Secure Transfer Application

# Overview

The Secure Transfer Application (STA) is designed to allow two peers to securely transfer files to one another over SSL. The STA can also resume files that have been partially downloaded as well.

Since STA uses the SSL protocol, each peer must present their certificate which has been approved by a commonly trusted Certificate Authority.

# Protocol Overview

1. Two peers connect to one another using mutual SSL authentication
2. Both peers *must request information from the other from here on out*
   1. Both peers request a file-list
   2. It’s possible to traverse the folders within the “share folder”
3. Each peer has a designated “share folder” and this is the only folder that is shared. No other folder is shared or can be traversed.
4. When Peer A wants a file from Peer B, Peer A must request “file chunks” from Peer B
   1. Peer A must specify the following
      1. Path to File (relative to the “share folder”)
      2. The individual chunks that Peer A wants
   2. If Peer A wants a “folder,” then Peer A must request all the individual files in the folder and must create the folder on their side manually
5. Both peers can throttle their own bandwidth
6. Neither peer can “push” data to their peer; they can only request files