Enhancing AOMDV Routing Protocol Based On New Routing

V. Vinoth Kannan and R.Mohan

Abstract - Literature review revealed that in Ad Hoc networks, route failure may occur due to less received power, mobility, congestion and node failures. Many approaches have been proposed in literature to solve this problem, where a node predicts pre-emotively the route failure that occurs with the less received power. However, these approaches encounter some difficulties especially in scenario without mobility where route failures may arise. In this paper, we propose an improvement of AOMDV protocol called LO-PPAOMDV (Link Quality and MAC overhead aware Predictive Preemptive AOMDV) .This protocol is based on new metric combine two routing metrics (Link Quality, MAC Overhead) between each node and one hop neighbor. Also we propose a cross -layer networking mechanism to distinguish between both situations, failures due to congestion or mobility, and consequently avoiding unnecessary route repair process. The LO-PPAOMDV was implemented using NS-2. The simulation results demonstrates the merits of our proposed LO-PPAOMDV with approximately 10-15% increase in the packet delivery ratio while average end to end delay is reduced by 20% and normalized routing load is reduced about 45% also with 7% increase in the throughput when compared with PPAOMDV.