

## ABSTRACT

In the current era of globalization, it is necessary to design that can align the business strategy with information systems in an organization or company to run its business activities. PT PLN (Persero) Transmission Central Java is a company engaged in the field of transmission and maintenance. PT PLN (Persero) Central Java Transmission, is one of the units in PT PLN (Persero) which performs development and management of transmission assets, investment control and transmission logistics and carries on the maintenance of transmission assets. PLN Trans-JBT must be able to adapt to the development of information systems to support the availability of electricity services.

The method used in research to align business strategy with information system one of them is enterprise architecture. The framework used in Enterprise Architecture (EA) design is the TOGAF (The Open Group Architecture Framework) framework. Inside is the TOGAF ADM (Architecture Development Method), becoming the design methodology of EA on PLN Trans-JBT. The design phases of EA found in TOGAF ADM start from the preliminary phase to the migration planning phase. The design of the architecture will be adjusted to the conditions and business needs of the company.

The output of this EA design is in the form of artifacts on TOGAF ADM component, and IT roadmap as recommendation of IT application and development. In this research give some recommendation that is development of application of PIPA (Asset Maintenance Information Center), implementation of Data Warehouse infrastructure, Docker infrastructure implementation and implementation of cloud mirroring infrastructure. With the design of the architecture, the PLN Trans-JBT can have a reference for the implementation of business processes and decision making in the application of information systems and technology that will be used within a certain time according to the needs of the company.

Keywords: EA, TOGAF ADM, transmission, maintenance, network, electricity