One thing that tends to confound many people when purchasing web hosting is the difference between Linux hosting and other platforms such as Windows. Linux hosting is currently the most popular operating system among web hosts, for a variety of reasons. In most cases, if you're unsure which OS would be best, choose Linux.

Adding to the confusion is the fact that Linux comes in many flavors: Red Hat, CentOS, Fedora, Ubuntu, SuSE, Debian, and more. The truth is that, for most people, any of these distributions will do just fine, and all but Red Hat are free.

Things to consider when choosing Linux hosting or a different OS

The considerations when choosing a hosting environment first include server speed, minimal downtime/outages, and stability. If your site doesn't stay up, gives errors, or loads too slowly, it's likely your site won't do very well.

It's important that your server environment supports any scripts your site requires. If you have particular software to run, or a programmer who works in a particular language, then it may be important that you get a particular server environment. Your scripts my require Linux hosting, or they may require a different operating system. If you have no such particular requirements or are unsure, then Linux hosting will typically be your best bet. Since the majority of servers run some version of Linux hosting software, most scripts and programmers work in a language that is supported by Linux hosting.

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Another consideration is the backend/control panel. Again, most of the easiest-to-use control panels (such as Cpanel and H-sphere) are made for Linux hosting. These control panels make it simple to log into your account and do anything you need - add domains, create/manage email addresses, and so on. Some Linux hosting control panels even offer tools to automatically install scripts for forums, contact forms, help desks, etc.

Linux hosting: Security

Along with Linux hosting's flexibility in scripting languages and available programs, Linux hosting offers arguably the most secure hosting environment available. The security advantages over Windows hosting are numerous, but include, for example, it's multi-user design. Recent versions of Windows have improved on this, but the older Windows architecture allowed for one user to have access to the entire system, providing openings for viruses to infect the entire system that the limited system access of the Linux hosting shell does not provide. This has been improved, but still does not match the security of a Linux hosting system. Likewise, the modular design of Linux hosting prevents programs from as interdependent. By no means does this mean Linux is free from all security risks, but with a little server hardening and maintenance, it provides one of the most secure environments available.

Linux hosting's process management

Another advantage of Linux hosting is its ability to handle multiple processes efficiently. For a hosting environment, this is important, as every time someone access your web site, your server must run a number of processes in order to serve that page. The number of processes required to run depends on the scripting of your site. For instance, how many PHP processes must be opened in order to load your page? How about Ruby on Rails? Cold Fusion? Perl? Does the page have to access a MySQL database in order to pull data to your page? Is all of your content dynamic, or is it pulled from a flat html file? Most web sites/servers these days run quite a few processes, so let's say you have a hundred people accessing sites on your server at once. You need an operating system that can efficiently handle all of those processes at once without too much strain in order for your sites to load quickly.

The low cost of open source Linux hosting

Simply put, Linux is free. If, for any reason, you want or require a professional distribution such as Red Hat, then there will be an obvious cost associated (albeit a lower one). But if you choose to go with one of the numerous free distributions, then it costs you zero. If you choose a professional control panel to manage your sites, then there may be a monthly premium associated with that piece of software, but the operating system should cost you nothing.