aim of Mobile Ad-Hoc networking is to provide efficient communication in wireless technology by adopting routing functionality in mobile nodes. The main aim behind the developing of ad hoc networking is multi-hop relaying. Wireless Ad hoc networks or infrastructure less networks are very easy to establish by using...
radio waves as transmitting medium without the requirements of any other equipment or infrastructure. In such a network mobile nodes can be moved and organized freely in an arbitrary way. This dynamic connectivity of nodes allow mobile ad hoc network to be organized any where any time. Loads of research work and efforts have been done since last decade to provide support and solution to different problems and challenges related to mobile ad hoc networks. But still the fast growing technology needs attention in many areas such as routing, bandwidth, security, power consumption, collisions, simulations, and topology control due to moving nodes especially for achieving 4 generation environment and resulting best QOS's. Sprint offers a 3G/4G connection plan, currently available in select cities in the United States. It delivers rates up to 10 Mbit/s. I have proposed three routing protocols (DSR, AODV, TORA) with different range, frequencies and parameters towards the contribution for best performance towards 4 generation cellular networks with an extension of ad hoc networks through a gateway i-e wireless routers or iphone etc. This has a very good contribution using OPNET simulator for best results on Real Time basis towards 4G cellular networks.

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**Index Terms**

Computer Science Wireless

Communications

**Key words**

4G DSR AODV

TORA

OPNET simulator