National Institute of Technology Calicut

Department of Computer Science and Engineering

Winter Semester 2021 – 2022

CS3093D: Networks Laboratory

Evaluation Question for Experiment No. 8

CNC hosted two servers for admission purposes, Both servers are connected to a router inside the CNC. The first server held digital copies of the student's certificates and the second server held some other admission-related information. CNC gave a new dedicated wired connection of 2 Mb bandwidth and a 20 ms delay to the router inside the CCC building for the admission purpose. One port of the router in CCC is connected to an Ethernet LAN connecting 4 desktop systems in the CCC help desk using a faulty cable with a loss probability of 0.15. Another port in the CCC router is connected to one WiFi access point placed in the DSS room in the CCC. There are three laptop devices connected to the wifi access point. The first server ran an FTP application to transfer files to one of the systems in the CCC help desk, and the second server was sending Constant Bit Rate Data to one of the laptop devices in DSS. Except link connecting CNC to CCC, all other links have 5 MB bandwidth. Implement the scenario in the ns3 simulator and measure the throughput, average delay, and packet loss ratio in the communication for 100 seconds.