

ABSTRACT

The Internet of Things (IoT) will create a world where physical objects are seamlessly integrated with a network of information networks in order to provide great and intelligent services for human life. There are various forms of threats and attacks on IoT objects that can cause misuse of data or information on the IoT object. One form of attack is the On-off Attack. In this type of attack, the attacker behaves as an object that is sometimes good by sending a valid Trust value, but sometimes is bad by sending an invalid Trust value so that it is necessary to safeguard the object against this type of attack. Therefore, the authors use Trustworthiness management as a method to overcome these problems. Trustworthiness management can rely on the security aspect of Trust Value as a reference to detect attacks on objects. In addition, the added security system using authentication provided by MQTT is expected to provide additional security. The approach taken in this research is testing the detection of On-off Attack directly on objects connected to the network. The test results are then displayed on a web page that has been created using php also use the MySQL database as a storage of values sent by objects to the server. Testing of detection of attacks On-off Attack was successfully carried out with a success rate of 100% and the execution time until the detection is complete is obtained for 0.5518318 seconds. This shows that Trustworthiness Management can be used as a method to deal with On-off Attack.

Keywords: Internet of Things, Objects, On-off Attack, Trustworthiness, Authentication.