ABSTRACT

Given the difficulties presented by the progression of Wi-Fi innovation, especially the 802.11g norm, there is a pressing requirement for top to bottom investigation of this innovation. As an essential part of remote network, Wi-Fi serves different cultural and mechanical necessities. Its far and wide arrangement in metropolitan regions highlights its significance. Subsequently, there is a developing interest in grasping Wi-Fi innovation, particularly with regards to Pakuan Bogor College grounds. This investigation intends to investigate the effect of lining hypothesis on Wi-Fi innovation, with an emphasis on Pakuan Bogor College. Lining hypotheses, normally utilized in parcel association, envelop procedures, for example, Earliest in, earliest out (FIFO), Need Lining (PQ), and Weighted Fair Lining (WFQ). While FIFO focuses on the primary communicated bundles, PQ and WFQ give priority to administrations with high postpone awareness, with WFQ further allotting bandwidth to each assistance. The examination looks to decide the most appropriate lining hypothesis for Wi-Fi innovation on college grounds, taking into account administrations like Video Conferencing, Voice over Web Convention (VoIP), and Document Move Convention (FTP). Despite the fact that FTP fills in as a kind of perspective help, it adds to the examination. Through trial and error, it was found that the base information drop rate was 0.347 Mbps, while the greatest throughput came to 2.017 Mbps. In the WFQ situation, defer variety and administration delay for video conferencing were recorded at 32.4 ms and 0.72 ms, separately. Also, VoIP administrations displayed postpone variety and administration deferral of 171.717 ms and 0.977 ms, separately, in view of WFQ lining hypothesis.

Keywords: Wi-fi, FIFO, PQ, WFQ, OPNET Modeler 14.5