Lab 5 – Host to Network (Roadwarrior) IPSEC VPN

Overview

In this lab we will practice configuring a basic pfSense firewall to allow for another host to connect to the network behind it using an IPSEC host-to-network ("Roadwarrior") VPN. **This must be done using the vSphere environment.**

This lab must be completed online, with all work being done and written as it is done into Word 365 Online.Use the Lab Book Template and upload to your Word 365 Online and begin working there. You must also sharean edit link from Word 365 Online in the comments of the assignment document submission (export a PDF and upload it to eConestoga). Not following these instructions and showing ongoing work through the change revisions tracked in the online Word mean a score of zero on the lab.

Preparation

- Familiarize yourself with class work done introducing the use of vSphere and pfSense

Deliverables

- Configure an existing pfSense firewall (or create if not existing) that following the naming standard of 8580-<id>hostname, where hostname is a sensible hostname for a firewall.
    - Use your _01 networks for the WAN adapter, giving each an appropriate and available IP address on your assigned 10.0.0.0/8 network that routes and connects to the internet as perthe documentation on eConestoga.
    - Use your _02 network for the LAN network for fw01, and _03 network for LAN network for fw02
    - Assign the LAN a /24 network from 192.168.0.0/16 private address space
    - Connect a host (such as your home computer, or create a Windows 10 machine on your _01 network) to your pfSense firewall through a host-to-network "roadwarrior" VPN using the following instructions as your guide:
        - https://docs.netgate.com/pfsense/en/latest/recipes/ipsec-mobile-ikev2-eap-mschapv2.html
        - Test it is working for communication between network using a method of your choice that does not involve dropping or turning off firewalls

Screenshots

- Appropriate screenshots that demonstrate the above was done and all is working

Reflection

- Record any of your own observations, solutions, or comments about the work you did. What problems did you have, what was not clear, what did you take away that you value? Explain yourconfiguration choices. This is mandatory. You may refer back to your observations section of your lab book in answering this question.
- What security benefit can this provide and what are the limitations/risks - be specific as to what and why/how.