



Explanation Guide

Version 1.0

Banishing the Geek Speak!

The IT world is a confusing place, filled with acronyms and lingo! Here at Barton Technology we try to make things a little clearer for our customers. If you still have questions, contact us and one of the team will be happy to help.

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General

1. Processor (CPU)

Is the brain of the computer/server. The faster the processor the faster the system can perform. You can consider a dual core processor to have effectively two processors and a quad core processor to have effectively four processors and so on.

2. Memory or Random Access Memory (RAM)

Provides a place (cache) to hold data temporarily for quick access. RAM is much quicker than hard disk space but loses the data when the system is switched off. The more RAM a system has the more files it can hold in the cache resulting in more multi tasking, less hanging/freezing and more reliability.

3. Hard Disk(s)

Is the device(s) where your data is actually stored. Unlike memory the data remains when the system is switched off. When deciding on the size of the disks it is important to consider the size of the operating system, any future software updates and the size of your data.

Networking

4. Network Switch

Connects all the network cabling together and provides the network connectivity to ensure all devices are talking to each other. Small switches are useful for "splitting" a network point into 2-4 network points where cabling would be difficult. The number of switch ports must be more than the number of wired network devices you wish to connect. Typically a one-off purchase.

5. Broadband or ADSL Router

Also referred to as an Asymmetric Digital Subscriber Line (ADSL) router. A broadband router simply converts the broadband (telephone) signal to ethernet (computer networking) so the two can communicate. Some broadband routers have basic firewall software installed but this is not recommended for business use due to its lack of depth and configurability. Typically a one-off purchase. A router is a requirement if you have a hardware firewall (recommended for business use).

6. Wireless Access Point

Transmits the ethernet signal via radio waves to any device fitted with a WiFi receiver. It allows wire free networking but its reliability and speed is affected by other wireless devices broadcasting on the same frequency, metal objects and walls. WiFi is not recommended for large file transactions such as database connectivity due to its inconsistent reliability. Typically a one off purchase.

Security

7. Hardware firewall

A hardware firewall is a security device which protects the network from external threats (hacking). Hardware firewalls are more effective than software versions as they incorporate their own operating system which is harder to bypass than desktop operating systems (which software firewalls rely on). Many now include control over which applications can be accessed (e.g. facebook, twitter etc), block certain types of websites (e.g. gambling), provide anti-SPAM and virus control. A hardware firewall requires a separate router. Typically a one off purchase with annual license renewals.

8. Secure Sockets Layer (SSL) or Unified Communications (UC) Certificate

Provides a secure encrypted link between your web browser and the server. An example of this is the padlock symbol in your browser and the "HTTPS://" prefix to your web address in the address bar when paying via credit card or using online banking. Without a certificate your connection is unsecured and could be read by other people. Typically you would need an SSL if you wanted to host your own website on your internal server, to connect a smartphone to your email server, connect remotely to your network via the Internet or access webmail on your own server. Depending on your requirements you would need either a standard SSL or a UC SSL. Typically an annual renewal purchase.

9. Anti Virus Software

Software which is loaded on each computer system to protect against viruses, trojans, worms and SPAM which can damage your IT equipment. Typically a one off purchase with annual license renewals. Anti virus software does not stop users downloading malicious software from websites or protect against hacking.

Servers

10.Server

Is a dedicated computer designed to operate 24/7 without being switched off at the end of the day. Servers allow access to shared resources such as files, emails, databases, printers and remote access. Due to multiple users accessing the resources of a server it will need a higher specification than a PC. A fault within the server will affect many users, therefore it normally has redundant parts such as extra hard disks (RAID), power supplies and network cards which become active to protect the system. Having your data in a centralised location allows for easy backups and effective collaboration. Typically a one off purchase.

11.Redundant Array of Inexpensive Disks (RAID)

Protects against hard disk failure by duplicating the data on multiple disks. The most common types of RAID are RAID1 which mirrors the data across two disks and RAID5 which splits the data across a minimum of 3 disks. Both types allow the system to continue to work if a disk fails. Due to the frequent failure of hard disks RAID is highly recommended but is not a substitute for an offsite backup system. Typically a one off purchase and comes as standard on most servers.

12.Uninterruptible Power Supply (UPS)

Basically a big battery which sits between the server and the wall power socket. Once charged, the UPS smooths the power and protects against surges which can damage the equipment. If a power cut occurs, the UPS keeps the server running normally protecting against corrupt files from a sudden loss of power. If the power cut lasts longer the UPS shuts down the server in a controlled and safe manner until the power is restored. A UPS is highly recommended for all servers. Typically a one off purchase.

13.Server POP3 Connector

An application which is required if you use POP3 emails and Microsoft Exchange Server. It downloads the emails from the Internet Service Provider to the Microsoft Exchange Server. Typically a one off purchase.

Software & Licensing

14. Software Licensing

Most software can be purchased via three methods; Original Equipment Manufacturer (OEM), Fully Packaged Product (FPP) and Volume Licensing.

- a) OEM is normally the cheapest way to purchase software and can only be used once on one computer. Once that computer is replaced the software must be purchased again as it is linked to the previous computer. OEM software can only be purchased with a new computer and cannot be added to an existing computer. It also cannot be installed on Remote Desktop Services servers.
- b) FPP is normally the most expensive way to purchase software and can only be installed once on one computer. However the software is not linked to the computer so you can reinstall the software if you replace the computer. FPP software can be purchased at any time and added to an existing computer. It cannot be installed on Remote Desktop Services servers.
- c) Volume Licensing is normally priced between OEM and FPP software but as the user is licensed you can install it onto as many machines as that person uses as long as they do not use the software simultaneously. A Volume Licensing agreement can be purchased at any time but can require a minimum number of licenses to start the agreement. It is the only choice for installation on Remote Desktop Services servers.

15. Microsoft Office

Is Microsoft's desktop productivity suite mainly incorporating a word processor (Word), spreadsheet (Excel), email/calendar/task manager (Outlook), slide presentation (PowerPoint) and database (Access). Microsoft Office is available in different versions which include various programs (some listed). It is also available for Mac computers and can be purchased as OEM, Fully Packaged Product or Volume Licensing. Typically a one off purchase per version.

Server Applications

16.Remote Desktop Services

Previously called Terminal Services. Requires licenses for each user for each application you wish to run e.g. MS Office licenses would be needed if you wanted to create a Word/Excel file. Typically a one off purchase per version.

17.Microsoft Sharepoint

Microsoft Sharepoint is a web technology based server that can be used to build portals, collaboration sites, and also content management sites. It is very versatile in a number of features and supports various enterprise and Web scenarios. It is also popular for document management solutions. Typically a one off purchase per version.

18.Windows Small Business Server

Windows Small Business Server (SBS) (formerly Microsoft Small Business Server) is an integrated server suite from Microsoft designed for running network infrastructure (both intranet management and Internet access) of small and medium enterprises having no more than 75 workstations or users. Application server technologies are tightly integrated to enable small businesses with targeted solutions such as the Remote Web Workplace and Exchange Server offer which offer management benefits such as integrated setup, enhanced monitoring, a unified management console, and remote access. Typically a one off purchase per version.

Backup and Disaster Recovery

19. Disaster Recovery (DR) Server

Protects against the loss of access to a main server either from fire, theft, flood, power cut or other 'disaster'. The DR server is located away from the main site and can be physically retrieved to replace the affected server or allow users to remotely connect to its resources. A complete copy of the main servers data is transferred every day to the DR server so it can be used immediately with limited downtime. A Disaster Recovery server is not a substitute for a backup system. Typically a one off purchase.

20. Online Backup

Is a managed backup service that provides users with an automated system for backing up data via the Internet. Has become popular recently due to the benefits of an offsite backup system without the need to change tapes or take them home. Online backup works well for data up to 100Gb with an email report each day detailing the status of the backup. Single file to full system restores can be managed by a web browser portal, although it requires a good Internet connection. File transfer speeds are dependant on the Internet connection. Typically a monthly paid service with a setup fee.