ABSTRACT

The use of a web application firewall is a necessity to protect web-based applications from attacks. The application of a web application firewall on web-based applications can reduce attacks that occur. From the security aspect, it is necessary to know how effective a web application firewall is to protect and minimize malicious attacks from web-based applications. This research uses the OWASP standard as a step to perform penetration testing. From the six experiments conducted, the web application firewall effectively protects vulnerable web applications by 83% and can protect five vulnerabilities with high-level risk. Vulnerability measures that can be taken as prevention efforts and security level assessments are based on Common Vulnerability and Exposures (CVE).

Keywords—vulnerability, exploit, web application firewall, CVE