

Simulation Approach for a Comparison of Linked Cluster Algorithm and Clusterhead Size Algorithm in Ad Hoc Networks

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Abstract : A Mobile ad-hoc network (MANET) is a collection of wireless mobile hosts that dynamically form a temporary network without the aid of a system administrator. It has neither fixed infrastructure nor wireless ad hoc sessions. It inherently reaches several nodes with a single transmission, and each node functions as both a host and a router. The network maybe represented as a set of clusters each managed by clusterhead. The cluster size is not fixed and it depends on the movement of nodes. We proposed a clusterhead size algorithm (CHSize). This clustering algorithm can be used by several routing algorithms for ad hoc networks. An elected clusterhead is assigned for communication with all other clusters. Analysis and simulation of the algorithm has been implemented using GloMoSim networks simulator, MATLAB and MAPL11 proved that the proposed algorithm achieves the goals.

Keywords : simulation, MANET, Ad-hoc, cluster head size, linked cluster algorithm, loss and dropped packets

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