**Proxy servers**

**A server that fulfills the requests of a client by forwarding them on to other servers.**

**The proxy server is a dedicated server that sits in between the internet and the rest of the network. When a request to connect to the network comes in from the internet, the proxy server will determine if the connection-request is safe. The proxy server uses a public IP address that is different from the rest of the private network. This hides the private networks IP address from the malicious actors on the internet and adds a layer of security.**

**For example:**

**When a client receives an https response, they will notice a distorted IP address or no IP address rather than the real IP address of the organization’s web server. A proxy server can also be used to block unsafe websites that users are not allowed to access on an organization’s network. Proxy servers use temporary memory to store data that is regularly requested by external servers, this way it does not have to fetch data from an organization’s internal servers every time. This enhances security by reducing contact with the internal server.**

**Forward proxy server regulates and restricts a persons access to the internet with the goal to hide the users IP address and approve all outgoing requests.**

**Reverse proxy server regulates and restricts the internet’s access to an internal server with the goal of accepting traffic from external parties, approve it and forward it to the internal servers. This setup is useful for protecting internal webservers containing confidential data from exposing their IP addresses to external parties.**