ABSTRACT

Information system security is a vital aspect in the rapidly evolving field of information technology. Security threats that can compromise the integrity, confidentiality, and availability of data are on the rise. Penetration testing is one of the methods employed to assess the security of systems by simulating attacks that unauthorized parties might attempt. This research aims to implement a penetration test on the Telkom IoT Platform at the Indonesia Telecommunication & Digital Research Institute (ITDRI). The Telkom IoT Platform serves as an infrastructure to efficiently connect and manage Internet of Things (IoT) devices. The methods utilized in this study encompass system analysis, penetration testing, and security findings identification. System analysis is conducted to comprehend the infrastructure and applications involved within the Telkom IoT Platform. Subsequently, penetration testing is performed to identify potential vulnerabilities such as SQL injection, cross-site scripting (XSS), and clickjacking. In an increasingly complex landscape with growing security threats towards IoT systems, performing penetration testing becomes crucial to identify and assess potential security vulnerabilities within this platform.

Keywords: Implementation, Penetration Testing, Telkom IoT Platform, Web Application Security