Five Steps to Find a Great Host

1. **Answer these questions**: A spreadsheet is a good place to answer the following questions and later match your requirements and budget to different hosts. You may need a web expert to help answer some of these questions. You can also ask questions on the hosting forums at SitePoint, to find answers.

   What will your site be doing? Does your site present basic text, a few pictures, and a form or two? Does it use a CMS (content management system) or blog platform, another type of database, involve heavy searching or calculations, or stream media? Knowing the answers to these questions will help you make choices and decisions in the next steps.

   Who will manage your site? Will you, a non-technical user, a web expert, or your host add, change, delete files, and/or the content of your pages? Knowing your technical skills as well as knowledge about the Web and server management will help you know what management tools and processes best fit your needs. A non-technical user may like to use a Web control panel such as WHM/cPanel (Linux) or Plesk(Windows). A Web expert or host may not use a control panel, making the availability of one unimportant.

   What technologies are needed for your site? Does your site need PHP, ASP, MySQL, MSSQL, or different technologies to work well? Knowing the type of technology you need helps you know if you need a Linux/PHP/MySQL/PostgreSQL host or if a Windows/ASP/MSSQL host fits your needs.

      Further refine the technologies by determining:

      - What minimum software versions will your site need? Each technology has a minimum required version. For example, if a site uses features only available in the latest version of PHP, then your host must be able to support it.
      - You may need to consult a web expert for the versions needed to support the different technologies your site will use.
      - Usually you can find the recommended technology requirements on the websites of each given technology. For example, Microsoft has recommendations for minimum requirements to run an ASP.NET and MSSQL site. PHP has the same for PHP & MySQL sites. This is a question that is also well suited for your web expert or SitePoint Forums.

   What storage needs does your site have? Each site has its own storage needs. Websites are made up using many different assets. The most basic sites may be made up of HTML pages, CSS (cascading style sheets), JavaScript and images.

Even a basic site can use a lot of space if it contains many large images. Larger storage is typically needed when a site has many lengthy videos, or is a blog or CMS that typically manages more assets, a large code base with third-party plug-ins and has a database that grows over time. You need to understand the type of assets and database requirements of the websites you would like to host.

- If you have many users or data feeds such as RSS or JSONP updating your database then it may grow rapidly and become quite large. Sites with one or more databases need storage plans for growth of the data. It is neither easy nor cost effective to get more space, so it's best to plan ahead. If your site is a blog or CMS then read the storage requirements defined on the websites for these systems. You can also ask a potential host 'how big do blogs/CMSes typically get on your systems?'.
- If you allow large uploads or have large excel documents, videos, pictures, or audio files then you need to make sure you have enough space. Other space hogs are log files, emails, and attachments.

What are the site's bandwidth requirements?

- How many connections will your site need to support at one time: 100, 1000, or 10,000+?
- Do you have real-time data coming from a third-party source like Twitter, Flickr, video, audio or an RSS/News feed?
- Does your site have many down-loadable or up-loadable files?
- Are you streaming video, audio or live feeds?
- You can calculate your bandwidth needs. Measure the bandwidth required for a user's single connection to your site (`'Per User Bandwidth'`). Then estimate the maximum number of visitors you expect at one time (`'Max User Number'`). Then multiply `'Per User Bandwidth'` by `'Max User Number'` to establish `'Required Bandwidth'`.
- How much CPU time and RAM will you need? CMSes/blogs like Wordpress and Joomla need a fast CPU and lots of RAM compared to smaller, static websites. This is an important factor in having good site performance.

Where is your site's target market? It is almost always the best idea to host your site near where your largest user base resides. Latency measures the time it takes for your server to receive and respond to a request from a website visitor. Long latency hurts your site's performance for end users, so you are best to host as close to your target audience as possible.

What type/cost of hosting is most suitable: Free**,** Shared, Self-Managed VPS, Managed VPS, Dedicated or cloud or CDN?

- **Free hosting** seems to not cost anything, but be careful because it can cost you business. Free hosts make their money by having advertisers pay to be listed on your site. Some free hosts also ask you to complete surveys as 'the payment' for hosting. The key thing, is that it is either not practical to do surveys regularly or it is very difficult to create a professional site with the myriad of ads that appear. Not only do the ads not often fit into your design well, they may use annoying JavaScipt pop-ups, Plugin requirements, and CSS that breaks your layout. In addition, when the host does not make enough money on advertisements to cover their costs, they either go out of business or ask you to pay.

  Be also wary of free domains. You can't control when the free domain is or is not available to you – if a host goes out of business or are bought out. If you out-grow a free host, the free domain can not be transferred, so you loose your domain brand, search engine listings, and any printed material that includes the domain or you are forced to stay with the free host – not ideal.

- **Shared hosting** is least expensive but also is not very flexible. For example, you can't often control web server directives and have a limited range of places to store your files. Shared hosting is typically best for small websites. Performance can suffer as you share the server with hundreds of other sites. All the server's RAM and the connection rate of the network cards are typically throttled, which limits what you can expect.

- **Self-Managed VPS (Virtual Private Server) hosts** are generally the next least expensive type of hosting. While it gives you full control over what is installed and how the server is configured, it also means that you are responsible to keep the server up-to-date, manage your space (log files, database growth, and assets), and configure your web server. Not a good option for non-technical site managers. A VPS typically shares a 'bare bones' operating system with other VPSes, so a host must manage the CPU, RAM and ports carefully to ensure that all of the VPSes on the server work well. When site demands become high, a VPS is not a good hosting option. A self-managed VPS is better suited for cloud or dedicated hosting. A VPS can generally have its share of resources changed quickly e.g memory, storage and CPU share, so can be a good choice where traffic might ramp up quickly.

- **Managed VPS hosts** are more expensive than self-managed. In managed VPS hosting, your host or technical third-party will perform all the maintenance and file site management, including configuring applications and databases. For people with little time or few technical skills, a Managed VPS can be a good option.

- **Cloud hosting** is a good option when your bandwidth level is relatively low or your site needs to scale. For example, if you run a campaign and expect 10 times your normal volume, you can scale to this very easily, and when the campaign is finished you go back to the original configuration.

  Other cloud hosting considerations:

  - Is a Business Plan Created? A well developed business plan that plots customer income versus the cost of hosting and bandwidth will show where you should switch from a VPS/Cloud based solution to a dedicated setup for best cost efficiency.
  - Costs remain predictable for business services like hosted Exchange (Mail Server) and file servers for corporate sites.
  - The hosting infrastructure is the most robust of any other hosting option. You can be secure as a corporation in knowing that it will always be available.
  - You can choose your OS and configure the desired web-server and database.
  - Your site will have better security than what is normally provided within a corporation.
  - Cloud providers can often locate your site nearest to your target market. Cloud hosting becomes less competitive when you start consuming high volumes of bandwidth. If this happens you are better off moving into a dedicated solution.
  - Costs for Cloud hosting range from very small costs for minimum bandwidth usage to very expensive for large consistent bandwidth.
  - The server architecture of most cloud hosting is based on blade server setup with some level of load balancing but not in cluster configuration.
  - * WARNING * Be wary when considering using multiple regions/zones for multiple location low-latency hosting nodes. While you can save money to date it is not well suited to database driven applications/sites as the low latency can cause poor performance with a single database server. Replicating databases becomes far more difficult, so consider this carefully.

- **Dedicated hosts** do not share their RAM, CPU, Ports or Network and are typically much more expensive than VPS, Shared, and even Cloud options. When you need vary predictable performance then this is best choice for dedicated web applications. Most dedicated hosts structure long-term contracts and come with large configuration fees. This hosting allows for very specific and high performance situations. Dedicated hosts don't typically scale very well or, at least, it is often difficult to rescale your site. You may consider this when you have high volumes of bandwidth. For certain applications where security is

important, the isolation provided by a dedicated server may make it the only choice.

- **Cluster Cloud:** Clustering Cloud options are offered by a few of the larger cloud hosting services. They provide opportunities for scalable high performance web applications. Most of your sites will not need this type of service until your site demands grow to a point where it is worthwhile to look into cluster cloud services.

- **Content Delivery Network (CDN) hosts**: A CDN can serve content to end users with high availability and high performance. This can be useful if your website has a high volume of video, audio, images or documents. A CDN can only serve static content, but cannot serve a dynamically created site e.g a site that runs PHP and MySQL.

    - An example use: typically, normal hosts have fairly strict limits on how much bandwidth is allowed and will charge for over usage. In addition, many host throttle bandwidth, which can cause performance problems when a website tries to serve their greedy assets efficiently. In this case, files such as images and scripts can be served instead from a CDN.
    - Many times when websites offload their traffic served directly from their host to the CDN they realize cost savings from serving the content from their hosts.

2. **Search For Your Host:** After answering all the questions in Step 1, you will know your requirements and should be able to determine your budget. In a spreadsheet, weight your different requirements against how they satisfy the needs you defined in Step 1. You might consider creating a numeric score for each host that you profile.

    - Ask each host what services they provide for the base price and what services cost extra.
    - Find out about the hosts up-time in the last two years. Be sure to ask how they responded to the largest outage they experienced.
    - Search for comments about the host in your favourite search engine. You often can get a real sense of what people like and dislike about any given host. Avoid comments on websites that have obvious advertisements for the host.
    - Ask questions about hosts on forums. Although SitePoint does not support these types of questions, other communities do. Use them to become more informed.
    - Ensure your host has been in business a minimum of ten years, and has an easily identifiable business address and phone number.
    - Make sure a host has not gone through many different ownership groups over time.
    - Ask about the availability of IP addresses needed for SSL (https://) sites.

- If your website needs to route email, then ask if and what email services are available.

3. **Create a Shortlist:** Narrow down the list of possible hosts to those that best meet the scores you created in Step 2.

4. **Contact Shortlisted Hosts:** Contact each host on your shortlist. Make sure you ask all relevant questions that are not clearly answered on their advertisements and/or websites.

    - Be sure to explore areas that you are concerned about such as legalities, terms in the contract, service availability, special offers, and payment options.
    - Make sure you thoroughly read and understand the hosting contract and the host's terms of service.
    - Ensure that you understand acceptable uses. For example, many hosts will not allow users to host adult content-based sites. Be sure that your website can comply with the acceptable use policies of a host.
    - Ask to test their control panels—especially if they are proprietary—as they may be too difficult to use.
    - Find out about their technical support availability and cost (if any). Ask if they have a minimal staff on after hours, on weekends or holidays. Most times you will be doing maintenance in these off-hours. Needing technical support when phone lines are jammed for hours is a real-time nightmare.
    - Rate how customer support is at answering your questions and the length of their response time. Are you satisfied by their customer service?

5. **Select your Host (Final Step):** You finally have enough information to make an informed decision.

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