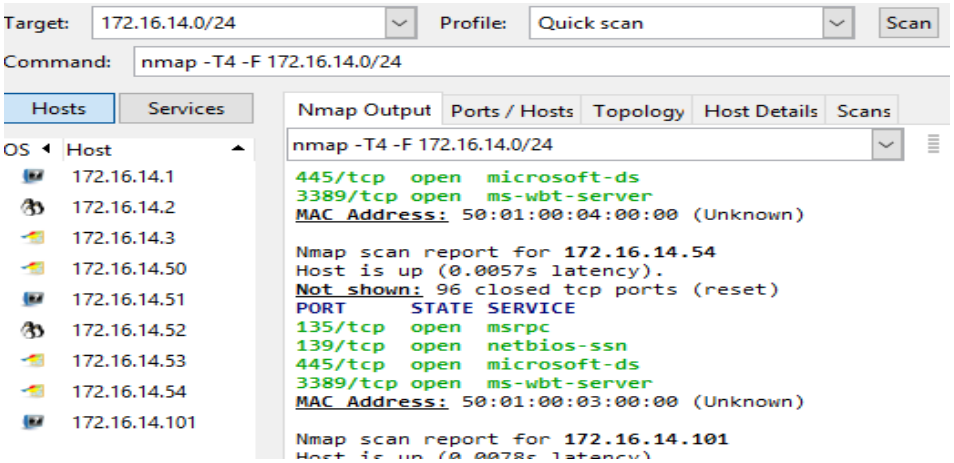
Network Administration Project
Date: July 3rd, 2030

1. Following end point devices are connected to the network 172.16.14 0/24

a. Windows1 at 172.16.14.50
b. Windows2 at 172.16.14.54
c. KaliOpenVas, Linux machine at 172.16.14.51
d. Linux machine at 172.16.14.52
e. Windows Server at 172.16.14.53

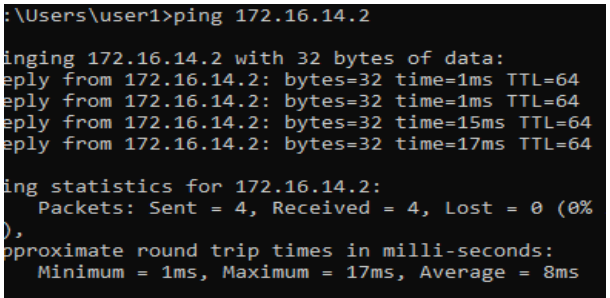
A quick scan of the network 172.16.14.0/24 with Zen map reveals additional information as follows:

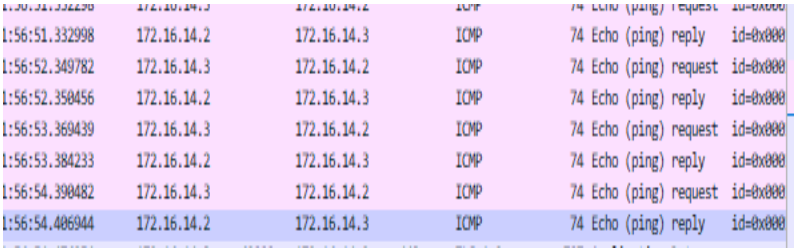


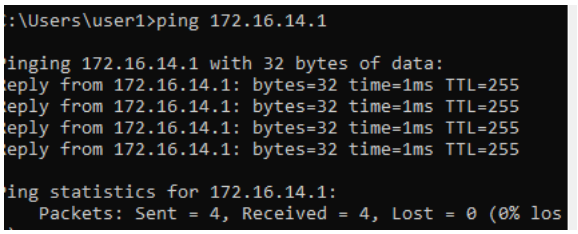
a. Network Gateway at 172.16.14.1
b. EVE server at 172.16.1 4.2
c. Jump Host (launch for EVE) at 172.16.14.3
d. Unidentified IP not part of the network at 172.16.14.101

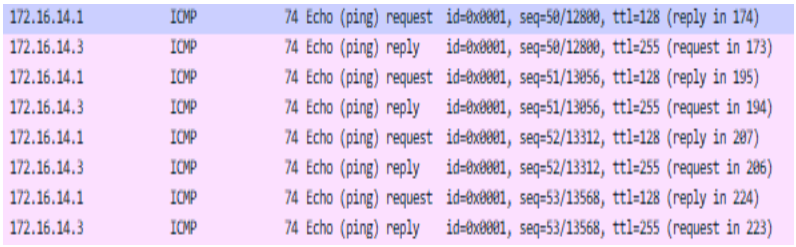
3. When using Wireshark and command prompt on Jump host each machine is pinged, following results are obtained:

a. EVE server at 172.16.14.2 and Jumpshot at 172.16.14.3 are shown to respond to the ping. Ping is a connection less ICMP protocol. Screen shot below shows below shows the time, source, destination and the protocol used. Source port and destination port are not shown because ICMP exist on the network layer and has no concept of ports.

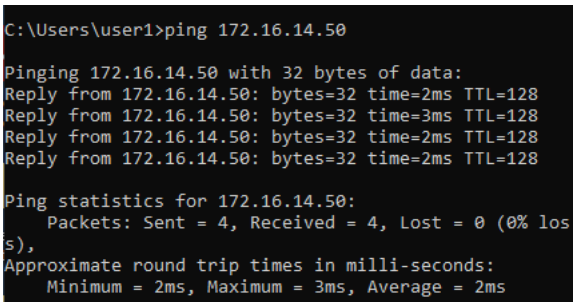


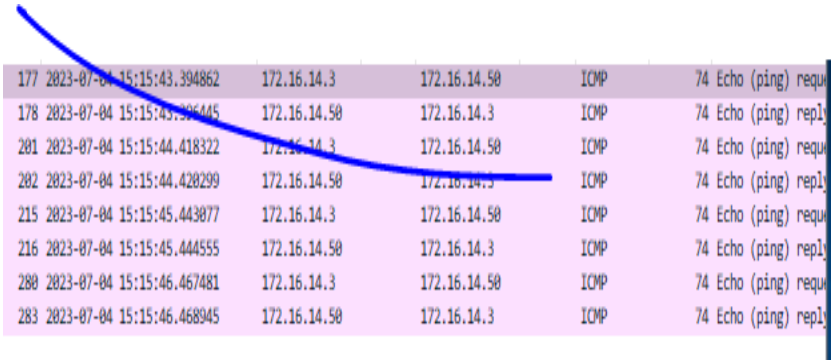




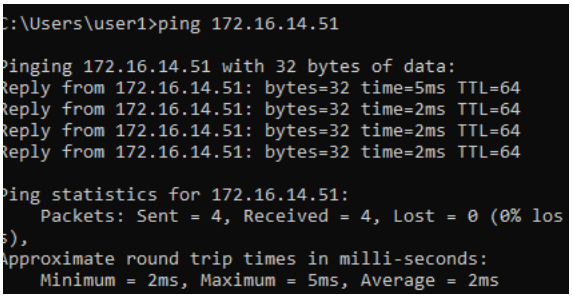


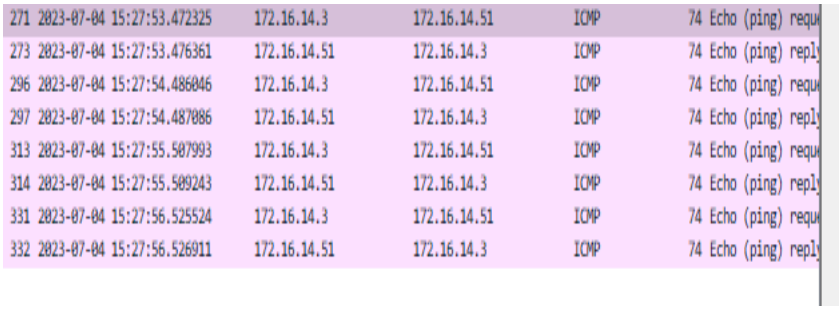
b. Similar results are seen when Gateway router is pinged at 172.16.14.1. Both the router and Jumpshot respond to the ping.





c. Screenshot shown above show results when Windows 1 machine is pinged





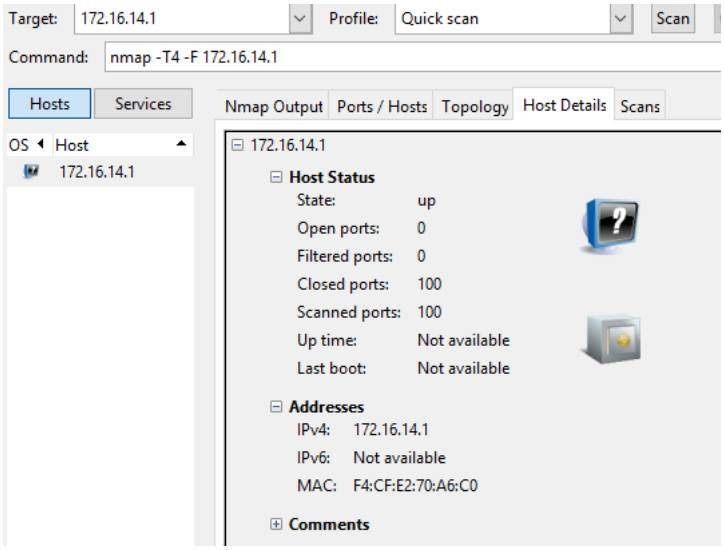
d. Screenshot above shows results obtained when Kali machine is pinged at 172.16.14.51. Similar results are seen when Windows server and Linux machine are pinged at 172.16.14.53 & 172.16.14.52 respectively.

5. Zemap of the network at 172.16.14.0/24 as shown in part 1 shows following devices on the network:

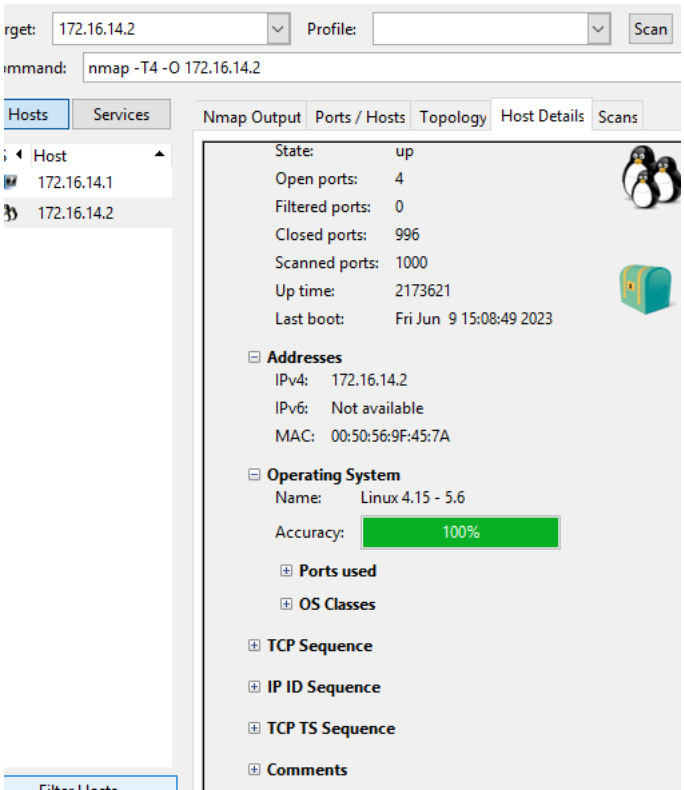
a. Network Gateway at 172.16.14.1
b. EVE server at 172.16.1 4.2
c. Jump Host (launch for EVE) at 172.16.14.3
d. Windows1 at 172.16.14.50

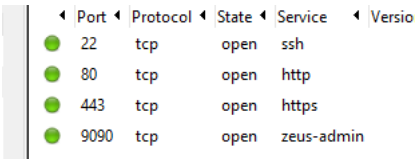
e. Windows2 at 172.16.14.54
f. KaliOpenVas, Linux machine at 172.16.14.51
g. Linux machine at 172.16.14.52
h. Windows Server at 172.16.14.53
I. Unidentified IP not part of the network at 172.16.14.101

An Zenmap scan of Gateway rudder at 172.16.14.1 shows following information. Device' MAC address is shown and it has no open ports.

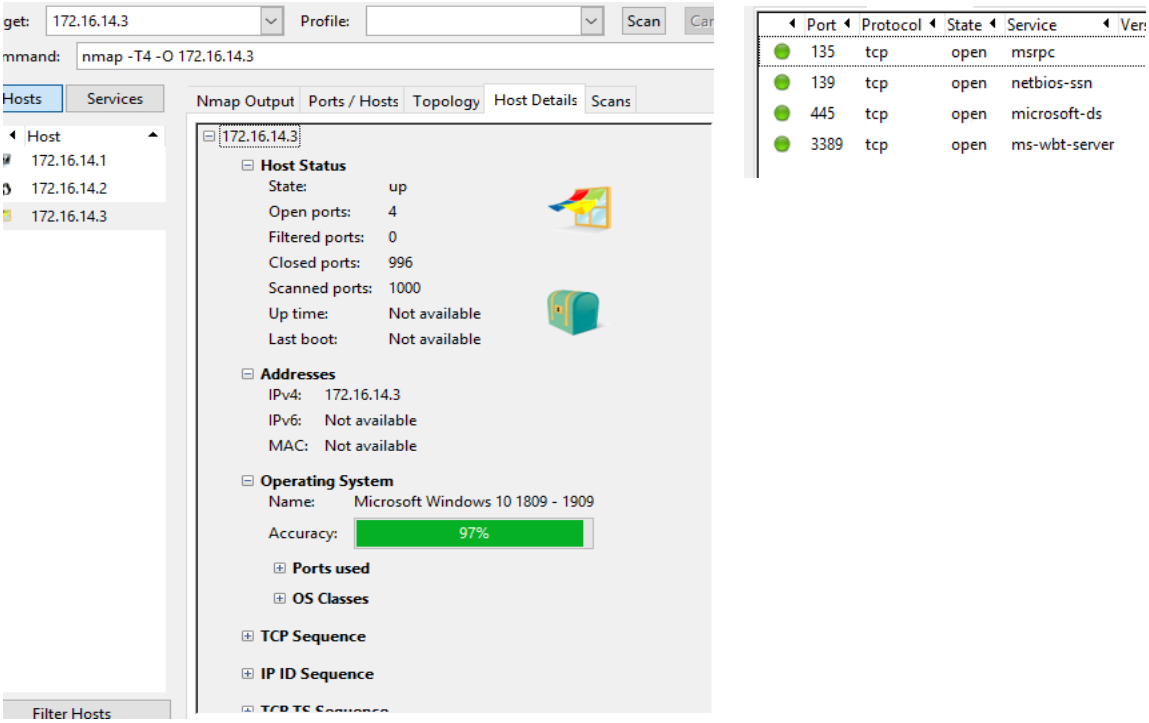


Scan of EVE server at 172.16.14.2 shows its running Linux 4.15-5.6 and it has four open ports.

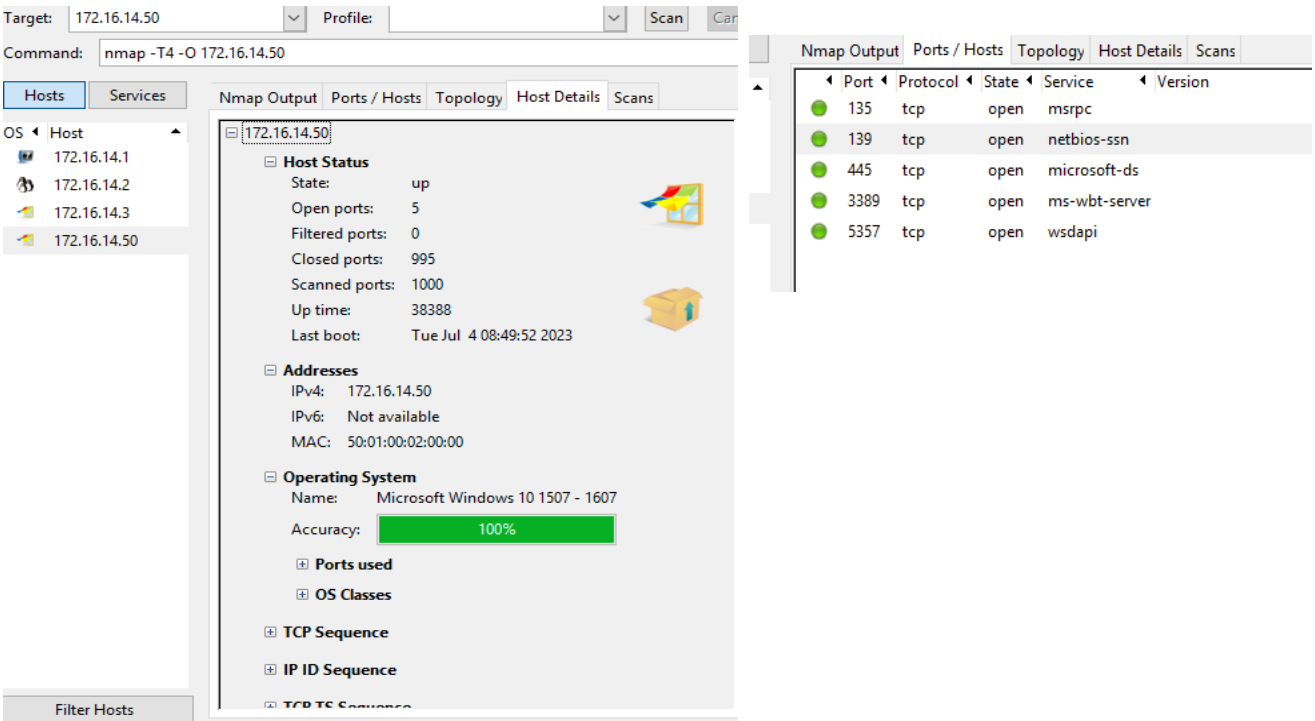




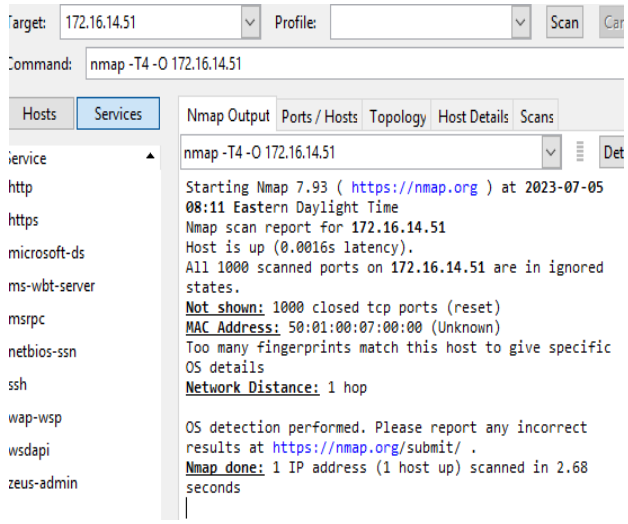
Scan of Jumphost server shows following scan. It is shown to run Windows 10 OS with 97% accuracy, but its running Windows server OS. It shows 4 open ports.

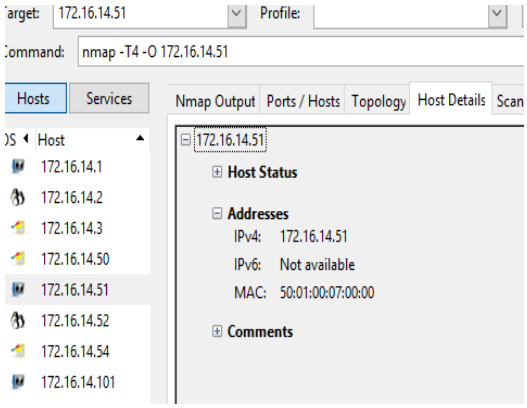


Zenmap scan of Windows1 indicates its running Windows 10 OS and it has 4 open ports



Kali Linux machine on IP 172.16.14.51 does not show any ports. As Kali is a secure machine with no open ports, Zenmap scan does not reveal any information about OS. MAC is shown as 50:01:00:07:00:00





Zenmap scan of Linux machine shows its running Linux 5.0-5.3. MAC is 50:01:00:05:00:00. It shows 3 open ports for tcp, microsoft web server and wireless connections. ICMP and ARPs are captured with Wirshark.