

Design Document

Preface

The project consisted of two projects: Centralized and Decentralized. The project uses the Java Remote Method Invocation (RMI) to design the simple peer to peer (p2p) system. The Centralized p2p design is to use a central registry server where all the peers register themselves and all of the files they have to share. When a peer wants to download a file from another peer the client connects directly to each peer to download the file. In the Decentralized p2p design is to use a distributed system where each client is a server as well. The clients have a list of neighbors that they connect to and then messages are passed from neighbor to neighbor until time to live expires. Time to live is decremented by 1 on each hop and once it reaches 0 it will not pass the message. When a peer wants to download a file the peer connects directly to each peer to download the file.