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Nmap Output Ports / Hosts Topology Host Details Scans
  nmap -sV -T4 -O -F --version-light 10.168.27.0/24
Starting Nmap 7.91 ( https://nmap.org ) at 2024-07-31 20:35 MDT
Nmap scan report for 10.168.27.10
Host is up (0.00061s latency).
Not shown: 92 filtered ports
 PORT
                        STATE SERVICE
                                                                   VERSION
 135/tcp
                                                                  Microsoft Windows RPC
Microsoft Windows netbios-ssn
                       open
                                    msrpc
 139/tcp
                                     netbios-ssn
                       open
 389/tcp
445/tcp
                                     ldap
                        open
                                     microsoft-ds Microsoft Windows Server 2008 R2 - 2012 microsoft-ds
                       open
 49152/tcp open
49154/tcp open
                                     unknown
                                     unknown
49154/tcp open unknown
49157/tcp open unknown
49157/tcp open unknown
MAC Address: 00:00:29:80:6F:38 (VMware)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running: Microsoft Windows 2012
OS CPE: cpe:/o:microsoft:windows_server_2012:r2
OS details: Microsoft Windows Server 2012 or Windows Server 2012 R2
Network Distance: 1 hop
Service Info: OSs: Windows, Windows Server 2008 R2 - 2012; CPE: cpe:/o:microsoft:windows
Nmap scan report for 10.168.27.14
Host is up (0.00043s latency).
Not shown: 99 closed ports
PORT STATE SERVICE VERSION
22/tcp open ssh OpenSSH 5.5pl Debian 6+squeeze5 (pr
MAC Address: 00:0C:29:11:0B:E5 (VMware)
Device type: general purpose
Running: Linux 2.6.X
0S CPE: cpe:/o:linux:linux_kernel:2.6.32
0S details: Linux 2.6.32
Network Distance: 1 hop
Service Info: 0S: Linux; CPE: cpe:/o:linux:linux_kernel
                                                 OpenSSH 5.5pl Debian 6+squeeze5 (protocol 2.0)
 Nmap scan report for 10.168.27.15
Host is up (0.00057s latency)
Not shown: 90 filtered ports
 PORT
                        STATE SERVICE
                                                                  VERSION
 7/tcp
                        open echo
                        open discard?
 9/tcp
                                    daytime Microsoft Windows USA daytime
ftp FileZilla ftpd
http Microsoft IIS httpd 8.5
msrpc Microsoft Windows RPC
netbios-ssn Microsoft Windows netbios-ssn
microsoft-ds Microsoft Windows 7 - 10 microsoft-ds (workgroup: WORKGROUP)
 13/tcp
21/tcp
                        open
                       open
 80/tcp
135/tcp
                        open
                       open
 139/tcp
445/tcp
                        open
                        open
 49154/tcp open unknown
49155/tcp open unknown
MAC Address: 00:15:5D:01:80:07 (Microsoft)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
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While running Nmap in analyzing the results the following topology seems to be a star depicted in the first image. There are 6 machines connected to the local host 10.168.27.1. There are three Linux machines all using the same version of the same operating system 2.6.32 the following IPs are 10.168.27.14, 10.168.27.15 and 10.168.27.132. There are two windows servers using two different versions of the same operating system. Windows sever 2012 for 10.168.27.10 and windows sever 2008 for 10.168.27.15. The last this time seems to be some sort of unidentifiable machine. This sort of topology is indicative of a centralized environment which benefits and streamlines administration.

IP 10.168.27.10 has quite a bit of open ports which could lead to some security issues. Port 389 TCP is one and has a found vulnerability **CVE-2022-0918** A vulnerability was discovered in the 389 Directory Server that allows an unauthenticated attacker with network access to the LDAP port to cause a denial of service. The same IP also has port 445 open which has a Vulnerability associated with windows XP port 445 open allows remote attackers to cause a denial of service (CPU consumption) via a flood of TCP SYN packets containing possibly malformed data **CVE-2002-0283**.