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AVoIP: Ad-Hoc Voice over Internet Protocol for Small Single-board Computers

Term Project Proposal

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***Objective*—Asterisk PBX is a software implmentation of Private Branch Exchange, a system used to handle telecommunication services. This allows for the usage of Voice over IP services on computers, including less powerful devices running on Raspberry Pis. A limitation of using weaker devices to run Asterisk PBX is that computers with little memory or weak CPUs can quickly be overwhelmed when having to deal with a large number of callers at once, cutting off callers and dropping many packets. In this proposal, the work required to run Asterisk PBX will be distributed over an ad hoc network of Raspberry Pis, to determine how well VoIP services work within a distributed single board system. This configuration will be tested for maximum callers that the network can handle, delays with high number of callers, and increaed latency as work is shared between the Raspberry Pis.**

I. Introduction & Background

Text here.

II. Timeline &Milestones

Timeline:

Milestones: 1st week : eduroam connection Asterisk installation Asterisk bachmarking on each Raspberry Pis

2-3nd week: Asterisk bachmarking on each Raspberry Pis distributing calls over multiple Raspberry Pis

4nd week: banchmarking on distributed Raspberry Pi PBX make report/prestation