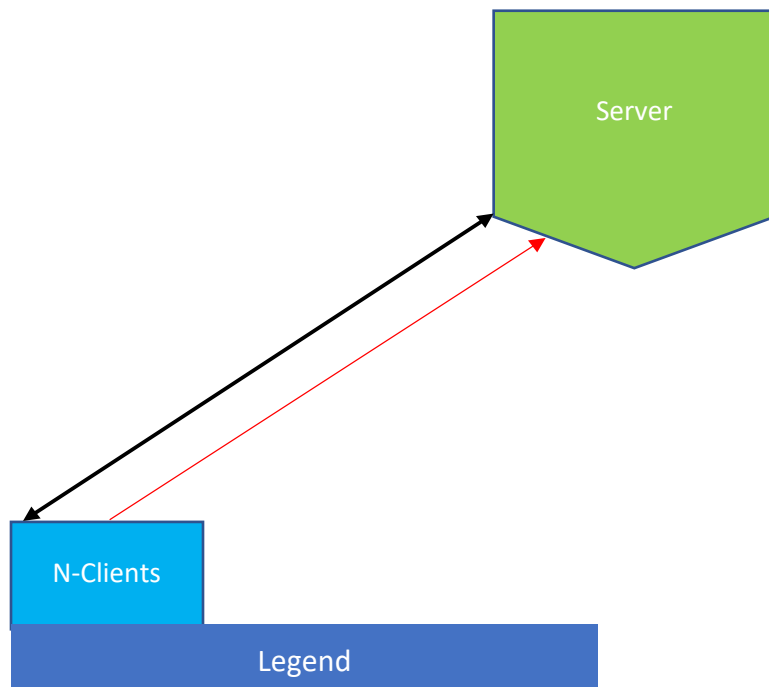


# Diagram of ParentMonitor Program



BLACK DOUBLE ARROW: TEXT  
COMMUNICATION SOCKET

RED ARROW: IMAGE SENDER SOCKET

## Explanation

The above diagram and legend illustrates how the Server and Client communicate with one another, however this diagram alone does not capture the whole picture of what's going on. Here "Server" and "Client" refer the server and client-side applications, respectively.

When the Server starts up initially it has no connections to any Client, it must directly connect to a Client by entering the Client's IPv4 Address or automatically scanning the network. A waiting Client immediately accepts this incoming connection from the Server and the Server's user can now effectively monitor the Client's user.

The Server and Client primarily communicate with each other via the TEXT COMMUNICATION SOCKET, enabling features such as 2-way chat and shutdown notification. On this socket, only text is sent back and forth between a Server and its Clients.

- When the Server shuts down, all Clients connected to it are informed of the shutdown and will be terminated on their end after Client's user closes the notification dialog.
- When a Client shuts down, the Server automatically records the exact time of the Client's shutdown and cleans up all system resources that were used to monitor and communicate with the Client. Captured screenshots are always saved however.

For the live screenshot feed from a Client, the Server uses the IMAGE SENDER SOCKET, which is a one-way connection (as indicated by the diagram). A Client continuously sends screen shots to the Server only if the user of the Server is actively viewing that Client, during which other Clients connected to the Server do not send live screenshots to reduce CPU usage on both sides.