What is the difference between VPS and dedicated servers?

There are a number of differences between VPS (virtual private servers) and dedicated servers. Some of the most notable differences are price and physicality. When deciding which is the best kind of server for you, it is important to weigh all the differences and then make the right choice for your business.

Virtual Private Servers

Virtual private servers are actually more popular than dedicated servers because these are single machines split up into several 'virtual' servers. With VPS hosting, users actually share a number of physical resources such as CPU, RAM, and so on, but they will still enjoy the freedoms of having a private server, such as having your on 'virtual space'.

A big server is called a 'node', and the VPS is just a small part of this node. But a virtual private server still allows users to be in charge, fully, of all their own settings and configurations. This freedom allows you to customize and make any changes or adjustments that you need, as situations arise.

Since a virtual private server it is not actually a physical server, you do not have to worry about space (as it is in the cloud). The 'cloud' is a concept that helps users utilize resources more efficiently. You will only use the number of resources which are required, rather than having an entire server, parts of which are not utilized.

Price

Users simply pay rent on a VPS, rather than paying for a dedicated server up front. One drawback is that when you rent, you will never own the machine you are paying to use. However, this is not always a drawback. Typically VPS hosting is less expensive than dedicated hosting. This is true even if you are not in charge of managing the server.

Since the VPS does shares resources like RAM, CPU, disk space and so on from the node, you will be assigned space on that node. This means only a finite number of people will be using the same VPS, as there is a limited number of space available.

The Bottom Line

Many users prefer VPS because of the benefits, such as direct remote access to their server. Additionally, with VPS users still have access to the same resources and features as they would have with a dedicated server, and they still have the freedom to install any application and make changes to those applications.

And since you are not actually sharing any hardware, you will not have to be concerned about the physical server maintenance and security. The hosting company will need to worry about this.

Virtual private servers are the 'in between' option. They are substantially less expensive than dedicated servers, they come with their own tech support, and they do not require the ownership and responsibility of a dedicated server.

Dedicated Servers

Dedicated servers are popular, too, but for different reasons. Today, dedicated servers are extremely powerful. They can actually outperform fully dedicated hardware from just a few years back.

With a dedicated server, there is absolutely no sharing required. Users will have this type of server all to themselves which can be a big plus, especially if you need a lot of space, or if you are extremely worried about privacy. With internet security is always a hot button issue, so it is very important to choose a server solution that will ensures the security, and safety, of your website.

Costs

While dedicated servers are a bigger financial and technical investment than VPS hosting, dedicated servers usually have better hardware configurations. Hosting a dedicated server does cost a bit more, but you do get more in return.

If you are on the fence, you should also look at the bandwidth and disk space that VPS hosting provides. The amount of bandwidth and disk space that you are allotted will be determined by the type of hosting package you choose. The cheaper the package, the less you get in terms of space and bandwidth.

Bottom Line

The bottom line is that both of these choices are good ones, but one is better for you. Should you opt for a shared server, where the equipment is in the cloud, and you pay only monthly fee for your space and tech support, or are you better off purchasing a dedicated server and having complete access and power over that server?

The answer, of course, hinges on the needs of your business, and your budget.

If you are searching for control over your server configuration, at an affordable price, because you cannot afford to buy a server, VPS is the answer. In summation, a virtual private server provides users with both the freedom and flexibility of a dedicated server at a lower price.

If security and ownership is the issue, you may choose to go with a dedicated server. This way you have complete control over the server and it is yours, you are not renting.

The choice is yours.

References

1) http://www.atlantic.net/blog/2012/12/05/whats-the-difference-between-vps-and-dedicated-servers/

2) http://www.thewhir.com/article-central/a-comparison-between-vps-and-shared-web-hosting

3) http://www.hostway.com/vps/