

CS581 (Computer & Network Security)

Lab-01

Date: 10/12/2015

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Port Scanning

Install nmap (or nmapfe) (<http://nmap.org>) port scanner onto your laptop or home computer and perform a TCP port scan and a UDP port scan of another computer. Submit reports generated by nmap (or Zenmap) containing list of open TCP & UDP ports. Also submit output of “netstat -na” command on computer that was scanned. Be sure to temporarily turn off any host-based firewall software if needed so that outputs of nmap and “netstat -na” indicate the same number of open ports.

We, Group No. 5, going to perform this lab in below steps:

Step 1: Base Machine IP Configuration

Step 2: Virtual Machine Setting Change

Step 3: Virtual Machine IP Configuration

Step 4: Downloading & Installing nmap software on Virtual Machine

Step 5: TCP Port Scanning

Step 6: UDP Port Scanning

Step 7: Temporarily Turned off Firewall on Virtual Machine

Step 8: Submitting output of “netstat -na” for TCP Port

Step 9: Submitting output of “netstat -na” for UDP Port

Step 1: Base Machine IP Configuration

```
C:\windows\system32\cmd.exe

C:\Users\rkumar2>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 10.86.44.152
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.86.44.1

Ethernet adapter VMware Network Adapter VMnet1:

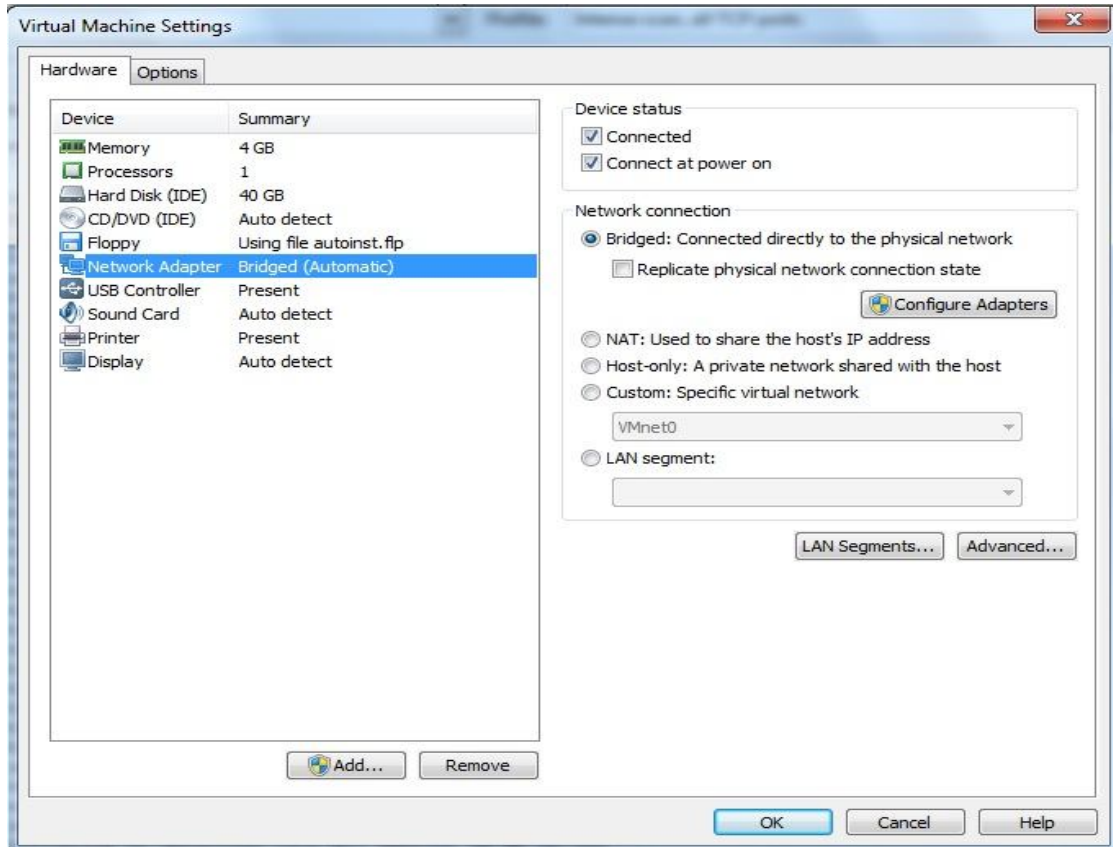
    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.126.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

Ethernet adapter VMware Network Adapter VMnet8:

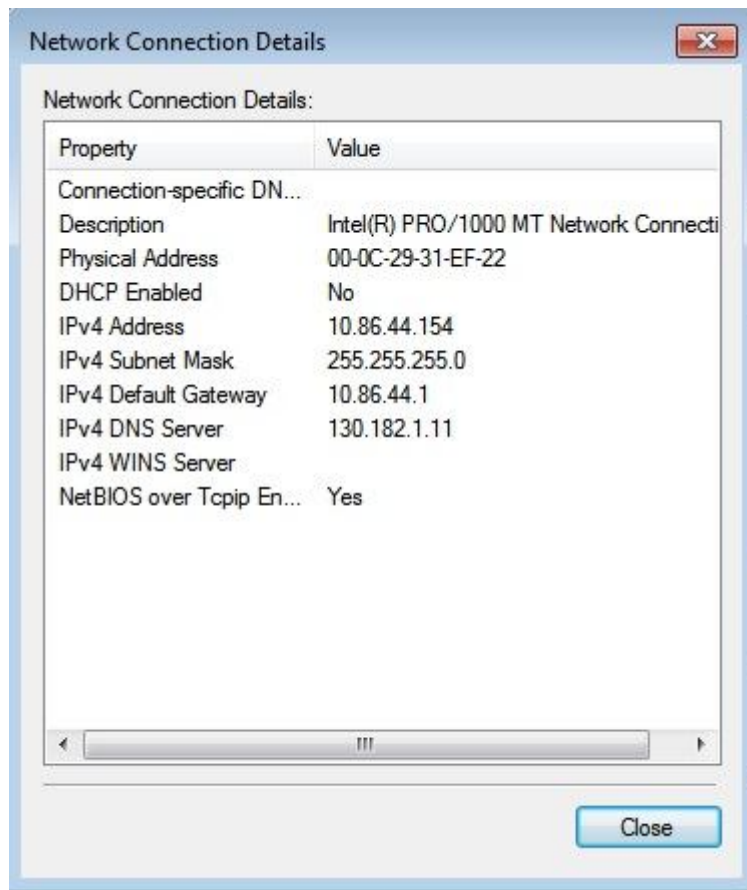
    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.209.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

C:\Users\rkumar2>
```

Step 2: Virtual Machine Setting Change



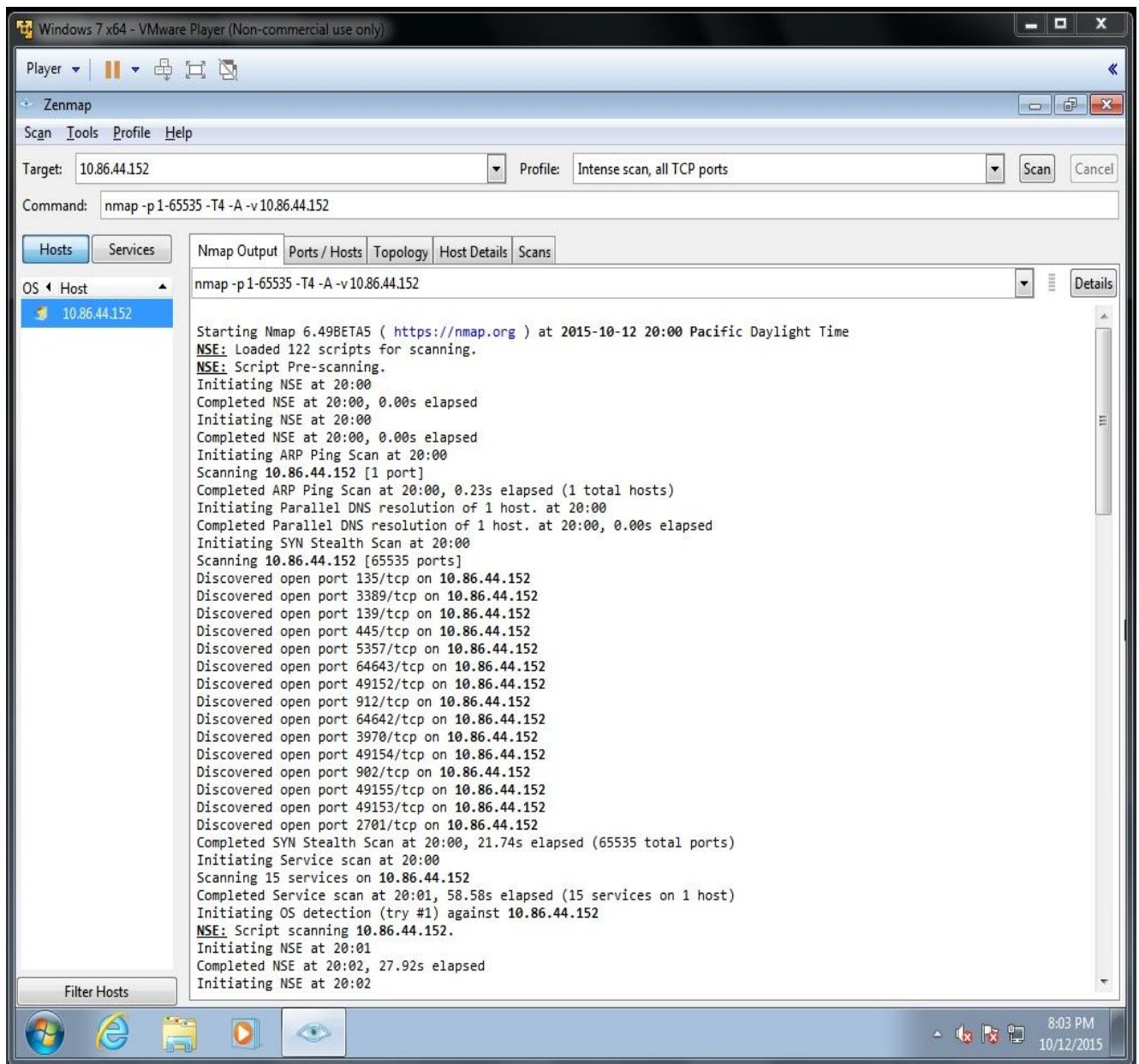
Step 3: Virtual Machine IP Configuration

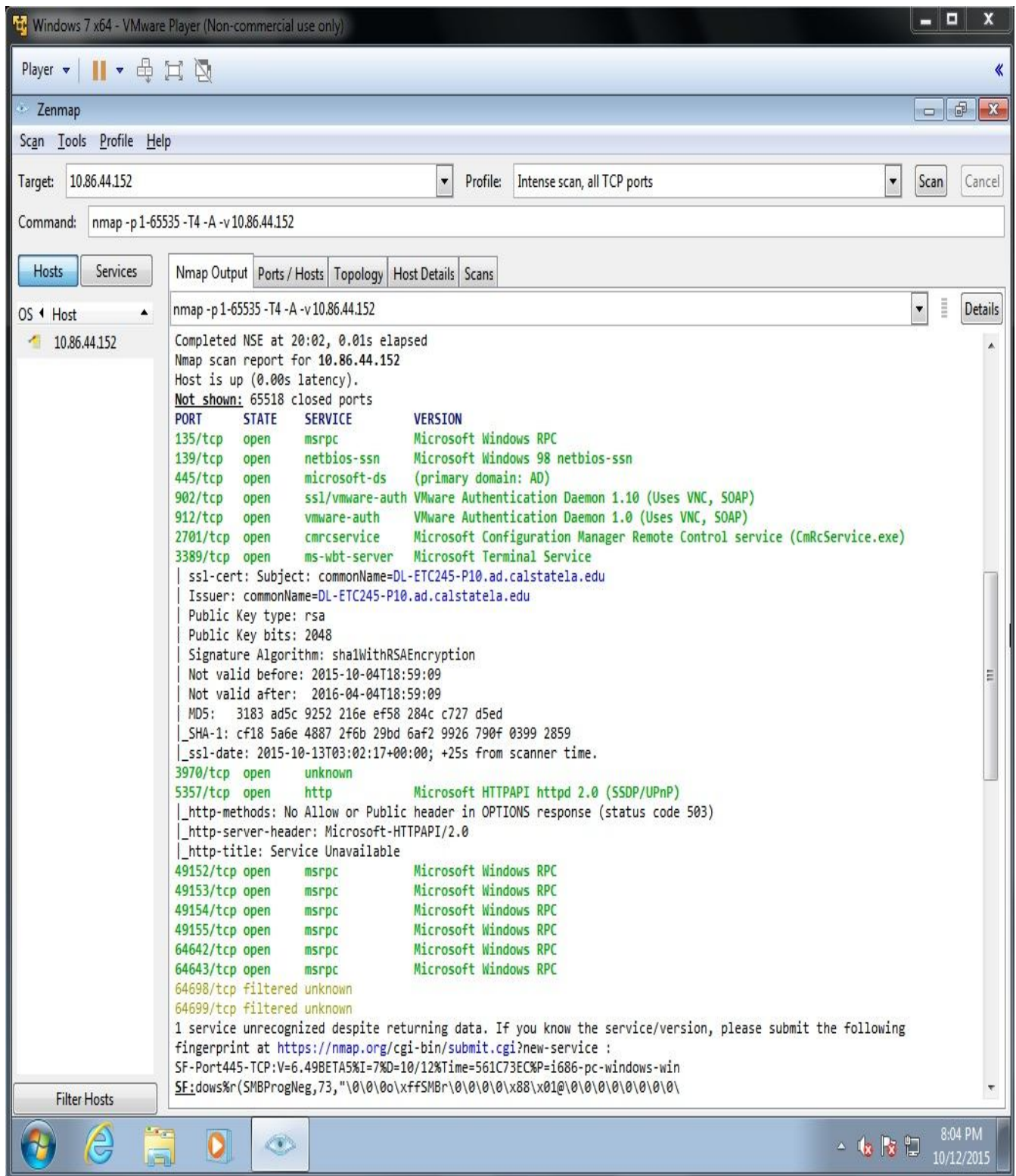


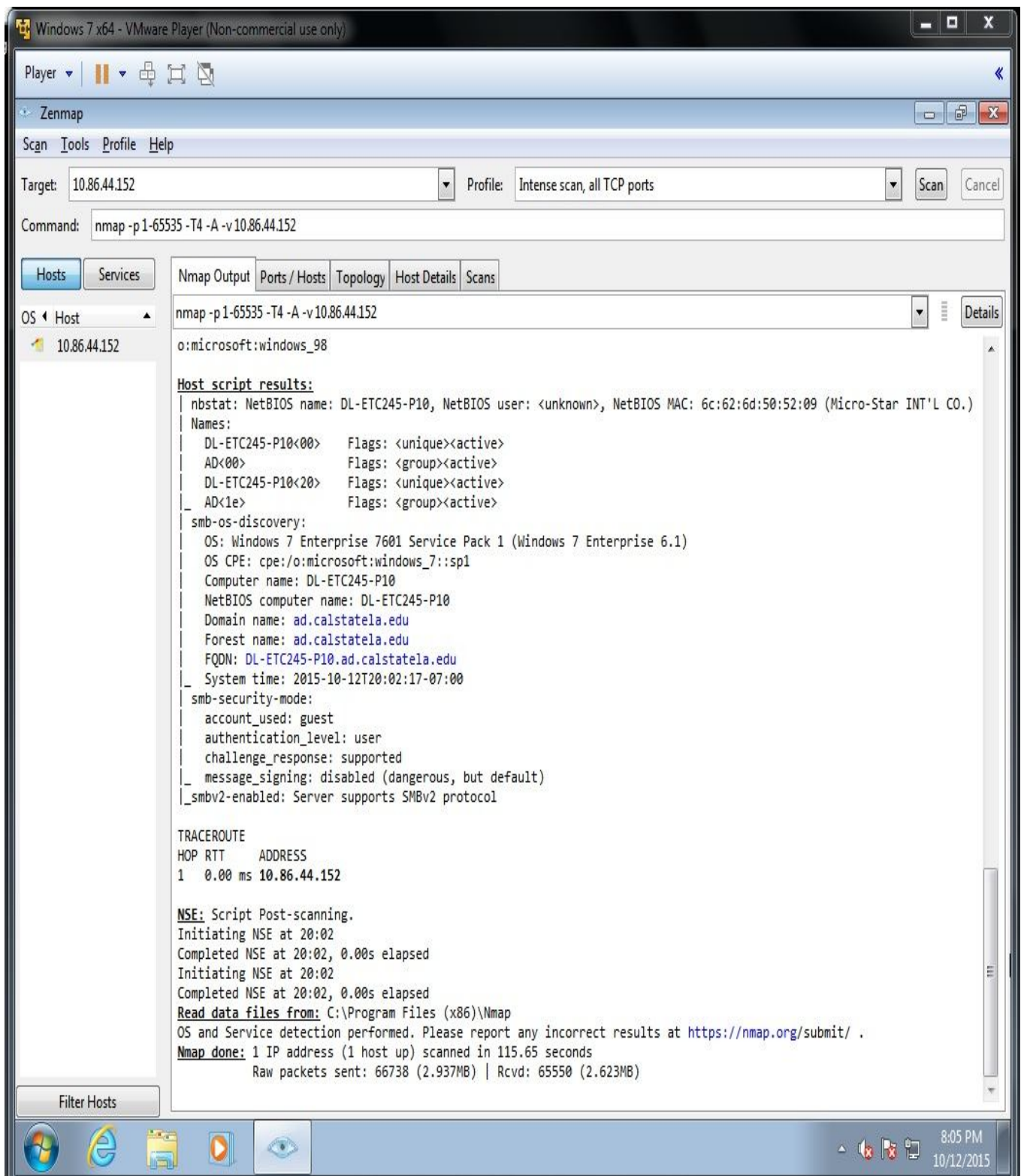
Step 4: Downloading & Installing nmap software on Virtual Machine

- ➔ We downloaded the nmap software from www.nmap.org
- ➔ nmap software version: nmap-6.49BETA5-setup-xp.exe
- ➔ and then, we installed this software

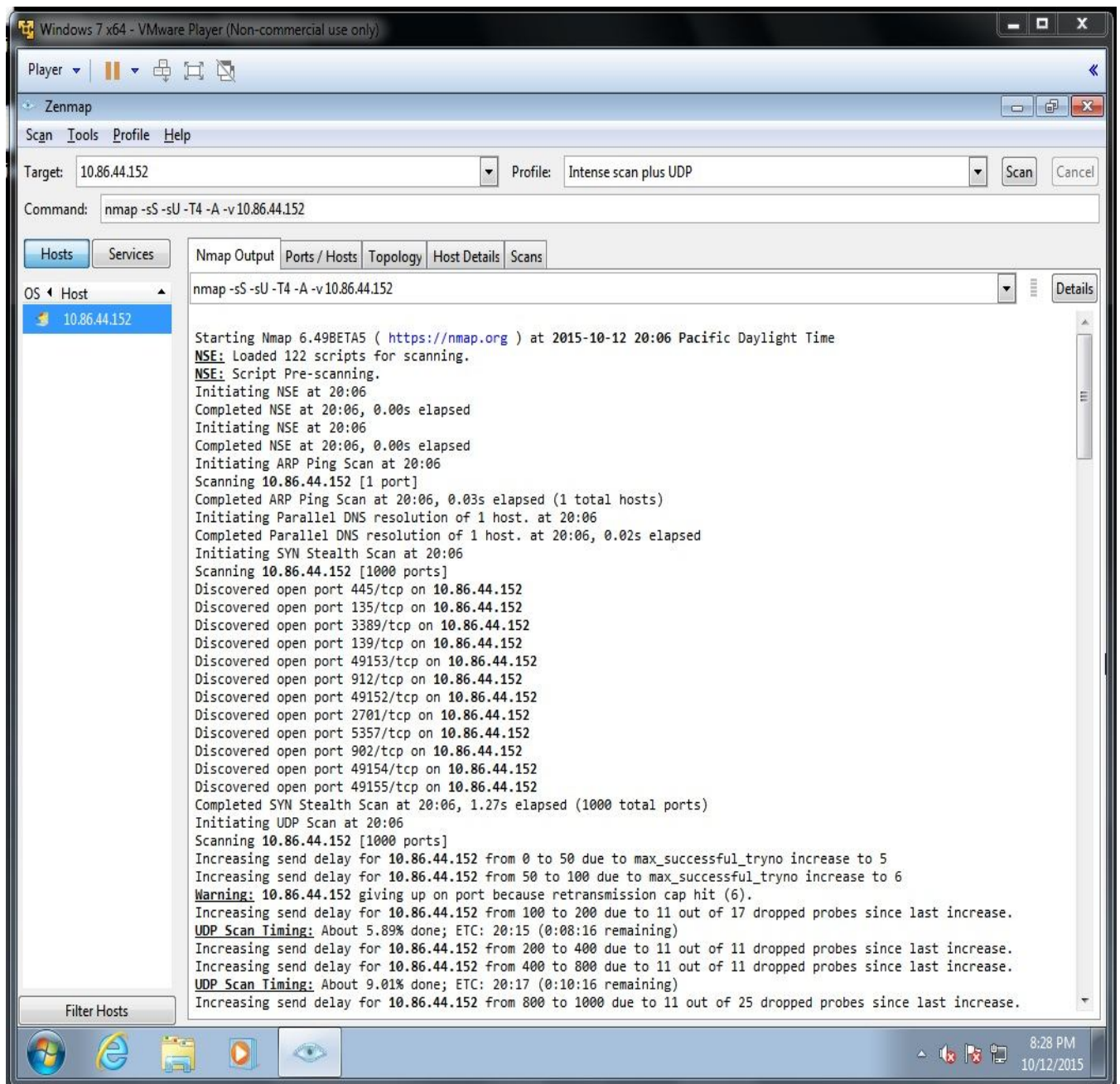
Step 5: TCP Port Scanning

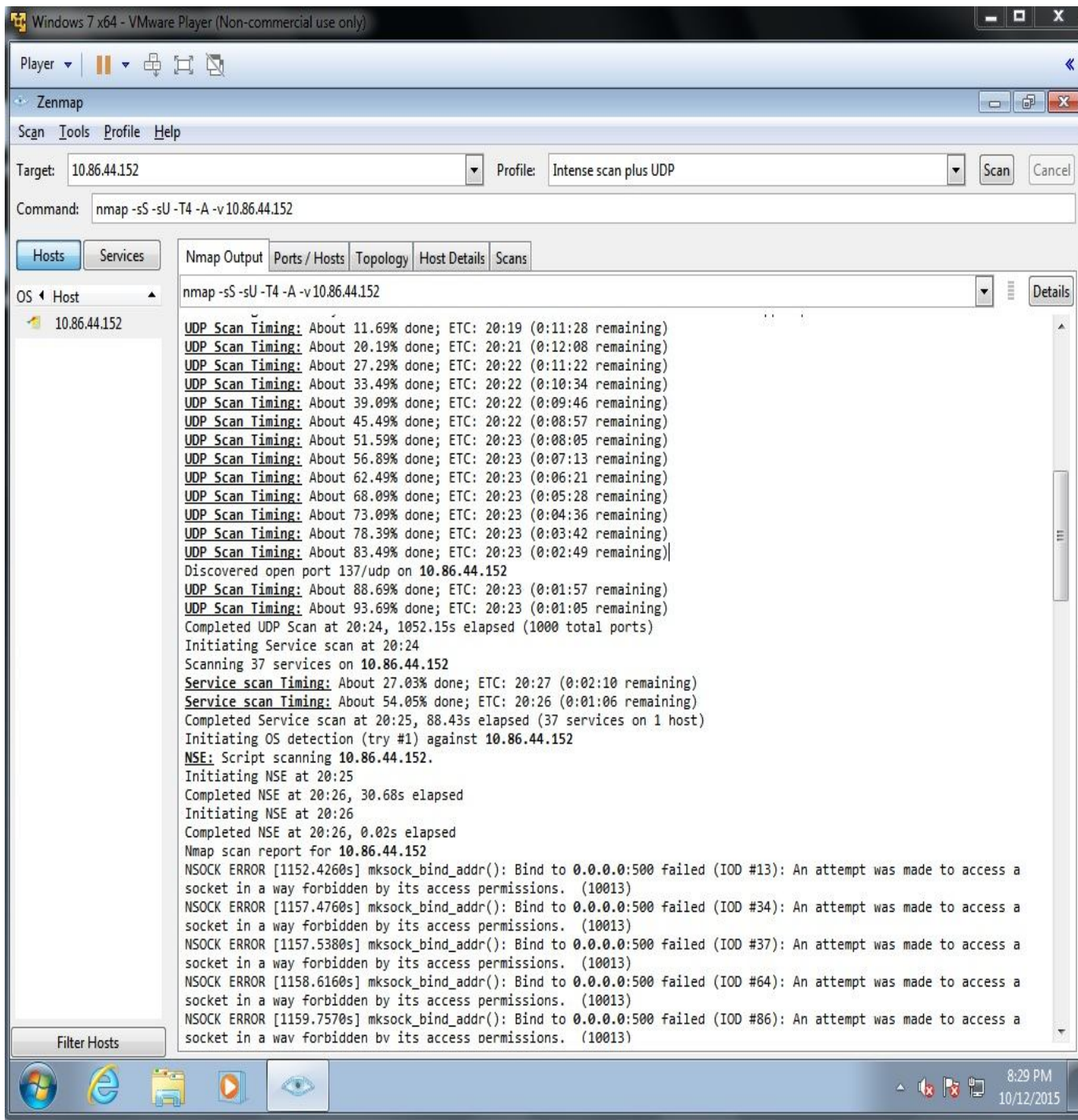


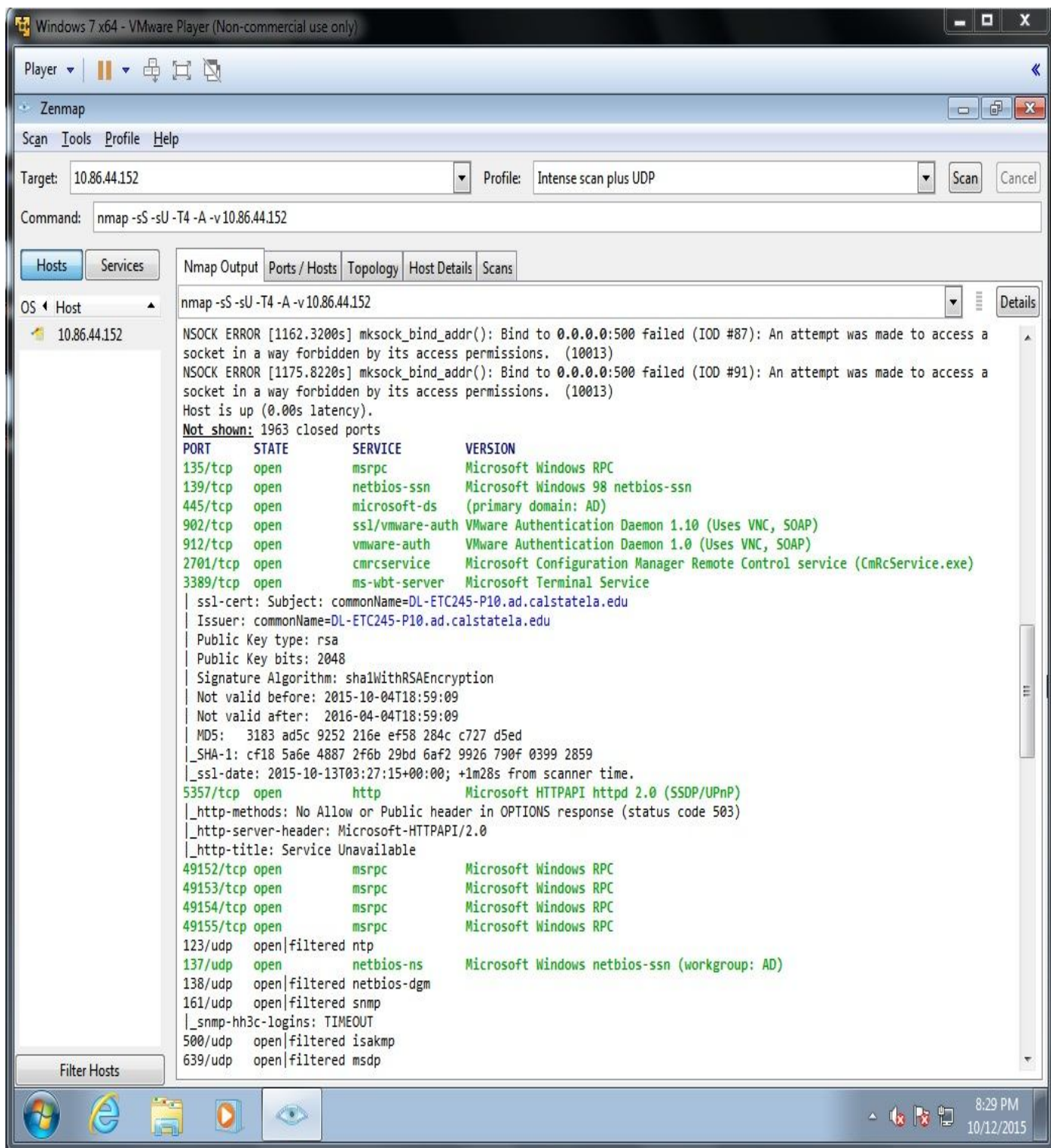


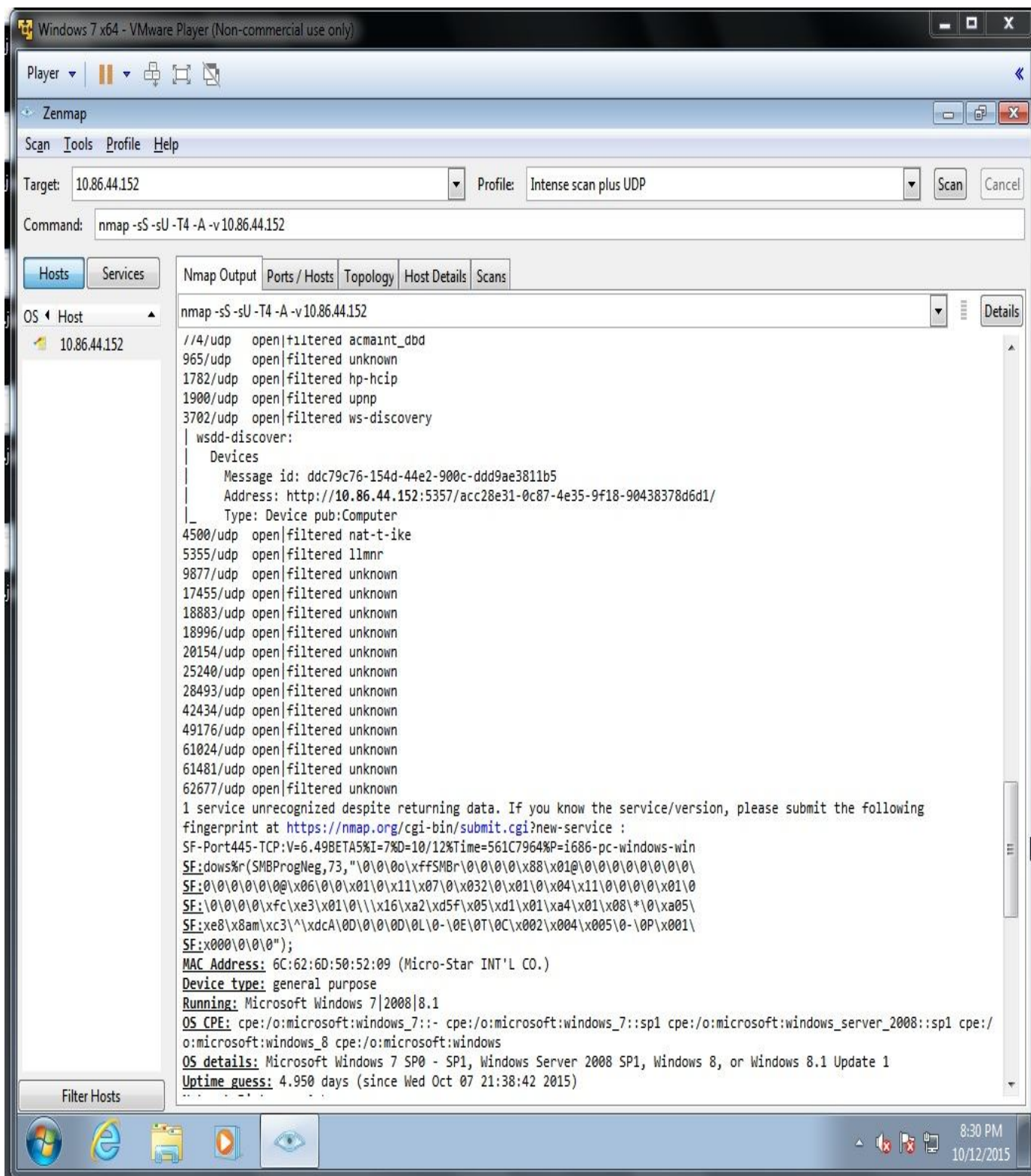


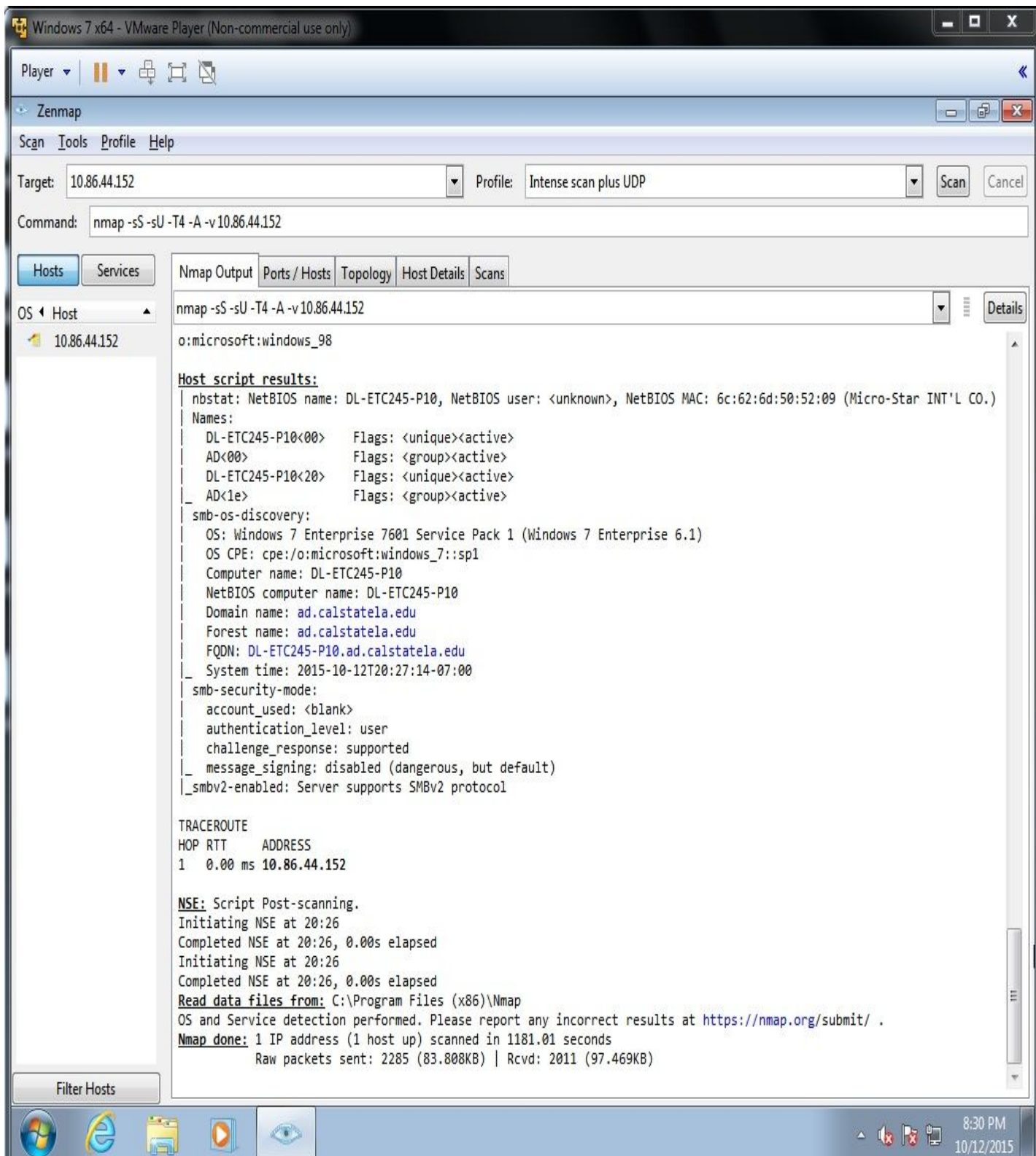
Step 6: UDP Port Scanning



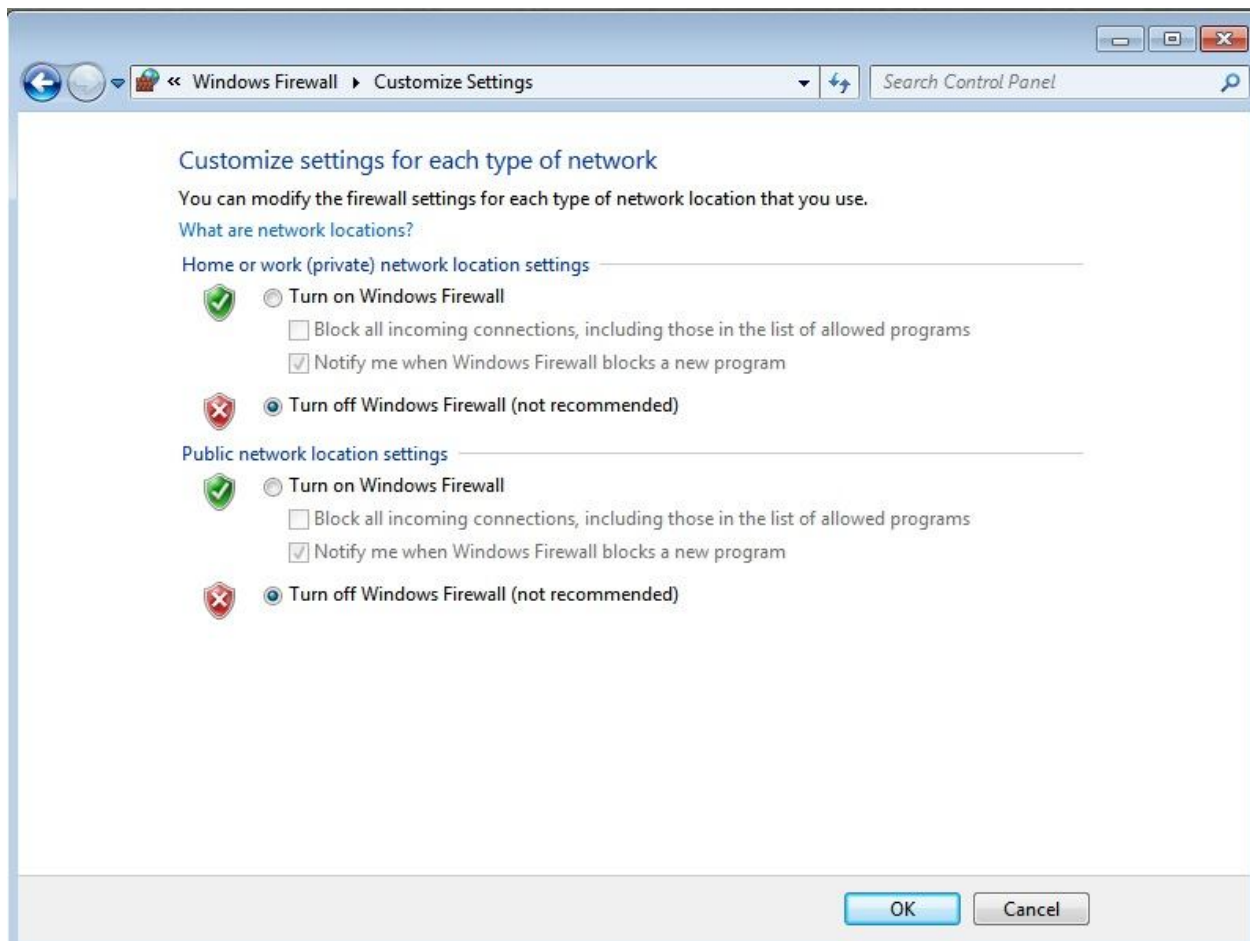








Step 7: Temporarily Turned off Firewall on Virtual Machine



Step 8: Submitting output of “netstat -na” for TCP Port

```

C:\windows\system32\cmd.exe
C:\Users\rkumar2>netstat -na
Active Connections

Proto Local Address           Foreign Address         State
TCP   0.0.0.0:135              0.0.0.0:0              LISTENING
TCP   0.0.0.0:445              0.0.0.0:0              LISTENING
TCP   0.0.0.0:902              0.0.0.0:0              LISTENING
TCP   0.0.0.0:912              0.0.0.0:0              LISTENING
TCP   0.0.0.0:2701             0.0.0.0:0              LISTENING
TCP   0.0.0.0:3389             0.0.0.0:0              LISTENING
TCP   0.0.0.0:3970             0.0.0.0:0              LISTENING
TCP   0.0.0.0:5357             0.0.0.0:0              LISTENING
TCP   0.0.0.0:49152            0.0.0.0:0              LISTENING
TCP   0.0.0.0:49153            0.0.0.0:0              LISTENING
TCP   0.0.0.0:49154            0.0.0.0:0              LISTENING
TCP   0.0.0.0:49155            0.0.0.0:0              LISTENING
TCP   0.0.0.0:64642            0.0.0.0:0              LISTENING
TCP   0.0.0.0:64643            0.0.0.0:0              LISTENING
TCP   0.0.0.0:64698            0.0.0.0:0              LISTENING
TCP   0.0.0.0:64699            0.0.0.0:0              LISTENING
TCP   10.86.44.152:139         0.0.0.0:0              LISTENING
TCP   10.86.44.152:57980       10.81.31.185:10123     ESTABLISHED
TCP   10.86.44.152:63895       23.214.227.51:443     CLOSE_WAIT
TCP   10.86.44.152:64453       10.81.76.11:135       TIME_WAIT
TCP   10.86.44.152:64454       10.81.76.11:49494     TIME_WAIT
TCP   127.0.0.1:27015          0.0.0.0:0              LISTENING
TCP   127.0.0.1:27015          127.0.0.1:63886       ESTABLISHED
TCP   127.0.0.1:63885          0.0.0.0:0              LISTENING
TCP   127.0.0.1:63886          127.0.0.1:27015       ESTABLISHED
TCP   127.0.0.1:63890          127.0.0.1:63891       ESTABLISHED
TCP   127.0.0.1:63891          127.0.0.1:63890       ESTABLISHED
TCP   127.0.0.1:63901          127.0.0.1:63902       ESTABLISHED
TCP   127.0.0.1:63902          127.0.0.1:63901       ESTABLISHED
TCP   192.168.126.1:139        0.0.0.0:0              LISTENING
TCP   192.168.209.1:139        0.0.0.0:0              LISTENING
TCP   [::]:135                 [::]:0                 LISTENING
TCP   [::]:445                 [::]:0                 LISTENING
TCP   [::]:2701                [::]:0                 LISTENING
TCP   [::]:3389                [::]:0                 LISTENING
TCP   [::]:5357                [::]:0                 LISTENING
TCP   [::]:49152               [::]:0                 LISTENING
TCP   [::]:49153               [::]:0                 LISTENING
TCP   [::]:49154               [::]:0                 LISTENING
TCP   [::]:49155               [::]:0                 LISTENING
TCP   [::]:64642               [::]:0                 LISTENING
TCP   [::]:64643               [::]:0                 LISTENING
TCP   [::]:64699               [::]:0                 LISTENING
UDP   0.0.0.0:123              *:*:
UDP   0.0.0.0:161              *:*:
UDP   0.0.0.0:500              *:*:
UDP   0.0.0.0:3702             *:*:
UDP   0.0.0.0:3702             *:*:
UDP   0.0.0.0:4500             *:*:
UDP   0.0.0.0:5355             *:*:
UDP   0.0.0.0:62160            *:*:
UDP   10.86.44.152:137         *:*:
UDP   10.86.44.152:138         *:*:
UDP   10.86.44.152:1900        *:*:
UDP   10.86.44.152:62099       *:*:
UDP   127.0.0.1:1900           *:*:
UDP   127.0.0.1:53437         *:*:
UDP   127.0.0.1:54907         *:*:
UDP   127.0.0.1:55299         *:*:
UDP   127.0.0.1:55300         *:*:
UDP   127.0.0.1:56299         *:*:
UDP   127.0.0.1:56478         *:*:
UDP   127.0.0.1:57198         *:*:
UDP   127.0.0.1:62102         *:*:
UDP   127.0.0.1:62158         *:*:
UDP   127.0.0.1:62159         *:*:
UDP   127.0.0.1:63856         *:*:
UDP   127.0.0.1:64852         *:*:
UDP   192.168.126.1:137       *:*:
UDP   192.168.126.1:138       *:*:
UDP   192.168.126.1:1900      *:*:
UDP   192.168.126.1:62100     *:*:
UDP   192.168.209.1:137       *:*:

```

```
C:\windows\system32\cmd.exe

UDP 192.168.126.1:62100 ***
UDP 192.168.209.1:137 ***
UDP 192.168.209.1:138 ***
UDP 192.168.209.1:1900 ***
UDP 192.168.209.1:62101 ***
UDP [::]:123 ***
UDP [::]:161 ***
UDP [::]:500 ***
UDP [::]:3702 ***
UDP [::]:3702 ***
UDP [::]:4500 ***
UDP [::]:62161 ***
UDP [::1]:1900 ***
UDP [::1]:62098 ***

C:\Users\rkumar2>
```

Step 9: Submitting output of “netstat -na” for UDP Port

```

C:\windows\system32\cmd.exe
C:\Users\rkumar2>netstat -na
Active Connections

Proto Local Address          Foreign Address         State
TCP    0.0.0.0:135             0.0.0.0:0              LISTENING
TCP    0.0.0.0:445             0.0.0.0:0              LISTENING
TCP    0.0.0.0:902             0.0.0.0:0              LISTENING
TCP    0.0.0.0:912             0.0.0.0:0              LISTENING
TCP    0.0.0.0:2701            0.0.0.0:0              LISTENING
TCP    0.0.0.0:3389            0.0.0.0:0              LISTENING
TCP    0.0.0.0:3970            0.0.0.0:0              LISTENING
TCP    0.0.0.0:5357            0.0.0.0:0              LISTENING
TCP    0.0.0.0:49152           0.0.0.0:0              LISTENING
TCP    0.0.0.0:49153           0.0.0.0:0              LISTENING
TCP    0.0.0.0:49154           0.0.0.0:0              LISTENING
TCP    0.0.0.0:49155           0.0.0.0:0              LISTENING
TCP    0.0.0.0:64642           0.0.0.0:0              LISTENING
TCP    0.0.0.0:64643           0.0.0.0:0              LISTENING
TCP    0.0.0.0:64698           0.0.0.0:0              LISTENING
TCP    0.0.0.0:64699           0.0.0.0:0              LISTENING
TCP    10.86.44.152:139        0.0.0.0:0              LISTENING
TCP    10.86.44.152:57980      10.81.31.185:10123      ESTABLISHED
TCP    10.86.44.152:63895      23.214.227.51:443       CLOSE_WAIT
TCP    10.86.44.152:64453      10.81.76.11:135         TIME_WAIT
TCP    10.86.44.152:64454      10.81.76.11:49494       TIME_WAIT
TCP    127.0.0.1:27015         0.0.0.0:0              LISTENING
TCP    127.0.0.1:27015         127.0.0.1:63886         ESTABLISHED
TCP    127.0.0.1:63885         0.0.0.0:0              LISTENING
TCP    127.0.0.1:63886         127.0.0.1:27015         ESTABLISHED
TCP    127.0.0.1:63890         127.0.0.1:63891         ESTABLISHED
TCP    127.0.0.1:63891         127.0.0.1:63890         ESTABLISHED
TCP    127.0.0.1:63901         127.0.0.1:63902         ESTABLISHED
TCP    127.0.0.1:63902         127.0.0.1:63901         ESTABLISHED
TCP    192.168.126.1:139      0.0.0.0:0              LISTENING
TCP    192.168.209.1:139      0.0.0.0:0              LISTENING
TCP    [::]:135               [::]:0                 LISTENING
TCP    [::]:445               [::]:0                 LISTENING
TCP    [::]:2701              [::]:0                 LISTENING
TCP    [::]:3389              [::]:0                 LISTENING
TCP    [::]:5357              [::]:0                 LISTENING
TCP    [::]:49152             [::]:0                 LISTENING
TCP    [::]:49153             [::]:0                 LISTENING
TCP    [::]:49154             [::]:0                 LISTENING
TCP    [::]:49155             [::]:0                 LISTENING
TCP    [::]:64642             [::]:0                 LISTENING
TCP    [::]:64643             [::]:0                 LISTENING
TCP    [::]:64699             [::]:0                 LISTENING
UDP    0.0.0.0:123            *:*
UDP    0.0.0.0:161            *:*
UDP    0.0.0.0:500            *:*
UDP    0.0.0.0:3702           *:*
UDP    0.0.0.0:3702           *:*
UDP    0.0.0.0:4500           *:*
UDP    0.0.0.0:5355           *:*
UDP    0.0.0.0:62160          *:*
UDP    10.86.44.152:137       *:*
UDP    10.86.44.152:138       *:*
UDP    10.86.44.152:1900      *:*
UDP    10.86.44.152:62099     *:*
UDP    127.0.0.1:1900         *:*
UDP    127.0.0.1:53437        *:*
UDP    127.0.0.1:54907        *:*
UDP    127.0.0.1:55299        *:*
UDP    127.0.0.1:55300        *:*
UDP    127.0.0.1:56299        *:*
UDP    127.0.0.1:56478        *:*
UDP    127.0.0.1:57198        *:*
UDP    127.0.0.1:62102        *:*
UDP    127.0.0.1:62158        *:*
UDP    127.0.0.1:62159        *:*
UDP    127.0.0.1:63856        *:*
UDP    127.0.0.1:64852        *:*
UDP    192.168.126.1:137      *:*
UDP    192.168.126.1:138      *:*
UDP    192.168.126.1:1900     *:*
UDP    192.168.126.1:62100    *:*
UDP    192.168.209.1:137      *:*

```

```
C:\windows\system32\cmd.exe

UDP 192.168.126.1:62100 ***
UDP 192.168.209.1:137 ***
UDP 192.168.209.1:138 ***
UDP 192.168.209.1:1900 ***
UDP 192.168.209.1:62101 ***
UDP [::]:123 ***
UDP [::]:161 ***
UDP [::]:500 ***
UDP [::]:3702 ***
UDP [::]:3702 ***
UDP [::]:4500 ***
UDP [::]:62161 ***
UDP [::1]:1900 ***
UDP [::1]:62098 ***

C:\Users\rkumar2>
```