

CHAPTER 3

PROPOSED SYSTEM

3.1 Overview

In this chapter, there will be two main topics that will be covered which are design of Mobile Application for E-Saman System and the hardware and software requirements. The two main topics are divided further into four other subtopics.

Subtopic 3.2 will cover on the logical design, Subtopic 3.3 will cover on the interface design, and Subtopic 3.4 will cover on the database design, while the last Subtopic 3.5 will explain on hardware and software requirements.

Overall contents in this chapter will provide reader with the detail information of the proposed design of application interface and database including software and hardware requirements.

3.2 Logical Design

Logical design is a phase to design a logical architecture showing the interrelationships of the logical components of the system. The logical design is more conceptual and abstract than the physical design. In the logical design, developer looks at the logical relationships among the objects, Oracle (2012).

Figure 3.1 shows the complete architecture of E-Saman System combine with Mobile Application for E-Saman System. For this project, it will cover only on the mobile application. The flow of overall system start from traffic offender to mobile phone via IC reader, data sent to server, and pass on to GSM device and finally reached back to the offender.

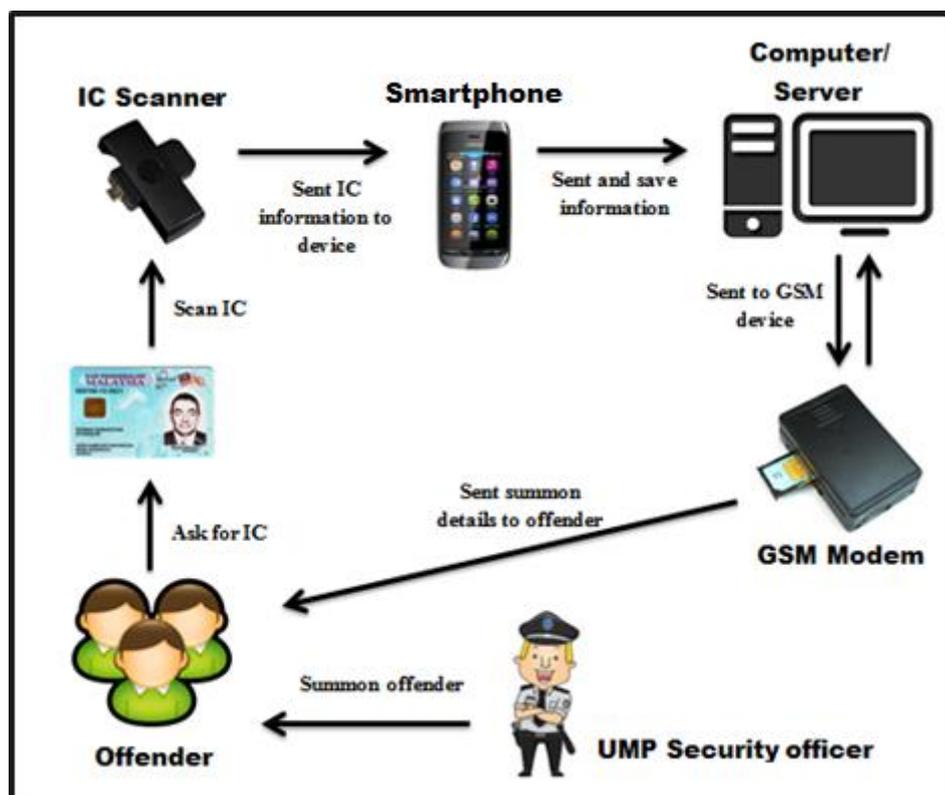


Figure 3.1: Architecture of E-Saman System and Mobile Application for E-Saman System

At the first stage of summons mechanism, UMP security officer will request the offender to hand out their identification card to get personal information. The identification card will be scan using a Mykad scanner attached to a smartphone or tablet computer. The Mobile Application for E-Saman System installed on the Android-based smartphone will retrieve the offender's basic information such as name and Mykad number. The information will be automatically inserted and displayed into the summon form in the summons application. The security officer will then fill out the rest of summons information on the application such as type of offense, type of vehicle, vehicle's registration number, date and time of summons. When the security officer submits the new summon issue into the application system, the data is then processed and transmitted to the web server. The data from the web server database are then transferred to the GSM modem. The GSM modem will process the data based on phone number and send it to the offender through Short Message Service (SMS) to notify them about the summons details. The offender will have to pay the summons within a period of time and can appeal for discount in that period. After that period of time, the summon amount will remain as the actual summon pay rate. The summon records in the server will remains as future reference such as for processing student's merit, but the payment status will changed according to payment made by the offenders.