Enhanced Service Oriented Software Framework for Embedded Android

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Declaration

I declare that this thesis 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. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

Name of Student: Mr. P.K.L.S.Wijesekara

Signature of the Student: _____

Date:

Supervised by:

Name of Supervisor: Mr. C.P. Wijesiriwardhana

Signature of Supervisor: _____

Date:

Dedication

I would dedicate this thesis to my beloved family members who have never failed to give me a tremendous support, for giving all not only throughout my project but also throughout my life as well. As well they teach me that even the largest task can be accomplished if it is done one step at a time.

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Abstract

In early days, embedded systems were limited to apply in scientific researches and to the devices which supported military requirements. Nevertheless the embedded systems are much more popular in consumer electronic, cooking, industrial, automotive, medical and commercial applications today. Current approaches to embedded system related software development, is having lack of rich frameworks with service orientation to provide freedom to access embedded system services. There for it is much more important to develop service oriented software framework that has enhanced features to operate embedded systems. Out of the embedded systems domain, the research has navigated to select embedded android and its Linux kernel as the preferred system due to its popularity and the availability of related resources. The approach to develop EmSOSwas based on service orientation principles to deliver a software development framework.EmSOS is an acronym for - Enhanced **S**ervice **O**riented **S**oftware Framework for **Em**bedded Android

We hypothesize that issue of having lack of rich frameworks with service orientation to access embedded system services, can be addressed by introducing a rich framework. This hypothesis been inspired by the power of service oriented architecture.

Several categories of users can be identified for EmSOS. They are software architects, software engineers, System analysts, embedded system developers, and also researchers of embedded systems domain.

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