

Abstract

The publish / subscribe protocol includes a popular protocol on the Internet of Things (IoT), due to its ability to disseminate information to multiple devices on a continuous basis. Broadly speaking, there are two architectures that can be used for this protocol. One uses brokers and the other does not use a broker. In this study comparisons of publish / subscribe protocols are Message Queue Telemetry Transport (MQTT) and Data Distribution Service (DDS). The network architecture on MQTT uses the broker as the message delivery intermediary, and the network architecture in DDS does not use a broker. Comparison of performance against MQTT and DDS is done by considering two test parameters, namely delay and drop packet. Both protocols will be tested on two network scenarios. The first is on low latency networks, such as on networks that use fiber optic media. While other networks that are high latency. The test results obtained, for the best delay parameter is DDS on the network with low latency and high latency. As for the drop packet parameter, MQTT is superior to DDS.

Keywords: *MQTT, DDS, Publish/Subscribe.*