

Abstract

Hybrid networks are networks that consist of network infrastructure and MANET. The main characteristic of the hybrid network is a network topology is static (Infrastructure) and dynamic (MANET). Hybrid network topology can change according to the movements performed by each node in the MANET. Each node in the network MANET can move freely where and whenever he wants. Based on the network conditions change and the number of nodes on the network can make traffic become large so, may cause a collision and the search for the optimal path of communication between nodes, then routing can be a solution for the problems that exist when trying to communicate the sending data packets to the destination. The routing protocol in use is Zone Routing Protocol (ZRP) and the Ad Hoc On-Demand Distance Vector (AODV). In this thesis, the two routing protocols are simulated in some cases hybrid networks that are used in network simulator 2. The simulation results, then analyzed and the resulting ZRP routing protocol that is good when the number of small nodes. Otherwise, AODV is better for a complex network conditions Which was a large number of nodes in the network and network condition likely to dynamic. Evaluate the performance of the ZRP and AODV protocols are reviewed from the parameters: packet delivery ratio, packet loss ratio, routing overhead, and convergence time.

Key Word : Hybrid network , routing protokol, ZRP, AODV, dan NS-2

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