

ABSTRACT

Every government must have a data center where all the business process of the government is gathered. In order for the data center to work properly required good computer network security. Computer network security is the defense key of government information on the logical side, because computer network is traffic of all information or data communications. For the government, information transmitted and received are confidential and should not be leaked to an irresponsible person.

This research was conducted in one government agency in Bandung Regency Government, called DISKOMINFO. The analysis results found security holes such as web protection penetration by using proxy, occurrence of device errors due overloaded process, and some sub-domains that have not been met in ISO/IEC 27001:2013 standard. The solution is optimizing web protection security, device, and providing steps to be taken to meet the standards.

The result of this research is network security optimization in preventing illegal use of proxy with 3 ways of blocking that is blocking IP address, using regular expression, and whitelist rule. Another result is proposed Sophos SG 450 device that can replace current device in managing user, and proposed document template should be made by DISKOMINFO to meet ISO/IEC 27001:2013 standard.

Keywords:

Blacklist, Internet, Network Security, Network, Optimization, Whitelist.