

Web Site Hosting Options

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Website hosting options

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Introduction

Your website needs to be hosted on a web server in order to make it available on the Internet. Hosting involves housing, serving and maintaining files so that visitors are able to view the content of the website.

Your website is the public face of your business, so the hosting solution selected must be able to provide a fast, secure and reliable service. You can opt for an in-house hosting solution or go to an external Internet service provider (ISP). Key factors to consider include cost and the level of technical expertise and resources your business has.

This guide will take you through the main considerations in hosting a website and look at the options available to you in terms of going for an in-house or external solution. It also looks at how to choose and register a domain name to use for your website address.

What does hosting a website involve?

Hosting a website involves a number of different factors, each of which can have a significant impact upon its overall success.

Key factors include:

- the site functionality - the range of features it offers, the ways in which it presents content to the user, and how the content is kept fresh and updated
- the performance of the site - the speed at which it loads pages and

- responds to user requests
- the reliability of the site - how high the availability of the site is and how frequently it suffers from down time

Functionality

The functionality of a website is largely dependent upon the software used. Unless you have in-house expertise, you will probably need advice from your Internet service provider (ISP) or website designer. See our guide on how to [choose the right Internet service provider](#).

Performance

Your website will need a fast connection to the Internet. This is determined by the bandwidth - the amount of data that can be transmitted and received by an Internet connection. If your connection is not fast enough, users will only be able to access your webpages slowly - particularly if many users are trying to access your site at the same time.

The website will require a dedicated web server, and the power of this will also be a factor in the performance of the site. You must also consider processor speed and the disk space needed for the website to operate effectively.

Reliability

Your website should be available 24 hours a day - you will need to maintain and support it. The more you rely on your website, the less you can afford to wait until the following morning until you fix critical problems.

Security is an ongoing concern on the Internet, so any solution you opt for should demonstrate that it is secure and able to withstand hackers, fraudsters and

denial-of-service attacks. See our guide on [securing your e-commerce systems](#).

Choosing a domain name

A domain name is used to identify an organisation's presence on the Internet. It is important that the domain name represents the image of your business effectively and makes the nature of your product or service clear to potential customers.

There are different types of domain names and these are identified by their general part, or the top level domain (TLD):

- generic top-level domains (GTLDs) such as .net, .com, .org and .info
- country code top-level domains (ccTLDs) such as .uk for the UK

Most UK companies choose to have domain names that end in .com or .co.uk. It is also now possible to have a European Union domain name, ending .eu.

You should think carefully about the geographical implications of your server and domain names as they can affect local search results. For example, a UK company with a ".com" address which is hosted in the US would not appear in UK only searches. However, if the same company website was hosted in the US but used a ".co.uk" domain name it would appear in UK only search results.

Top level domains are handled by the Internet Corporation for Assigned Names and Numbers (ICANN), which ensures that every domain name is unique. [Find out about domain names on the ICANN](#)

website - Opens in a new window.

How to choose a domain name

When choosing a domain name, most businesses opt for a name that is based on the name of their business or product. It helps if the name is:

- short
- easy to spell
- easy to remember

You should avoid choosing a domain name that misuses a trade mark belonging to another business, or might mislead users into thinking you are someone else. You should also avoid choosing a domain name with lots of dashes, for example my-new-website-business-and-shop.co.uk. It can look amateurish, make it more difficult to remember and some search engines may consider it to be spam.

After deciding on a domain name, you then need to check if it has already been registered by another user. **[Find a database of .uk domain name registrations at the Nominet website - Opens in a new window.](#)** Once your domain is registered, it is protected.

Domain names are allocated on a first come, first served basis. However, disputes may arise when another party feels that they have a greater right to use a domain name.

Registering and protecting a domain name

Domain names are usually registered using a registration agent such as an Internet service provider (ISP).

To see if an agent is registered, **[search a list of Internet Corporation for Assigned Names and Numbers \(ICANN\) accredited registrars on the InterNIC website - Opens in a new window.](#)**

[Find information on .uk domain names and accredited registrars on the Nominet website - Opens in a new window.](#)

[Find .eu domain name accredited registrars on the EURid website - Opens in a new window.](#)

It is important to realise that prices, services and conditions can vary significantly between different agents.

Registration

To register your domain name, the registration agent will ask you for specific contact information. Make sure that the agent registers your domain name in either the name of your business or your own name. This will make you the domain name holder and will give you the authority to make subsequent changes to the registration.

Your registration agent will also be asked to state the administration, billing and technical details for the domain name. Currently, the initial registration period is one year. The maximum registration period is ten years.

Protecting your domain name

If the domain name is registered in your name then you will be classed as the holder or registrant. This means that you have certain rights over the name for a specified period of time. The only circumstance where the rights can be taken away is if it is proven

that somebody else has greater rights to the name.

As the registrant of a domain name you have:

- first rights on its renewal - so long as this is done within an agreed timescale
- the right to claim sole ownership - except if it is challenged by recognised dispute resolution procedures or court action

If you have any concerns, contact your registration agent or ISP. You can [read about domain name dispute resolution at the Nominet website - Opens in a new window](#) and [find out about domain name dispute resolution policies at the ICANN website - Opens in a new window](#).

Using an ISP for hosting

Using an Internet service provider (ISP) for web hosting is an external hosting solution where the ISP is responsible for providing your business with connection to the Internet.

ISPs can provide different types of hosting services, as follows.

Shared server

The server is owned by the ISP and is located in its offices. The server is used to host several other websites as well as yours.

This represents a cost effective approach, but may not be an option if you want to use complex technologies such as customising

webpages for different users.

Dedicated hosting

Your website is the only one that is hosted on a dedicated server. This option is better suited to large websites with high user traffic, or those requiring special software or particularly high levels of security.

While this approach offers the most powerful and secure solution, it is more expensive.

Co-location

You place your own server, that you own or rent, at the premises of the ISP to take advantage of their better technical infrastructure.

However, you are generally responsible for maintaining the actual data and the website components.

Advantages of using an ISP

- You do not need to invest in your own web server.
- Most ISPs have very fast connections to the Internet.
- The ISP's server should offer a very high degree of availability (up time) and reliability.
- The ISP should have a secure operating environment, high quality virus protection and the latest software patches to ensure the security of your site.

Disadvantages of using an ISP

- You need to trust your ISP to maintain the availability and security of your website.
- Your website's performance may be

compromised if the ISP is hosting too many other sites on a shared server basis.

- You could be affected if your ISP becomes blacklisted as a result of the actions of other sites they host, or the content of those sites. For example, if they host sites containing adult material or sites for companies that send out spam emails.

In-house hosting

Hosting your own in-house website is always an option. However it does require significant resources.

Not only will you need a web server, but you'll also require a high-speed connection to the Internet, and you will be directly responsible for its day-to-day operation and 24-hour support. You will also have to take account of the cost of software licences.

Advantages of the in-house approach

- You have full control over access to the website.
- The choice of hardware, including the ease and expandability of upgrades, is yours.
- You also have control over the operating environment - the software and systems that run on the web server.
- Web storage space and performance can be more effectively managed.
- You do not have any of the contractual or legal issues associated with using an Internet service provider.

Disadvantages of the in-house approach

- The cost of purchasing your own web server hardware, associated software and high speed Internet connectivity (typically using leased lines).
- The technical skills you or your staff will require in order to develop, maintain and upgrade the website, and to keep up to date with the latest technical developments.
- You may need resources capable of providing round-the-clock support for the website in order to ensure its availability for users.
- The need for specialist security expertise in employing tools and techniques to maintain the security of your website.

In general, the in-house option is probably best suited to larger companies, and/or those with a specialist IT department, as considerable resources are required to handle the ongoing development and support activities.

Technical issues

You need to make choices about the various technologies you could use when you are considering your website hosting options.

You can use an Internet service provider (ISP) to host a simple website without understanding the details of the technology being used. However, if you want to host the website yourself, you need to understand the technologies involved.

Server operating systems

These are the core operating systems that enable the web server to run. The most common types are:

- Microsoft NT or Windows 2000
- Unix
- Linux

Web server software

This software sits on top of the operating system and actually runs the web hosting services. It deals with all elements of hosting the web pages, including requests from visitors to view them, and running programs or scripts.

The most common types of web server software are:

- Apache
- Microsoft Internet Info Services (IIS)

Web Authoring languages

These are the software languages used to develop applications on the website.

Examples of these include:

- HTML (HyperText Markup Language) - a programming language used in the creation of simple web pages.
- CGI (Common Gateway Interface) scripts that are used to produce dynamic and interactive web pages. Examples include JSP, PHP, ASP, Cold Fusion and Perl.

Application development tools

These are types of web editor software used to design and develop web pages incorporating features such as graphics, multimedia and user interactivity. Examples include Microsoft FrontPage, Macromedia Dreamweaver and Adobe GoLive.

Databases

Database technologies are used to store large quantities of information that can be used to update information on your website. The solutions available to you will depend upon the volume of information you wish to hold and the likely web traffic that the system will have to support.

Examples of high volume, high traffic database systems include:

- Microsoft SQL Server
- Oracle 10g
- PostgreSQL

Examples of smaller volume systems handling lower web traffic are:

- Microsoft Access
- MySQL

E-commerce

There are a range of e-commerce software packages that can be used for the development of an e-commerce site, on either a third party or in-house basis. These are based upon templates that can be adapted to meet your own requirements. The resultant code and pages are then uploaded onto the web server and provide a cheaper and quicker option than bespoke development.

Maintenance issues

In order for your website to be successful the content must be kept up to date. The website must also be available to users so try and keep the time it is offline due to security or technical problems to a minimum.

Content management

Content management software is available, which allows users across your business to easily add or modify their own web content without the assistance of specialist web staff or detailed knowledge of HTML (HyperText Markup Language). It will also help ensure that such contributors adhere to the standards of your website while keeping security and navigational elements intact.

Web server monitoring

The performance of the web server needs to be monitored - including its CPU, memory, disk usage, network performance and back-up utilities. From time to time, you will also need to install new versions of the server software or upgrade hardware components.

If you have opted for an Internet service provider (ISP) solution, it will be their responsibility to ensure that these issues are addressed.

Monitoring the website usage

Visitor statistics should be gathered to assist in marketing activities and the ongoing development of the site.

This is typically done through the use of site analysis software that measures the usage patterns of the site. It does this in terms of statistics such as the number of visitors, new visitors, returning visitors, which search engines they are using to find the site, and which parts of the site they are making particular use of.

Security

Websites are likely to come under threat from hackers, viruses, fraud and

denial-of-service attacks. You can use firewalls, anti-virus software, and authentication and access controls to help protect your website.

If you decide to use an ISP to host your website then security will be its responsibility. However, if you host your website in-house then it is your responsibility.

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Find out about the self-regulation of ISPs at the Internet Service Providers Association website - Opens in a new window

Find the latest news on ISPs in the UK at the ISP Review website - Opens in a new window