

Hosting Your Web Site

One of the most common questions sent to the Towers is, "Where should I host my Web site?" It's not the kind of question you can give an easy answer to because it depends on what kind of site you want. If it's just a few pages of plain HTML, you might get away with putting it in the free Web space that came with your dial-up account. For anything more complex - if you want your own domain name or need to link your site to a database, for example - you may need the services of a dedicated Web hosting company. That's where the fun begins, because Web hosts themselves come in lots of different flavours.

The bottom line is that all Web hosts provide punters with server space to put up their Web sites. What they charge for this differs from host to host, and there are many variants of the basic service. Some offer plain, vanilla Web space with a few e-mail addresses thrown in, others give you access to templates and applications that will let you set up a modest on-line shop. Right at the top of the pile are hosts that provide you with a dedicated server on the Web with all the extras required to create fully database-driven Web sites - but only if you've got the know-how.

If you've ever looked through the ads in the back of Internet magazines wondering what the difference is between ASP and PHP, or whether co-location is better than a dedicated or virtual server, this feature for you. We've decoded the double-speak and translated the jargon so that even the greenest, wet-behind-the-ears newcomer from Newbieville, Novice County can choose a Web host suitable for them and go on to become a dot.com millionaire.

Basics: Web space and bandwidth

Although Web hosts tend to offer 'package deals' that offer an array of bewildering frills, the most important thing for you to look for first is how much space you're going to get and how much it's going to cost you. This may seem a very basic consideration, but it will have a profound influence on your eventual choice of Web host - especially as pricing structures vary massively.

Most Web hosting companies have a habit of dividing their packages into 'streamed' categories. In the 'beginners' package you may get 30Mb of space and FrontPage access; in the 'small business' package you get 50Mb of space with some randomly chosen frill. The trick isn't in picking the package that seems to offer the most space for the least money, but in choosing something that combines the right amount of Web space with the right mix of extras.

Most services charge a flat rate for a fixed amount of space, then charge you per megabyte (or a multiple thereof) for additional space. You have to use your common sense here. Fifty quid a month for one gigabyte of Web space may seem like a bargain, but that's not going to be any good unless you can fill it. If your site is going to be fairly static - a brochure or catalogue using standard HTML, for example - you'll have a good idea how much space you'll need to begin with.

As a rough guide, consider that one standard A4-sized HTML page should take up between 30k and 60k, including images. That gives you around 30 pages per one megabyte of space. Web pages that need more space than that can't have been optimised very well. Some Web hosts provide design services too. If they charge by the megabyte, make sure they don't try to sell you more space than you need.

The circumstances where you might need substantially more Web space are becoming much more common. Many dynamic Web sites, on-line shopping sites or Web directories, for example, grow as customers use them, and or as the company expands. Another example of a site that may require additional space is one that enables file downloads.

This advice is doubly important when music or video files are involved. In either circumstance, you're going to need some growing room in addition to the Web and storage space you start with – looking for a Web host that that enables you to add extra megabytes to your package will be essential.

One thing you won't often see advertised up front is the amount of bandwidth a Web host offers, even though it's one of the most important considerations. The term can have two meanings, so look for the context in which it is used. Generally, the bandwidth Web hosting companies publicise is a measure of how much users can download from your server in a fixed period, or in other words 'transfer' bandwidth.

This can be confusing because you'll also see Web hosts advertising how fast their leased connections are, referring to this as 'bandwidth' too. In most standard cases, you will share this 'overall' bandwidth with several other sites on a server. Packages like this are sometimes called 'virtual servers', as your Web site is hosted on the same physical server as several others sharing the same core OS and software. Despite the advertised overall bandwidth, your share of transfer bandwidth may be limited in the contract you sign with the hosting company. If your site becomes a runaway success, your host may charge you for the extra bandwidth you use. Again, this additional charge may be per megabyte or a multiple thereof. Ask the Web host about transfer bandwidth limitations before you sign on the dotted line.

If your site is staggeringly successful, and you're getting thousands of hits per day which involve downloading a lot of data, you may want to consider renting a dedicated server or 'co-locating' a machine that you own with the Web host. In both cases you get your own physical server with fixed overall bandwidth. The co-location bit is marketing-speak for the fact that your server is kept in a room with some others. This is really only relevant for when you're hitting the big leagues, though... Most of the advice here is aimed at hiring virtual servers.

One more consideration is the operating system your server runs. Versions of Unix or free clones like Linux and Free BSD are popular, but if you're afraid of command lines, they may not be the best choice. Some hosting companies use Web-based control panels to get around the intrinsic unfriendliness of Unix, but make sure you see a demo first. Finally, expect to pay a little more for Windows NT-based hosting.

Basics: designing pages for hosting

If you truly are an absolute beginner who wants a Web site that does more than just sits and gathers broken links, you have three basic choices. The best solution is to team your ideas and enthusiasm with someone who knows what they are doing. The minimum team should comprise a graphic designer or someone with creative flair to build the 'front end' (the pages that users see) while the 'back end' stuff is best left to someone with more technical programming and/or database experience. If you feel you have all the necessary skills on your own, or at least the capability to learn, by all means build the whole thing yourself - but read this feature thoroughly first to avoid some of the common pitfalls.

Occasionally, Web hosting companies will provide Web building as part of their service, but this can be a bit like buying sweets at the cinema instead of getting a better value deal at the supermarket next door. Some companies use Web design as a loss leader then sting you for hosting costs. There's also a perception among the IT literate that anyone and their cousin can do Web design because HTML is 'easy' compared to, say, programming in Visual Basic. Unfortunately, this translates to a situation where there are too many companies that offer perfectly good hosting deals alongside appalling Web design. The best way to check this out is to take a good look at some of their client sites and their own site before you commit to using their design services.

Intermediate: server-based applications without coding

If you've got the necessary design skills, you may not have to turn to a programmer for the technical end if you keep your site fairly simple. Some hosts offer applications and server scripts that you can incorporate into your site to make it more interactive or productive. Begin by looking for hosts that offer you full CGI support. CGI, or Common Gateway Interface, is a server side protocol that enables you to run scripts and programs on your server and deliver the results to a Web page. Although this sounds like it might be complicated, it needn't be if you can use a CGI script that's already been prepared! Most hosts will offer simple scripts like guest books, hit counters and form parsers. If you're allowed to install scripts in the CGI directory on your server, you'll find a deluge of free CGI applications on the Web, from bulletin board systems to live databases. Try the CGI Resource Index (<http://www.cgi-resources.com/>) for starters.

More and more Web hosts are offering built-in Web applications that are fairly intuitive to use. Anything from catalogues to on-line shopping systems, complete with secure support for credit card transactions, may be available. In these cases, you simply place content into a prebuilt system rather than create a full e-commerce site from scratch. The Miva Merchant system is one example - an on-line shopping application builder that you can access and update through your Web browser without needing to know how to program. More competent developers are able to edit templates and add code. Look out for Web hosts that offer storefront builders, secure payments or SSL, catalogue systems, and shopping cart systems if you plan to build a modest e-commerce site without too much expertise required. Solutions like this are ideal if you already run a small business and want to offer a limited range of goods or services through the Web. One thing to take note of, though: most credit card transaction services will be provided through a third party like Netbanx or Secure Trading. You may have to pay between two per cent and nine per cent on transactions, depending on how much you're able to sell.

Advanced: building Web applications without coding

In some circumstances, you can also build your own Web applications from scratch. This may be necessary if you need to transfer an existing live database to the Web or you have a very specific commercial service idea in mind. A word of warning first: although it's possible these days to do just about anything on the Web that you could plausibly do on the desktop, it's not an undertaking for beginners. This is where that friend of yours with an NVQ in Systems Analysis will come in handy.

To begin with, there are lots of different ways to deploy database-driven sites on the Web. The chances are that your Web host will only support a subset of these, and sadly it's even more likely that the methods they support are the most difficult to implement. That's because the most difficult methods are also the cheapest for the Web host. C'est la vie.

Is there anything you can do as a non-coding, intermediate level computer user? Well, yes, there are several packages that help you to build Web-based applications in a visual environment, but even those aren't for the fainthearted. You will need to be familiar with database design, and own a well-known desktop database like Microsoft Access or Fox Pro. If you already use one of those, you can then purchase a visual Web application-authoring package. Two of our favourites are ColdFusion and Pervasive Tango Studio, both of which help you to produce Web pages using drag-and-drop methods that can communicate with databases via Microsoft's ODBC (Open DataBase Connectivity). The catch is that ColdFusion and Tango require a proprietary server to distribute data on the Web.

So, after developing a database-powered application with either of those packages, the next step is to find a Web host that supports ODBC connectivity, the database you're using (though most will support Access) and the particular Web application server you need (ColdFusion, Tango or another). Most of the Web hosts we've come across who do support this type of set up are quite expensive to use, presumably because it's expensive to purchase the necessary server software. The professional version of the Tango Application Server costs \$10,000, for example.

You'll find that most Web hosts support FrontPage extensions with some limited database connectivity. If FrontPage is your primary authoring tool, that's a bonus, but don't mix this up with live database support.

Advanced: SQL, ODBC, ASP and PHP

The most widely accepted methods of integrating database applications into Web pages are cheap for Web hosts to maintain, but almost unfathomable unless you're got a solid Information Technology background. Some Web hosting companies will offer to install existing databases for you if you already have existing data, and will build template-based pages. However, as this comes under Web design and the ubiquitous e-commerce labels, expect to pay unpredictable sums.

At this level, think about purchasing Web hosting services as like buying a second-hand car from a classified advert. Get someone who knows what they are doing to check the deal out before committing to anything. Remember, too, that your Web host is providing you with a service, and good advice should be part of that service. If you ask them for details about providing a specific solution and they can't, or seem reluctant to, move on to someone who will. It's now a buyer's market.

You'll find that the most widely supported Web applications with database support are PHP scripted pages making calls to MySQL, or other SQL databases. In short, PHP is a scripting language that enables you to make calls to a database from a Web page. MySQL is a database and database server that you can install on a Web server which can in turn be used in conjunction with your existing database software through ODBC. Both packages are also Open Source software - which means they're free and very widely used. You can download the packages and read the on-line manuals at MySQL (<http://www.mysql.com/>) and PHP: Hypertext Preprocessor (<http://www.php.net/>).

Somewhere between these two poles, the financially prohibitive proprietary server route and the 'propellerheads only' Open-Source route comes Microsoft's Active Server Pages protocol. Active Server Pages, or ASP, are good for several reasons. First, you can program them using a scripting language you already know - VBScript, Jscript and JavaScript are all supported by Active Server Pages. Second, you can use ASP to communicate directly with databases through ODBC. If scripting ASP directly is beyond you (or even your technologically minded friend), then fear not. One of the best things about ASP is that there are a growing number of visual authoring packages that support it. Microsoft's own Visual InterDev and Macromedia's recent acquisition, Drumbeat 2000, both help you to develop Active Server Pages in visual development environments.

Again, you'll end up paying a little more for ASP hosting, but you're more likely to be able to maintain tighter control over the development process. Whichever solution you eventually decide upon, a good Web host should provide you with support in making the right choices and continue to provide technical support once you've signed up. If they seem guarded and deliberately 'jargon heavy' from the beginning, find someone who isn't. It's your money after all.

Six top Web hosts

These Web hosting companies represent the cream of the crop in terms of features - yet even these show just how different the deals can be.

WebFusion

<http://www.webfusion.co.uk/>

Features: WebFusion's entry-level package includes 100Mb of Web space and everything you'd need to launch a simple catalogue or brochure-based site. The Pro version of the same package includes database support through MySQL and PHP, RealAudio streaming and a free domain name.

For: The WebFusion packages squeeze a lot of features in for the money. Unlike some other companies, most of these are actually useful as well!

Against: Database support through the PHP/MySQL route only. Not many packages available.

Price: £99.95 per year for standard package, £199.95 per year for Pro package. Business e-commerce package with Miva Merchant storefront software is £499 a year.

Overall: WebFusion's easy-to-configure control-panel-based setup makes it a popular choice for start-ups. The e-commerce solution is worth considering if you can earn back the outlay. 3/5

123HostMe

<http://www.123hostme.com/>

Features: Entry-level virtual servers include 350Mb, 10 POP3 e-mail accounts, MySQL database access, RealAudio server, PHP and ASP, 2Gb. Added to HostMe's '99 per cent uptime' guarantee, this an ideal setup for e-business.

For: A good combination of techy features, cgi-bin access and PHP scripting with friendlier protocols not usually offered.

Against: Not clear whether ODBC support is supplied alongside MySQL.

Price: The entry-level package described is \$23.50 per month (about £180 per year), with a one-off \$20 set-up fee. Fees rise for increased bandwidth and Web space, but features remain more or less the same.

Overall: We doubt you'll find many services that support Active Server Pages, or provide so much Web space for the price. 4/5

NetBenefit

<http://www.netbenefit.co.uk/>

Features: NetBenefit's Domain and Multiple Email and NT Web space package includes Cold Fusion application server, 50Mb of Web space, full CGI access and 500Mb transfer bandwidth.

For: Cold Fusion! Allaire's Cold Fusion Studio is one of the easiest ways to develop database-driven applications for the Web.

Against: Not much in the way of transfer bandwidth or Web space in comparison with others - but you may not need as much as NetBenefit is offering.

Price: £140 set-up fee followed by £55 a month (£660 per year).

Overall: Appears to be relatively pricey, but is quite competitive for Cold Fusion application hosting. 3/5

NetCetera

<http://www.inetc.net/>

Features: Netcetera Gold Package includes, ODBC connectivity to one MS Access database, ASP, domain name, 15Mb Web space, MS Netshow streaming video and audio, unlimited e-mail and Net-Store Lite - a FrontPage-based on-line shopping development system.

For: This package has just about everything you need at a reasonable price. MS Access and Visual InterDev support are particularly welcome.

Against: 15Mb of Web space doesn't give you very much leg room. Upgrade options are expensive. **Price:** £249 per year, no set-up fee.

Overall: A great starter package that may have attracted full marks if NetCetera supplied 50Mb of Web space for the price. 4/5

The Positive Internet Company

<http://www.positive-internet.com/>

Features: One package including 120Mb Web space, unlimited e-mail boxes, PHP, MySQL with full ODBC connectivity, SSL for secure connections, no limits on transfer bandwidth. 24-hour technical support line.

For: A more complete solution would be difficult to find. ODBC connectivity makes the best of MySQL. Support for Jserv applications means you can use the e-commerce edition of Drumbeat 2000

(<http://www.macromedia.com/software/drumbeat/>) or the new program from Macromedia, Dreamweaver UltraDev (<http://www.macromedia.com/software/ultradev/>) to create database-driven sites.

Against: No domain registration. included. No other packages available.

Price: £250 per year.

Overall: Positive Internet's 'try before you buy' deal should place them at the top of your list of calls. **4/5**

Shared

Knowledge

<http://www.sharedknowledge.net>

Features: Standard hosting plan B includes 35Mb, 1Gb transfer per month, ASP, FrontPage extensions and support, five e-mail accounts, ODBC with MS Access support.

For: The combination of ASP, generous bandwidth and support for MS Access make this package a good host if you want to design your database-driven site from the ground up yourself.

Against: A big price hike for shopping cart systems and secure transactions.

Price: £479 per year

Overall: A well-balanced package let down by a price that may be beyond some startups. **3/5**

Article in .NET by Karl Hodge

Exercise

You wish to start up your own business on the Internet selling collectable children's toys and models. You have limited technical knowledge, but you are able to create professional looking web pages. You would like your customers to be able to search a database of available items, but this search does not necessarily require a complex advanced search facility. You would also like your customers to be able to pay for their purchases by credit card. You envisage your income to be spasmodic and there may be times when earnings are very limited.

Tasks

From the list of ISPs provided, which would you choose to host your site and why?

Using search engines list three companies that offer credit card payment processing facilities and identify the one whose service you would use and explain why.