CONCEPTUAL RESEARCH PAPER

COMPUTING TRENDZ Vol VIII No. 1,2 , January - December 2018 Print ISSN : 2230-9152, Online ISSN 2456-138X

A Review Study on the Use of Manet for Wireless Devices

Jaspreet Kaur
Assistant Professor, Department of Computer Science & Engineering, Apex Institute of Technology, Bilaspur, Kaushalganj, Uttar Pradesh

ABSTRACT
With the rapid development of wireless devices a MANET came into existence .a MANET which is also known as mobile ad hoc network which connect mobile devices wirelessly. It is a self-organizing network which does not have any framework. Hence it is self-governing system. Every device in MANET is free to move in any direction dynamically in order to share information between devices or nodes of network. MANET has no any administrator node which is responsible for controlling other nodes, each and every node of MANET is behave as router and host itself and form their own network .various routing protocol is responsible for routing in MANET. This paper introduces, routing protocol, advantages, issues, applications, characteristics of MANET.
Keywords : Ad hoc network, routing protocol, characteristics, challenges, applications.
*Computing Trendz (201*8). DOI: 10.21844/cttjetit.v8i1-2.11002

Introduction

With the rapid growth of technology devices of communication has drastic change in information society. In early generation people used wired devices in order to communicate with each other. But now because of advance technology we replaced wired devices with the wireless devices like laptop, mobile phones, Bluetooth etc. wireless network have no. of nodes which help in communicating over wireless medium without any centralized system. The mobile devices are of two types. First category of mobile devices comes under the category which has their specific framework. And the second one does not have any framework. Thus this type of category is known as ad hoc network. In which every device is capable of moving and able to connect dynamically and these network have not any right of entry point which is preset. Each and every node is behave as host or router and can send data packets to other nodes.

Corresponding Author: Jaspreet Kaur, Assistant Professor, Department of Computer Science & Engineering, Apex Institute of Technology, Bilaspur, Kaushalganj, Uttar Pradesh, e-mail: 07jazzkaur@gmail.com
How to cite this article: Kaur, J. (2018). A Review Study on the Use of Manet for Wireless Devices. Computing Trendz 8(1&2): 12-14
Source of support: Nil
Conflict of interest: None

Routing Protocol

Protocol is a set of rules thus routing protocol is a set of rules which is responsible for sending and receiving packets form one host to another.

There is various routing protocol for MANET.

Reactive Protocol:

These types of protocol are worked only whenever they are asking for to do so. That is why these are also known as on-demand protocol. And these type of protocols discover their path whenever there is any order is ask for sending or receiving packets and hence it less the overhead of routing table and it do not any routing inform to store.

Proactive Protocol:

It is different from reactive protocol because it retains the routing information of network. Thus it is also known as Table-driven routing it keep and bring up to date the network information sporadically. But it faces the network in large network because large network it is difficult to maintain the information

of each and every node. This type of protocol has more overhead as compared to reactive.

Hybrid Routng Protocol:

This protocol is intervening between reactive and proactive. It overcomes all the shortcoming of reactive and proactive protocol.

Characteristics

Autonomous:

Ad hoc network can automatically tie to a range of nodes in order to share information.

No Framework

Ad hoc network are free from any specific framework. There is not any define structure define for ad hoc network. Hence it is less costly and more vigorous.

Multi Hop Routing

In ad hoc network each and every node behave as router and host every node behave as router and host it-self and it disperse information between various nodes Because of multi hop information is broadcast easily.

Dynamic

In ad hoc network each and every device is independent of working and moving dynamically in any path.

Scalability of Network:

When number of users increased ad hoc network can work constantly without any stoppage in current activity.

Applications

Military Battlefield:

This is most broadly used technology used by army soldiers in order to store and preserve information.

Local Level:

Ad hoc network can automatically connect multimedia network to disperse information among various nodes.

Commercial Sector:

Ad hoc network is also beneficial in commercial sector for emergency operations like flood, fire, disaster etc.

Personal Area Network:

With ad hoc network one can easily disperse information between wireless devices located in personal area network.

Data Mining:

Ad hoc network is also beneficial in data mining to collect knowledge or information in order to find facts.

Issues in MANET

As there are many advantages of ad hoc network that is dynamic and automatically connect to mobile nodes via wireless network and it do not have any infrastructure and centralized node.

There are certain issues in ad hoc network:

Security:

Wireless network are less authentic than wired network.

Routing:

Routing is one of the great challenges in MANET because ad hoc network change network topology constantly among the nodes.

Quality of Service:

QOS is also a big defy in MANET is rapidly change it create an issue in MANET.

Multicasting:

Multicasting is a property in which data is spread to a group of destination.

Conclusion

Its paper gives review about mobile ad hoc network which is basically a network which does not have any framework and it is self-organizing. This paper successfully explains the characteristics, issues and challenges, applications, routing protocol. MANET is very advance and important technology in today's life. We can easily communicate with one another without having wired devices and no matter where they are located. But due to open nature of MANET there are also some security issues and attacks are possible in MANET. Various attacks like denial of service, replay, Trojan house etc.

References :

Yu. J. Kaiser, "A Survey of Mobile Ad Hoc network Routing Protocols". International Journal of Information Technology and Knowledge Management, Vol. 6, 2007.

Vikas Goyal, Shaveta Rani, Paramjit Singh,'Performance Comparison of Routing Protocols for Remote Login in MANETs" International Journal of Computer Science and Mobile Computing, Vol. 2, Issue 7, 413-421, July 2013.

Suchita Baxla, Rajesh Nema "A Review Paper on Performance Analysis of AODV. OLSR, D SR and GRP Routing Protocols of Ad

Hoc Networks" International Journal of Science and Research (IJSR), Volume 2 Issue 5, May 2013.

Mobile Ad-hoc Network (MANET) Properties and Spectrum needs at the Nodes" Oxford University Press 2007.