

Scope Management Approaches for Thai Governmental Projects Under Dynamic Environment: Case Study Project License Plate Recognition System for Security in 3 Thai Southern Most Provinces

Nithinun Tanvilaipong
Virtual Simulation Division
Defense Technology Institute
Pakkret, Nonthaburi, Thailand
nithinun.t@dti.or.th

Ranchida Khanthong
Virtual Simulation Division
Defense Technology Institute
Pakkret, Nonthaburi, Thailand
ranchida.k@dti.or.th

Peerayudh Saratayon
Control & Communication Division
Defense Technology Institute
Pakkret, Nonthaburi, Thailand
peerayudh.s@dti.or.th

Abstract—Governmental project management is normally not as flexible as managing private sector projects. There are many rules and restrictions, which make the changes of budget, schedules and more importantly scopes very complicated and difficult compared to changes in non-governmental projects. The changing process is complicate and time-consuming. This can result in an unsuccessful project. In this paper, the project and the Thai Defense Technology Institute (DTI) will be introduced. The scopes of the project license plate recognition system for security in 3 Thai southern-most provinces (DTI-D22), which is one of many projects of the DTI, will be examined. The problems and experiences about the scopes management from the project DTI-D22 will be shared. This includes, how the Thai fiscal year budgetary system and the "waterfall" method way of thinking affect the governmental projects and how the DTI-D22 has dealt with these issues. Additionally, the paper will give an idea, how to define appropriate scopes in a Thai governmental project using the lesson learns from the D22 project. Apart from this, how the DTI-D22 project team reacts to the dynamism from inside and outside the organization is also included. This affects the project scopes significantly. Furthermore, the scope changing process in DTI is shown using D22 as an example. Finally, some facts and lesson-learns about a kind of projects that need to take factors such as the uncertainty nature of research projects into consideration, are presented for further discussion.

Keywords—Scopes management; Governmental project; Change management ; Budget under Thai Royal Act; Dynamic project management; Agile project management

I. INTRODUCTION OF DTI AND THE PROJECT DTI-D22

DTI is a military research organization, which established under the royal decree in year 2008. The organization has the duty to research and develop high technology military equipment and collect knowledge related to the Thai defense system [1]. The form of the organization is a public organization, which is a different form from the typical governmental organizations. Still, the DTI is funded by the government; therefore there are a lot of things, which are similar to those organizations. However there are things that

are different. The DTI are now researching and developing many products and systems in the fields such as UAV, rocket, military simulation, armored vehicle and information technology.

The project DTI-D22 is one of the information technology projects. The project duration is 4 years from 2014 to 2017. The project was initiated, because there are a lot of car bomb incidents in 3 Thai southern-most provinces, in which the user have used stolen vehicle as a bomb platform. This project should help military and police officers control vehicles, which pass the check points in the area.

In this project, sensors have been built to read vehicles' license plates. If suspicious vehicles pass the check points, the system will alarm the officers there. A Command and control system (C2) system is also built to report and send the alarming information to all the C2 nodes and the check points. Various software have been developed and purchased such as , artificial intelligence software to read license plates, communication software to distribute data among the nodes and software to detect traffic pattern of the passing cars based on data-mining technique. The figure1 shows the overview of the systems.

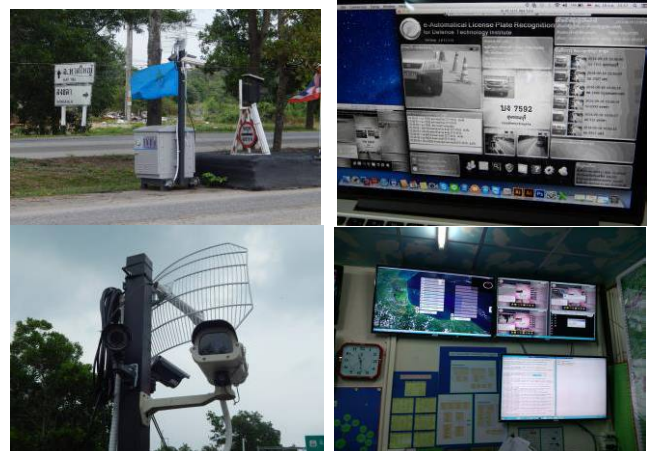


Figure1. The DTI-D22 at a glance.