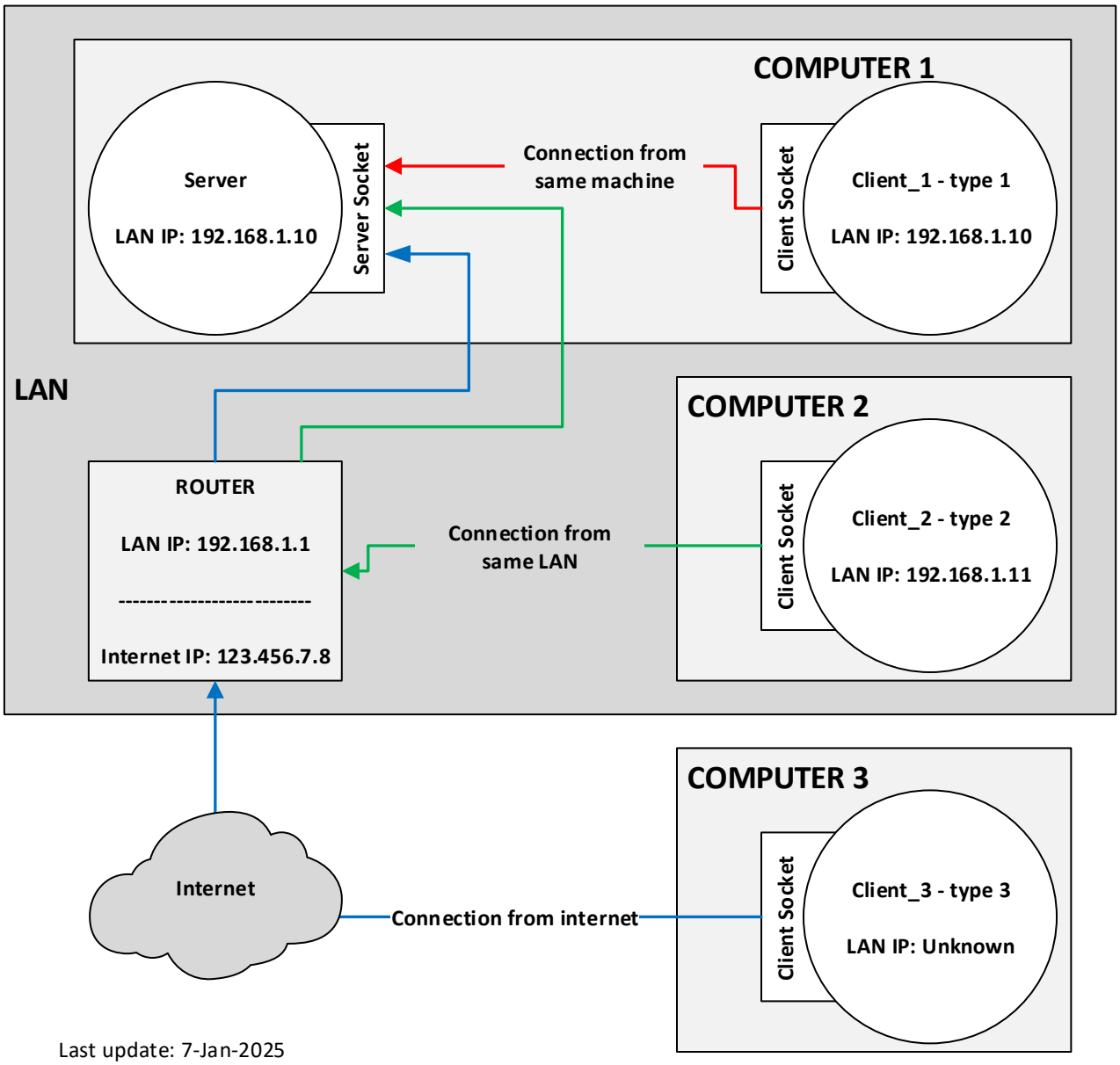



Last update: 7-Jan-2025

Computers 1 & 2 & the router are all on the same Local Area Network (LAN). Computer 3 in not on the same LAN but is connected to the **Internet** (an **Inter**connected set of Local Area **net**works).

When a client is started it prompts for the desired connection type and offers 3 choices: 's', 'l', 'i'.
s = same machine = type 1. l = same lan = type 2. i = internet = type 3.

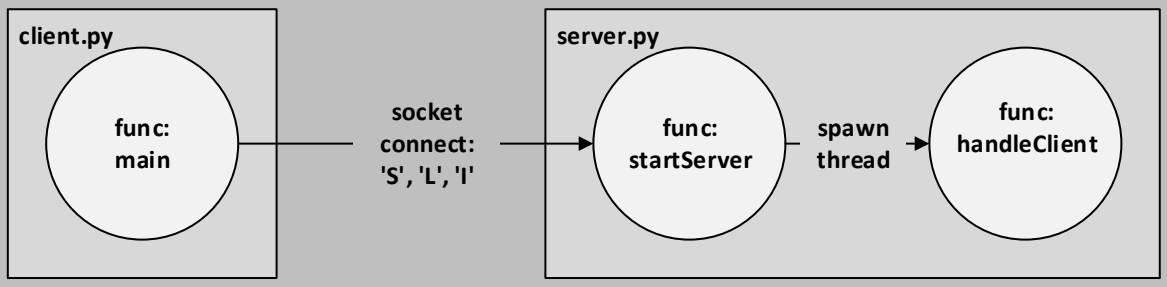
Computer 1 is running both the server and the client so the obvious connection type is type 1, as shown. However, computer 1 could also connect over the LAN or over the internet (neither shown).

Computer 2 is running only the client but is on the same LAN as the computer running the server so the obvious connection type is type 2, as shown. However, computer 2 could also connect over internet (not shown). Computer 2 can not connect to the server via a type 1 connection.

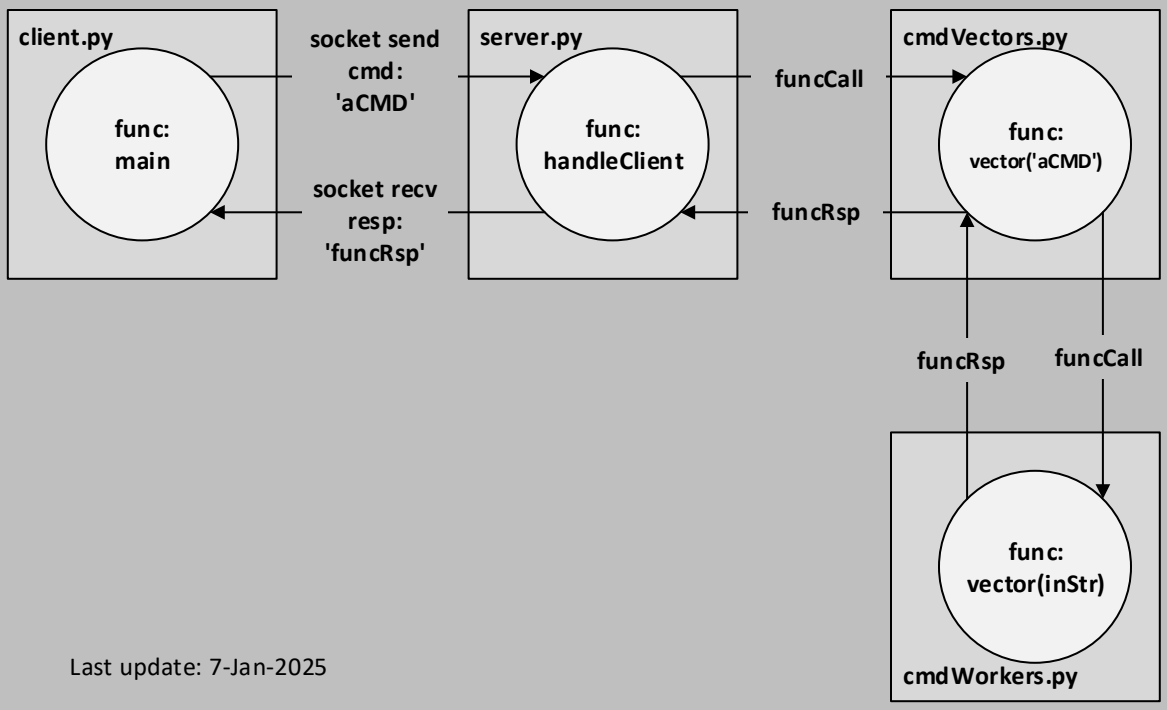
Computer 3 can only connect to the server via a type 3 connection.

The server can handle multiple connections of type 1, multiple connections of type 2 and multiple connections of type 3 all simultaneously.

## Client Establishing a Connection to the Server




## Client Sending a Command and Receiving a Response to/from Server




Last update: 7-Jan-2025

A client's connection request gets transmitted to the server over a socket where it is recieved by function startServer. When the server accepts the connection it spawns a thread that runs function handleClient that is then dedicated to servicing commands recieved from that client.