VPN and Proxy Lab

Part I

- If you haven’t used your windows machine since the NAT lab, you will need to correctly configure its’ network settings so that it can reach the network. After it can successfully ping say 8.8.8.8, you can proceed with the remainder of this assignment.

- Begin by opening a command prompt and executing `tracert www.google.com`. Make a note of the first 2 or 3 hops. (This command is similar to the traceroute command in Linux)

- Connect your windows virtual client to a VPN server that I have set up.
  - See the instructions from microsoft here: [http://support.microsoft.com/kb/323415](http://support.microsoft.com/kb/323415)
  - Look under To Set Up a Client for VPN Access
  - You need to connect to `it2400vpn.cs.dixie.edu`

- You will have to double click on the new connection to enable it. **If you are having problems, open up your command line and see what your IP address is. If you are still using a private address from an earlier lab, go change your computer to one of your assigned IP addresses or to use DHCP.**

- When prompted to connect to the VPN, your username is `it2400`, `class123`

- Under domain you should input `it2400vpn` (if prompted)

- Now that you are hopefully connected to the VPN, re-issue your `tracert www.google.com` command. Your first HOP should be something like 192.168.y.x (this is a virtual interface at your end of the VPN tunnel). As long as your first address is not in the 144.38.x.x network, you are doing it right. Take a print screen showing that this is the case along with the output of `ipconfig`. If you are not, go back and fix it.

  *Pause and think* Why did those hops change?

Part II

- You can read in your book about what a proxy does. For this part of your task, I have already set up a proxy for you to use. Once again, this part of the assignment does need to be done from on campus from any browser you would like, I am going to provide instructions for how to accomplish it using Firefox. Make sure that after you are done with the assignment, you change your settings back. If you want to make sure that this doesn’t hurt anything that is important, do it on your VM using Firefox. Once again, the proxy is only available from within the CIT network.

- Open Firefox, click on Edit . Preferences ->Advanced , click on the Network tab under advanced. Click on settings (for how Firefox connects to the Internet). Click ‘Manual Proxy Configuration’, for the HTTP proxy input `it2400vpn.cs.dixie.edu` port is 8080. Click OK, close the settings box. Firefox is now configured to use a proxy. (If this doesn’t work, make sure you are on a computer that is within the CIT domain)

- **With the proxy in place, try the following: (take screenshot of each)**
  - Search for any URL with the word ‘cooking’ in it. What happens?
  - Go to apple.com, what happens?
  - Go to [http://cit.dixie.edu/courses/](http://cit.dixie.edu/courses/), do you notice anything strange? What it is it? How do you suppose it is done? You may have to visit the page, without the proxy if you don’t see anything strange.
  - Sheesh, can you actually get to any site? See if you can identify a site that you can get to.

- **What would a proxy be used for? Is this the same as a firewall?**

**To pass off**

You should submit a single document with the above answers and/or print screens.