What is Hosting and What Kind Should You Get?

Knowledge Series

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If you're new to websites, you might have heard the term "hosting" thrown around often. But what exactly is it?

Hosting is renting space on a computer (a server) connected to the internet.

This server stores all the files and data your website needs to run, like images, code, and text. When someone types in your website's address (your domain), the server sends those files to their browser so they can see your site.

Think of it like this, if your website is a shop, hosting is the physical building where you set up your store. Without hosting, your shop can't open, and no one can visit your website. The big question is: what type of hosting suits your needs?

Types of Hosting

There are different kinds of hosting out there, and choosing the right one depends on several factors like your needs, budget, technical knowledge, and the amount of traffic your site will get. Let's break down the factors to consider when choosing the right hosting.

- **Budget:** Are you looking for the cheapest option, or are you willing to pay more for extra control, features, or performance? Shared hosting is the least expensive, while private cloud or PCI-compliant hosting comes with a higher price tag.
- **Technical Skills:** How comfortable are you with managing the technical side of software updates, server security, and performance tuning? Some hosting options (like shared hosting) take care of all the technical stuff for you, while others (like VPS and cloud hosting) require you to manage things yourself or hire someone to do it.
- **Traffic Volume:** How much traffic do you expect? If you're starting out with a small website or blog, shared hosting might be all you need. But if you're expecting heavy traffic or running an eCommerce store, you'll want something more powerful like VPS or cloud hosting that can handle the load without slowing down.
- **Growth Potential:** If your website is small now but you plan to expand, you might want a solution that allows you to scale up without needing to migrate to a new hosting plan. Cloud hosting, for example, is great for websites that need flexibility as they grow.

Now, let's dive into the different types of hosting to figure out which one fits your situation best.

Shared Hosting (The Basic Starter)

Shared hosting is where your website shares space and resources with other websites. Imagine a flat share, you all have your own rooms (websites), but you're sharing the kitchen, bathroom, and broadband (server resources). This is cheap and cheerful, great if you're starting out and don't have a high volume of traffic.

Pros:

- Budget-friendly
- Easy to set up
- Maintenance, updates, and security are handled for you

Cons:

- Performance dips if your neighbours hog all the bandwidth
- You don't have much control over the server
- Not ideal for websites expecting high traffic
- Not Ideal for websites with larger resource requirements like large product catalogues

If you're just getting started and don't want to worry about tech stuff, shared hosting is the easiest way to get your site live. But what if you're ready to level up?

VPS Hosting (Virtual Private Server)

Think of VPS as moving from a flat share to a small house. You still share the bigger building with others, but you've got your own isolated space. A VPS gives you a portion of a server's resources all to yourself. It's more powerful, but with that comes a bit more responsibility.

Pros:

- More control and dedicated resources
- Can handle more traffic than shared hosting
- You can install custom software or run specific configurations

Cons:

- Requires some technical skills to manage
- You're responsible for things like security updates and patches unless you pay for a managed VPS service where someone else does that for you
- More expensive than shared hosting (prices vary depending on resources)

When you move up to VPS, you'll need to think about patching (keeping the software updated to fix bugs or vulnerabilities) and server security. This is where you'll need a bit of technical skill, alternatively you could opt for a managed VPS service where someone else does that for you.

Public Cloud Hosting (Flexible and Scalable)

Public cloud hosting is like renting a space in a big, posh office building. You get all the benefits of massive infrastructure without having to own or maintain it. You can scale up (or down) your resources depending on your needs. If you get a sudden traffic spike, no worries the cloud can handle it.

Pros:

- Super flexible and scalable
- Pay for what you use
- Highly reliable

Cons:

- Can get pricey if you need a lot of resources
- Still requires some technical know-how
- Some businesses may have concerns about data privacy in a shared cloud environment
- Like VPS, you'll need to handle patches, updates, and security unless you pay for a managed cloud service where someone else does that for you

Private Cloud Hosting (Your Own Cloud)

Private cloud hosting is like owning the entire office building. You've got your own cloud infrastructure, which means full control over everything. This is ideal for businesses that need to keep everything super secure and private.

Pros:

- Total control over security and data
- Customisable to your needs
- Ideal for high-security environments

Cons:

- Expensive
- Requires advanced management skills
- If you're not a tech expert, managing a private cloud can be overwhelming. You'll need to stay on top of security updates, performance optimisation, and lots of other tasks.

PCI Compliant Hosting (For Secure Transactions)

If you're running an eCommerce site and taking payments directly, PCI-compliant hosting is crucial. This type of hosting ensures that your server meets the Payment Card Industry's strict security standards.

Pros:

- Keeps customer payment info safe
- Required for processing credit card payments

Cons:

- More expensive
- Comes with lots of rules and guidelines to follow
- You'll either need to hire someone who understands PCI compliance or pay for a managed service that takes care of it.

Best for: eCommerce websites or any business that processes credit card transactions directly on their site. PCI compliance is a must for keeping your customers' data secure.

Technical requirements: To maintain PCI compliance, you'll need to stay on top of security protocols, encryption standards, and regular audits. Many businesses prefer to use managed PCI-compliant hosting to ensure they meet all the necessary standards without having to handle it all themselves.

Are All Clouds Made Equal?

The word "cloud" gets thrown around a lot, but not all clouds are created equal.

When people talk about the cloud, they're referring to servers that you access over the internet, rather than hosting everything locally on your own hardware. The beauty of cloud hosting is that it's scalable and can adapt to your needs, but not all cloud environments are the same. Here's a quick rundown of the types of clouds:

Public Cloud: This is like renting a small corner in a massive warehouse. Big providers like Amazon Web Services (AWS), Microsoft Azure, or Google Cloud let you use their infrastructure, but you're sharing it with other users. It's cost-effective and flexible, but you're not in control of the hardware or the entire environment.

Private Cloud: Here, you own the entire warehouse (or at least a big portion of it). This is typically used by businesses that need high security, control, and privacy. It's much more expensive because you're not sharing resources with anyone else.

Hybrid Cloud: This is a mix of public and private cloud services, designed to give you the best of both worlds. You can keep sensitive data on your private cloud while using the public cloud for everything else.

So, are all clouds the same? Absolutely not. If you're just starting out, a public cloud is usually the most affordable and scalable option. But for those with high-security needs (like financial institutions), a private or hybrid cloud may be necessary.

What Do You Need to Manage?

If you're on shared hosting, life is easy. The hosting provider takes care of updates, security patches, and everything technical. But once you move to a VPS or cloud server, you'll need to take over some responsibilities.

- **Patching:** Keeping your server's software up-to-date to protect against vulnerabilities
- **Security:** Setting up firewalls, monitoring for hacks, and ensuring data is safe
- **Backups:** Regularly saving a copy of your website in case something goes wrong
- **Performance Monitoring:** Ensuring your server isn't getting overloaded

This can be time-consuming, and if you're not particularly tech-savvy, it's easy to miss something critical.

Managed vs. Unmanaged Hosting

Here's the big question: do you want to handle all that tech stuff yourself? If not, managed hosting might be your best friend. With managed hosting (whether it's VPS, cloud, or private cloud), the hosting provider takes care of most of the heavy lifting. They'll handle patching, security, backups, and monitoring, leaving you free to focus on your website content or business.

If you're new to hosting and don't have the time or skills to manage a server, paying extra for managed services can save you a lot of headaches in the long run.