

ROA.LAB.07.DOMAIN NAMES

Introduction

Often, we'll refer to an URL like <http://wp.rutgers.edu> as a page's "web address"; technically, this is a misnomer. A site's actual address is recorded in something called its **IP Address**. An IP Address is a set of four numbers, each 1-3 digits long, and looks something like this:

255.54.3.76

An IP Address is the *literal* location of a computer in the network we know as the web. Every computer connected to the internet has an IP Address; every time you dial in to RCI or AOL, your computer is assigned a temporary IP Address from a stockpile allocated to your Internet Service Provider. Thus, if you wanted to get to a site like Yahoo, you *could* use either its **URL** (<http://www.yahoo.com>) or its IP Address (if you knew it). But, as you might imagine, IP Addresses are *not* very easy to remember—that's why we have things like domain names. These domain names are recorded in what's called the **Domain Name System**, which is a series of special computers (called **Domain Name Servers**) that maintain huge databases of domain names/URLs and actual IP Addresses.

So, here's what happens when you want to go to a site, say our class homepage:

1. You type in `http://www.rci.rutgers.edu/~mpsr` in the browser and hit return or go.
2. The browser uses the web connection to contact a DNS computer.
3. The DNS computer translates the domain name into an IP Address, the actual location of some Rutgers computer on the internet.
4. The browser goes to that computer, which has all the RCI user files.
5. The browser then asks that computer to go to the "`~mpsr`" directory.
6. Since you don't specify a file name, the computer looks for the file named "`index.html`" and sends a copy to your browser
7. Which then displays the page.

What this means for you, now, is that *having your own domain name and website always consists of two pieces*:

1. Space on a web server (called your **host**, and for now that's RCI)
2. A domain name

You rent space on your host's web server (it's bundled into your tuition at RU); you own your domain name (for as long as you pay the fee—more on that below).

The nice thing is that once you have a domain name, you can change servers as often as you'd like. You can move from RCI to some other host again and again because the URL remains the same. The only thing that changes is the entry in the DNS database, which will point to a new IP Address when you change hosts.

So, in order to discuss domain names, we need to discuss the name registration process and hosting options.

Domain Name Registrars—Introduction

To get your own domain name, you need to register it. Domain names are controlled by **ICANN**, the Internet Corporation for Assigned Names and Numbers. ICANN is a nonprofit group that controls the DNS. It decides which “top level domains” should be added to the system (.com, .edu, .net, but also .biz, .tv, .info). It also decides who acts as registrar for names. At first, this process was controlled by InterNIC, which became Network Solutions. But the whole domain name registration system was de-monopolized, and now there are a host of registrars. *This is important to you because different registrars charge different prices, offer different services, and can screw you.*

Network Solutions (<http://www.netsol.com>) is still around (it’s now owned by VeriSign), and you can go through them. They’re reliable, since they’ve been around forever, BUT 1)they charge \$35/year for a .com domain name and 2)they tend to be deceptive by mailing you to warn your name is about to expire, when that “about” is more like 9 months from now. *So, if you want something you don’t even have to think about, and you can afford it, go with Network Solutions.*

If you’d like some more affordable options, here are some recommendations from CNET (<http://www.cnet.com>). Before choosing, I *strongly* recommend you read the CNET reviews (see forum for link):

- **Go Daddy** – <http://www.godaddy.com> – \$8.95/year base
- **Enom** – <http://www.enom.com> – ??? (confusing site, though CNET gave it an OK review)
- **DirectNIC** – <http://www.directnic.com> – \$15/year base
- **000Domains.com** – <http://www.000domains.com> – \$13.50/year base

Personally, I used to go with Network Solutions, but just moved over to Go Daddy and am pretty happy with it.

Domain Name Registrars—Choosing

You should check out the CNET article on domain names (link posted in forum). As you think about whom to register with, consider these issues:

- **Cost:** how much does it cost per year? Is there a discount for multiyear registration?
- **Ownership:** who will *own* the name? Some cheapy registrars actually retain ownership of your domain name, so when you go to move to a new registrar you can’t.
- **Options:** most registrars offer optional services. Services you might particularly be interested in include forwarding and hosting (more on this soon)
- **Customer Support:** does the website make it clear how to register? does it seem like an easy process? is it easy to find help?

Domain Name Registrars—Registering

Once you’ve chosen your registrar (and if you want a quick solution, go with Go Daddy), you actually register your name. Here’s the general process:

1. **Check availability.** Whatever registrar you go with will let you know if the name you want is available. The better ones will also suggest alternatives (.net, .org) if the one you want isn't. If your name is available, then you're free to proceed!
2. **Select length of registration.** I usually just go year by year, but keep in mind that multiyear registration can save you money and you won't have to think about your domain name for years.
3. **Give contact information.** All domain names need three contacts: the billing contact, the administrative contact, and the technical contact. Billing and admin will just be your info; depending on which registrar you go with, they may serve as technical contact. Otherwise, this info is usually provided by your host.
4. **Pay.**

That's the basic process. Choose the name, give contact info, pay.

Domain Name Registrars—Extras

You might want to add in some extras:

- **Parking.** Some registrars will "park" your domain for free, which means you buy the domain and they make a little placeholder page until you're ready for a host. This reserves the name for you with a minimum of cost.
- **Forwarding.** Most registrars will provide this: some charge, some don't. Forwarding means that the domain name will forward a person to an existing site someplace else. *This is important to you because it means you can get a domain name and have it point to your current RCI address.* It works like this: someone puts in <http://www.ameer.com> and they end up at Ameer's pages here at Rutgers. This is a good option if you don't want to get a host just yet.
- **Email forwarding.** This works about the same. You can create an email address with your new domain name and all email to that address will be forwarded to whatever email account you want.
- **Hosting.** Some registrars bundle in a hosting package, which you might also be interested in since it will save you from finding a host.

Be sure to explore just what options are available. You should probably call or email customer support for details. This is a good test to find out if your registrar has good customer service.

That's it. But once you own your domain name (unless you use forwarding) you need to find a host.

Hosts—Introduction

There are a zillion hosts out there. Finding a good one can be tricky, but it's worth it. Though you can change hosts often, it's a real hassle so it's best to find one you want to stick with.

There are two basic kinds of hosting services: one uses a Unix based server (Apache, Red Hat, Linux) and one uses a Microsoft based server (Windows). There isn't a whole lot of difference between the two (unless you want to use FrontPage, which

generally needs Windows servers). But I recommend a Unix/Linux based server, because they tend to be more robust and have fewer virus issues.

Hosts—Choosing a Host

Generally speaking, a basic hosting package will provide all you need. You won't need more than a few MB's of space and you won't have to worry about traffic or bandwidth and you'll only need a couple of emails addresses. Hosting comes in a whole array of packages with a whole array of options. Generally speaking, the basic package will always be fine for you.

What you should be most concerned about is customer support and hand-holding.

That's because in order to connect your domain name to your account with your host, you need to give your domain name registrar the DNS info. This will be provided by your host, but you should be able to find a host that will take care of this for you, which would be very good. Also, just as some registrars provide hosting, some hosts will register your domain name for you, which you might also find handy.

I recommend that as you look for a host, you evaluate their level of customer support. Call or email and ask them to explain the whole process to you. You'll definitely want one who can help you out.

Hosts—Signing Up

Once you've chosen a host, the process will generally be:

1. Select your hosting plan.
2. Provide contact and billing info.
3. Your host will email you with your account information and the DNS info.
4. You'll use the account information to define the site in DW. It will include the FTP info, the root directory, your login, and password.
5. You'll also use this info to set up your email client, such as Netscape Messenger or Outlook Express.
6. You (or your hosting provider) will need to contact your registrar and give the DNS info.

Once the DNS info gets "propagated" through the DNS system, typing your URL into your browser will bring you to your site. Generally, this takes from 1-3 days, which gives you time to upload your site's files to the account with the host.

I think that's about it for the basics. If you have questions, let me know.