ABSTRACT

Services in the hospital's Intensive Care Unit (ICU) have an important role in providing quick and accurate treatment of critical patients. In supporting operational efficiency, improving service quality, and resource management, a well-planned information technology architecture is needed. This study aims to analyze and design an Enterprise Architecture (EA) based on TOGAF ADM 9.2 at Al-Islam Hospital Bandung, especially in the ICU unit.

The TOGAF ADM 9.2 approach is used as a systematic framework for aligning technology with ICU operational needs. This research is focused on several main phases of TOGAF, namely Preliminary Phase, Architecture Vision, Business Architecture, Information Systems Architecture, and Opportunities & Solutions. Through this analysis, business processes, information system needs, and technology opportunities to support key activities in the ICU unit are identified, such as patient management, procurement of drugs and medical devices, activity reporting, and patient referrals.

The result of this study is an architectural design that includes:

1. *Optimized business process model for ICU units.*
2. *Design of an integrated information system, including patient management applications, reporting systems, and procurement of medical equipment.*
3. *Technology development plan prepared in the form of an IT Roadmap for the gradual implementation of the system.*

This design is expected to improve ICU operational efficiency, accelerate clinical decision-making, and provide a better service experience for patients. In addition, this study also provides guidance for hospitals in strategically managing information technology to support critical service needs.

Keywords: Enterprise Architecture, TOGAF ADM 9.2, ICU, Hospital Information System, Al-Islam Hospital, IT Roadmap.