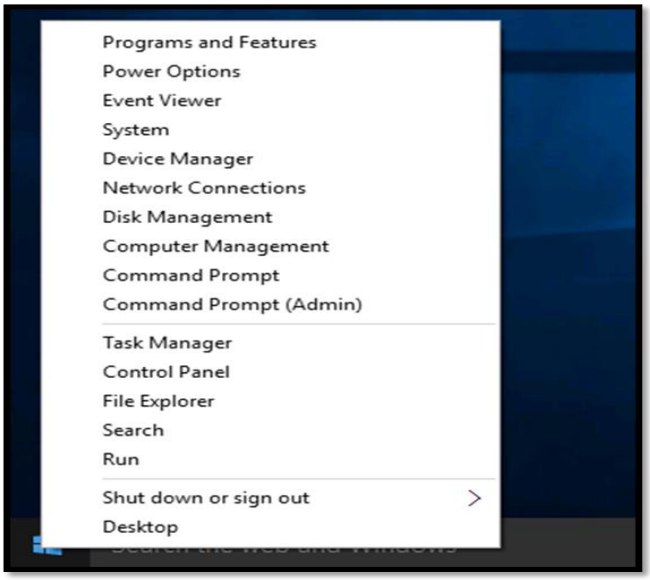
Resources	
Files	None
Machines	Windows 10, Windows Server 2012, Ubuntu Server

In this exercise, you will use basic network utilities.

Use the ipconfig command on Windows 10 to identify the IP address.
Login to Windows 10 using the following credentials:

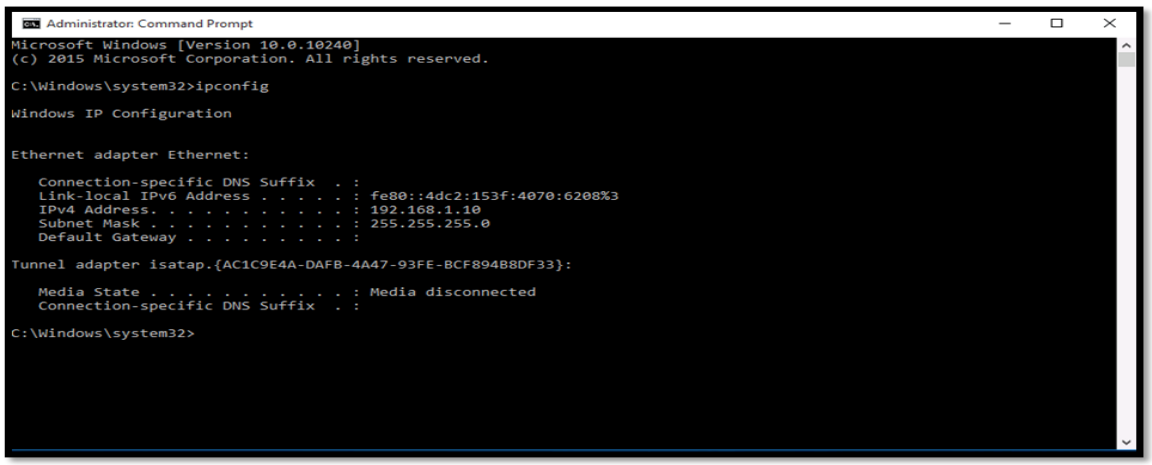
Username: Admin
Password: Pa$$w0rd

Once logged in right click on Start button.

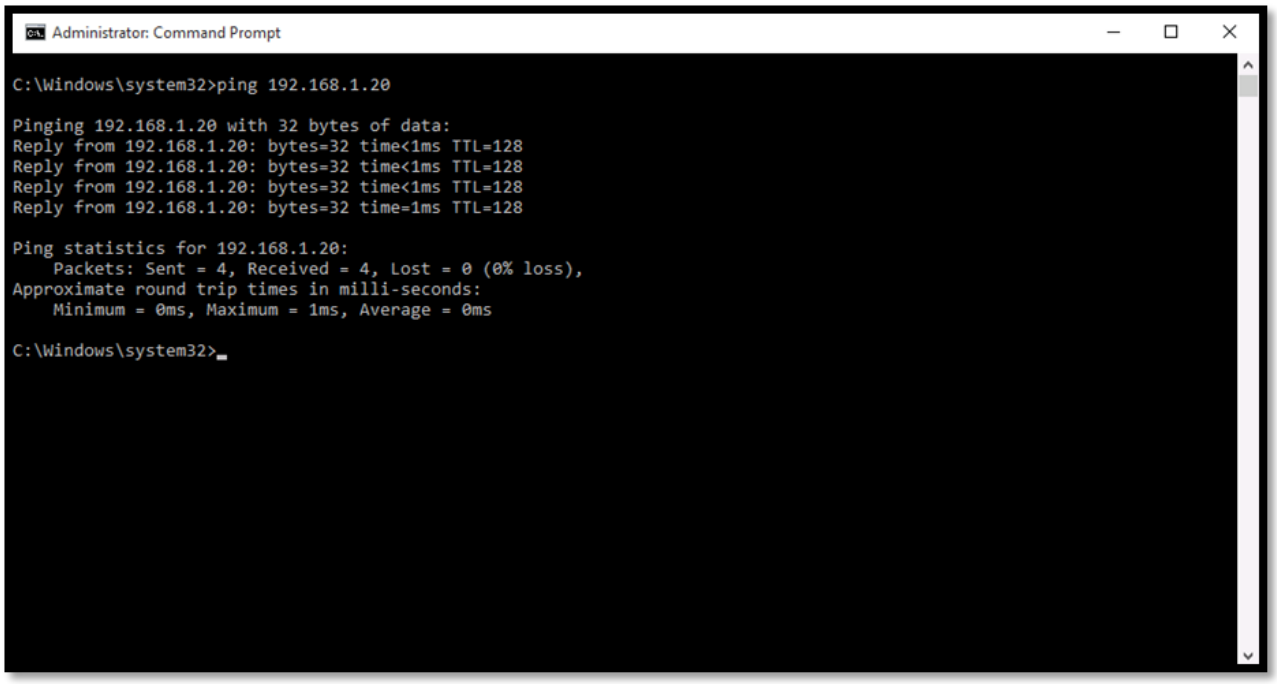


Then select Command Prompt (Admin) and click Yes on the User Account Control window. On the command prompt window, write the command ipconfig and then press the enter button.

Use the ping command on



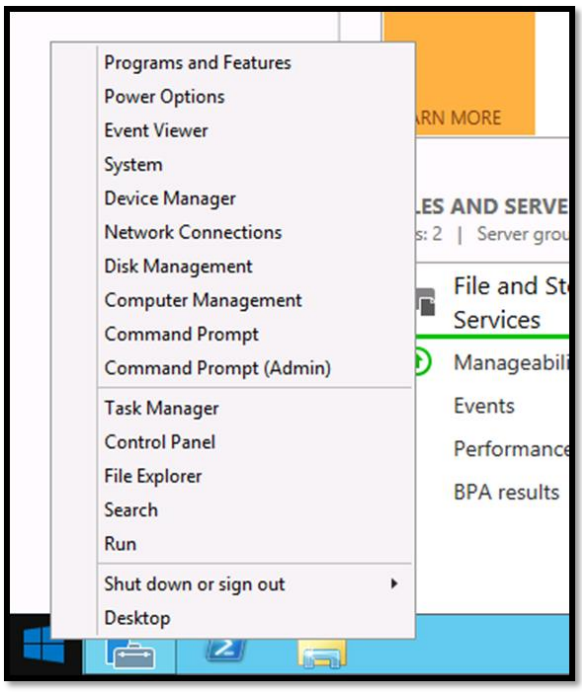
Windows 10 to ping the host 192.168.1.20



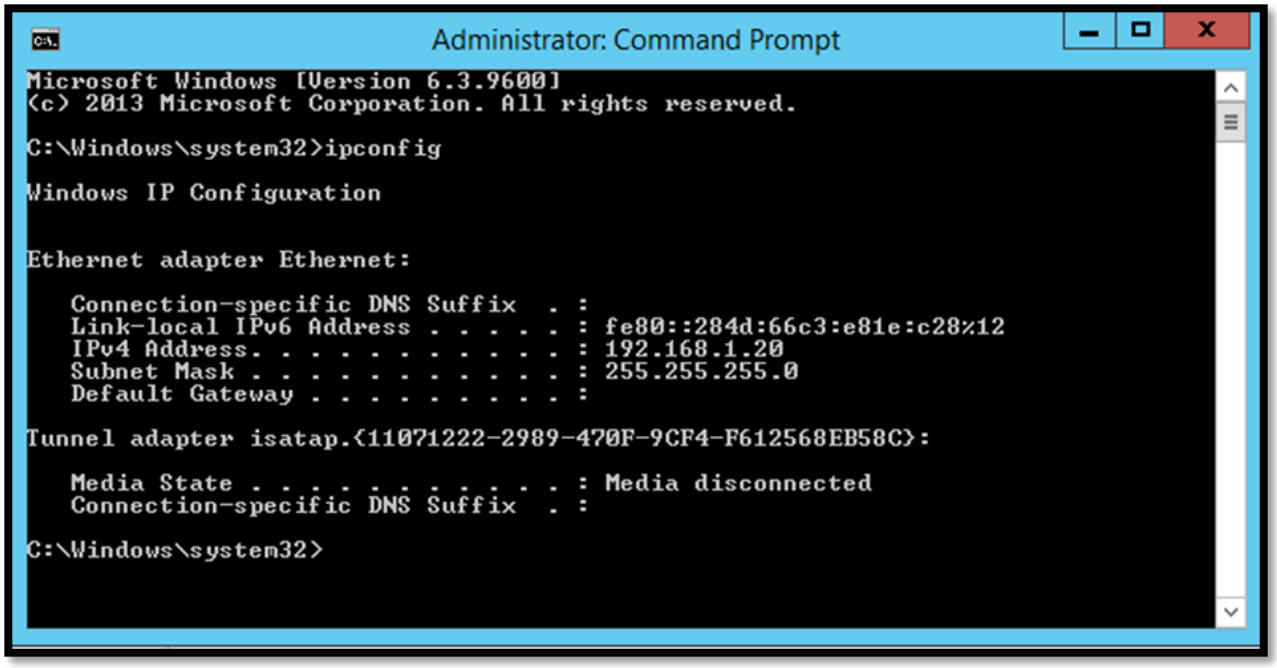
Use the ipconfig command on Windows Server 2012 to identify the IP address. Login to Windows Server 2012 using the following credentials:

Username: Administrator
Password: Pa$$w0rd

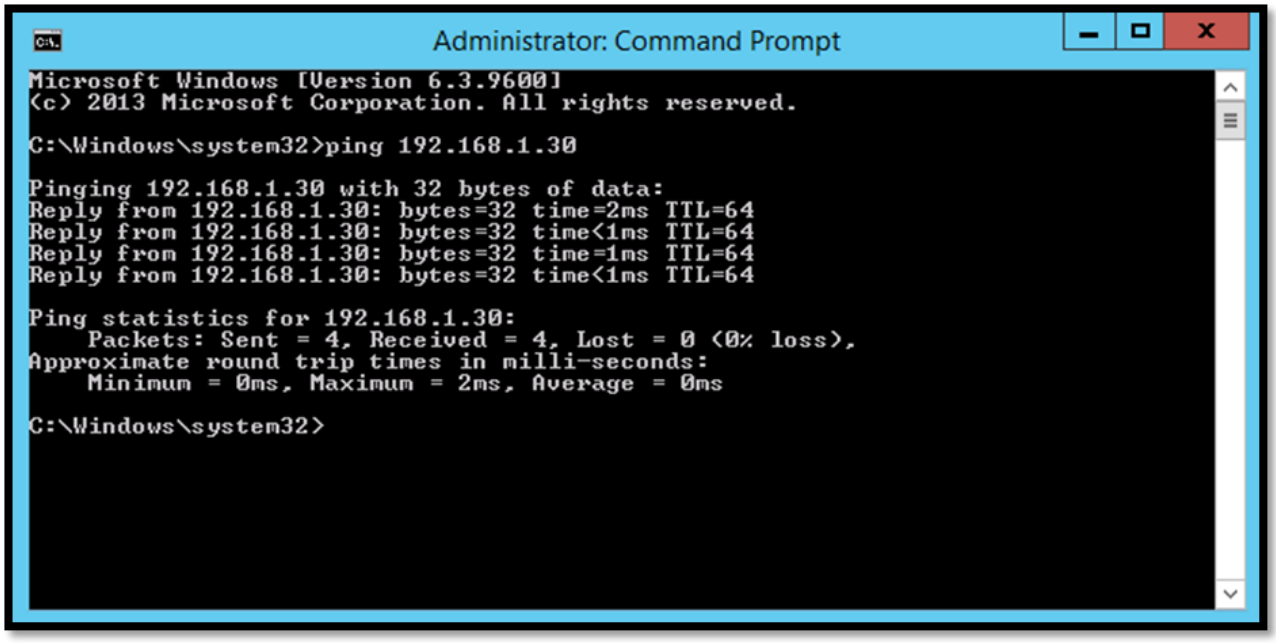
Then right click on the Start button and select Command Prompt (Admin)



On the command prompt window write the command ipconfig and press enter.



Use the ping command on Windows Server 2012 to ping the host 192.168.1.30.

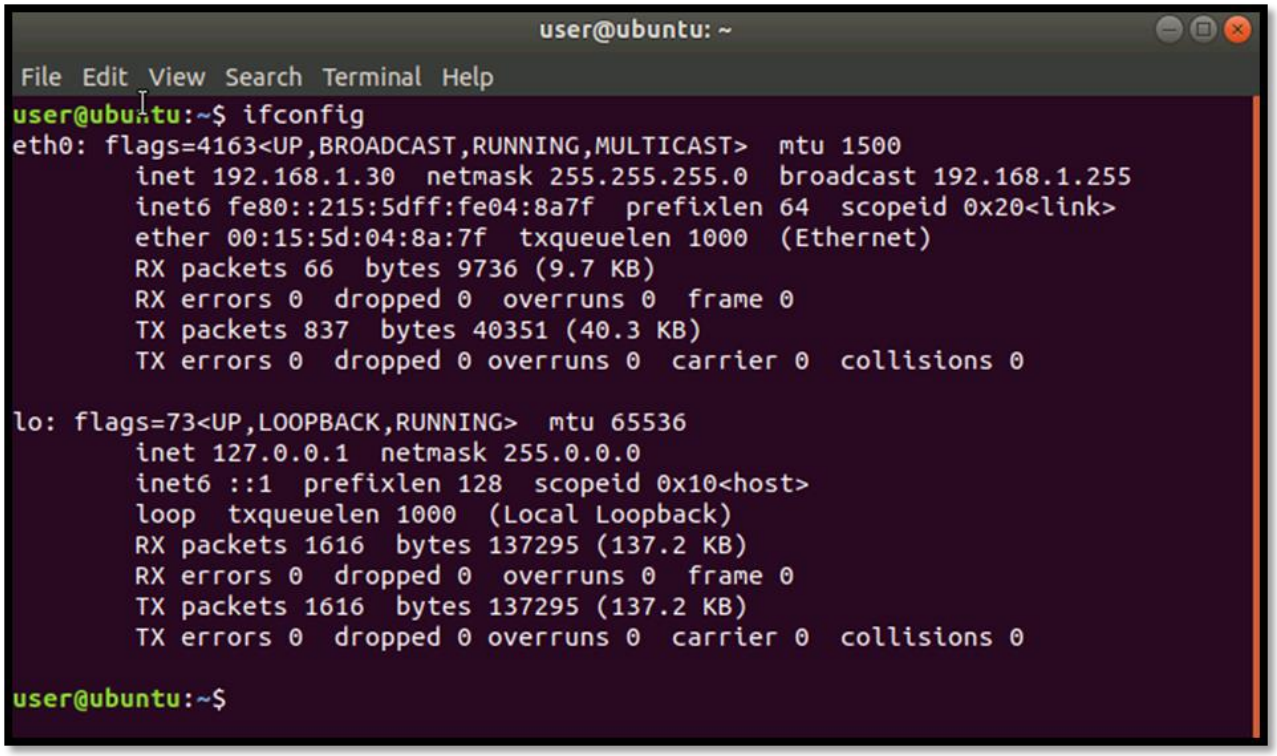


Use the ifconfig command on Ubuntu Server to identify the IP address. Login with the following credentials:

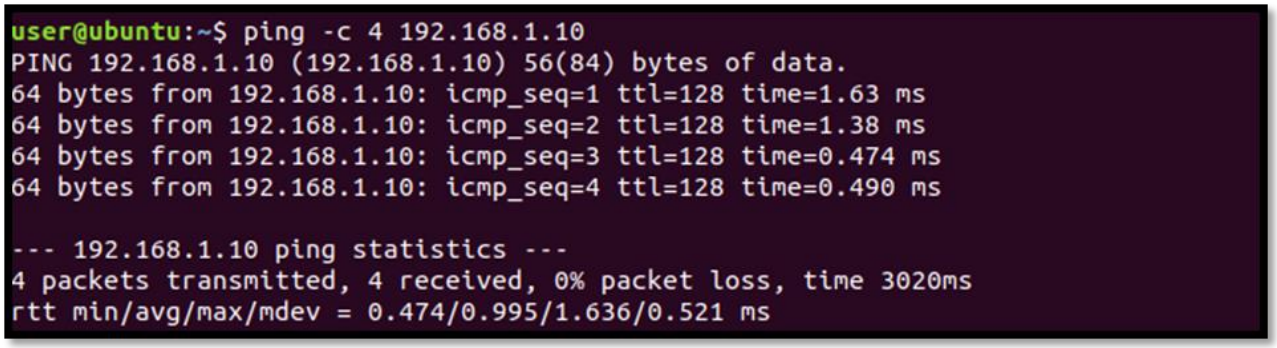
Username: user
Password: Pa$$w0rd

Once logged in click on the terminal icon (last icon) the left side menu.

On the terminal window write the command ifconfig and press enter.



Open a terminal window and use the command "**ping –c 4 192.168.1.10"** on Ubuntu Server to ping the host 192.168.1.10.



Use the command **"netstat -tulpn"** on the Ubuntu Server and observe the output. You will notice that the Local Address bound with a port is a specific service listening on that port. Also there is a Foreign Address which is a remote host connected to that specific service. There is also a state which is listening or can be established in the case of a remote host connection.

```
user@ubuntu:~$ netstat -tulpn
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
PID/Program name
tcp        0      0 127.0.0.53:53           0.0.0.0:*               LISTEN
-
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN
-
tcp        0      0 127.0.0.1:631           0.0.0.0:*               LISTEN
-
tcp6       0      0 :::80                   :::*                    LISTEN
-
tcp6       0      0 :::22                   :::*                    LISTEN
-
tcp6       0      0 ::1:631                 :::*                    LISTEN
-
udp        0      0 0.0.0.0:45965           0.0.0.0:*
-
udp        0      0 127.0.0.53:53           0.0.0.0:*
-
udp        0      0 0.0.0.0:631             0.0.0.0:*
```

Use the command **“netstat –a”** on the Windows Server 2012 and observe the output. You will notice that the Local Address bound with a port is a specific service listening on that port. Also there is a Foreign Address which is a remote host connected to that specific service. There is also a state which is listening or can be established in the case of a remote host connection.