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Your Domain *(yourdomain.com)* And Its Place On The Internet

Here is a simplified explanation of how your new Internet domain name, *yourdomain.com*, fits into the big picture.

First it is important to understand that a domain name, Internet address, web site, and URL are not the same thing. You have purchased the rights to use a *domain name* from one of the official registrars. Network *Solutions/Verisign* is the most popular, but you may have used others like *Domains.com* or *GreatDomains*.

The only *technical information* that your registrar needs is the address of your Name Servers, also called DNS servers. (DNS = Domain Name System) The DNS, or name server, has a very simple job: to translate Internet names into Internet numbers, and visa-versa.

(Domain name)   *yourdomain.com*   *139.81.52.173*   (IP address)
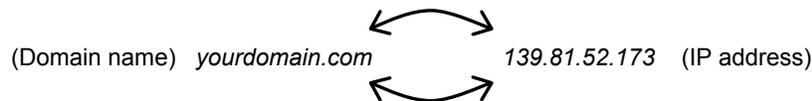
A Computer asks the DNS server…   Where is '*yourdomain.com*'?
The DNS server responds…   '*yourdomain.com*' is located at 139.81.52.173

So when someone types *www.yourdomain.com*, his or her browser asks the DNS server for the IP Address of a computer called www at the domain *yourdomain.com*.

Similarly, when your email client (Outlook, Outlook Express, etc.) is checking for mail, it must find the IP address for your POP server called *mail.yourdomain.com*. It asks the DNS server for the IP address of the computer called "*mail*" at the domain "*yourdomain.com*". This all happens in a fraction of a second.

A common misconception is that there is a server for each domain. In most cases, a server is running many *server services* for many domains. A single computer is commonly running a web server, an email server, a DNS server, or a combination of these for many domains.

Here are the oversimplified steps involved in someone reaching your web site:

1. Someone types www.*yourdomain.com* into his or her browser. This is the *requesting* browser.

2. The *requesting* browser checks the TCP/IP settings to find its DNS server and asks the DNS server if it knows the IP address to a computer called "www" at the domain called "*yourdomain.com*".

3. DNS servers keep a memory of recent requests, called a *cache*, so there is a chance that it will know the answer. If this DNS server doesn't know the IP address, it asks another DNS server, and another, and another until finally finding a DNS server that knows the answer.

    *There are 13 root DNS servers on the Internet. Your registrar has entered your DNS information into one of these servers. At noon and midnight E.S.T. these 13 servers propagate the new and changed information to other top-level DNS servers, which then propagate to other servers below them and so forth.

4. Once the IP address is found, the *requesting* browser sends the request for a web page.

5. The computer with this IP address is running a web server service, which recognizes the domain name as one that it is hosting.

6. The web server looks to find the directory (folder) that contains your web site files and sends the entire path to the requesting browser.

7. The browser looks for a file called "index.html" (or default.htm) and displays the home page of *yourdomain.com.*

All of this is done in the fraction of a second before you start to see the web page!