**Ports**

Ports are like the house number of computers, they identify where data can be sent using electronic, software, or programming-related mechanisms.

The port number combined with an IP address form the vital information kept by every internet Service Provider in order to fulfil requests. Ports range from 0 to 65,536 with the first 1024 reserved for special uses or popular software.

Port scanning is a method of determining which ports on a network are open and can receive or send data. It is also a process for sending packets to specific ports on a host and analyzing responding to identify vulnerabilities.

The goal behind port and network scanning is to identify the organization of IP addresses, hosts, and ports to properly determine open or vulnerable server locations and diagnose security levels.

Nmap – used to probe and return data across a number of computer networks.

Wireshark – free open source packet analyzer

Netstat – Displays active TCP connections and ports being used on computer.