FLINDERS UNIVERSITY

COMP-9710A Master Project Proposal

by

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This is the proposal for my
Master Project

in the
School of Computer Science

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0.1 Introduction

Title project : Functional testing and qualification of the Serval Mesh Extender

The Serval Project is a suite of technologies designed to facilitate and sustain mobile telecommunications in the absence of supporting infrastructure, such as cellular networks or electricity.

The two main components of the Serval Project are the Serval Mesh Extender Hardware and the Serval Mesh App. Basically the Serval Mesh Extender is a low-cost communications relay device that extends the range of communications among phones using Wifi technologie.

For the year 2017, the Australian Department of Foreign Affairs and Trade have commissioned the University to pilot Serval in the Pacific. Consequently, we have to prepare the Serval Mesh Extender technologies for field use in tropical-maritime environments, and without any dependencies on mains electricity. To this end the first Serval Mesh Extender is being redesigned to satisfy these requirements. However, this process is not yet complete.

0.2 Project Focus

Therefore there is a need to devise and apply a testing regime for the new Serval Mesh Extender design, to ensure that it meets the necessary functional requirements. Moreover we also have to ensure that the hardware units are easily possible to manufacturing. The focus of my project will be on the creation and application of such test protocols in order to be sure that the Serval Mesh Extender devices are ready for deployment in the field pilot.

0.3 Background Survey

0.4 Methodology

0.5 Conclusion