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MULTICAST ROUTING IN MOBILE AD HOC NETWORKS: ISSUES AND TECHNIQUES

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ABSTRACT

Mobile Ad hoc Network is a self-organised, infrastructure less network with mobile nodes. Nodes may be a source, router or a destination. The mobile nodes form a network via radio links. This type of network is very useful in military, rescue environment and also situation which needs infrastructure less networks. There are many challenges and characteristics in MANET such as mobility, bandwidth and power constraints, limited security, dynamic network topology and error-prone shared radio channel. Research in MANET includes enormous area such as routing, security and improving Qos, etc., Routing is an important operation in any network system. A routing protocol is needed whenever a packet transmits to a destination.

The routing protocols for wired network are not directly suitable for wireless network because its limitations and properties. A lot of routing protocols proposed for routing in mobile ad hoc network because of its dynamic multi hop nature. Bandwidth consumption is an important issue in wireless networks as many users are sharing the same wireless channel. Multicasting is the transmission of data grams to a group of hosts identified by a single destination address. It provides efficient communications among a group of nodes, while reduce bandwidth consumption of many applications such as videoconferencing, replicated databases, information distribution, resource discovery, sharing of text and images, distributed gaming etc. In recent years, various multicast routing protocols proposed with different features. This paper exhibits the exiting issues and techniques in designing protocol for multicast routing in MANET.

KEYWORDS: Issues, MANET, Multicast Routing, Protocol, Techniques