ABSTRACT

The development of telecommunication technology in the world occur rapidly due to the need communicating, exchanging, and accessing data quickly and easily with smartphone, name is smartphone. The development of communication is characterized by the development of mobile communication system technology starting from the first generation to the next generation. The latest technology of 4G or LTE networks. The activity at the Telkom Institute of Technology Jakarta building use internet access points in various need such as for certain student activity and access online learning. Network performance analysis is required at the Telkom Institute of Technology Jakarta building in the Daan Mogot KM 11. The purpose of this study was to find out information on measuring data networks (Telkomsel's 4G LTE network) in the Institute Technology Telkom Jakarta building using the Speedtest by Ookla application and Open Signal on Smartphones. From the result of the study, it can be concluded that the comparison of data network performance with a good throughput figure of (50%) and jitter (75 ms) results are quite good, packet loss (0-10%). Results of the study, it can be concluded that the comparison of Telkomsel network measurement with a download rate of 20 Mbps and uploading 10 Mbps results are quite good, ping or latency of 25 ms.

Keyword : *4G Network, Speedtest Apps, Open Signal Apps, Download, Upload, Latency, Jitter, Packet Loss, Throughput*