ABSTRACT

The application of information technology in government agencies has now provided many conveniences in carrying out business processes, especially in providing services to the public. DKIS (Dinas Komunikasi Informatika dan Statistik) Cirebon City is a service that has regional duties and authorities in the fields of Communication, Informatics, Statistics, and coding located in the City of Cirebon. The implementation of information technology or called E-Government has been implemented by DKIS Cirebon City, one of which is data center services. The IT asset at Data Center is a very crucial, so it is necessary to pay attention to its security both in terms of data and information storage and the security of physical assets. Based on the results of the Pre-Research conducted by researchers using interview and observation methods, there were many risks found in the DKIS Cirebon City Data Center. Risks that occur include damaged hardware due to old age of assets, limited units, and no budget for purchasing new assets, computer viruses and data centers that are not yet ideal and with ISO standards are only limited to server rooms so that they have a high risk. Therefore, risk management is needed to overcome the risks that occur. This study uses to analyze the risk using Hybrid QRA by combining Quantitative Risk Analysis and Qualitative Risk Analysis methods. Based on risk analysis using the Quantitative Risk Analysis method, it shows that IT assets in the form of servers have the largest potential financial loss in a ranking of 33,736,135,348, so that servers are assets that require priority control and maintenance. For threat analysis, this type of Computer Virus is the threat with the highest ranking with a potential financial loss value of Rp. 30,656,150,340. Meanwhile, the Qualitative Risk Analysis method based on NIST SP 800-53 Revision 5 produces control recommendations from 9 control families for 15 existing threat/risk categories.

Keyword: Risk Management, Data Center, Hybrid QRA, Quantitative Risk Analysis, Qualitative Risk Analysis, NIST SP 800-53 Revision 5