

ABSTRACT

PT. Industri Telekomunikasi Indonesia (Persero) or PT. INTI (Persero) is a state-owned enterprise that has been engaged in telecommunication industry for more than 35 years. Having some business lines, last time PT. INTI (Persero) is focusing on the engineering solution. But recently, the enterprise changes its business focus to be the manufacturing business, to increase the enterprise's sales and profit. This target is set as the long-term plan of the enterprise. Thus, the support of information system and technology and its alignment with the manufacturing business are needed for the business improvement.

Enterprise Architecture or EA has been so useful for the enterprise in order to have the alignment between business and information system and technology. These architectures include the business, data, information, and technology architecture. In this research, The Open Group Architecture Framework's Architecture Development Method (TOGAF ADM) is used. This framework includes the guidance of the overall process in designing architectures, with a cycle-based method and some phases. This research consists of 6 phases of TOGAF ADM (from Preliminary Phase until the Opportunities and Solutions Phase), and the study is about the Product Development Division and Production and Operation Division in PT. INTI. The design of both baseline and target architecture are needed in order to see the gap that can be improved. There are 3 artifacts (catalogs, diagrams, and matrices) that can support the architectures' design. The application that is used for the design is MEGA Suite.

Manufacturing Execution System (MES) is the recommendation for this research's target architecture. This web-based application can support the data acquisition, monitoring, and performance analysis of the production operations, from raw materials to finished goods. MES has some integrated modules (material, maintenance, production, and quality) but this research is only focusing on the production module. Moreover, this system can be integrated externally with the Enterprise Resource Planning (ERP) System that PT. INTI already has, through the enterprise-factory integration with. Hopefully, the system can help to improve the manufacturing execution process, in order to improve the manufacturing business of the enterprise.

Keywords: Enterprise Architecture, Manufacturing Business, TOGAF ADM, Product Development Division, Production and Operation Division, Manufacturing Execution System