

## ABSTRACT

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*Service facilities in public transportation such as CCTV and GPS need to be implemented so that a sense of security and comfort can be fulfilled so that public trust arises in using public transportation. The application of this technology solution raises several obstacles, such as difficulties in configuring the devices installed on the vehicle, because the location of the vehicle is always moving or because it is in a very far location. This study aims to create a web-based management system that can manage security support devices in vehicles. Message Queue Telemetry Transport Protocol (MQTT) can be implemented in the system to support communication between websites and devices installed in vehicles. MQTT itself is a machine to machine (M2M) communication protocol that is lightweight and efficient and has high connectivity. The result obtained is a website-based system that can configure data in the form of time interval values, GPIO pin activation, and manual capture used to manage devices in the vehicle. Testing is also carried out by measuring the level of suitability and latency of each data transmission. The results of the conformity measurement show that the data can be received correctly and appropriately by the Raspberry Pi, with a level of conformity reaching 100%. While the latency measurement results show the data can be received by the Raspberry Pi with an average latency of 443.93 ms.*

*Keywords: MQTT, Raspberry Pi, transportation management system, website, latency.*