## **10.4 Guided Exercise: Probing the Network**

Resources	
Files	None
Machines	Ubuntu Server, Windows Server, Windows 10

In this exercise you will use a tool called Nmap to scan and identify open ports on the Windows Server and Windows 10.

Login to Ubuntu Server. Once logged in run the command nmap 192.168.1.20 to find which ports are open on Windows Server.

```
user@ubuntu:~$ nmap 192.168.1.20
Starting Nmap 7.60 ( https://nmap.org ) at 2019-07-12 10:02 BST
Nmap scan report for 192.168.1.20
Host is up (0.00055s latency).
Not shown: 983 closed ports
PORT
         STATE SERVICE
21/tcp
         open ftp
        open telnet
23/tcp
25/tcp
        open smtp
80/tcp
         open http
135/tcp open msrpc
139/tcp open netbios-ssn
445/tcp
        open microsoft-ds
49152/tcp open unknown
49153/tcp open unknown
49154/tcp open unknown
49155/tcp open unknown
49156/tcp open unknown
49157/tcp open unknown
49158/tcp open unknown
49159/tcp open unknown
49160/tcp open unknown
49161/tcp open unknown
Nmap done: 1 IP address (1 host up) scanned in 15.01 seconds
```

Determine the actual service running on each port by running the command "nmap -sV 192.168.1.20"

```
user@ubuntu:~$ nmap -sV 192.168.1.20
Starting Nmap 7.60 ( https://nmap.org ) at 2019-07-12 10:03 BST
Nmap scan report for 192.168.1.20
Host is up (0.00052s latency).
Not shown: 983 closed ports
         STATE SERVICE
PORT
                            VERSION
21/tcp
                           Microsoft ftpd
         open ftp
         open telnet Microsoft Windows XP telnetd
23/tcp
25/tcp
         open smtp
                            Microsoft ESMTP 8.5.9600.16384
80/tcp
         open http
                            Microsoft IIS httpd 8.5
         open msrpc Microsoft Windows RPC open netbios-ssn Microsoft Windows netbios-ssn
135/tcp
139/tcp
445/tcp open microsoft-ds Microsoft Windows Server 2008 R2 - 2012 microsoft-d
49152/tcp open msrpc
                            Microsoft Windows RPC
                            Microsoft Windows RPC
49153/tcp open msrpc
                           Microsoft Windows RPC
49154/tcp open msrpc
49155/tcp open msrpc
                           Microsoft Windows RPC
49156/tcp open msrpc
                           Microsoft Windows RPC
                           Microsoft Windows RPC
49157/tcp open msrpc
49158/tcp open msrpc
                            Microsoft Windows RPC
                            Microsoft Windows RPC
49159/tcp open msrpc
                            Microsoft Windows RPC
49160/tcp open msrpc
49161/tcp open msrpc
                            Microsoft Windows RPC
Service Info: Host: WIN-RG9JCR807UG; OSs: Windows, Windows XP, Windows Server 20
08 R2 - 2012; CPE: cpe:/o:microsoft:windows, cpe:/o:microsoft:windows_xp
Service detection performed. Please report any incorrect results at https://nmap
.org/submit/ .
```

Run the command nmap 192.168.1.10 to identify the open ports on the Windows 10 machine.

```
user@ubuntu:~$ nmap 192.168.1.10

Starting Nmap 7.60 ( https://nmap.org ) at 2019-07-12 10:04 BST
Nmap scan report for 192.168.1.10
Host is up (0.00033s latency).
Not shown: 997 closed ports
PORT STATE SERVICE
135/tcp open msrpc
139/tcp open netbios-ssn
445/tcp open microsoft-ds

Nmap done: 1 IP address (1 host up) scanned in 16.61 seconds
```

Run the command nmap -sV 192.168.1.10 to identify theactual service running on the open ports.

```
user@ubuntu:~$ nmap -sV 192.168.1.10
Starting Nmap 7.60 ( https://nmap.org ) at 2019-07-12 10:06 BST
Nmap scan report for 192.168.1.10
Host is up (0.00044s latency).
Not shown: 997 closed ports
PORT
      STATE SERVICE
                         VERSION
                         Microsoft Windows RPC
135/tcp open msrpc
139/tcp open netbios-ssn Microsoft Windows netbios-ssn
445/tcp open microsoft-ds Microsoft Windows 7 - 10 microsoft-ds (workgroup: WOR
KGROUP)
Service Info: Host: DESKTOP-5PS2MAL; OS: Windows; CPE: cpe:/o:microsoft:windows
Service detection performed. Please report any incorrect results at https://nmap
.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 22.13 seconds
```