

INFORMATION SYSTEM FOR MITIGATING FIRE DISASTERS USING TRAFFIC GOOGLE DATA

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ABSTRACT

The Head of the Center for Information and Public Relations of the National Disaster Management Agency predicts the potential for forest fires in 2018 will increase. Meanwhile, the loss caused by the loss of fuel wood potential is Rp. 2.190,000 / ha / year. Not to mention the government's costs of making a blackout effort. It was reported by the National Disaster Management Agency (BNPB, 2015) that for fire suppression operating costs in six provinces, the government spent Rp. 385 billion in funds. On the other hand, the Information System in the modern era has a very important role in presenting information and becoming the backbone in almost all companies and organizations. Along with the advancement of internet technology, the Information System used today can also be accessed via a smartphone that has mushroomed marketing in all circles of society. Smartphones with Android operating systems occupy the first position most widely used around 59.91 percent of other operating systems such as Symbian, iOS, Blackberry, and others (Wijaya, 2015).

This study aims to (1) Develop an Information System that can be used for Fire Disaster Mitigation Using Google Data Traffic (2) Ensure that the Information System developed is worthy of being used for Fire Disaster Mitigation Using Google Data Traffic. As for obtaining accurate data on traffic, the research team intends to use the help of Google Data Traffic. Google Data Traffic is a giant database used by Google companies to provide traffic information in real time through the Google Maps application. Google Maps uses several iterations from satellite cameras and uses Google Earth to map traffic including congestion information and possible shortest path alternatives.

The target of this product development is focused on: (1) Helping firefighters to carry out their daily tasks to be more effective and efficient by using the latest technological developments (2) Reducing the number of casualties caused by the fire disaster in Indonesia due to the length of time fire coming.

The development method chosen is the Rational Unified Process (RUP), where the risks and errors found will be corrected in several iterations to produce a good architecture and high-quality applications. RUP consists of several stages, namely Inception, Elaboration, Construction, and Transition. At each stage in the RUP iterates business modeling processes, requirements, analysis & design, implementation, test, deployment, configuration & change management, project management, and environment. The subjects to be tested are the level of accuracy and accuracy of the Information System for Fire Disaster Mitigation Using Google Data Traffic. This study uses several methods in data collection including observation, interviews, and questionnaires. Interviews were conducted with prospective application users, namely fire engines and people in disaster-prone areas. Questionnaires are used to provide respondents with a set of questions. In testing the test, the recall value and precision of the data generated by the system developed are calculated. While testing functions using descriptive data analysis techniques with the percentage feasibility formula.

Kata Kunci: *Fire Disaster Mitigation, Google Data Traffic, Rational Unified Process (RUP)*