

What is a Dedicated Server, and why do I need one?

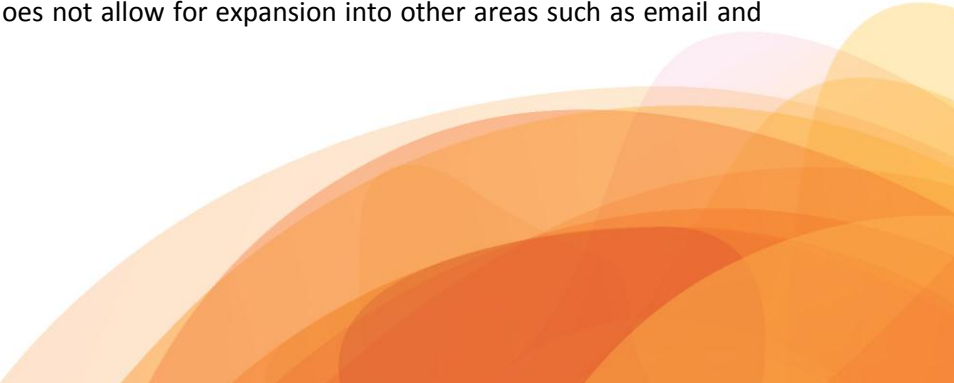
Whenever you use the internet, you are connecting to a vast global network. This network spreads across the entire planet, crossing continents, countries and cities. Even reading this information requires digital data to be sent and received across this international network (internet).

However, it is not simply a case of stringing wires across countries from A to B. Sending an email, for example, to a friend in Asia (from your location), would not simply mean that the information travels directly from your system to theirs without interruption on a single cable. This is because the enormous network of cabling only makes up the backbone of the internet. These are the motorways of the online world, where data travels at the speed of light between many points of interconnection. But what are these points?

The points are known as servers. The internet itself is comprised of millions of these so called servers, which do exactly as one would expect – serve. They serve the internet's billions of users by storing, handling and directing data around the world, so it can be received by people anywhere on Earth. Servers are essentially very powerful purpose-built computers that operate the information superhighway, known as the internet. Each server is able to share and communicate information between other servers, which is what ensures information is free to flow across the World Wide Web.

Your interaction with servers often goes unnoticed. But did you realise that by connecting to this website, you are in direct contact with our web server? It's true. Typing our web address into your web browser has directed you straight to the server containing our website data, which your system has downloaded and interpreted as what you now see on-screen. Our server is just one of many millions, much the same, that all provide online users with content and services. Even being online and able to use any online service (web browsing, email etc.) in the first place requires your Internet Service Provider (such as BT, Virgin, Telewest etc.) to allow the passing of information from your system through its large domain servers and onto the web.

You may be aware of businesses operating on the web known as hosting providers. The most common hosting provider is the web host. They allow you to sign up and pay for space on one of their large, very powerful servers, for the purpose of placing your own website online. This means your website will be visible to everyone in the world with an internet connection, provided they point their web browser at the correct web address for your site. However, this means you only rent part of the server, and potentially share the space with thousands of other users. It also restricts its usage to website hosting only, and does not allow for expansion into other areas such as email and application sharing.



One alternative to this is to buy your own server, and host your own web services (websites, but also allowing for application sharing, off-site backups and emails etc.) either from home or from your workplace. However it is very important to consider the very high initial costs of purchasing a powerful server, and the running costs in its high power consumption and the need for a very expensive business grade internet connection. It is also difficult to set up and time consuming to manage and maintain. For these reasons it is often seen as unreasonable and ineffective in terms of cost to operate your own server.

Collocation is another option, which entails placing your own purchased server into a hosting provider's data centre, which will mean internet and power come as part of the package. However, once again purchase costs are high and rental of space in a data centre can be very expensive, with restrictions often placed on power usage and internet bandwidth consumption. This is only recommended for larger businesses with projects requiring their own servers, with the need for massive power and internet usage.

Taking all of these points into consideration, the best option in most cases is a dedicated server solution. This is the rental of a full server in a data centre, with access to it given over the internet. You do not purchase the server, and you never own it in full, meaning maintenance and other associated pressures linked with owning a server are passed onto the hosting provider. However dedicated server solutions do mean that you have 100% full access and usage of the server, and share it with no other users. This means you are able to employ the full range of web features you would expect from owning your own server, without the hassle of looking after the machine and funding all related costs. Owning a dedicated server means you are able to host a number of websites, operate your own emails with your own email addresses, backup critical business data, share files and folders and even run applications such as Microsoft Office live over the web to all necessary computers in your home/business. Many more possibilities are also available, with the technology surrounding this area being updated frequently.

At the end of a dedicated server contract, all you have to do is ensure you have all the data off the server that you need, and terminate your account. Simple with no hassle, as you have no further administrative tasks such as selling the server or upgrading the server to worry about.

