

Purpose: To provide our sales partners with the process needed to move a customer's web site to NewSouth.



Digging into the works of an URL

When a customer changes ISP's to NewSouth, there is often a need to move their web site from their previous provider to NewSouth's web hosting. Many times, your customer has contracted an outside source to do their web site design and maintenance and, consequently, is not sure what needs to happen on their end and what NewSouth can do to aid them in process.

The Basics

When you type in `http://www.awebsite.com` in your web browser, a lot of behind-the-scenes action begins even before you see the web site loading on your screen.

Once you type in the URL:

- Your computer checks your local DNS to see if it has cached the URL;
- It checks to make sure the web pages being loaded are current
- If your computer can't find the URL on your DNS server, it sends a request to a network registrar (such as Network Solutions or Register.com) for the proper DNS server to find the URL on.
- If the URL is present, your web page request is filled and you weren't even aware of all the jumps. If the URL is "broken," you'll be given an error message.

In detail: First, your computer checks your local DNS (Domain Name System) to see if it has cached (or saved to memory) the location (or IP address) of the web site you have requested. It also looks to see if that information is considered "current." This means your computer hasn't accessed, or verified, this web site's IP address in the last few days. If it hasn't, it rechecks to make sure the pages it is loading are current.

For computers, the `www.awebsite.com` doesn't really mean anything, it's the IP address (four sets of numbers ranging from 0 to 254 that are unique to a specific computer or network on the Internet and comprise it's "address, such as 90.64.0.16) that is used in the communication between the computers. If your computer can't find the IP address of the web site, the DNS server asks a registrar (such as Network Solutions or Register.com) which DNS server it should ask for the information.

This actions are all automatic and you don't see anything unless your computer can't find the IP address and an error is returned.

If you've ever done a whois query, you'll see it gives the primary and secondary DNS server. This is where requests are sent for what IP address (or IP addresses) is/are associated with the name `www.awebsite.com`. You can look this information up at a variety of web sites, such as <http://www.geektools.com>.

Here is an abbreviated output for `newsouth.com` :

```
Server used for this query: [ whois.networksolutions.com ]  
Registrant:Newsouth Communications (NEWSOUTH5-DOM)
```

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Two North Main St.
Greenville, SC 29601
US
Domain Name: NEWSOUTH.COM

[contacts removed for brevity by author - James]

Domain servers in listed order:

NS1.NEWSOUTH.NET 64.90.1.1
NS2.NEWSOUTH.NET 64.90.16.1

Once your computer finds the proper DNS server for the domain you requested, it asks for the IP address of the web site and then caches that information on your local DNS server (so it doesn't have to keep going through this process each time you view a web page on that site). Then, the web page data, such as graphics and text, are sent to your computer.

Migrating your customer to NewSouth

So, what does all of this have to do with migrating new web hosting customers to NewSouth?

Good question.

Once the order is placed at NewSouth for a Web Hosting account, the web system:

- creates space on our web server for the customer;
- assigns them a user id and password, and;
- emails all the necessary information to the customer (which is why it is of extreme importance to have a valid and working email address for the customer so this important information gets to them).

Now we'll list some example data to give an overview of where things stand and what has to happen next.

Customers current web site www.awebite.com points to 123.23.94.39

Space for the customers new web site www.awebite.com is at 64.90.1.71

Now, the customer needs to move their content from their old site to their new site, and then have the DNS redirected to the new site, so when customers type in <http://www.awebite.com> it goes to NewSouth's web server (64.90.1.71) rather than the customers old web server (123.23.94.39, in this example).

First, the customer needs to move their content. We at NewSouth are not able to do this for the customer, as it requires logging into the machine where the content is currently kept, retrieving the information, and then uploading to the space on NewSouth's web server.

We have no access to other company's machines, just as they do not have access to ours. If the company does not have copies of their data on one of their local computers they will probably need to contact their web designer and coordinate the data move with them.

It should also be noted that many times a web hosting provider offers scripts (such as database searches, hit counters, form to email utilities, etc) that are not set up the same way they are at NewSouth, requiring some changes to be made when the site is transferred.

This becomes a gray area because we do not do content or programming for customers (except for a few legacy accounts, but not for new accounts). You should always check with someone in the web systems group about whether or not the changes that need to be made are doable in a short amount of time. We will make every effort to assist the customer but can not serve as 'free' programming consultants, we simply don't have the time or head count.

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Once the data is uploaded to the NewSouth web server, the traffic is still going to the old web server (in this case, 123.23.94.39). When the new web site has been tested and verified that it is in correct, working order the customer needs to contact their Domain Name Zone Contact (the Zone file in DNS associates the various prefixes with actual IP addresses, meaning for the domain awebsite.com www could point to 123.23.94.39, mail could point to 123.23.100.2, and a server at the customers site called mycomputer.awebite.com could point to 221.23.15.2, etc) and have them change the IP address associated with www.

As mentioned before, DNS server worldwide cache information for generally 2-3 days. So, once the record has been updated, it may take a while to propagate world wide, hence the lag time mentioned in any DNS change information.

Once DNS has been updated, and the changes have propagated, when a user types <http://www.awebite.com> the whole process of checking local DNS servers, requesting the primary DNS server from a registrar, forwarding the data to the proper IP address, and ultimately sending the data to the customers web browser starts all over again!