



Basic Guide to Web Hosting

What Is a Web Host?

A web host is a service provider that places your web site on a computer which is connected to the internet. This then gives people who surf the internet a way to access your website. The computer that the web hosting company uses is typically just like the computer you have at home, the only difference being that it is set up to serve up web sites and is therefore called a "server".

A web host will typically have a fast connection to the Internet and they may host thousands of web sites on many servers. The web host essentially rents out space to you so that you can get your website up on the world wide web.

Some large web hosts own their own datacentre (collection of servers), some rent a server from a larger web hosting company and then resell the space under their own company name. In this case the web host will manage your account on the server, but they will be renting the actual web space from another much larger company. Datacentres have reliable and fast connections to the Internet and also have backup power and high security.

Most web hosting companies do not own a datacentre, but rent web hosting space in a datacentre.

There are literally thousands of web hosting companies available in the market, all with different types of plans and at different prices. It can be hard to wade through all the options, especially if you are completely new to web hosting and just want to get your website up on the web. All web hosting plans have some basic common features.

Server Type

This is the type of server software that is running on the server. Windows 2000 server, Linux and Unix are common server types. If you have a basic website then the server type does not matter. If you have a more complex website that has database functions and serves up dynamic pages, then the server type will be more important

Disk Space

This is the amount of actual space available to you for storing your website on the web server hard drive

Bandwidth

This is a measure of how much website traffic is available to you. Every time somebody looks at your website, data has to be passed over the Internet from the web server where your site is hosted to the browser of the person looking at your site. Bandwidth is a measure of how much transfer is available. High traffic sites like Yahoo for example have very high bandwidth requirements, but the average site does not



How Does My Website Get a Name?

All websites typically have a name. This is a name that points to the space on the web where your website is physically located. In reality, your website will have an address which is just a set of numbers. This is called an IP address and it looks something like this 209.13.118.74 An IP address is a unique address (just like a street address) for your website location. Domain names are really just a pointer to the real address. This makes it much easier to remember websites. When you buy web hosting it can be easier to let the web host handle everything associated with this. You just tell them the name that you want and so long as that name is available, they will set up your web hosting space so that when people type in that address, it will automatically go to your website. You can check if a domain name is available on domain registration pages.

If you already have a domain name and need to transfer it to a web hosting account, then the domain records have to be pointed to your web hosting company. Most web hosts will handle this for you, but if you need to do it yourself then you will need to contact the company where you registered your domain name and provide the Name server address of your web hosting provider. Your web host will tell you what their Name servers address is.

You probably don't want to buy your web hosting plan until your website is ready, but you might want to buy your website name early to prevent somebody else taking the name you want. Almost all companies that sell domain names will park your domain on their servers until you are ready to buy web hosting.

Types of web hosting services

Not many people know about all types of webhosting services that are available today, indeed until I looked into this field myself I soon realised just how true a statement that is.

Most people look for the cheapest and most affordable hosting plan around, not really putting much thought into their choice, and basically pick a shared plan. However, depending upon the customer concerned, for example a single person or for a business, they should look for the best fit for their needs before anything else.

Listed below are all the existing types of website hosting services available:

- Shared
- Dedicated
- Co-location
- Reseller
- Virtual Dedicated
- Managed / Unmanaged
- Grid
- Exchange
- Emails

All these hosting types can be hosted on different operating systems, OS platforms like Linux or Unix Operating System, Windows Server Operating System or Cloud.

Shared Webhosting

This type refers to a webhosting service where a lot of websites are located on one webserver. Each website has its own resource and directory on the server to keep it separate from other sites with certain permissions. This is in general the cheapest option for hosting as many customers share the overall cost of the server and its maintenance.

Shared hosts are at a disadvantage because if one customer abuses the server resources, all



other customers are highly affected, therefore it becomes difficult to manage properly by website providers. This type of webhosting is suitable for most people who will have a small to medium traffic flow to their website. Most of the top hosting companies are very strict on their Terms of service (TOS) and they may shutdown your website in case of overload due to the machine using too many resources. You can manage these types of hosting packages by using the supplied control panels, with full technical support from the hosting company.

Dedicated Webhosting

Dedicated service or dedicated server, is a type of Internet hosting in which the client leases a whole server not shared with anyone. This is more stable and flexible than shared webhosting, as customers have full control over the server, including choice of hardware and operating system. Server maintenance can be provided by the datacentre provider as an add-on service with extra cost. Best dedicated servers offer less overheads and a larger return on investment. Dedicated servers are most often housed in data centres and the price is a lot higher than shared hosting, or budget. In contrast to co-location, the server hardware is owned by the provider and in some cases they will provide support for your operating system or applications. This type of service is suitable for medium to big customers or companies who have websites with large amounts of traffic, and ones that use many resources and also having their business dependant on the Internet. Hosting companies offer at an extra cost various control panels to manage this type of hosting

Home server is a dedicated hosting placed in a private residence and can be used to host one or more web site usually from a consumer internet connection. These can be purpose-built machines fully managed by the business or home owner.

Clustered hosting means having multiple dedicated servers working in the same content for better resource utilisation. Clustered Servers are a perfect solution for high-availability dedicated hosting, or creating a scalable website solution. Can be used apart, for example database on one machine and web on another machine.

Co-location Webhosting

Co-location centre is a type of solution where customers are owning their server and use just the facility from data centre providers. This means the data centre is providing their infrastructure for internet, AC, electricity etc. to collocate customers servers. In such cases the monthly cost is less, but the cost for servers is supported by customers. This is an option to use for people when they need physical access to the server hardware. Co-location has its plus points, but it is especially useful for mission critical online applications, not just simple web pages.

Reseller Website Hosting

This is a form of website hosting where the account owner has the ability to use his allotted hard drive space and bandwidth (basically all resources) to host other customers websites like being a hosting provider. The reseller purchases like a big hosting plan and then sells them to customers as smaller parts. A certain portion of hard drive and bandwidth is allocated to the reseller account. The reseller can even rent a dedicated server from a company or resell shared services. In the latter case, the reseller is simply given the permission to sell a certain amount of disk space and bandwidth to his own customers without renting a server from a website company he signed for a reseller account. One of the biggest issue for reseller hosting is the customer support. This customer support is "normally" intended to be delegated for reseller, but they ultimately have to contact the parent company for issues which they cannot solve. Companies offers various control panels to manage all features, including billing support.



Virtual Dedicated

Called sometimes VDS (Virtual dedicated server or VPS), is a method of partitioning a physical server computer into multiple virtual servers such that each has the appearance and capabilities of running on its own dedicated machine. There are certain software already doing this job, like: VMware or Virtuozzo. Each virtual server can run its own operating system (even Linux and Windows platforms), but each server is sharing the same physical resources. This type of hosting is better than sharing and worse than dedicated in quality and price, but there are several advantages for a datacentre to offer virtual dedicated over dedicated hosting, like: server space (one machine can "serve" multiple servers), electricity and few other things.

Managed Webhosting

Managed Hosting is a type of dedicated. Basically, there are two ways of dedicated: unmanaged and managed. These two are in several ways similar to each other but also they differ in some ways. As opposed to unmanaged hosting, for managed the website provider makes sure that everything works as it should, also when it comes to any software (OS standard or custom software). Managed hosting will be a smooth ride as you don't have to be a website expert when working with your site. The provider is responsible for everything from software to equipment and maintenance. Managed Web Hosting has extra cost over unmanaged web hosting, but gives you the ability to stay focused on using the applications installed on the machine instead of doing any work maintenance for the server.

Grid

Grid is a flexible webhosting platform that matches performance on demand. If the site traffic grows, Grid Hosting responds by allocating more resources and keeping your site live. If your site starts small, but is growing, Grid grows with it so you don't have to manually upgrade and experience any unnecessary downtime. Grid Webhosting pools the websites resources of many servers and your sites content resides on multiple servers. This networked system helps achieve a high reliability, beyond 99.9% for your Web site because if one server shuts down, only a fraction of the grids resources are lost. Grid Hosting has resources in reserve which are always available to allocate when necessary. Compared with Shared, Grid offers increased availability and scalability. Shared can handle a limited amount of traffic, beyond which the site becomes unreachable. Grid responds to high traffic by adding additional resources to your site, keeping your site live regardless of traffic.

Due to differences in Grid Hosting, it cannot offer support for some of the technologies that Budget webhosting can:

Access databases are not supported due to Access locking scheme which prevents concurrent usage from different processes.

Front Page Server Extensions are not supported by some providers.

Java and ColdFusion may not be supported.

Concurrent file writes to the same file in multiple sessions or concurrent threads. Example of affected resources: File-based databases and cross session log files, these issues are exaggerated in a Grid environment due to additional volume.

Storing data within the Application namespace and depending on multiple concurrent sessions accessing accurate data for the entire application.

Exchange Hosting

Microsoft Exchange server is one of the most popular email and collaboration platform for business. It helps business better communicate with partners and customers, and increases employee productivity. However, building and managing an Exchange server environment is



costly and complex. It requires a large investment in hardware, software, and technical expertise to install it, configure it, and manage it on a daily basis. Exchange webhosting allows SMBs to enjoy all the productivity and collaborative benefits of Exchange, without any of the frustrations of managing it in-house.

Email Hosting

An email webhosting service is an Internet web service that runs just email servers, usually with a lot of features. Email hosting services offer premium email at a cost as opposed to advertising supported free email or webmail. Email services thus differ from typical end user email providers such as webmail sites. They cater mostly to demanding email users and Small and Mid-Size businesses, while larger enterprises usually run their own email hosting service. Email providers allow for premium email services along with custom configurations and large number of accounts. In addition, hosting providers manage users own domain name, including any email authentication scheme that the domain owner wishes to enforce in order to convey the meaning that using a specific domain name identifies and qualifies email senders.

Most email website providers offer advanced premium email solutions hosted on dedicated custom email platforms. The technology and offerings of different email hosting providers can therefore vary with different needs. Email offered by most companies is usually more basic standardised POP3 based email and webmail based on open source webmail applications like Horde or Squirrel mail. Almost all webhosting providers offer standard basic email.

Determining Your Needs

Disk space

Web pages (html) are normally very small, on average 40 - 50KB. This means you can store a lot of web pages in a small amount of disk space. Images take up more space, but unless you have a big database driven site it is unlikely that you will need very much disk space. Below is terminology used to describe disk space. If you have a computer at home or the office, then you will be already very familiar with this.

1 Byte	1 character. This sentence is 25 bytes
1KB	1000 Bytes
1MB	1000KB
1GB	1000MB

You can see above that even a lot of pages doesn't really create a big requirement for disk space. If you own a computer at home you will already know that hard drives are very cheap these days. Many web hosting plans will offer large amounts of disk space. This is fine, it doesn't hurt to have the extra space - but unless you have a huge site - you will be more than okay with 20MB.

Bandwidth

Bandwidth is always stated as a monthly limit in either MB or GB. This is the amount of actual data that can be transferred from the web server that holds your website, to the browser of the person who is looking at your site. If you go over the limit, then either you will have to be an extra fee, or your website will not be available. The amount of bandwidth you use is obviously related to the amount of traffic, visitors, that you receive.

There are web hosting companies that offer Unlimited bandwidth. This sounds like a good deal. The truth is that this is nothing but a lie and you should steer clear of web hosting companies that offer unlimited bandwidth. Bandwidth is a commodity that costs the web hosting company money - unlimited bandwidth is not only impossible, but would cost an unlimited amount of



money. When web hosts offer unlimited bandwidth they are trying to trick you. They know that you will probably not use very much bandwidth. The moment you try to use a lot of bandwidth you will find your website shutdown.

For most web sites you will not need much bandwidth. Probably 99% of all websites use less than 2 GB of bandwidth a month. If you intend to have a lot of downloads of software, audio or video, then you may end up using a lot more bandwidth, maybe 50 GB. Adult sites typically use a lot of bandwidth. Sites like mp3.com require an enormous amount of bandwidth, but for the average site a low level will be enough in almost all cases.

Email Accounts

How many email accounts will you need? Normally 10 is enough, but if you think you might want more then you can choose more.

Support

You need to ask yourself questions like do you want phone support, or will email support be ok? Do you want support 24 hours a day? If you have a small website that is not critical, then you probably don't need phone support or 24/7 support. It costs web hosting companies to provide this type of support, don't pay more for a plan that offers this if you don't need it.

Server Type

If you have a small website, then it is unlikely that you will need to select a particular type of server for your site. Windows 2000 server web hosting tends to be a little bit more expensive than Linux. If you need to run a Microsoft SQL server database, or use Microsoft Active Server pages then you should choose Windows2000. If you have no clue what these things even are then you don't need Windows2000, you will almost certainly be fine with any type of server.

Other Features like Databases, Server Side Scripting

Web hosting plans can offer a myriad of confusing features. For the small website it is unlikely that you will ever need to know about any of them. If you are a web designer creating complex database driven sites then you will already know what you need. If after creating your site you have never heard of ASP, ColdFusion, SQL Server, MySQL, then chances are that you don't need to worry about any of these things. If you plan to add a message board to your website then you will need a MySQL database. This is the most common database used with discussion boards.

Finding The Right Web Hosting Plan To Buy

There are many web hosting directories on the web. They all claim to be great resources. For the most part they are good resources for the web hosting companies, but not for you, the web hosting consumer. Almost all of these web hosting directories are a place where web hosting companies advertise and they are in business only to generate advertising income from hosting companies. For the consumer they are worthless because you cannot find any unbiased information. These advertising based web hosting directories have list of recommendations, top 25 lists, platinum lists etc, they are all just advertising lists similar to the ads in junk mail that might arrive through your mail slot. Avoid these sites, they have no value because you cannot trust any information you will find in them.