Abstract

Web service is application that has the ease of integrating application web that have different platform. The existence of web service is for alternative that serves as a tool in the process of information processing. While information processing related to security. Web service security at this time, become a very important issue. This is because web service is vulnerable to threats, especially in data that is exchanged through SOAP.

This final project will build a security technology of web service with Security NuSOAP like WS-Security, which is expected to be another solution to secure web service, specifically SOAP message using PHP platform and library NuSOAP.The mechanisms used in web services with Security NuSOAP similar to the one that used in WS-Security, by adding a security token with a username password for authentication and data encrypting using AES (Advanced Encryption Standard) algorithm for data confidentiality.

Results of research show that security technology with Security NuSOAP has the same resistance with WS-Security in preventing a sniffer. So, it can be another solution for securing SOAP messages. In terms of performance against the execution time, WS-Security has a better performance compared to the Security NuSOAP. But in terms of compatibility, web service with Security NuSOAP is more compatible than the WS-Security. It can be seen that each security technology has their own advantages and disadvantages.

Keywords*: Web Service, Simple Object Access Protocol* (SOAP), *Security, authentication, confidentiality*