Mobile Based Remote Meter Reading and Billing System For Ceylon Electricity Board

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Declaration

I declare that this dissertation is my own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education to the best of my knowledge and belief. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations.

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Signature

Date : 2011/12/07

Supervised by

Dr. Prasad Wimalaratne

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Date : 7/12/2011

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Abstract

Mobile Based Remote Meter Reading and Billing System was the title of the project chosen to develop for Ceylon Electricity Board in my partial fulfillment of the requirement of the degree of M.sc in Information Technology of the university of Moratuwa.

Ceylon Electricity Board is currently having a computerized billing system. However, it does not have a feature or facility of updating consumer information system from a remote location i.e. from consumer site itself. Due to this reason electricity consumer information system does not reflect the current status of his/her electricity account. Normally it takes approximately 3 – 4 weeks to update the consumer info system with the current electricity meter reading/s after obtaining them from a consumer sites. This is one of the major drawback of the existing computerized electricity billing system. Also current system does not facilitate consumers to view their billing status through organization's website and also there is no facility to make bill payments through the web site. Finally, existing system does not cater for effective Management Information System and also efficient monitoring of overdue accounts. Because of this, Ceylon Electricity Board is unable to disconnect supply of default consumers at the right time.

Therefore, under this project, updating of Consumer electricity readings from a remote location by using the mobile technology was proposed. After gathering the Meter Readings by the Bill man he/she can feed or transmit the reading data to the server using a device like mobile phone. This can be done immediately at the consumer site after obtaining the reading or at a later time before 16.00 Hrs. of the day. By this manner, whole data entry process involve in this activity can be eliminated. At the end of the day, after necessary validations, consumer information system can be updated using the days readings transmitted by all meter readers/bill men to the server. In addition, e-commerce site is developed to facilitate consumer needs such as bill inquiry, making payments etc. Since the system has the facility of sending e-mail and SMS alerts for default consumers, handling of overdue consumers should become easy and efficient. By this way CEB should be able to increase their revenue.

Table of Content

Page

List of Tables

List of Figures

List of Charts