ABSTRACT

Digital announcement board is a medium to display information in visual form that can be enjoyed by the people around him. Digital announcement boards can also be a means of product promotion, children's entertainment such as cartoons, and also as a means of breaking news. It's just placement and applying it is quite complicated because the cabling is long enough and must be smart to choose the perfect location to improve the neatness of the wiring.

In this Final Project, is the development of research [11] entitled "Design and Implementation of Media Center Advertising Exhibition System in Bandung Based on Raspberry Pi Using Serviio" by Sephtian Kurnia Soleh which in its network is still using ordinary WiFi. Then in this final project will be used wireless network technology using WDS (Wireless Distribution System) and also use Raspberry Pi which will then be displayed in digital announcement board.

From 30 correspondents got the average value of MOS (Mean Opinion Score) of 4.25 which express satisfaction will be digital board based on WDS. The application of this WDS-based digital announcement board can create a wireless coverage of 60 meters from the test result of Scenario 1 on Pryok Akhir. While the results of QoS (Quality of Service) obtained from 10 times test scenario 1 using Wireshark tool in the form of parameter values such as Throughput of 333.3 kbps, Packet Loss of 0%, Delay of 45.89 ms, and Jitter of 83.74 ms. Where the value of these parameters still meet the standards of TIPHON (Telecommunications and Internet Protocol Harmonization Over Networks).

Key Word : Digital announcement board, WDS, Raspberry Pi, access point