Load Balancing Through Intermediate Gateway Traffic Sharing Model (IGTSM) For WMN

Volume 100 - Number 3
Year of Publication: 2014

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10.5120/17508-8060

Abstract

Ad hoc networks are a temporary network that consists of a set of similar mobile nodes that move freely and independently and communicate with other node via wireless links. The performance of ad hoc wireless network routing protocol is increased when the motion of mobile nodes is reduced while considering the performance factors such as packet delivery ratio and routing overhead. The gateway can be considered as centrally located nodes where the flow of traffic is very high. Packet delays are for AODV & DSR is increased when the mobility is reduced because of centrally located gateway nodes. Based on the traffic of number of relayed packet we have to decide which gateway can be used. This can be considered as a gateway selection problem. This causes the congestion at the media access control (MAC) level which in turn may lead to increase the high packet delays, since few nodes have to carry excessive loads. Such nodes may have higher battery power consumption which may cause degradation in routing performance. Along with that there are so many other problems on which this work will focus like: Gateway selection problem, Load balancing between the various gateways, Congestion Control. So this work will add an additional load effective routing mechanism IGTSM (Intermediate Gateway Traffic Sharing Model) which can consider and manage this congestion & load control at the time of the route.
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**Index Terms**

Computer Science  
Distributed Systems
Keywords
IGTSM (Intermediate Gateway Traffic Sharing Model); WNM Gateway Load Distribution;