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**Lab Name:** Systems Administration: Cyber Defense Edition

**Documentation of Steps:**

* *show vpn ipsec site-to-site* **(to see current configuration for each site-to-site vpn)**
  + **note the local prefix for each site-to-site tunnel (192.168.100.0/24)**
  + **compare to the network topology with local prefix of 192.168.10.0/24**
* *set vpn ipsec site-to-site peer 172.31.2.5 tunnel 1 local prefix 192.168.10.0/24*
  + **set’s the local prefix for the site-to-site tunnel between the MSP and centipede network to the correct local prefix**
* *set vpn ipsec site-to-site peer 172.31.2.2 tunnel 1 local prefix 192.168.10.0/24*
  + **set’s the local prefix for the site-to-site tunnel between the firewall and centipede network to the correct local prefix**
* *commit*
  + **commits the above changes**
* *save*
  + **saves the above changes**
* *exit*
  + **exits config mode**
* *restart vpn*
  + **restarts the vpn service**

**Screenshots (2-6) with Description:**

Text

Description automatically generated

This screenshot shows the initial status of the ipsec security associations between MSP and centipede and firewall and centipede.



This is the update command used to update the local prefix for tunnel 1 on site-to-site peer 172.31.2.2.

Text

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These are the configuration files of peer 172.31.2.2 and peer 172.31.2.5 after all appropriate changes were made and the nice lab check was passing.

**What I Learned:**

In doing this lab I learned a little more about the inner workings of ipsec vpns and how to navigate a new router console (vyOS).

My experience with configuring VPNs has been limited to copying vpn server config files to my local machine so that I can connect and writing a few custom Linux scripts to automate connection to VPNs when I was working remotely. In completing this lab I learned more about the 2 phases of ipsec VPNs (IKE and IPSec) in particular and how to troubleshoot them from a vyOS console.

I also learned how to use the vyOS console. Though it is similar to Cisco’s IoS, the commands are not exactly the same, and as Professor McEwen’s video pointed out, there are additional requirements with vyOS like committing, saving, and restarting of services that I would not have intuitively picked up on based solely on my experience with Cisco devices.