TESTING OF MQTT PROTOCOL FOR IOT BASED INDUSTRIAL AUTOMATION USING RASPBERRY PI

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Currently, the significant changes in the control of industrial processes, intelligent building control and automation techniques are under pressure to reduce operating costs and integrate the important advances of communications software. IoT has become a key factor in enterprise-wide production and enterprise systems. The Internet connection has a fundamental change in the control arrangements, and the use of open / public and personal standards that make computer systems (computers, table ts and smart phones) achieve great benefits for its users and producers. This led to the study of the protocols of the internet of things IoT. In this work, we want to evaluate the most famous application level protocol MQTT in terms of using it in industrial environments. To achieve the full evaluation of MQTT protocol, a suitable simulation platform was required. (MQTT) protocol as used in a remote sensor network setting with the goal of characterizing delay patterns to improve reliability of large scale sensor networks in a publish/subscribe communication environment. Revealing the connection between data size, data collection intervals, network traffic, and delay, an approach for modelling an MQTT network design based on experimentation and inspection of behavior at the packet level is presented, and statistical distributions are explored to develop a method for real-time analysis.

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