

**Basics:**

1. Implementing firewall rules using default system firewall to block incoming and outgoing telnet services.
2. Implementing firewall rules using default system firewall to block browsing of facebook.com
3. Using SSH tunneling evade the above firewall to open telnet connection.
  - a. Evade the firewall to access telnet services using SSH tunneling using destination IP address.
  - b. Evade the firewall to access http services using SSH tunneling **without** using destination IP address.
4. Implement a web proxy using squid services.
5. Evading firewall using squid as web proxy.

**Challenge:**

Dr.House is snobbish and does not respect the rules of his organization. He fails to obey the rules and blocks any incoming and outgoing telnet traffic to his system. The helpless Dr.Cuddy, Dr.House's employer, put in incharge of restricting Dr.House's web browsing activity by redirecting the sites to the web proxy of the organization. Install a web proxy on Dr.Cuddy's system; break into Dr.House's system and change the firefox.cfg (House is loyal to firefox) to set up a redirection to Dr.Cuddy's web proxy server. Don't forget to lock the settings, for Dr.House may try to change it.

Can you ensure that Dr.House sees only the organization webpage whenever he visits any URL?

**Hint:** nmap is your friend.

**Note :** Please use the given VM as Dr. House's machine. Please download the VM from the given link [https://drive.google.com/open?id=1xe25XUm3RKCEGCBP\\_g1r4MhqPCsxdDxk](https://drive.google.com/open?id=1xe25XUm3RKCEGCBP_g1r4MhqPCsxdDxk) Also Dr. Caddy doesn't have the sudo access to Dr. House's machine.

**Submission :** The team is supposed to submit a thorough report containing all the steps and commands followed to achieve the basics as well as the challenge. Also provide details of the mechanism used to break into Dr. House's system as well as the redirection mechanism opted. Please provide video recording to demonstrate how you accomplished the challenge.