

ABSTRACT

WhatsApp is a cross-platform application Internet-based instant messaging is used on smartphones. This application is widely used by all smartphone users. With the circulation of rumors about the lack of security of these application. Ease gained everyone raises the question of the level of security at the application WhatsApp. Therefore, this study was conducted in order to gain accuracy and prove the level of security application WhatsApp.

To achieve the goal of the research used methods of penetration testing is a method to determine whether the transmitted data has been secured, and know what methods of attack that can break into the security system.

Results of this research is the security level of the application WhatsApp based mapping of the level of security research and security levels of the standard of verification requirement in this study is the Application Security Verification Standard (ASVS) in 2014 were made and issued by OWASP (Open Web Application Security Project).

The conclusion of this final project is final results for the application WhatsApp level that is level 0, it indicates that some type of review has been done on the application. The detailed verification requirements are not provided by ASVS. Instead, organizations can define their own minimum criteria (such as automated runtime scan, or strong authentication mechanism). One organization may use Level 0 to require a cursory automated scan of all of their external facing applications using the organization's commercial tool of choice; whereas another organization may define L0 requirements using data from a recent breach.

And tester may ultimately offer a solution defenses of vulnerabilities detected from the research level of security application WhatsApp.

Keyword: *WhatsApp, security level, penetration testing, ASVS, OWASP*