

Abstract

Department of Transportation Padang City still using technology monolithic for their information system. Monolithic is architecture of information system that have dependency between the service system and system were belong in one address space. When architecture monolithic were have failure and have to do development then the department have to fix the problem from the entire system. This problem make caused hard process handler failure and hard to develop the system. Data storage information sytem department of transportation worked by them self and not integrated for each system. Present time Department of transportation have three information system among to feasibility test for vehicle, public transportation city card system, and also regional financial management system. Microservices architecture is set of small service which have characteristic loosely coupled, and may integrate for each service. Microservices may become the solution for develop information system for more bigger organization, share data, dan could adapt towards for department needed. This final project are going to analys and design system information architecture department transportation of Padang using Analysis architecture tradeoff method (ATAM) approaches. Based on quality attribute obtained through interview, brainstorming, and survey with stakeholder for architecture change monolithic to microservices. Result from this research microservices architecture can be design and deploy for information system department of transportation by fulfill quality attribute of architecture compatibility, performance, reliability, maintainability, and security.

Keywords : e-government, microservices, monolithic, architecture, ATAM