How To Activate A Website

For An Internet Domain

Graham Leach, Partner

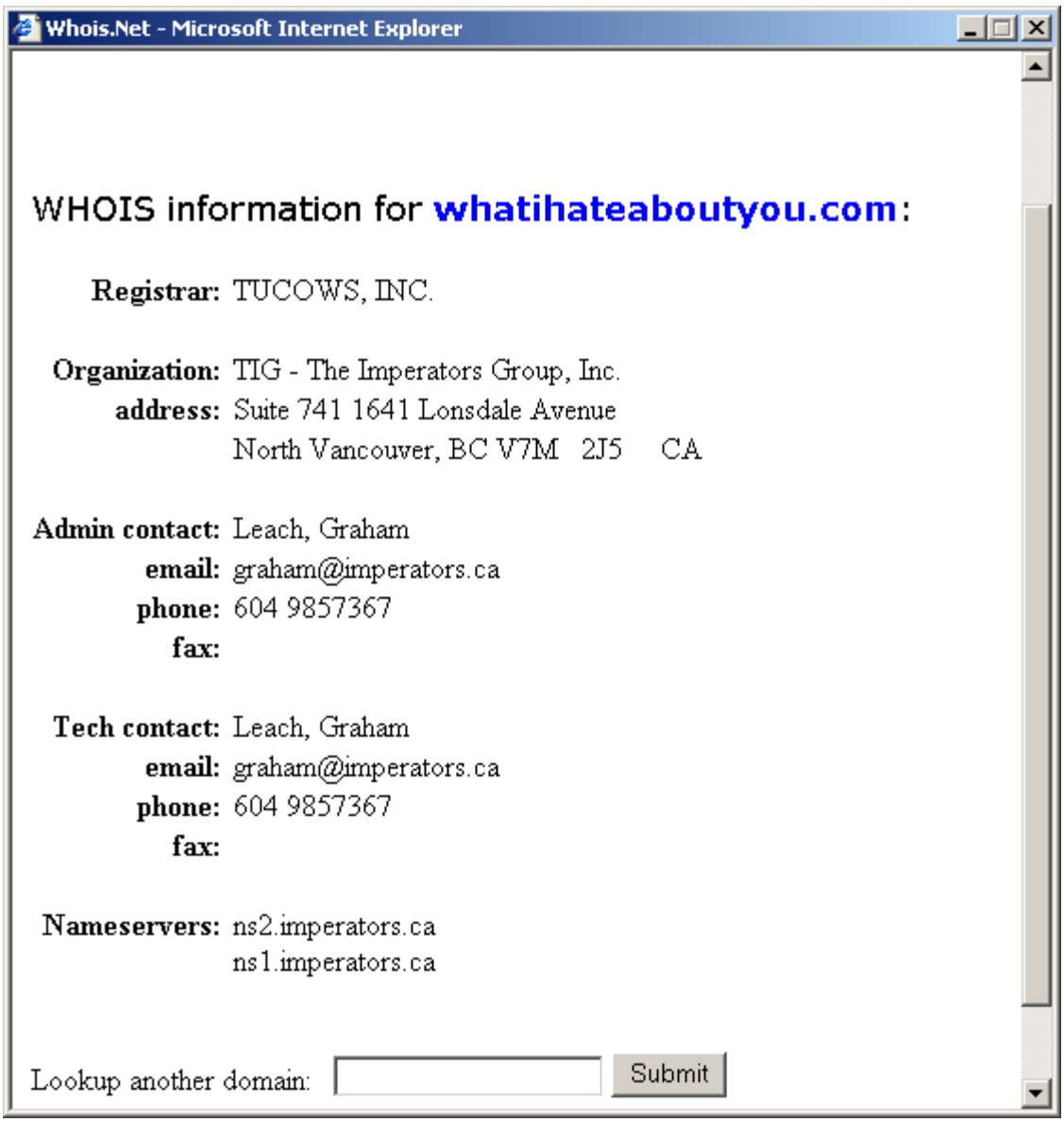
TIG – The Imperators Group

Table Of Contents

An Activation: whatihateaboutyou.com

Our example uses a domain called **whatihateaboutyou.com**, a company that has already registered with an **Internet Registrar**.

Consider the following.



In the example, there is a WHOIS record for the domain **whatihateaboutyou.com**. The domain is registered with **Tucows, Inc**.

The **DNS hosting** for this domain has been configured to use **name servers** provided by **imperators.ca** and the FQDN **www.whatihateaboutyou.com** is to be pointed to the IP address **203.80.245.2**.

The Activation: A High Level Overview

Bringing **www.whatihateaboutyou.com** online requires that several tasks be completed:

1. Configure the DNS hosting
    a. Determine the IP address mapping to **www.whatihateaboutyou.com**
    b. Configure the DNS servers to supply the IP address on demand

2. Assign the IP address for **www.whatihateaboutyou.com** to a computer
    a. Configure an Internet-connected host to respond to the IP address

3. Configure the WWW hosting
    a. Configure the web server to recognize **www.whatihateaboutyou.com**.
    b. Install a “Coming Soon” website for **www.whatihateaboutyou.com**.

4. Test the Web Server

DNS Hosting Tasks

At the hosting DNS machine, two important changes must be done to activate the domain and **host www.whatihateaboutyou.com**:

1. The DNS server must be informed that it is responsible for a new domain .
2. A DNS database file must be created to support the DNS server.

To activate the **whatihateaboutyou.com** domain, an entry in **/etc/resolv.conf** must be created that indicates to the **named** daemon (which responds to DNS requests on **port 53**) that it is an **authority** for the domain **whatihateaboutyou.com**.

After that, a domain database file must be created in the **/var/named** subdirectory to define the entities that will exist in the **whatihateaboutyou.com**, particularly the entity named **www**.

Changes to resolv.conf

There are two entries of interest in the **/etc/named.conf** file, one tells **named** where to look for the **authority** information, the other is specific to the new **whatihateaboutyou.com** domain.

The Authorities Directory Stanza

```
options {
         directory "/var/named";
        }
```

The above entry tells **named** to look for **authorities** in the **/var/named** directory. The next entry to look for is the actual entry for the domain:

The Domain Stanza

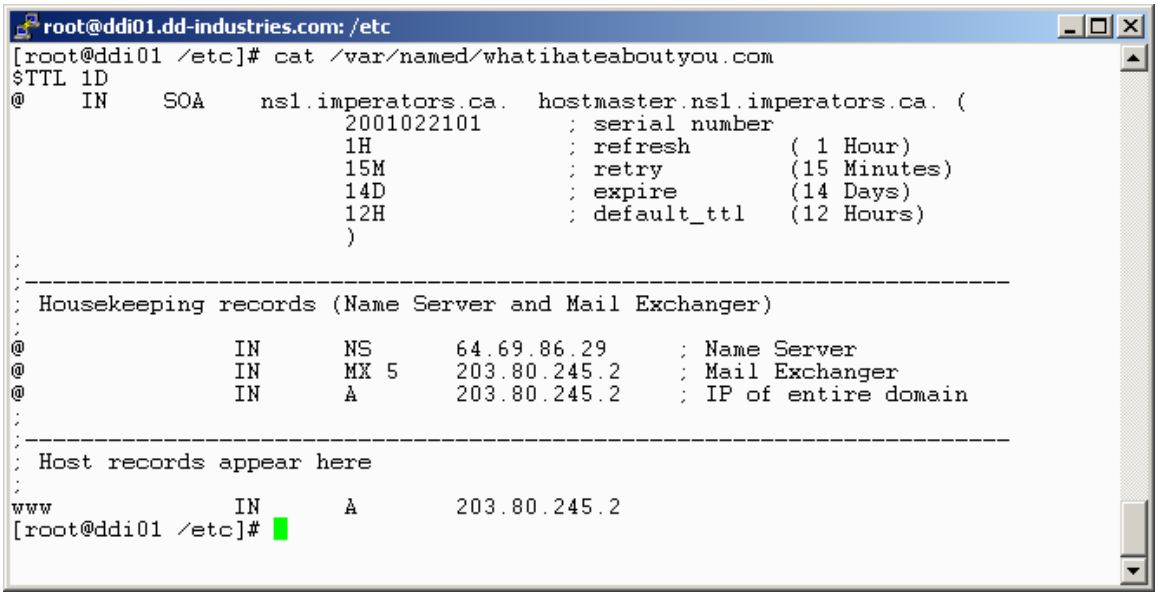
```
zone "whatihateaboutyou.com" in {
        type master;
        file "whatihateaboutyou.com";
};
```

The above entry tells **named** that it is responsible for responding for requests regarding the **whatihateaboutyou.com** domain and the information for that domain is contained in a file named **whatihateaboutyou.com**.

The Authority File

Information about Internet domains is contained in specially formatted text files called **authorities**. The DNS server, **named**, reads these files into memory and then responds to resolution requests for entities within those domains on **port 53**. Here is the contents of the authority for **whatihateaboutyou.com**, contained in **/var/named/whatihateaboutyou.com**:

Consider the following:



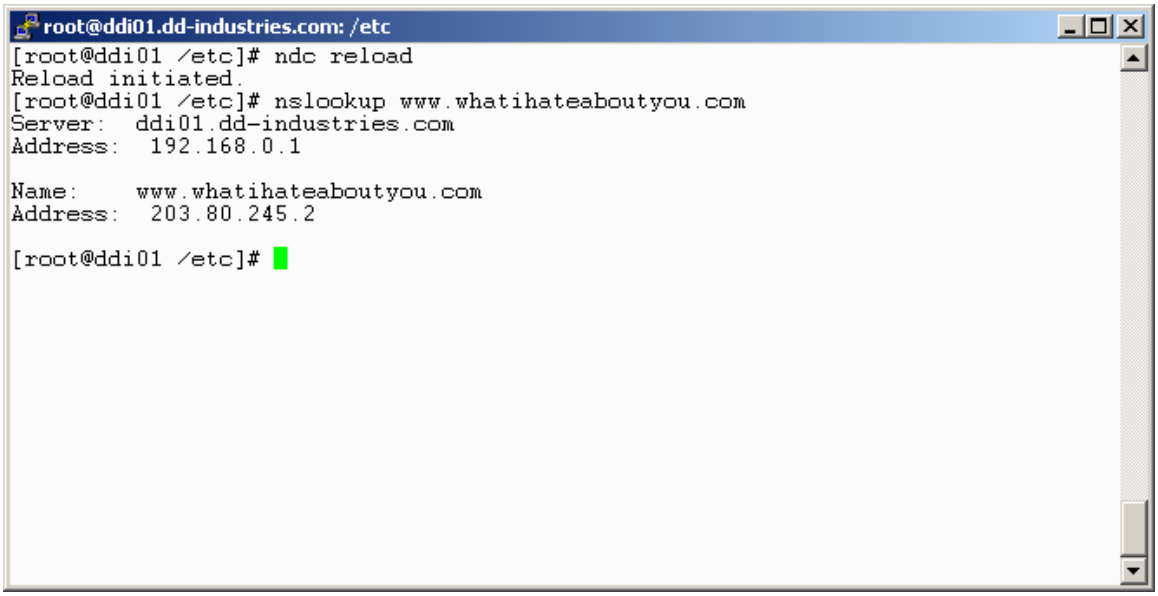
In the above example the **cat** command was used to output the contents of the authority for **whatihateaboutyou.com** to the screen. The file containing the authority for the domain is located at **/var/named/whatihateaboutyou.com**.

Authorities are complex documents. For more information about authorities, use **man named**.

Forcing named To Reload Its Data

Once the **/etc/resolv.conf** file and the **/var/named/whatihateaboutyou.com** file have been properly configured, the **named** daemon must be instructed to reload its configuration data.

Consider the following:



In the above example, the **ndc reload** command was issued to **named** to instruct it to reload its configuration, then the IP resolution for **www.whatihateaboutyou.com** was tested with the **nslookup** command, which consults **named** to resolve FQDN names to IP addresses.

The output of the **nslookup** command indicates (correctly) that the IP address of the Internet entity **www.whatihateaboutyou.com is 203.80.245.2**.

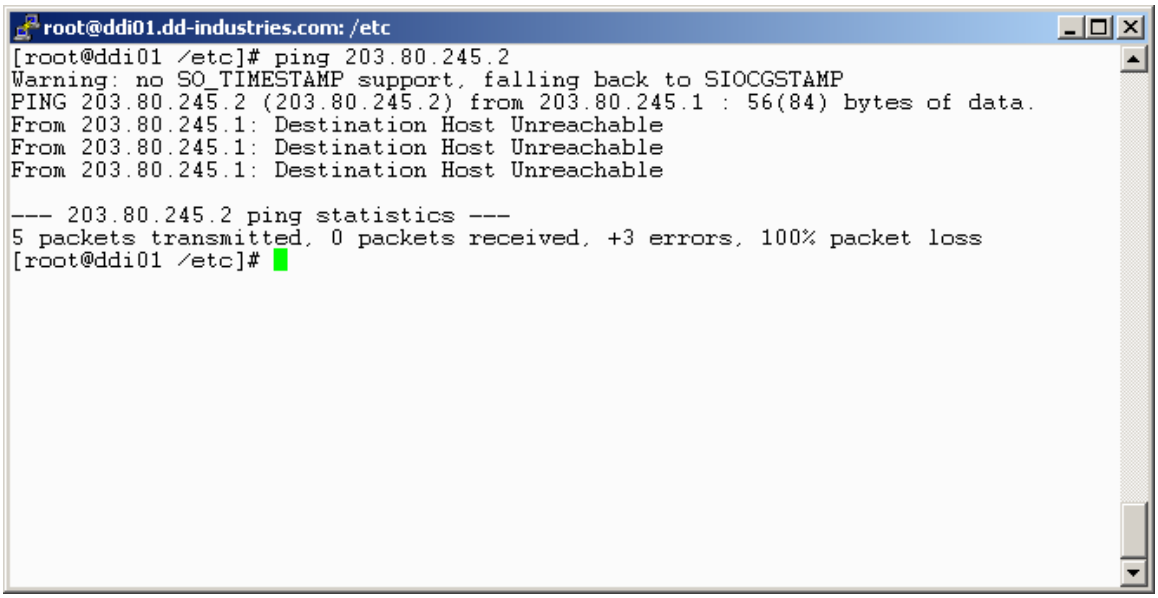
IP Address Provisioning

If the IP address assigned to the Internet entity is not already active on the Internet, it must be assigned to a physical host and that host configured to respond to that IP address.

Testing The IP Address

In our example, **www.whatihateaboutyou.com** has been assigned via DNS to the IP address **203.80.245.2**. It is prudent to test whether that IP address is currently active.

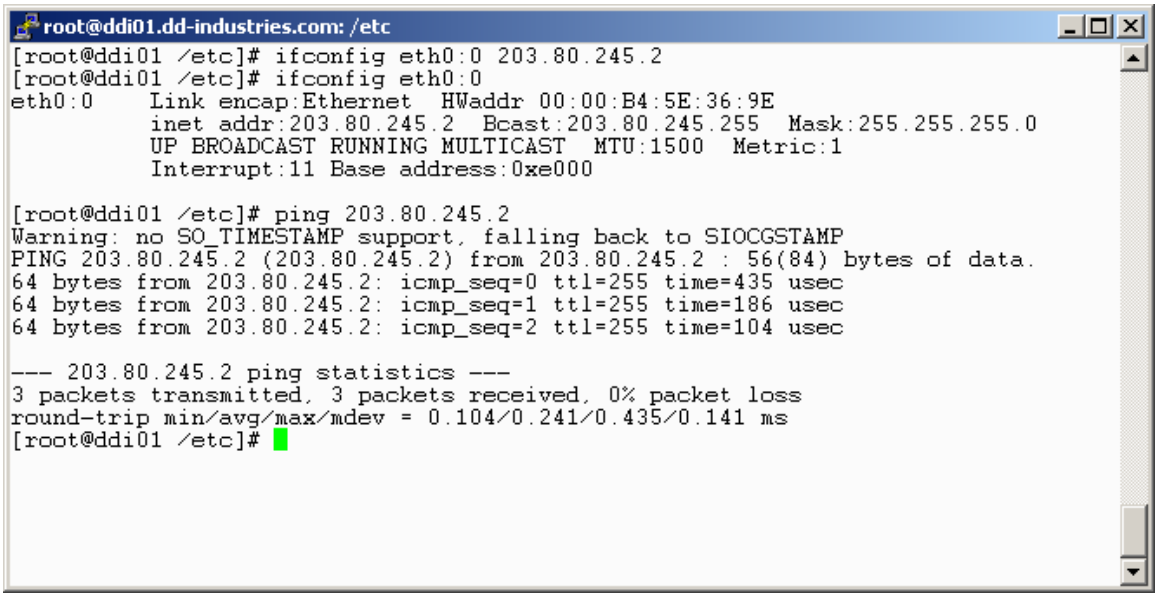
Consider the following:



In the above example the IP address 203.80.245.2 is demonstrated to be inactive.

Activating The IP Address

Consider the following:



In the example, the IP address **203.80.25.2** was assigned to the **eth0:0** interface of a host already connected to the Internet.

Full interface information was then obtained with the **ifconfig eth0:0** command and the functionality tested with the **ping 203.80.245.2** command.

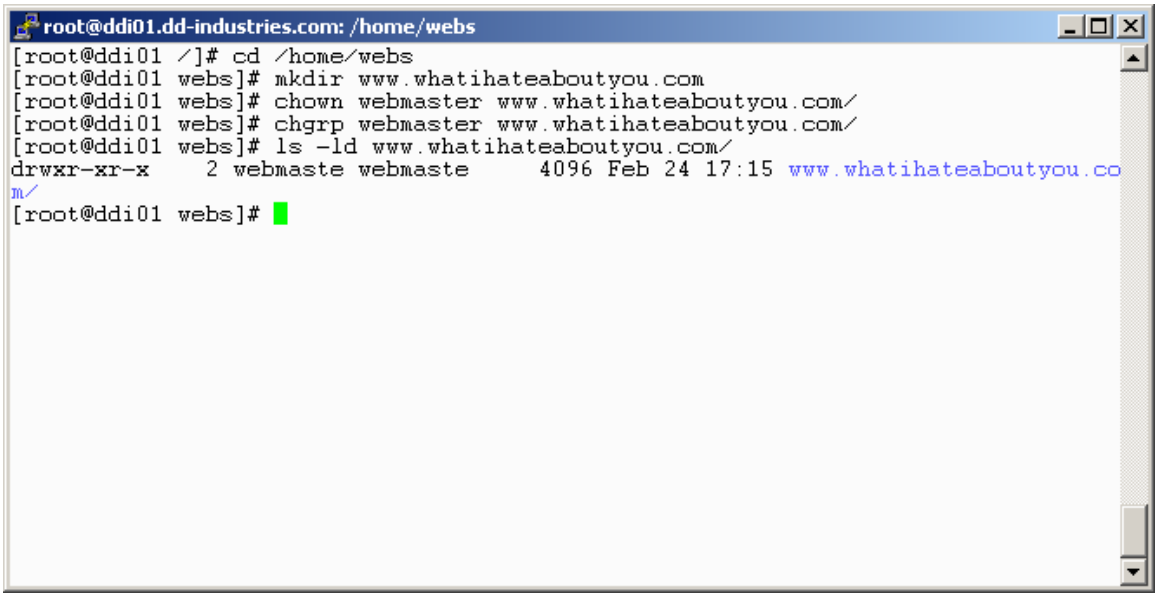
Website Directory Preparation

Websites are composed of files that a web server process (in this case **httpd**) reads and provides to inquiring web clients (also called **browsers**).

The Main Directory

A directory must be created on the hosting server to hold the content that will ultimately compose **www.whatihateaboutyou.com**.

Consider the following:



In the example, the **/home/webs/www.whatihateaboutyou.com** directory was created and assigned to the user **webmaster**.

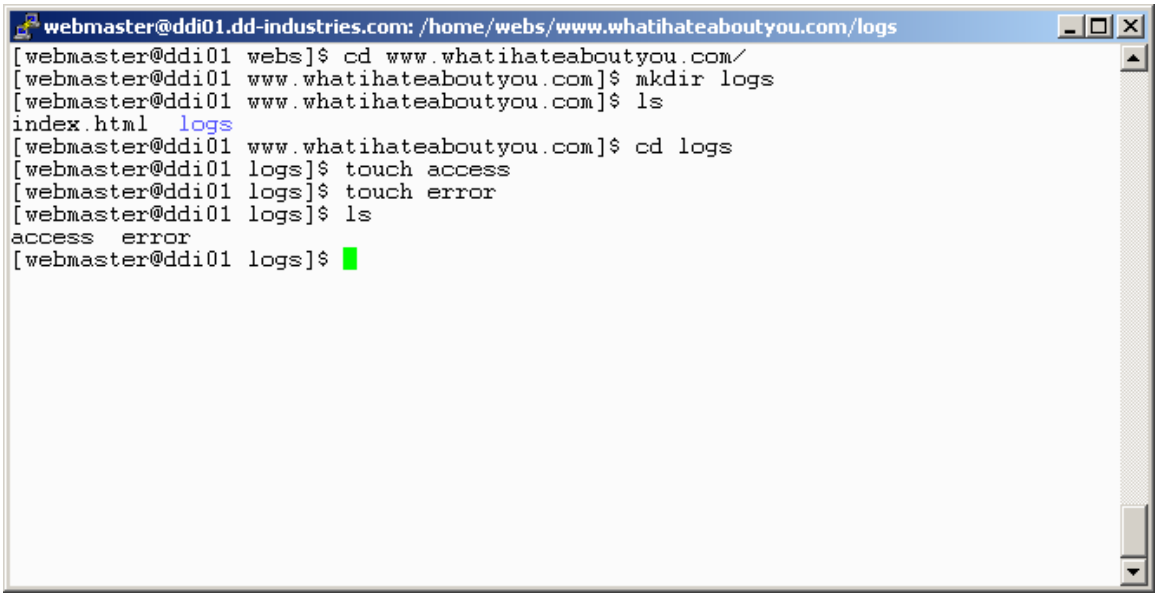
The “Coming Soon” Website

To properly test the website provisioning for **www.whatihateaboutyou.com**, a small “coming soon” web page will be installed in the directory to make sure that everything is working as it should be.

The logs Subdirectory

The webserver uses two special files, **access** and **error** for troubleshooting, tracking and auditing purposes. These files typically exist in the **logs** subdirectory. All must be created at this point.

Consider the following:



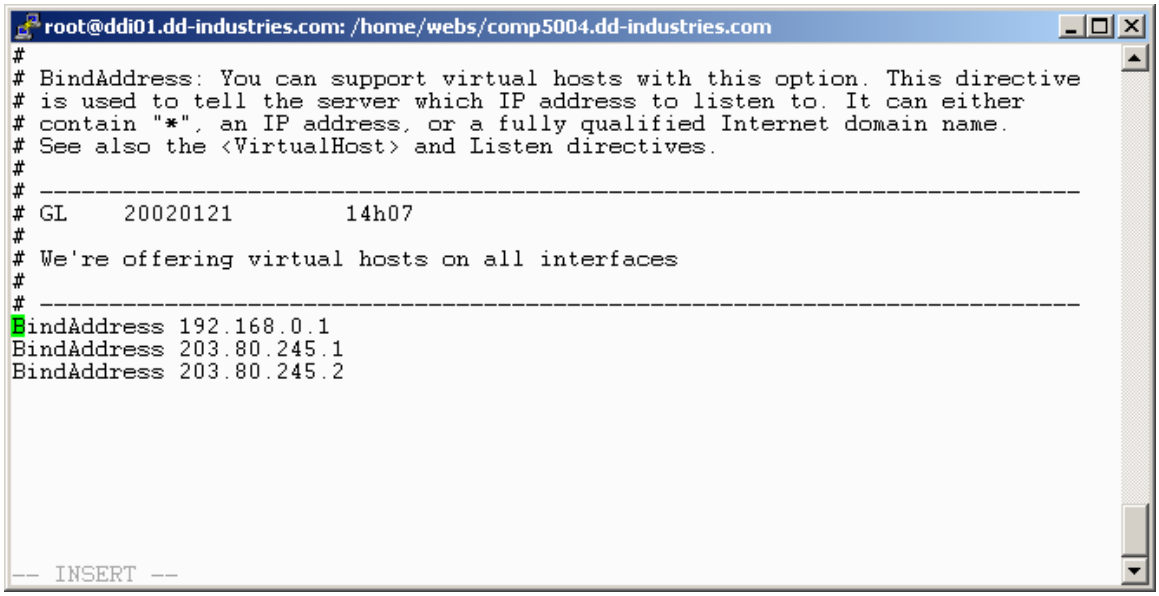
in the example the **logs** subdirectory was created and the files **access** and **error** created in that subdirectory.

Provisioning The Web Server

The IP Addresses Stanza

The BindAddress Directive

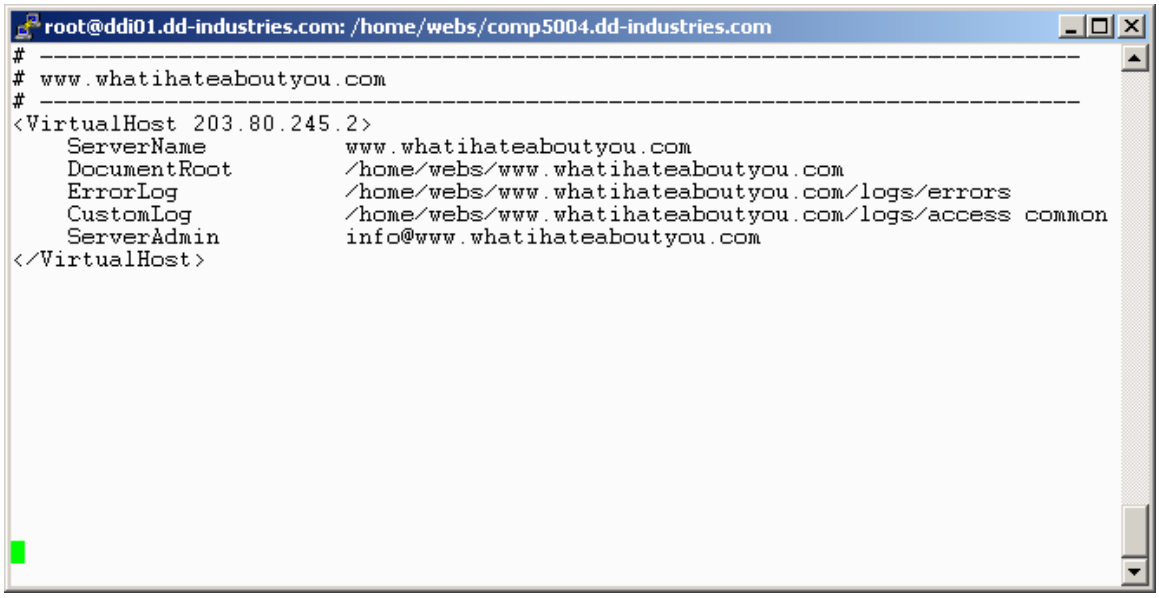
Consider the following:



In the example the **httpd** web server was made aware that it is to listen for incoming http requests for the IP address **203.80.245.2**.

The Web Site Stanza

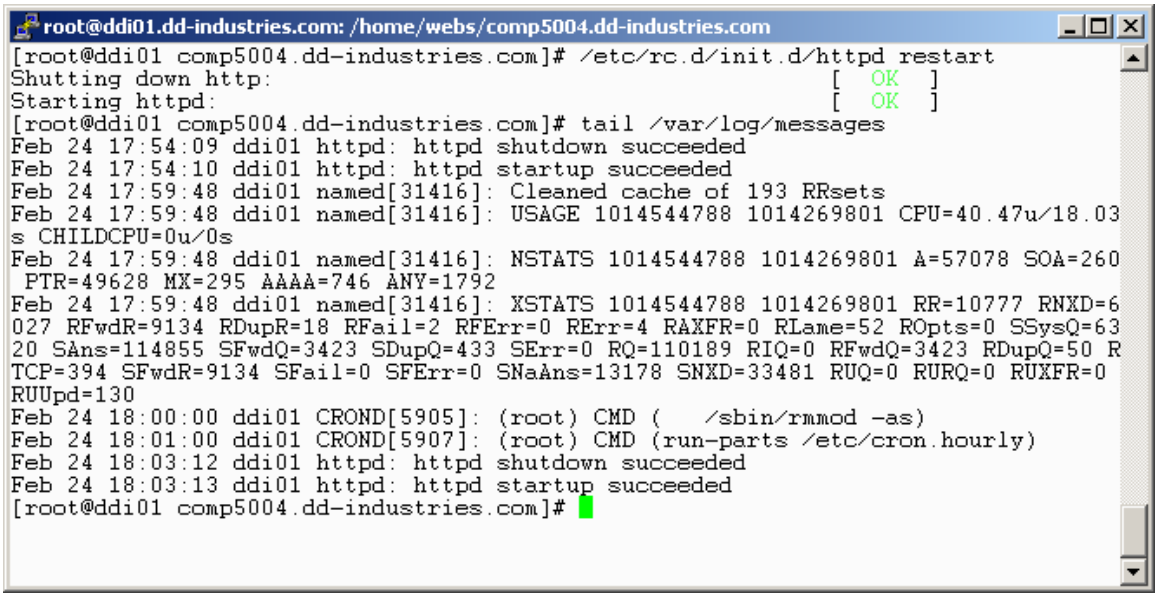
Consider the following:



in the example, a website entry has been added to **/etc/httpd/conf/httpd.conf** detailing the specifics for the website **www.whatihateaboutyou.com**.

Restarting the Apache

Consider the following:

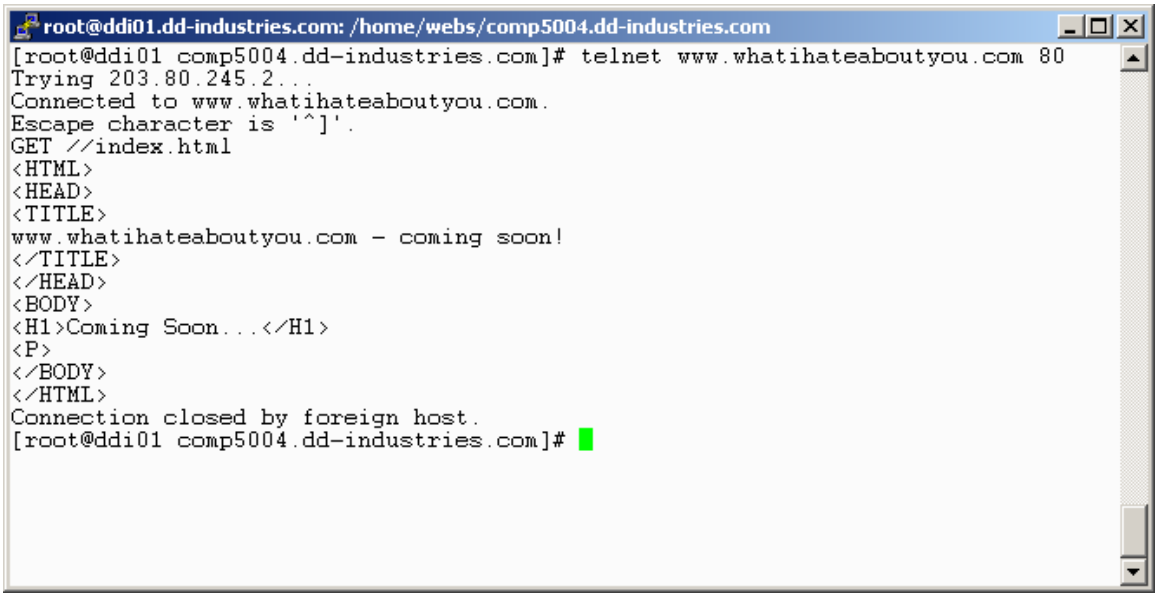


In the above example the Apache web server, **httpd**, was restarted and any possible error messages were looked for in the **/var/log/messages** logfile.

Testing The Result

Testing With Telnet

Consider the following:

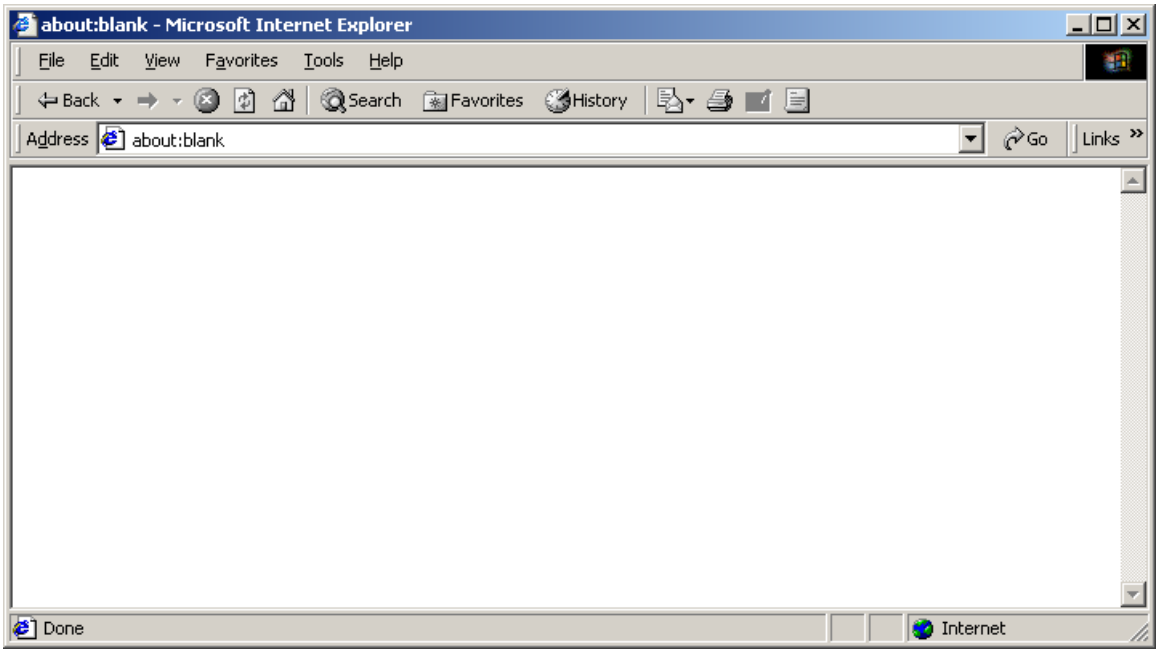


In the example the **telnet** command is being used to test whether the web server for **www.whatihateaboutyou.com** is working properly.

The response indicates that it is.

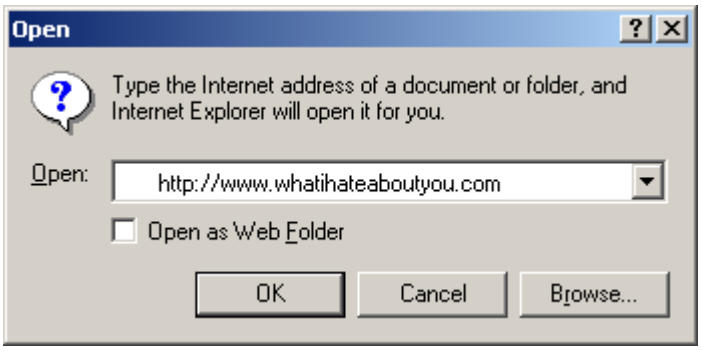
Testing With Internet Explorer

Consider the following:



In the example the **Internet Explorer** default page is displayed. Press **CTRL-O** to supply the FQDN of an Internet entity to browse.

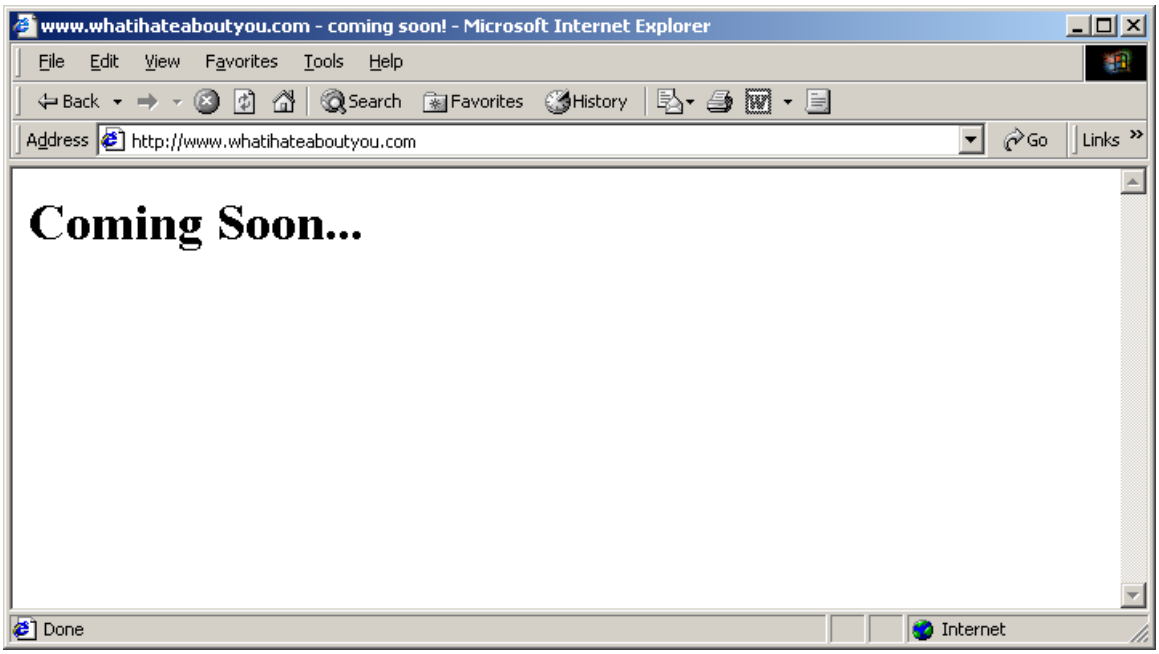
Consider the following:



In the example the FQDN **www.whatihateaboutyou.com** has been supplied as the Internet entity to be browsed by **Internet Explorer**.

The Running Website

Consider the following:



In the example the running web server can be seen to be operating.