Council Reporting System

A mobile phone council reporting solution

Kai Lan

September 2012

Dissertation submitted in partial fulfilment for the degree of
Master of Science in Information Technology

Computing Science and Mathematics
University of Stirling

Abstract

Increasing popularity of smartphones makes smartphone applications closer to citizens day to day lives. There are some tasks literally could only be accomplished by smartphone for its portability, like reporting facility faults to council. Few councils have developed smartphone application for reporting incidents, but resulted with poor quality; however the poor quality of the existing applications motivated the author of this project, and started this project aiming to produce a better council reporting solution.

There are three major components within the solution, a smartphone application for collecting multimedia data, a server application for receiving report from smartphone application, and a database for storing persistent data.

As there is not existing open source solution for either the smartphone application nor the server side application, this project needs to design every component of the solution from scratch. While this might mean more works would be involved in this project, the benefit is that no integration to existing system would be worried. Nevertheless, each components is able to integrate with third part system by designing the communication between components based on standard XML format.

The final solution includes a server side application implemented with Java servlets and MySQL; while the smartphone application is implement with iOS platform. It provides a fully working product which provides better end user experiences with the iPhone application, and administration functions for council officer. The whole product is fully customisable, and could be deployed to any council.