ABSTRACT

Information system security is very important for a company which consists of a strategy and division of responsibilities in reducing risks that pose a threat to the company. Thus the implementation of the Information Security Management System (ISMS) is a requirement and requirement for every organization in public service. Considering the role of an information technology that is currently increasingly widespread and has important value in efforts to improve service quality. PT. Telkom Access Makassar as one of the companies in Indonesia certainly wants to make efforts to improve the quality of its services with the aim of supporting business processes. The standards used in this study are based on the ISO/IEC 27001:2013 framework which is an international standard in implementing information security management systems. Assessment of the level of risk can be done using the methodFailure Mode & Effect Analysis (FMEA). Assessment analysis maturity level has been carried out based on the results of gap analysis as a goal to see the company level in the application of information security controls. The recommendation process is the next step after conducting a risk assessment and maturity level based on control of ISO/IEC 27001:2013. The results of the research obtained are average maturity level worth 3 (Well defined) and risk assessment using the FMEA method there are six identified risks of value "Very High" so that risk mitigation is carried out using the ISO/IEC 27001: 2013 standard and there are recommendations for improving controls based on risk analysis and analysis maturity level which is expected to assist in improving and improving the information security system at PT. Telkom Access Makassar.

Keywords : Information Security, ISO 27001, Risk, FMEA,Maturity Level.