ABSTRACT

Building a server required a considerable cost in manufacturing. But, the limitations of cost become one of the constraints in building a server. Raspberry Pi is a solution to build a server with a small coverage area. The final project of making a portable server using the Raspberry pi as an access point and server has been built in the classrooms of the Faculty of Applied Sciences (FIT) to support teaching and learning activities. The Access Point can handle 40 users connected simultaneously via WLAN connection. The devices used are Raspberry pi model B as the server & Access Point (AP) and USB wireless adapter Edimax EW-7811Un used to build a hotspot. Clients are connected using the IEEE 802.11n standard. To ensure the quality of the network was created, Qos testing measured using Wireshark application. The result of testing showed Raspberry Pi can be used for Portable Server and Access Point.

Keywords : *Raspberry Pi, WLAN, Portable Server, 802.11n*