

# **Evaluating performance of WRP and AODV manets routing protocols under mobility**

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## **Abstract**

The Mobile ad hoc networks (MANET) is a wireless networks which have no central bridge, and where each node acts as a destination as well as a router. The MANETs are dynamic networks because the network topology keeps on changing because of the mobility of the nodes. There are many protocols that have been developed to aid in routing in these types of networks. Each of these protocols is designed with some certain mobility scenarios in mind. To achieve effective routing in a given scenario, the right protocol must be chosen. Choosing the right protocol involves evaluating many interdependent performance metrics that define the effectiveness of a routing protocol, and this often poses a challenge to application designers. This research endeavored to model a simulation platform on which various protocols could be evaluated under various mobility scenarios to determine their suitability. The GloMoSim was used as the simulation platform and two MANET protocols namely wireless routing protocol (WRP) and ad hoc on-demand distance vector (AODV) evaluated. Our results demonstrated the usefulness of this modeled platform as it was able to establish that the AODV outperformed WRP in four out of the five of the measured performance metrics. The AODV is thus a better protocol for MANETs compared to WRP. The same simulation platform could be used test other protocols.