DESIGN AND IMPLEMENTATION OF IPV4 ROUTING INFORMATION PROTOCOL

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ABSTRACT

This paper describes the concept of Routing Information Protocol(RIP) provides the standard IGP protocol for local area networks and provides great network stability, guaranteeing that if one network connection goes down the network can quickly adapt to send packets through another connection.RIP uses Hop Count as it's only metric. The maximum number of hops allowed for RIP is 15. Comparison of different parameters of the network such as total number of updates for the routing table, time between updatesare discuss in this paper. Comparative results also show that the failure of one node has a greater impact over the performance of the network. Computer simulations for all the cases are carried out using OPNET software and experimental resultsare presented. Hence, it is found that this protocol is very useful application layer protocol used in IPv4 routing for the tracking packet routing information.

KEYWORDS: Computer Labs, Graphical User Interface (GUI), Optimized Network Engineering Tool (OPNET), Routers