ABSTRACT

The development of information technology has encouraged companies to optimize employee data management to enhance operational efficiency. However, in the case study company, it was found that employee data updates between the web application and SAP S/4HANA were still conducted manually, posing risks of data inconsistency and reducing business process efficiency. Therefore, this study aims to analyze and design an integration solution between the web application and SAP S/4HANA to support real-time employee data synchronization. The methodology used in this study is SAP activate, comprising several phases, discover, prepare, explore, and realize. This methodology was also applied to design an integration solution as an SAP interface using Remote Function Call (RFC). Furthermore, the solution development process was complemented by an analysis of as-is and to-be business processes, data mapping, and unit and integration testing. These tests were conducted to evaluate the solution's success in improving the accuracy and efficiency of employee data updates. The study results indicate that the solution design enables real-time employee data synchronization between the web application and SAP S/4HANA. This solution reduces the risk of data inconsistency, accelerates information updates, and improves the company's operational efficiency. This statement is further validated through the simulation of as-is and to-be business processes, which successfully reduced the average submission time from 2,397.4 minutes to 23.76 minutes and decreased operational costs from IDR 6,246,667 to IDR 100,000.

Keywords— system integration, Remote Function Call, SAP activate, SAP S/4HANA