PROBLEM OF PERFORMANCE MEASUREMENT INVARIOUS ROUTING

PROTOCOLS IN AD-HOC NETWORK

ASHIS SAKLANI & RAJENDRA SHAHI

Assistant Professor, Kumaon Institute of Technology(KEC) Dwarahat, Almora, Uttarakhand, India

ABSTRACT

An ad hoc network is a collection of wireless mobile nodes dynamically forming a temporary network without the use of any existing network infrastructure or centralized administration. A number of routing protocols like Destination-Sequenced Distance-Vector (DSDV), Adhoc On-Demand Distance Vector Routing (AODV), Dynamic Source Routing (DSR) and Temporally Ordered Routing Algorithm (TORA) have been implemented. In this paper, a comprehensive attempt has been made to compare the performance of two prominent on-demand reactive routing protocols for mobile ad hoc networks: DSR and AODV, along with the traditional proactive DSDV protocol. A simulation model with MAC and physical layer models have been used to study interlayer interactions and their performance implications. The On-demand protocols, AODV and DSR perform better than the table-driven DSDV protocol. Although DSR and AODV share similar on-demand behavior, the differences in the protocol mechanics can lead to significant performance differentials. The performance differentials have been analyzed by varying network load, mobility, and network size.

KEYWORDS: Source Routing, Bellman-Ford Routing Algorithm, Hidden Terminal Problem