

ABSTRACT

The MQTT protocol is a communication protocol that is often used for IoT devices. This protocol has the advantages, small bandwidth, light transmission, and small memory usage. But despite its advantages, this protocol is still vulnerable to authentication attacks. The author proposes to increase the security of the MQTT protocol by adding an authorization feature. The authorization feature uses the Netpie platform which is the OAuth 1.0a Framework. The evaluation scenario carried out is testing the Man - in - The Middle attack with the type of ARP spoofing, eavesdropping, and memory usage on the device. Based on the results of testing, Netpie can be a solution to improve MQTT security in the authentication and authorization section.

Keywords : MQTT, IoT, authentication, authorization, OAuth 1.0a