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EXPERIMENTAL COMPARISON OF AODV AND DSR PROTOCOLS

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Abstract

In an ad hoc network each host (node) participates in routing packets. Ad hoc networks based on 802.11 WLAN technologies have been the focus of several prior studies. These investigations were mainly based on simulations of scenarios involving up to 100 nodes (usually 50 nodes). Many routing protocols in such setting, offer the same performance, and many potential problems stay undetected. At the same time, an ad hoc network may not want (or be able) to limit the number of hosts involved in the network. As more nodes join an ad hoc network or the data traffic grows, the potential for collisions and contention increases, and the protocols face the challenging task to route data packets without creating high administrative load. The investigation of protocol behavior in large scenarios exposes many hidden problems. This paper studies on the example of AODV and DSR for end-to-end delay with 100,200,300,400 and 500 nodes, and pause time up to 500 seconds suggested data traffic on protocols performance.

Keywords: ad hoc networks; routing; AODV, DSR, protocols, simulation, NS-2.