

3.1 What is a Firewall

A firewall is a fence between your computer or your internal network and the outside world/Internet. A particular firewall implementation might use one or more of the methods listed here to provide that barrier:

- Packet filtering
- Stateful packet filtering
- User authentication
- Client application authentication

At a minimum, a firewall will filter incoming packets based on parameters such as packet size, source IP address, protocol, and destination port.

As you may already know, both Linux and Windows (this includes every Windows version since XP through the Windows 10 and the server editions) ship with a simple firewall built into the operating system. Norton and McAfee both offer personal firewall solutions for individual PCs. These firewalls are meant for individual machines.

There are more advanced solutions available for networks. In an organisational setting, you will need a dedicated firewall between your network and the outside world. This might be a router that also has built-in firewall capabilities. (Cisco Systems is one company that is well-known for high quality routers and firewalls.) Alternatively, it might be a server that is dedicated to run firewall software. There are a number of firewall solutions that you can examine. Selecting a firewall is an important decision.