

## **YOUR WEB SITE PARTS - DOMAIN NAMES, URLS, WEB HOSTS, DNS - WHAT THEY ARE, AND WHAT YOU NEED**

### **WHAT'S ALL THIS DOMAIN NAME, WEB HOST, URL STUFF?**

When you first look into getting a web site, you may find an unexpected number of things that all sound confusingly similar. If you have your web site name, my-site.com, then don't you have the site? What the difference between a domain registrar and a web host? If any?

What, exactly, do you need? And, from whom?

Let's begin with what's what.

### **WHAT'S WHAT**

Think of a web site as something like telephone service. For the telephone service to work, you need:

- a phone number
- a telephone
- some way of getting the signal (either land line or wireless)
- a phone number listing so folks can find your number.

Your web site has equivalents to all of those.\*

### **PHONE NUMBER = DOMAIN NAME (A.K.A. UNIVERSAL RESOURCE LOCATOR, OR URL)**

The domain name of a web site (microsoft.com, bluemountainsproductions.com, etc.), then, is like the telephone number. The telephone number is what someone needs to know to be able to call you, to be able to access your telephone. The domain name, or URL, is a unique identifier for your site, and is the way people request to see your site over the internet.

Note that the phone number, like the domain name, is really just a name, or a pointer. You can get a telephone number without a telephone, but you won't get many calls that way. Likewise, you can get a domain name without actually having a web site, or pages/content. This is useful if you want to make sure YOU get that domain name but are not yet ready to create the site.

### **TELEPHONE = PHYSICAL LOCATION OF WEB SITE, OR WEB HOST**

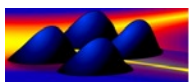
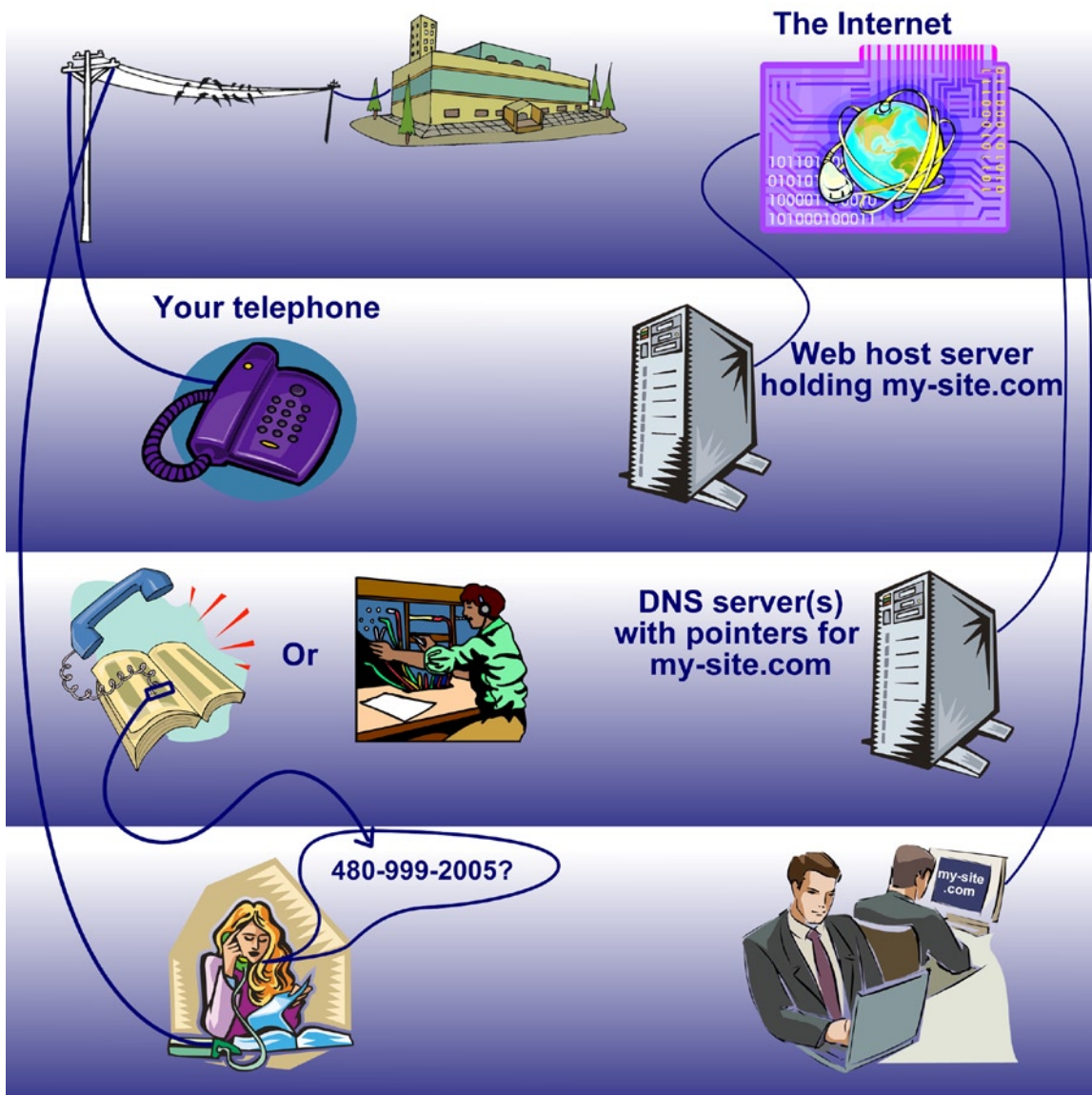
Once you have the phone number, you must also have the physical telephone to make and receive calls. It is the physical manifestation of your telephone number, in a way. Likewise, you must have a place to put your web site, on a computer's hard drive somewhere. Usually, this place is space rented from a web hosting company. In this space you put the actual pages of your web site, plus the images, videos, audio files, etc., that people will be able to access on your site.

**TELEPHONE LINE OR CELL TOWER = THE INTERNET**

For your telephone calls to go anywhere, they must have a path of communication with other phones. This path is either your land line (physical telephone wires), which ties into the telephone companies' networks, or wireless signals relayed via towers. For your web site, this path of communication is the internet.

**PHONE BOOK = DOMAIN NAME SERVERS (DNS)**

And, last but not least, you must have a way for people to find you (phone or web site). For the telephone system, this is done through telephone books and directory assistance, plus the phone company's routing system. With a web site, this function is served by Domain Name Servers (DNS). The DNS are a hierarchical collection of servers that essentially say, for domain **my-site.com**, look here.



## HOW DO I GET WHAT I NEED?

That is the essential framework of a working web site, a site to which people can go by entering the site's name in a browser and pull up the pages of the site. Now, how do you get all of those pieces?

### THE DOMAIN NAME

The domain name is frequently the first thing you will get. You can purchase domain names from several different domain name registrars, such as Network Solutions, GoDaddy, and Register.com.

Since the name must be unique, the first part of the process is always checking for the availability of the name. If someone else already has the name, you must either wait for it to become available (could be years!) or come up with a different name.

When you go to any of those companies to register a domain name, you will notice that they all have extra services for you to consider adding to your purchase. One of these services is web hosting. However, you need not use the same company for web hosting that you use as your domain name registrar. See below for some web hosting plan considerations.



### THE WEB HOST

Once you have your domain name and are ready to create your site, you will begin looking at web hosting companies and their many plan options.

You will be faced with many choices in a web hosting plan, including:

- How much disk space do you need?
  - o If you are not intending to include video and/or audio files on your site, usually 100M is more than enough.
  - o If you are intending to include video and/or audio files, you will need to look at how many and how large before making a disk space decision.
- How much bandwidth do you need?
  - o Bandwidth is related to how much traffic your site gets, and what kind of things people download from your site. Lots of traffic and/or large files will require lots of bandwidth.
- How many mailboxes?
  - o Most hosting plans include some number of email boxes. Some only include forwarders (looks like a real email address, e.g., [bob@my-site.com](mailto:bob@my-site.com), but it just forwards email to an address you specify, such as [bob@juno.com](mailto:bob@juno.com)).



- o Having one or more email addresses linked to your site has many advantages:
  - If you become disenchanted with your current internet service provider (ISP), e.g. Juno, and decide to change, you don't have to change your site-related email address - you can continue to use them.
  - If it is a business site, the email address contains the name of your business – looks professional, is easier to remember, and draws more attention to your site.
  - It allows you to separate your personal from your business email.
  - If you choose, you can have multiple email addresses to further break down the site functionality, e.g., [orders@my-site.com](mailto:orders@my-site.com), [bob@my-site.com](mailto:bob@my-site.com), [ellen@my-site.com](mailto:ellen@my-site.com), [marketing@my-site.com](mailto:marketing@my-site.com), [affiliates@my-site.com](mailto:affiliates@my-site.com), [sales@my-site.com](mailto:sales@my-site.com), [support@my-site.com](mailto:support@my-site.com), [billing@my-site.com](mailto:billing@my-site.com),... Well, you get the idea.
- Do you need other site-related services such as FrontPage extensions, CGI, ASP, PHP, bulletin boards, blogs, statistics, and on and on?
  - o You may not know the answer to this. If you are working with a web developer, ask her or him.
  - o You may not initially need any of this, but often a successful site will grow into these via expanded interactive functions. Don't box yourself into a long-term contract in a plan without these unless you are SURE you won't need them later.
- How much do you want to pay per month?
  - o You can find extremely inexpensive hosting plans, even free ones, sometimes from friends or family. Be careful, though, and vet the inexpensive/free ones as carefully as you would those that cost more.
  - o If financial constraints dictate you get fewer features than you really want or need, make sure you can change hosts or plans when your situation changes.
  - o Don't box yourself into a situation where you don't have the control or access you need to a site because someone is doing you a favor.
- How many domain names do you want to have pointing to your site?
  - o Yes! You can have multiple names pointing to your site! It can be both [my-site.com](http://my-site.com) and [bobs-big-bananas.com](http://bobs-big-bananas.com), not to mention [produce-for-the-hungry-masses.com](http://produce-for-the-hungry-masses.com).
  - o To get these extra names to work, the hosting company has to set up pointers, or additional entries in their DNS. Frequently the hosting company will charge a fee for these pointers. Sometimes it's a one-time fee for setup, sometimes it's an annual fee.



**THE INTERNET**

Thank goodness, the internet is just there! You don't have to do anything for that.

**THE DOMAIN NAME SERVERS**

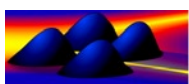
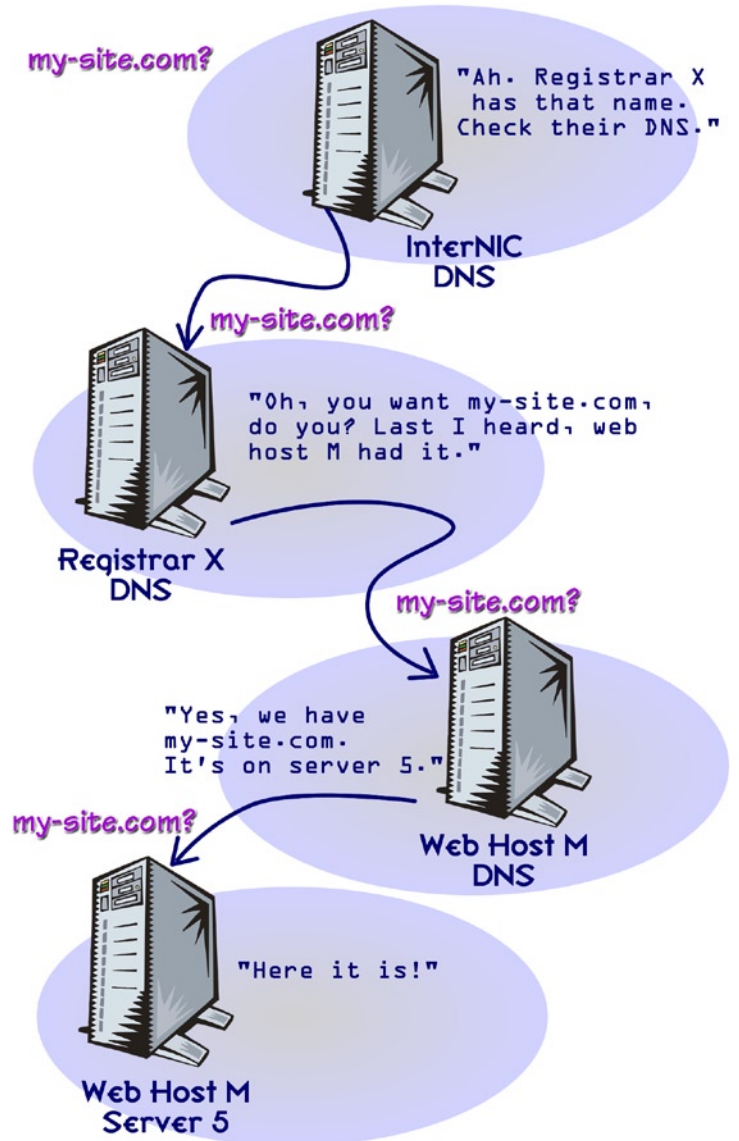
You will recall that I said above that the DNS is a hierarchical collection of servers. These servers are run by:

- Highest-level DNS - by Internic, a quasi-government agency, which oversees the whole domain name business
- Next level DNS – by the domain name registrars. These DNS link the domain name to the actual web hosting company.
- Lowest-level DNS – by the web hosting companies. These DNS link the domain name to the actual location of the computer upon which your site is hosted.

So, for example, if we want to look up **blue mountainsproductions.com**, here's what happens:

1. We enter that name in the URL box in a browser such as Internet Explorer.
2. The query goes out to the Internic DNS. Internic DNS says, oh, yeah, for that name look in Network Solutions' DNS.
3. The query then goes to Network Solutions DNS, which says, Ah, blu emountainsproductions.com, I hear that's hosted by Buzix, so check their DNS.
4. The query rushes onward to Buzix's DNS, which says yep, it's right here!
5. The query goes to the specified machine, which returns the requested page, and there you are!

The upshot of all that hierarchy is, when you set up a web site, you must make sure both the registrar's DNS and the web host's DNS have the correct information. If you host with the same company that you bought the domain name from, that



company will probably take care of the whole thing in a way invisible to you. If, however, you choose to host with a different company, you will need to change the DNS specified by the registrar company. Usually, the host company will tell you exactly what those need to be, and the registrar will provide you with a relatively painless way to change them. If you are working with a web developer, he or she will probably handle this part.

If you do end up changing the DNS entries for your domain name, you will probably be warned that the changes will take some time to “propagate through the system.” When you initiate a change, usually at the domain name registrar, the changed information goes from there out to other DNS on the internet. In time, all the DNS that need to know about your domain will receive the change. Until then, you may not be able to access your site with the domain name. Usually this completes within a day or so.

### **IS THIS ALL I NEED TO KNOW?**

We never know ALL we need to know – at least that’s my experience. But this is the basic structure of the thing. To have a web site accessible to others via a name, you must register the name, have a host for the site which is linked to the internet, and have the correct pointers for the name and host in the domain name servers (DNS).

Then all you need is the content!

Happy web siting.

### **NOTES**

\* - This is, of course, an oversimplification. The parallels are actually more like this:

- domain name = your name
- your site’s IP address = telephone number
- web host server = telephone
- web site content = you
- DNS = telephone directory or directory assistance
- Internet with all its routers etc. = the entire collection of telephone companies with all of their lines, towers and routing hardware/software

But that’s another story.

