

Unit 4

Web Hosting

What is Web Hosting?

Web hosting is a service that allows organizations and individuals to post a website or web page onto the Internet.

Web hosting is a necessity for any website — it is the physical location of your website on the Internet, an online storage center that houses the information, images, video, and other content that comprises your website.

A **web hosting service** is a type of Internet hosting service that allows individuals and organizations to make their website accessible via the World Wide Web. Web hosts are companies that provide space on a server owned or leased for use by clients, as well as providing Internet connectivity, typically in a data center.

Web hosting is the place where all the files of your website live. It is like the home of your website where it actually lives.



In a nutshell, web hosting is the process of renting or buying space to house a website on the World Wide Web. Website content such as HTML, CSS, and images has to be housed on a server to be viewable online.

When a **hosting provider** allocates space on a web server for a website to store its files, they are hosting a website. Web hosting makes the files that comprise a website (code, images, etc.) available for viewing online. Every website you've ever visited is hosted on a server.

What exactly is a server? A server is a computer that connects other web users to your site from anywhere in the world. As the name implies, web hosting service providers have the servers, connectivity, and associated services to host websites. By offering a variety of hosting plans, they cover the spectrum of hosting needs, from small blogs and large organizations.

The amount of space allocated on a server to a website depends on the type of hosting. The main types of hosting are shared, dedicated, VPS. They are differentiated by the kind of technology used for the server, the level of management provided and the additional services on offer.

Types of Hosting:

1. Shared hosting

Shared hosting is perfect for entry-level website hosting. This is where your website will be stored on the same server as multiple other websites. With a shared hosting plan, all domains share the same server resources, such as RAM (Random Access Memory) and CPU (Central Processing Unit). However, because all resources are shared, the cost of shared hosting plans are relatively low, making them an excellent option for website owners in their beginning stages.

2. Virtual private server (VPS) hosting

A VPS hosting plan is the ultimate middle ground between a shared server and a dedicated server. It's ideal for website owners that need more control, but don't necessarily need a dedicated server.

VPS hosting is unique because each website is hosted within its own space on the server, though it still shares a physical server with other users. While VPS hosting provides website owners with more customization and storage space, they're still not able to handle incredibly high traffic levels or spikes in usage meaning that the site performance can still be affected by other sites on the server.

3. Dedicated server hosting

Dedicated hosting gives website owners the most control over the server that their website is stored on. That's because the server is exclusively rented by you and your website is the only one stored on it. This means that you have full root and admin access, so you can control everything from security to operating system that you run.

However, all that control comes with a price.

Dedicated servers costs are one of the most expensive web hosting options.

What is Domain/ Domain Name?

Domain name is the address of your website that people type in the browser URL bar to visit your website.

In simple terms, if your website was a house, then your domain name will be its address.

A domain name can be any combination of letters and numbers, and it can be used in combination of the various domain name extensions, such as .com, .net and more.

The domain name must be registered before you can use it. Every domain name is unique. No two websites can have the same domain name. If someone types in www.yourdomain.com, it will go to your website and no one else's.

The Internet is a giant network of computers connected to each other through a global network of cables. Each computer on this network can communicate with other computers.

To identify them, each computer is assigned an IP address. It is a series of numbers that identify a particular computer on the internet. A typical IP address looks like this:

66.249.66.1

Now an IP address like this is quite difficult to remember. Imagine if you had to use such numbers to visit your favourite websites.

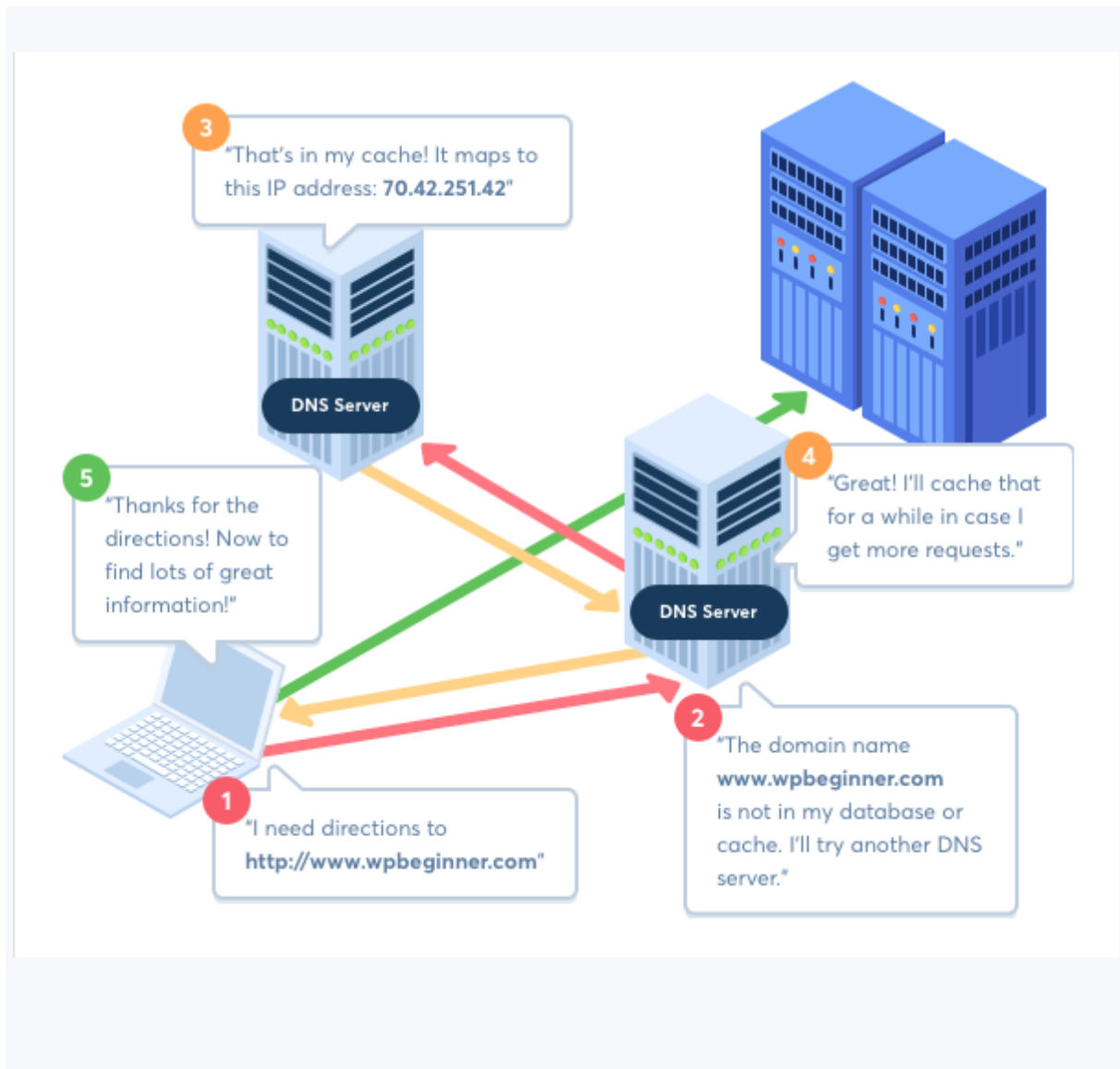
Domain names were invented to solve this problem.

Now if you want to visit a website, then you don't need to enter a long string of numbers. Instead, you can visit it by typing an easy to remember domain name in your browser's address bar.

For example,

www.google.com.

A domain name is unique to your website (just like a fingerprint), and cannot be shared between different websites.



How to get a web hosting?

How to register a Domain?

Host your website on web server.

Hosting is the invisible foundation of the internet. Every website needs a 'home', a place where its files are accessible anytime, anywhere. That's what hosting does. It's a plot of internet land. If you want a website, it'll need to be hosted somewhere.

Good hosting makes for a fast site that's almost always accessible. Good hosting is affordable, low-maintenance, and scaleable.

You can host website in two ways:

- **Use a hosting platform**
- **Host locally (only in your PC can access the website)**

Now we are talking about the hosting website on internet, follow these four simple steps to host your website with a hosting provider:

- **Step 1: Compare hosting companies.**

With that out of the way, the most popular global registrars include:

- [Namecheap](#)
- [GoDaddy](#)
- [Name.com](#)
- [Domain.com](#)
- [Bluehost.com](#)

Each of these companies has a slightly different user interface, but what you get in the end is the same — a shiny new domain name.

- **Step 2: Choose a website hosting company.**

Once you've had a look at the top hosting companies, you need to pick one! There are a number of features you should consider when choosing a website hosting company.

Below are some of the key factors to consider:

- Uptime
- Support
- Free domain name
- Value for Money
- Bandwidth
- WordPress integration
- Money-back guarantees

- **Step 3: Choose a website hosting plan.**

Once you have a host platform you like the look of, you still need to narrow your decision down to a plan. There are numerous types of hosting (shared, dedicated, VPS, and more), and there is usually a selection of plan tiers within each type.

- **Step 4: Register a domain name.**

It's all well and good having a plot of internet land, but without an address no one will be able to find it! That's what a domain name is. It's your digital address.

Google's is www.google.com. You get the idea. Your site will need a domain as well.

Nearly every web hosting provider includes domain name registration in its signup process. Sometimes it's included as a freebie in the plan you've chosen ([GoDaddy](#) and [Bluehost](#), for example).

A good domain is simple, easy to remember, and usually number-free. Don't feel bound to the **.com** convention either. More and more sites are playing around with atypical top level domains like **.xyz** or **.co**. So long as it fits with your brand, you'll be fine.

If you already have a domain name it's simply a case of attaching it to your new server. Many hosting platforms include this in the signup process and handle it for you.

Introduction to DNS

DNS, or "Domain Name System," is one of the most important parts of The Internet today. DNS is essentially a server or hierarchical configuration of servers that acts as a "phone book" for a network. DNS translates a hostname (name of a computer) to an IP address ("phone number" of a computer).

If you type <https://www.google.com> in your browser, your browser doesn't see it as words like we see it. Your browser sees the IP address, just as when you select a contact in your cellphone, your cellphone sees a phone number.

Every networked device, including web servers, phones, computers, modems, routers has an IP address. Since humans aren't as good with numbers as

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computers are, we invented DNS to translate these numbers into domain names and hostnames that make much more sense to us.

