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# Performance Analysis of DSR, AODV On-Demand Routing Protocols in Mobile Ad hoc Networks

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The wireless links are frequently broken down due to mobility and dynamic infrastructure. Many routing protocol methods have been proposed in Mobile Ad-Hoc Network but still the challenges are to improve the routing performance and reliability. This paper, focus on investigation the performance analysis of two important reactive routing protocols in mobile Ad hoc networks such as Dynamic Source Routing (DSR) and Ad hoc On-Demand Distance Vector Routing (AODV). The comparison done in terms of the Number of Hops per Route, Route Discovery Time, Routing Overhead, Error Packets Transmitted, Normalized Routing Load and Throughput (bits/Sec). A detailed simulation model including Network layer and physical layer models to study the inter-layer interactions and their performance implications. The simulation results indicate that AODV outperforms DSR and had a high quality of packet delivery when the mobility rate is low but in the constrained situation, DSR outperforms AODV, whereas DSR maintains its low overhead even in the presence of high mobility rate.

**Keywords:** Ad hoc networks, routing protocols, DSR, AODV.