

## CSCI 530 Lab 6

### Firewalls

Date Assigned: 2/23

Date Due: 3/5

#### **Overview:**

In this lab, students will familiarize themselves with firewalls. Specifically, they will learn how to use a common windows firewall building tool called VisNetic and how to deploy it within a windows environment. Additionally, they will learn what rules should be deployed within a machine to protect it to protect it properly.

#### **Instructions:**

1. Download VisNetic at [www.deerfield.com/download/visnetic-firewall/](http://www.deerfield.com/download/visnetic-firewall/)
  - a. Select proceed to download.
  - b. Select Save executable to desktop.
  - c. Launch vfsetup.exe that is located on your desktop.
  - d. Click next on the first pop up screen.
  - e. Agree to the Licensing Agreement
  - f. Now it is going to ask you for a name, company and registration key
    - i. Enter your name in Name
    - ii. Enter ITP for company
    - iii. Leave registration key blank
  - g. Click next.
  - h. A window will pop up asking you for a registration key.
    - i. Select 30 day trial **workstation** version
    - ii. Then click OK.
  - i. Next window, the installation folder window, just click next.
  - j. For short cut window just click next.
  - k. Finally click install.
  
2. In the Configuration Wizard:
  - a. When it asks "How do you want to configure VisNetic Firewall?"
    - i. Select "I will make the rule set myself after the firewall is installed".
  - b. When it asks "Since you are starting with no rules, do you want to block traffick?"
    - i. Select Allow Traffic
  - c. When it asks "Do you want to enable remote administration?"
    - i. Select NO
  - d. When it asks "Start automatically when the computer starts?"
    - i. Select YES

- e. When it asks “Block or allow communication when your firewall is not running?”
      - i. Select Allow
    - f. Click Finish
    - g. Now check the box saying restart my computer now.
    - h. Then click finish
    - i. The computer will now restart if it doesn’t restart it.
3. You will see now that VisNetic is now running in the background from the icon in the bottom right corner of the tool bar.
  - a. The icon should read VisNetic Firewall: Allow All
4. Next double click on the icon to open up the controls for VisNetic.
  - a. Next within the controls menu for VisNetic Firewall
    - i. Select in the tree on the left hand side Network Adapters and expand it.
    - ii. You should see several network adapters
    - iii. Expand the one that says Local Area Connection
    - iv. Under Local Area Connection
      1. Select Rules
      2. Right Click on Rules and select import rules
      3. Import StandardRules.RLS
    - v. You will now see multiple rules created in the right hand box. You can now click on the headers UDP, ICMP, ARP to view more of the rules for different packet types.
  - b. Write down the Action, Description and Definition of all the rules in TCP and UDP. (For questions later)
  - c. Next right click on the icon in the bottom right corner for VisNetic and switch the firewall from Allow All Traffic to Filter.
  - d. The firewall is now installed and filtering the information.
5. Write down the 5 headers of the window on the right side of the VisNetic window. Hint: First one starts with TCP
  - a. What is the significance of all these headers? Explain each? (Include in report.)
6. Now quickly see how you can view and alter a rule. Go to the TCP header click on rule # 3 Block fileshares and printshares.
  - a. Right Click on the rule go to edit
  - b. Now you can see the make up of the specific rule.
  - c. Go to the Tab Actions
    - i. Under actions switch the filtering from its current setting block to allow.
    - ii. Click OK
  - d. You will see now that the rule has been changed. You can see with this tool it is extremely to make, manage and alter rules for a specific system.

7. Uninstall the firewall for the next class. You will not get credit for the lab if you do not uninstall the firewall program.
  - a. Go to the bottom right hand corner of the windows screen and shut down the firewall.
  - b. Next go to start -> control panel
  - c. Go to Add Remove Programs
  - d. Click on Deerfield.com VisNetic Firewall 2.3
    - i. Click on Change/Remove
  - e. Click yes when it asks are you sure you want to remove the firewall
  - f. Click yes to all for removing all files
  - g. Click no for rebooting after uninstall

***Assignment:***

Perform the lab and answer any questions asked in the lab and include them with these questions below:

1. What is a port and how many ports does Windows have?
2. Why are firewalls important and where would they be placed within a large network?
3. In a short paragraph explain two rules made under both tab headers: TCP and UDP headers? ie. What is their significance, why are they considered a standard rule?