Comp 4985   Computer Systems Technology   February 2015

Data Communication Option

Network Application Development using the TCP/IP Protocol Suite

Due: To be completed by **April 8**. Work in groups selected in class.

Objective: To use all the Windows sockets programming techniques discussed in the course in the design and development of an actual product. To design and implement the "**ComAudio**" application.

Assignment:

You are required to write a **Windows** application which will be able to transfer sound data using the **TCP/IP** protocol suite to transfer audio data between two Windows workstations and play it. Your program must implement the following minimum features:

(a). The initiating workstation must be able to **connect** to a known remote Server/workstation. You may select any workstation for the test.

(b). The program will have the capability to **transfer** and **play** sound on either of the two machines..

(c) Provide a **Windows interface** to your application. Options to **save** and **retrieve** sound files must be provided.

(d). The default sound file format will be the **.wav** format.

(e). Two-way **microphone** support will also be provided.

(f). You are required to provide **Multicasting capability** with your program.

For bonus marks you might want to consider features such as Fast Forward, Rewind, etc. For example, analyze some "Media Player" applications and see what sort of features they provide.

To be submitted (on April 7):

- Detailed design work showing all the implementation details of the program.

- All documentation, Source and Executable on a disk.

- In addition you will be required to demonstrate the working of your program in the **SE 12-323 lab** on the day the assignment is due.

Other critical dates:

- You are required to submit your design work for review on **March 11.**

- Starting **March 11** and **every Wednesday** thereafter, each team is required to submit a written progress report. The report will outline the tasks assigned to each member, the task deadlines, all tasks accomplished to date, and tasks for the upcoming week.

EVALUATION

General

(1). Design Work & Project Management: / 20

(2). Test and Verification Document: / 10

(3). Instructions & User Manual: / 10

(4). Functionality: / 60

Total: / 100