ABSTRACT

Infusion of patients in the process of healing and recovery is very important. Inappropriate infusion can have a negative impact on the patient. Therefore, nurses always monitor the drops of infusion fluids and the remaining infusion fluids. However, the examination carried out by nurses is still done manually. To make the nurse's work easier, a tool was created to monitor the remaining fluid in the infusion which can be seen via an Android device in grams and the percentage of remaining fluid, as well as applying the IoT concept. When sending data using the Telkom IoT Platform and forwarded to applications using the MQTT protocol. Based on the load cell sensor test, there is an average error result of 1.12%.The results of throughput test data with a distance of 1 meter, 5 meters and 10 meters are 2,463 kbps, 2,509 kbps, and 2,360 kbps. The results of packet loss test data at a distance of 1 meter, 5 meters and 10 meters are 0%. The results of the delay test data with a distance of 1 meter, 5 meters and 10 meters are 504.7273ms, 464.3292ms and 512.1017ms. The results of the jitter test data with a distance of 1 meter, 5 meters and 10 meters are 882.2887 ms, 779.688ms and 865.331ms. So that it can be concluded from the results of the data that the quality of the service being tested is appropriate or sufficient with the needs of the system

Keywords *: Infusion, monitoring, NodeMCU ESP8266, MQTT*