

Common Sense Social Server Specification

Overview

The server and client communicate using SSL, implemented using OpenSSL. OpenSSL sockets provide a useful abstraction in which the transport layer is hidden, and the socket can be used as a normal C socket. Currently the server uses a self signed SSL certificate for the testing phase, pending a legitimate certificate from a CA.

The server stores a unique session ID for each client, which the server uses to identify the client's associated account information. Given that the client stores this ID, a login can be maintained while the client is disconnected. An invalid session ID associated with a command will result in an error, unless the ID is all zeros in which case a new valid session ID is passed.

Specification

Commands:

GET_SESSION_ID 0x1001

CREATE_ACCOUNT 0x1002

LOGIN 0x1003

GET 0x2001

Command flags:

TEXT_RESOURCE 0x01

IMAGE_RESOURCE 0x02

AUDIO_RESOURCE 0x03

VIDEO_RESOURCE 0x04

STREAM_RESOURCE 0x05

AUDIO_STREAM_RESOURCE 0x06

Generic command structure:

Session ID	Command & flags	Command Attributes
[4 bytes]	[2 bytes]	[Varying]

Session ID request

[Session ID: 4 bytes] [Command: 2 bytes: 0x1001]

- Session ID should be all zeros.

Response:

[Session ID: 4 bytes] [Command: 2 bytes: 0x1001]

- The session ID is newly generated and unique.

Create account

[Session ID: 4 bytes] [Command: 0x1002] [Username length: 2 bytes] [Username] [E-mail length: 2 bytes] [E-mail] [Password length: 2 bytes] [Password]

- Username, password, and e-mail are null terminated strings with a fixed buffer length of 65, maximum of 64 characters.

Response:

[Session ID: 4 bytes] [Command: 0x1002] [Error code: 2 bytes]

- Error code is zero if successful, non-zero if failed

Login

[Session ID: 4 bytes] [Command: 0x1003] [Username length: 2 bytes] [Username] [Password length: 2 bytes] [Password]

- Username and password are null-terminated strings with a fixed buffer length of 65 bytes, maximum of 64 characters.

Response:

[Session ID: 4 bytes] [Command: 0x1003] [Error code: 2 bytes]

- Error code is zero if successful, non-zero if failed.

Get

[Session ID: 4 bytes] [Command: 0x2001] [Path length: 2 bytes] [Path]

Response:

[Session ID: 4 bytes] [Command: 0x2001] [Error code: 2 bytes] [Data type: 1 byte] [Data length: 2 bytes] [Data]

- If error code is not zero, can expect data length to be 0

Post

[Session ID: 4 bytes] [Command: 0x2002 & Command Flag] [Data length: 2 bytes] [Data]

Response:

[Session ID: 4 bytes] [Command: 0x2002 & Command Flag] [Error code: 2 bytes]