

Abstract

Fraud Risk Management (FRM) division is sub-unit of Non-directorate of Enterprise Risk Management (ERM) in PT. Telekomunikasi Selular (TELKOMSEL). FRM is established in the year 2007. Nowadays, FRM division needs a system to help running its business process. One obstacle faced by FRM division to build a system infrastructure is dynamic business process. It should be a consideration, because the system analyst must consider the probability if someday, the system in FRM division must be integrated with another systems in TELKOMSEL.

*Author will try to analysis and implement a concept, *Service-Oriented Architecture*, to solve that problem. SOA itself is a concept of system architecture that is booming in the last few times. SOA that is loosely coupled, reusable, and interoperable, should be able to solve the problem in FRM division, generally in business process of ERM.*

The result of analysis and design are: ERM business process gotten by decompose components of ERM based on COSO ERM Framework, model of SOA implementation to ERM, and what services can be provided by Risk Control Matrix (RCM) application that is used by FRM division.

The result of implementation and testing are: RCM application can be integrated with CSA application. This integration can lessen the activity of control register delivery, from 4 activities to 2 activities, and lessen the amount of time about 226,702 seconds. Based on the architecture, RCM application applies the service-oriented principle, as a minimum requirements of SOA.

Keywords: *SOA, ERM, agile, reusable, loosely coupled, interoperability, RCM, CSA, FRM*