

The system has one central server and multiple clients (peers). The multiple peers can connect to the server, and each peer can directly connect to one other peer to share chunks of files. Every communication has a max send size of 4096 bytes, and each chunk of a file that is sent over is 1024 bytes. Different chunks can be downloaded simultaneously from a file to many peers. All the connections are UDP. The server opens one port to connect with other peers. Each client connects to the server port and has another port to listen for peer to peer connections. Every time a peer connects to another peer or the server, both open new threads. The port that listens for peer to peer connections is on a separate thread. The messages that are sent from the client to the server or client to client are encoded json messages.