LAN

COMPUTER 1

Server

LAN IP: 192.168.1.10

Server Socket

← Connection from same machine ─

Client Socket

Client_1 - type 1

LAN IP: 192.168.1.10

COMPUTER 2

Client Socket

Client_2 - type 2

LAN IP: 192.168.1.11

ROUTER

LAN IP: 192.168.1.1

Internet IP: 123.456.2.3

Connection from same LAN

COMPUTER 3

Client Socket

Client_3 - type 3

LAN IP: Unknown

Internet

Connection from internet

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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 **Inter**net (an **Inter**connected set of Local Area **net**works).

When a client is started (python client.py) 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 and multiple connections of type 2 and multiple connections of type 3 all simultaneously.