Routing protocols in ad hoc networks can be classified into three main categories: proactive (table-driven) approach, reactive (demand-driven) approach and hybrid approach. Hybrid approach, such as Zone Routing Protocol (ZRP), combines the advantages of both proactive and reactive approaches. ZRP uses query control mechanisms based on the bordercast techniques in order to reduce traffic in the network. Even though, ZRP achieves higher performance than several other protocols, it still places a significant amount of control packets to the network. This results in data forwarding inefficiency. In this research, we propose a new method, which utilizes detects nearby peripheral nodes and records route reply packet to reduce the number of unnecessary control packets. The technique is called Improve Zone Routing Protocol with Route Request Packet Reduction (IZRP). We measure the efficiency of IZRP compared to ZRP by using GloMoSim. Simulation results indicate the improvement of IZRP over ZRP by reducing the number of control packets and increasing the efficiency of data packet forwarding in the network.

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