

Utilising peer to peer networking for data transfer over the browser

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Interim Report

0.1 Project Scope

Aims and Objectives

The ultimate objective of my project is to investigate the possibility of data transfer over web browsers, (in particular audio and video streaming) without the need for a centralised client-server architecture, instead opting for a peer to peer architecture. In order to do so, I will need to research this type of networking as well technologies that will allow for the development of this in the browser. In order to test and demonstrate this objective, I plan to substantiate it in the form of a web application that people can use to both transfer files to someone else as well as stream them if in a suitable format.

Stakeholders

The stakeholders involved in my project will be myself and the supervisor of my project, Stelios Kapetanakis.

Methods of Communication

Stelios and I have set up a regular meeting once a week on friday at 4pm. On top of this, we communicate regularly via email and I will keep everything project related in a git repository that Stelios will have access to.

Project Infrastructure

Quality Analysis

Specification

The first intermediate deliverable will be a signalling server that will allow my web application to discover two clients and establish the connection between them.

0.2 Methodology

To develop my project, I plan to

Peer to peer networking The entire idea behind my application is based on a one-to-one peer to peer connection between two browsers. Whilst the connection is formed by WebRTC, it does only this, leaving the application to deal with connecting multiple peers together in a many-to-many structure resembling a peer to peer network. A peer to peer network