Project Plan

1. Introduction

The idea is to develop conference-voice system for indoor spaces to allow users interact with each other using their smartphones as microphones.

2. Staffing

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3. Goals and scope

The goal of the project is to develop such a prototype application that may innovate future smart housing productions. It will help end users (households) to easily share ideas and information in the form of audio, and using audio track to interact with each other in an innoative way. Each group member will get involed in project planning, management and development. We will intergrate internet technology, which in our case is node.js and html5, onto mobile computing with this application.

4. Work practices and tools

- Documenting: Google Docs, GitHub Wiki
- Communication: Facebook chat, Weekly meetings, mail
- Version control: git on GitHub https://github.com/Sturgelose/CallFerence
- Design (How architectural design and lower level design is done? Modeling tools used? Validation?)
- Quality assurance: User testing

- Tools and Technologies:
  - node.js v0.12.0
  - HTML5 Web socket
  - Asterisk
  - iPhone, Android, Windows 8 phone for testing

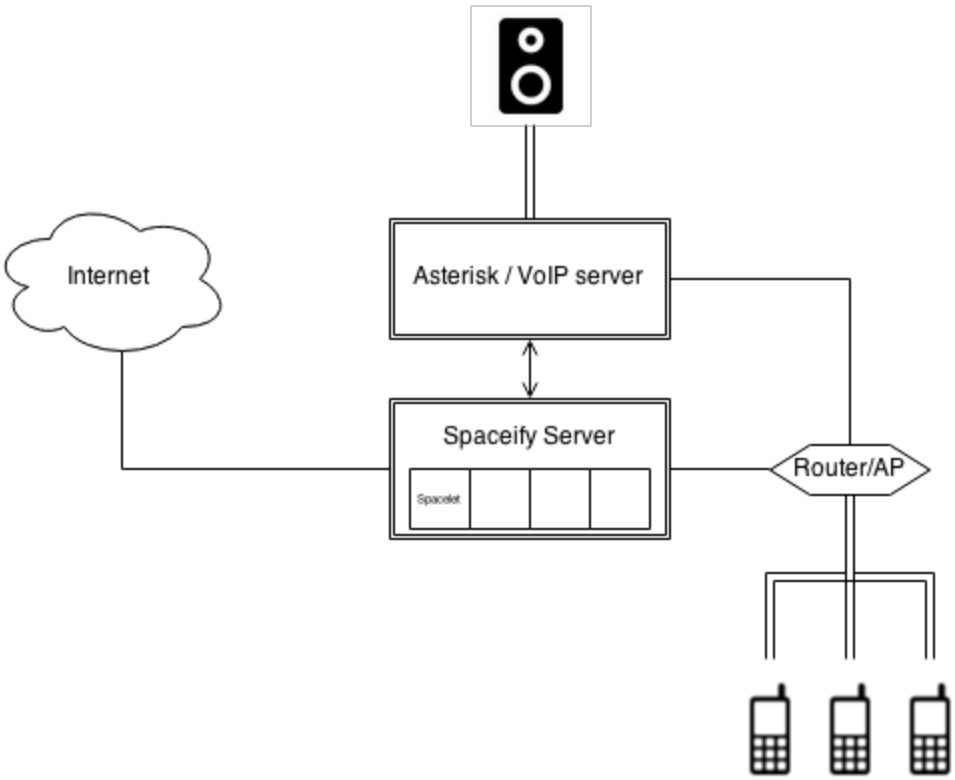
5. Schedule and resources

10.03 - Project plan submmition
17.03 - Installing all tools, reading documentation, validating the project plan
24.03 - Developing server side client with handling sigle connection
31.03 - Developing client side client with call function
07.04 - Testing and validation client-server communication process
14.04 - Adding multicalling functionality to the server side app
21.04 - Deploying server application to spaceify and testing in real enviroment
28.04 - Debugging and writing the documentation
08.05 - Submission

Estimated workload: 3 ECTS * 3 persons * 27 hours = 243 hours

6. System overview

The system consists three parts: one server, one middleware and one client. The server is based on Asterisk / VoIP Server that processes audio clip uploaded by end users. The server will handle the connections done through the websocket and will redirect the audio data to the proper output (such as speakers) or to a web client. The client is a web application based on HTML5 using web socket enable users to record and upload audio. After achieving the server-client structure, if time schedule allows, we will intergrate it into Spaceify as a Spacelet so we have a spatial dimension in the system.


Internet
Asterisk / VoIP server
Spaceify Server
Spacelet
Router/AP