

WEEKLY REPORT #9

Group 22 (May14-22)	Date 11/04/2013
Client/Advisor: Stephen Gilbert	
Attendees/Role:	
Derek Peterson- Website/ Tester	
Chris Tedford- Leader / Project Manager	
Nick Schulze – Systems Engineer	
Charles Patterson – Communications	

Past week accomplishments			
What	Who	When	
Worked on first Glass application	All	Throughout week	
Meet with Stephen to discuss first module	Chris, Charles, Derek	10/30	
Stephen ordered bluetooth keyboards for control of Glass device.			
Research the way VRAC transmits location data	Derek	10/31	
Plan for coming week			

What	Who	When	
Finish Java Module	Chris	11/05	
Finish Android Module	Charles	11/05	
Finish TCP communication	Derek	11/05	
Finish Entire Audio Google Glass Application	All	11/07	
Write Design document for Map Application	All	11/07	
Pending Issues			
Description	Action	Target date	
Transmitting Audio and receiving on Glass.			
Individual contribution			
Name	Responsibility	Planned date	Actual date
Charles Patterson	Meet with Stephen. Wrote Android	10/29	10/31

	Glass audio module. Wrote weekly report.		
Derek Petersen	Meet with Stephen. Worked on communication module. Researched location data from Mirage programs.	10/30	11/01
Nick Schulze	Worked on Java Module	10/28	10/30
Chris Tedford	Meet with Stephen. Worked on Java module.	10/28	10/29
Individual hourly contribution			
Name	Number of Hours	%	
Charles Patterson	10		
Derek Petersen	5		
Nick Schulze	4		
Chris Tedford	6		

We are currently finishing up our first Google Glass Audio Transfer Application as described below. We want to have the app working by Wednesday and run testing on it by Thursday of this week so we can have a better idea of design considerations when writing our design document for Friday.

Google Glass Audio Transfer Application

Introduction

Before we start our main Android application we want to spend more time testing the Google Glass by developing an application for it. We are going to gain more practice working with the Google Glass and Android SDK by writing an Audio Transfer Application.

The final goal of the Audio Transfer Application will be to stream live audio from a server to the Glass and to replay the audio at nearly real time. We will start by streaming pre-recorded audio from a server and then play it back on the Glass. We will move towards live audio once we have the audio transfer working.

We will only be using a server and the Glass for this application. If it is impossible we will consider adding in an Android phone between the server and Glass for data transfer purposes.

There are a few reasons we have decided to do this application as our first Glass application:

- Our final application will include two-way audio communication from a server and the Glass.
- This will give us practice sending data between a server and Glass. Our map application will be most likely sending data in a similar manner.
- We will get to test the speed and power of Glass. This will help in future design considerations to determine if we need to use an Android phone as middleware.

Requirements

A Java application that can:

- Take in an audio file on the computer
- Send audio file via TCP
- Capture voice recording

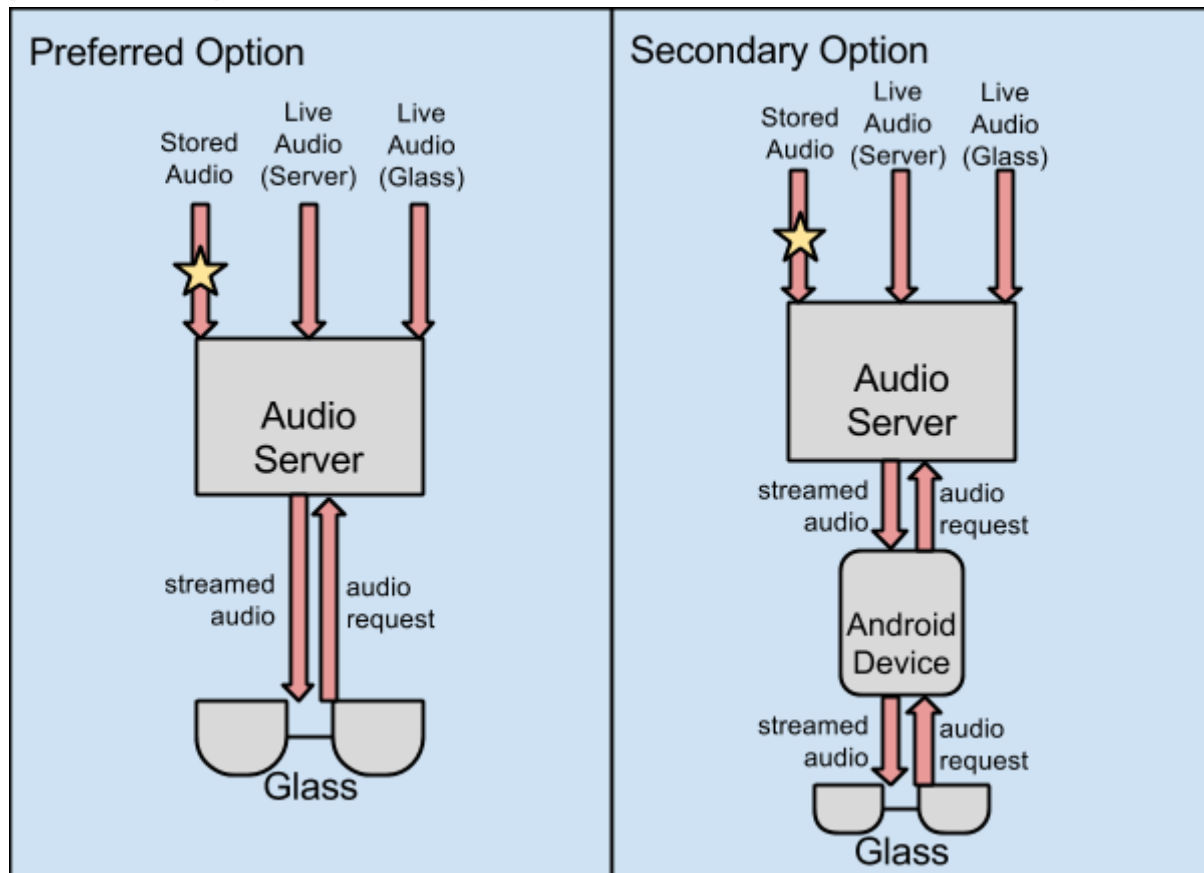
An Android application that can:

- Receive an audio file via TCP
- Playback the audio file on the Glass speaker.

Design

The application will consist of two modules. It will feature an application on a laptop computer functioning as the 'server'. This application will open a stream of audio -- either stored in a file or recorded on the microphone, and transfer that stream over TCP to the Glass (Android based) client.

The other application will be running on the Glass. It will receive these TCP packets and play them through the Glass' bone conduction. Block Diagram



Work Breakdown Structure

Initial Tasks (Modules):

- Server Side UI - Chris
- Client Side UI - Charlie
- Creating server-client connection - Derek
- Play Audio on Glass - Charlie
- Record audio on server in Java application- Nick
- Convert audio to packets to be sent via network - Derek

Extra Tasks (Modules):

- Constant audio recording - Nick, Chris

November 7th: Each initial module complete

November 7th: Testing of application

November 8th: Complete Application