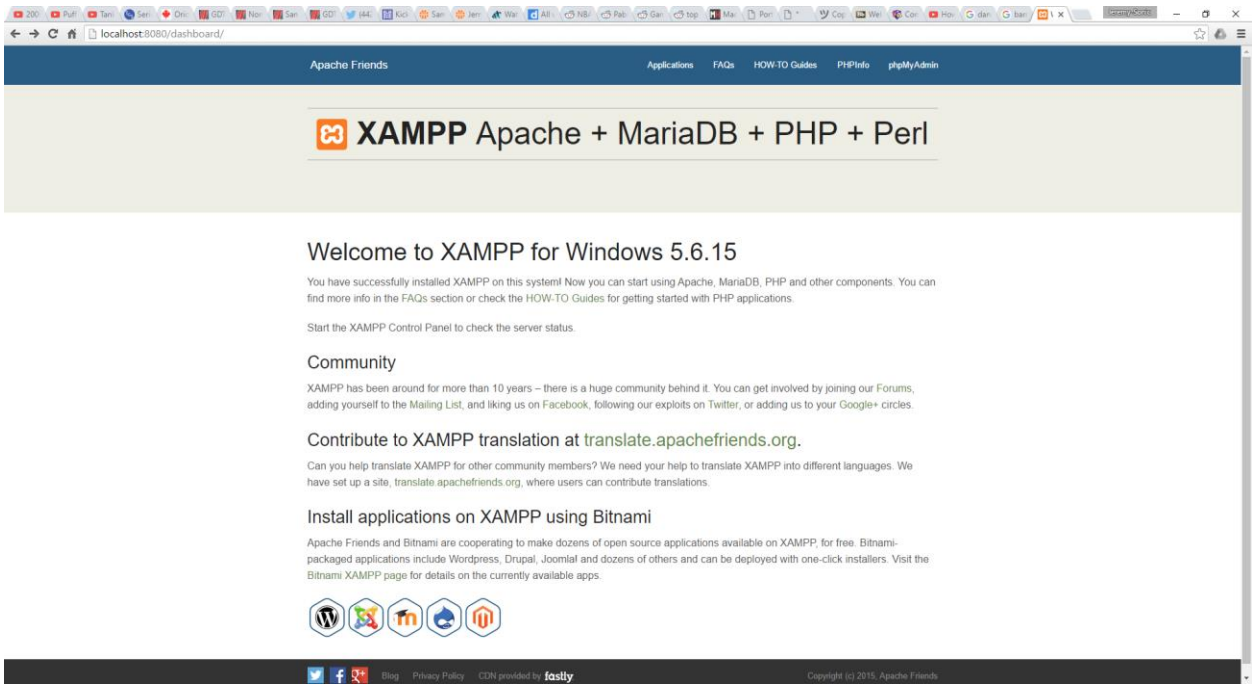
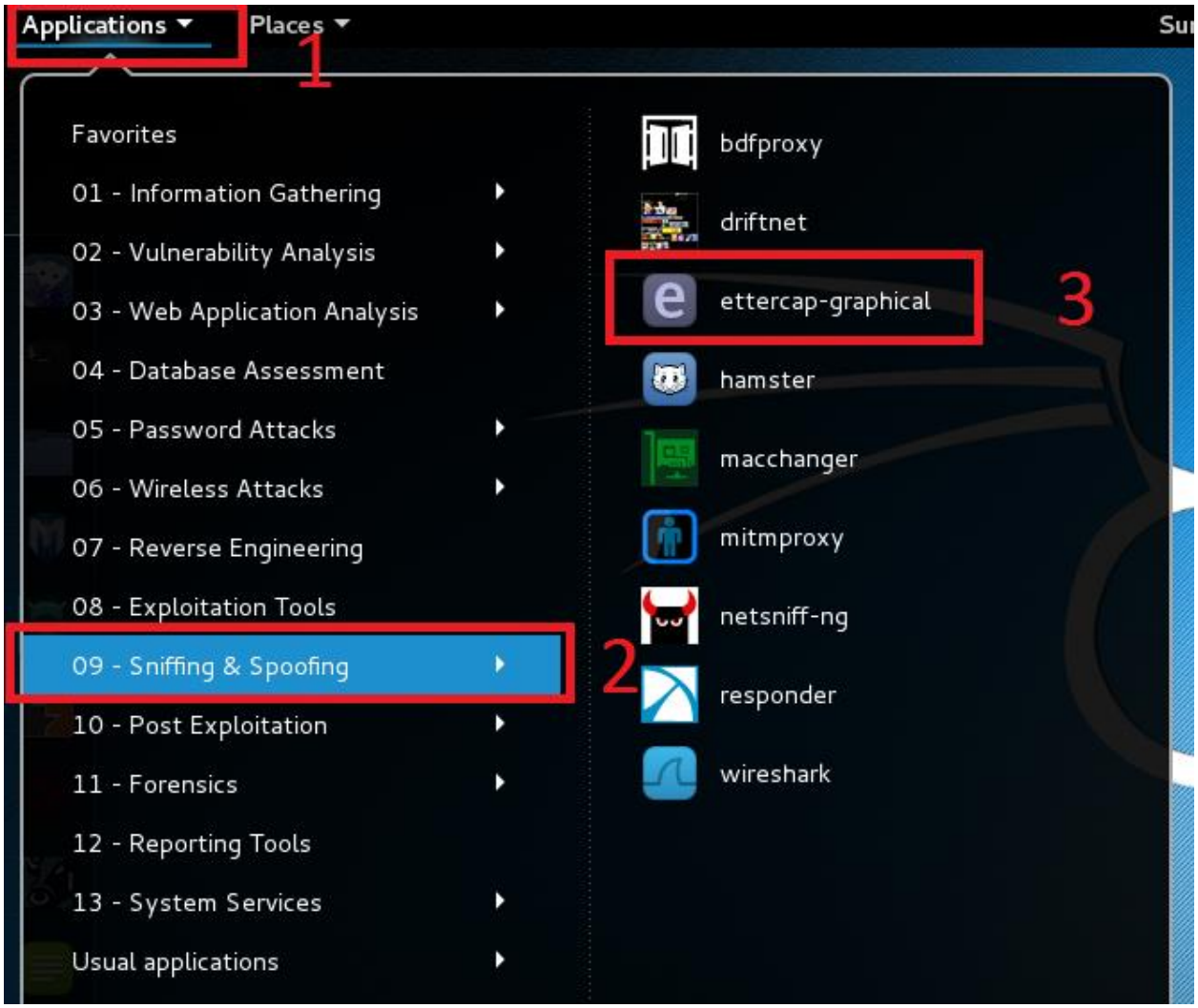
ARP Poisoning

By: Christian Pervan

1. Open three virtual machines : In this tutorial, you shall require a Kali 2.0 VM (we'll call this VM1), and two more VM's running operating systems Windows 7/8/8.1/10 (VM2 and VM3)
2. On all 3 virtual machines, go to settings and make sure that the network adapter is set to **NAT**. **This is important, you cannot set it to bridge or host only, it must be NAT. This is for all 3 machines.**
3. On VM1, open terminal and run "ifconfig". On VM2 and VM3, open up cmd and run "ipconfig". Take note of your IP address and MAC address on each of the respective machines.
4. On VM3, go on the Internet and download a windows application XAMP. Download version "7.0.4 / PHP 7.0.4" under XAMPP for Windows on this page: https://www.apachefriends.org/download.html
5. Install XAMP using the downloaded installer file. Don not change any settings or check/uncheck any boxes. Just keep pressing "next" until you finish.
6. Once done installation, run XAMPP Control Panel on VM3. Once the main window pops up, start the Apache server by pressing he Start button on the Apache module row.
7. To test the server, go on the internet on VM2 and type in http://<insert VM3 IP here>. It should display a generic welcome page that looks like the following:

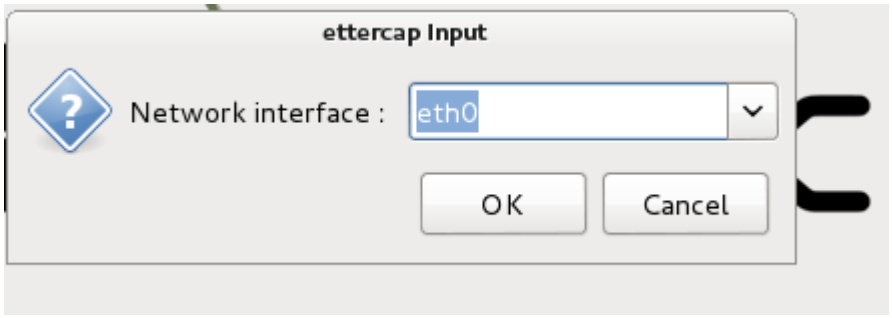


8. If successful, now go to VM1 (reminder – the one running Kali Linux 2.0. Arnold's should have the credentials root/toor). Go to applications and select "Applications > 09 – Sniffing & Spoofing > ettercap-graphical"

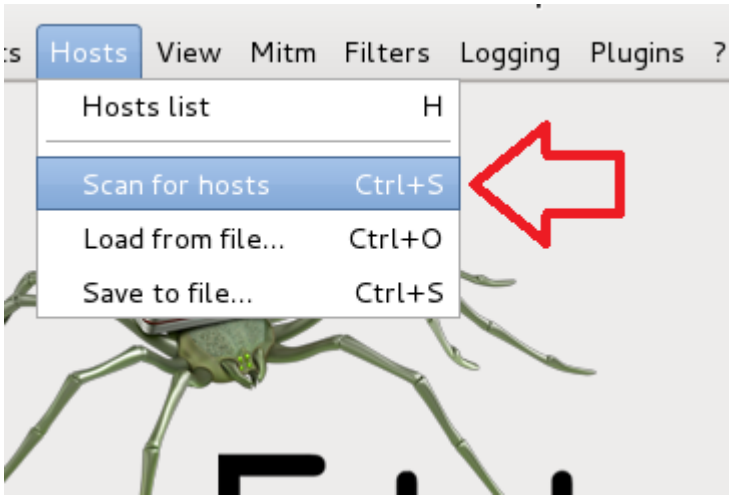


9. Go to Sniff > Unified Sniffing OR Pres Shift+U

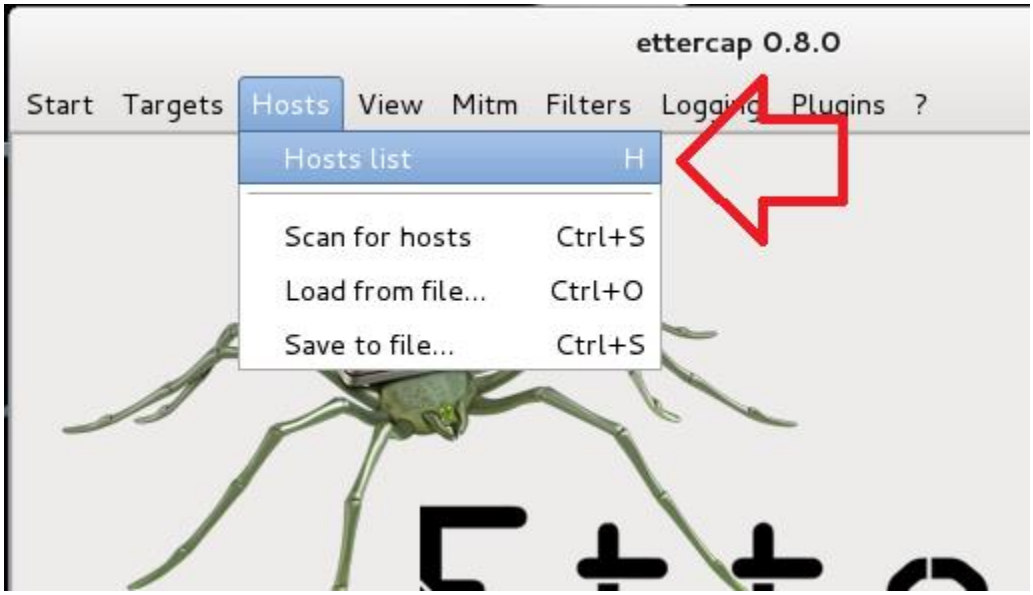
10. Select interface eth0



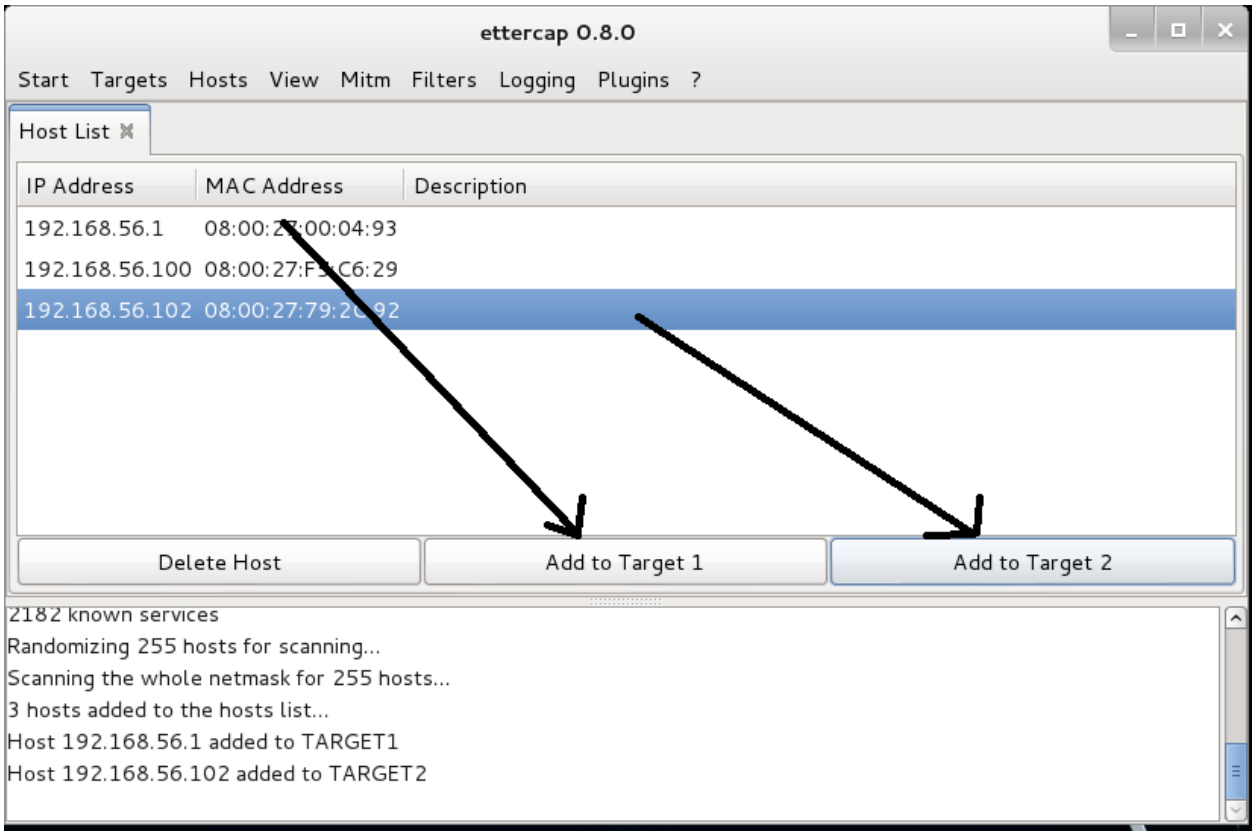
11. Click Hosts > Scan for hosts



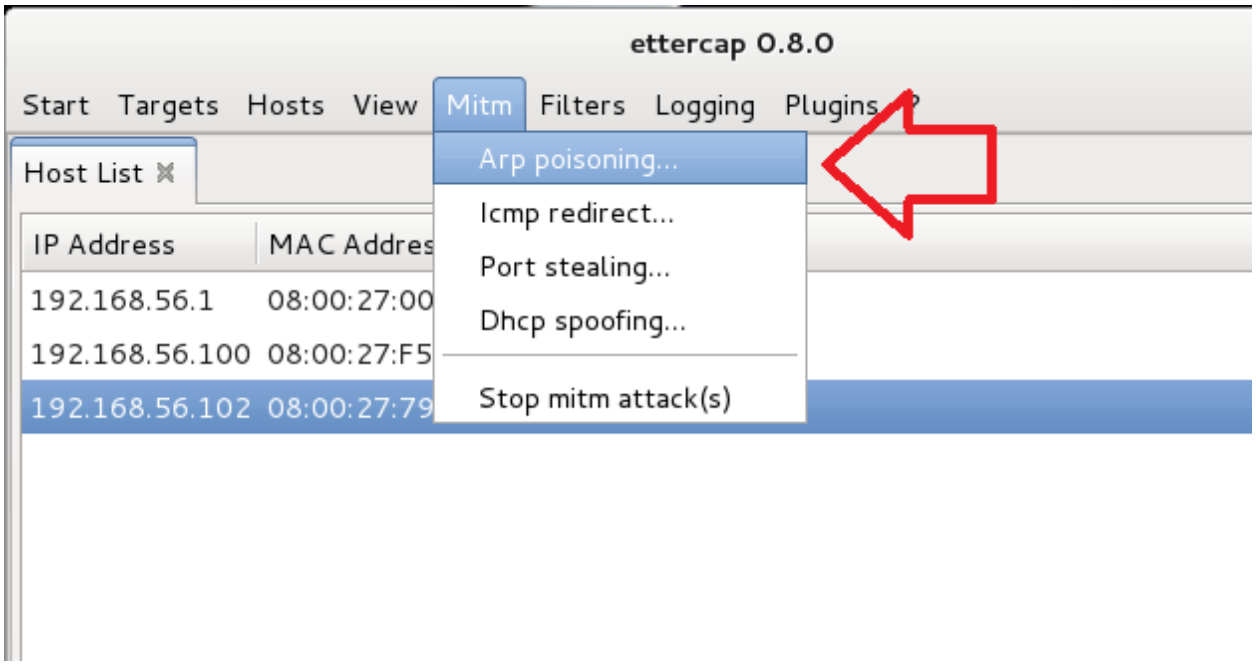
12. Click Hosts > Hosts List



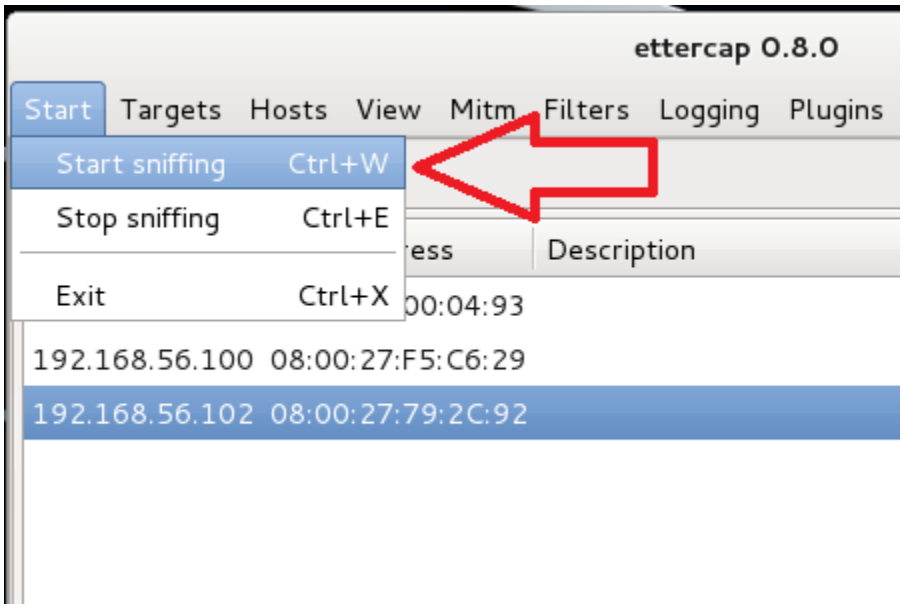
13. From the new tab that appeared, you will see a list of IP's. Add the IP of VM3 to target #1 and add the IP of VM2 to target #2.



14. Go to Mitm > Arp Poisoning. In the pop up window that appears, **only check "sniff remote connections"** and press OK.



15. Click on Start > Start Sniffing



16. Now go to “Applications > 09 – Sniffing & Spoofing > wireshark”
17. Select eth0 and start scan
18. Now type in “arp” in the filters to only retrieve arp messages. Take note of the MAC addresses compared to the IP’s. Also take note of the frequency of said messages
19. Now go to VM2 and repeat Step 7
20. Go back to VM1 and now type in a filter “ip.src==<VM2 IP>&&http” to get all http requests to server. You should notice there being 2 HTTP requests sent from VM2 to

VM3. However, take note of the MAC addresses. One of the requests should go from VM2 to VM1 and the next should go to from VM1 to VM3. If this is the case, you know we see a successful ARP poisoning.

21. Repeat step 20, just flip make VM3 the source IP and analyze all HTTP responses outgoing from the server. Similar idea, there should be two – one going from VM3 to VM1 and another going from VM1 to VM2, but both in the name of VM3 to VM2 in the sniffed packets frame.
22. Congrats, you now know how to successfully ARP poison!