**What is a Firewall**

***A firewall is a fence between our computer or our internal network and the outside world or the 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.***

***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, we will want a dedicated firewall between our 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 one can examine. Selecting a firewall is an important decision.***