

Performance evaluation of RIP and EIGRP routing protocols in IEEE 802.3u standard

ABSTRACT

IEEE 802.3u is defined within the IEEE standard that specifies the physical layer and Media Access Control (MAC) of the data link layers in sub layer of wired Ethernet. In another definition, IEEE 802.3u is believed to be a LAN technology in the circle of WAN applications. The main problem within the previous studies is that they didn't comparison of RIP and EIGRP based on important metric such as throughput, delay and utilization. Moreover it is lack of information for IEEE 802.3u regarding accurate performance of RIP and EIGRP based on real experimental evaluation. This paper focuses on the comparison of performance and characteristics in two famous routing algorithm protocols known as 'Routing Information Protocol (RIP)' and 'Enhanced Interior Gateway Routing Protocol (EIGRP)' in terms of end-to-end link throughput, end-to-end queuing delay and link utilization via simulation of the packet flow in IP networks. Results indicates that EIGRP protocol have better performance in terms of throughput, delay and utilization.

Keyword: Enhanced Interior Gateway Routing Protocol (EIGRP); IEEE 802.3; Routing Information Protocol (RIP)