

ABSTRACT

The Center for Standardization and Industrial Services for Materials and Technical Goods is an institution focused on testing, research, and certification of materials and technical goods to ensure product quality and safety according to established standards. The institution requires enterprise architecture (EA) design to meet regulatory needs and ensure alignment between business strategy and information technology. To address these needs, this study uses the TOGAF (The Open Group Architecture Framework) as a guide for EA design, starting from the preliminary phase to the migration planning phase. The primary focus of this research is on the Certification unit, where the current application support is inadequate to efficiently support business processes. The EA design aims to improve the efficiency and effectiveness of the Certification unit's operations by providing integrated information technology solutions that comply with the established standards. This study begins with the preliminary phase, which includes understanding the organizational context and formulating the vision and objectives of the architecture. Next, the Architecture Vision phase helps in designing an architecture vision aligned with the organization's strategic goals. The Business Architecture and Information Systems Architecture phases focus on analyzing and designing business processes and the supporting information systems requirements. The Technology Architecture phase then defines the necessary technological infrastructure. Finally, the Opportunities and Solutions and Migration Planning phases plan the implementation and migration of the new architecture. The results of this study are expected to make a significant contribution to improving the service quality and performance of the Certification unit at the Center for Standardization and Industrial Services for Materials and Technical Goods. With a comprehensive and structured enterprise architecture design, the institution is expected to better address regulatory and operational challenges and serve as a model that can be applied to other units within the organization.

Keywords— Certification, Electronic-Based Government System, Enterprise Architecture, TOGAF ADM