

ABSTRACT

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MICROSERVICES DESIGN ANALYSIS FOR GEOGRAPHIC INFORMATION SYSTEM

PT. Enerren Technologies is a company focused in the development of software and hardware solutions based on Geographic Information Systems (GIS) for land and sea transportation, The solutions specialized for the transportation, logistics, warehousing and supply chain industrial sectors. In order to outperform the competition in the business competition, PT. Enerren Technologies requires architectural and technological innovations used in Geographic Information System (GIS) products. Microservices architecture is the answer to the complexity of business solutions of transportation, logistics, warehousing and supply chain sectors, especially when there are many programming languages used by customers integrating through Application Program Interfaces (APIs) using various programming languages and several customers who have multiple Global Positioning hardware suppliers. System (GPS) Tracker. In addition, microservices also help the company to recruit people with various programming language competency skills according to the candidate's expertise. While carrying out professional work at PT. Enerren Technologies, Practitioner work under the supervision and guidance of Mr. Hari Fajri as IT Manager and Head of IT Division in company. In this professional work, the practitioner has the opportunity to participate and be directly involved in the implementation of functions as Project Manager and Software Architect in the IT division such as designing and analyzing applications for Transportation Management System (TMS), Digital Logistics (Digilog) and Milestone Delivery for customer needs including assignments. Practitioner is doing daily tasks such as coordinating team members, reporting weekly work results, attending weekly and monthly management meetings as well as calculating Work Breakdown Structure (WBS) and mandays regarding customer needs.

Keywords: geographic information system, microservices, architecture, innovation