

## Server

## Client

Send "ClientAuth"

Send server's public Key

Verify server's public key, generate a new random shared AES key, encrypt this key with public key and send it back to the server

decrypt shared AES Key with server private key

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All communication from now on is encrypted via this shared AES Key

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send the username say, "alsnyder"

send random nonce for alsnyder encrypted with alsnyder's public key

decrypt nonce with alsnyder's private key and send it back

send back "OK" or "auth failure"

receive OK  
Handshake done

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Mail Protocol begins:

Client can send:

- "Send" + username + "\n" + email
- "Upd" to get largest email number
- "Retr" + # to get a list of those emails
- "import" to import a public key from the server