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Abstract

As for today Wireless Mesh Networks (WMNs) is emerging technology due to their rapid deployment. WMNs are dynamically self-organizing, self-configuring and self-healing with the nodes in the network automatically establishing an ad hoc network and maintaining the mesh connectivity. In order to Design a routing protocol for WMNs requires several criteria to be taken into consideration, such as wireless networks, wired applications, mobile applications, scalability, better performance metrics, efficient routing within the infrastructure, load balancing,

throughput enhancement, interference, robustness etc. In order to support communication, various routing protocols are designed for various networks. All available protocols are not suitable for WMNs, due to the architectural difference between the networks. In this paper, a detailed simulation based performance is evaluated on the routing protocols to verify the suitability of these protocols as applicable to WMN. Landmark Ad Hoc Routing (LANMAR), Optimized Link State Routing (OLSR) and Dynamic MANET On-demand (DYMO) routing protocol are taken into consideration as a part of routing protocols. The performance differentials are investigated using varying traffic load and the number of nodes. Based on the simulation results, how the performance of each protocol can be improved is also recommended

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