

# Evading IDS, Firewalls, and Honeypots

## Lab Assignment (Module 12)

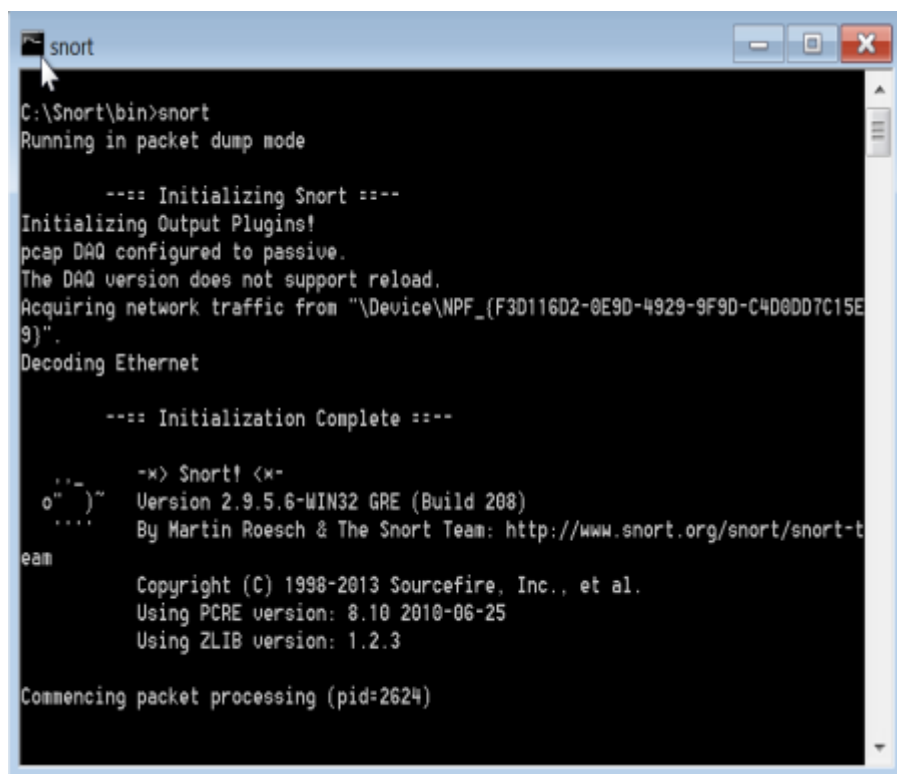
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**Roll No :** CB.EN.P2CEN18012

**Date of Submission:** 22/06/2019

### Detecting Intrusions using Snort

1. Open snort .



```
C:\Snort\bin>snort
Running in packet dump mode

---= Initializing Snort ---
Initializing Output Plugins!
pcap DAQ configured to passive.
The DAQ version does not support reload.
Acquiring network traffic from "\\Device\\NPF_{F3D116D2-0E9D-4929-9F9D-C4D0DD7C15E9}".
Decoding Ethernet

---= Initialization Complete ---

  _ _ _ _ _
  o" )~  ~> Snort! <~
  ' ' '  Version 2.9.5.6-WIN32 GRE (Build 208)
         By Martin Roesch & The Snort Team: http://www.snort.org/snort/snort-team

Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using PCRE version: 8.10 2010-06-25
Using ZLIB version: 1.2.3

Commencing packet processing (pid=2624)
```

2. Snort -W list machine physical address, IP address and Ethernet Drivers

```
C:\Windows\system32\cmd.exe
--ha-peer          Activate live high-availability state sharing
with peer.
--ha-out <file>    Write high-availability events to this file.
--ha-in <file>     Read high-availability events from this file
on startup (warm-start).

C:\Snort\bin>snort -W

  _ _ _ _ _
  o" )~
  ....

  -x> Snort! <x-
  Version 2.9.5.6-WIN32 GRE (Build 208)
  By Martin Roesch & The Snort Team: http://www.snort.org/snort-team

  Copyright (C) 1998-2013 Sourcefire, Inc., et al.
  Using PCRE version: 8.10 2010-06-25
  Using ZLIB version: 1.2.3

Index  Physical Address      IP Address      Device Name      Description
-----
  1    08:00:27:3A:AF:6B        0000:0000:fe80:0000:0000:0040:6465 \Device\
NPF_{F3D116D2-0E9D-4929-9F9D-C4D0DD7C15E9} Intel(R) PRO/1000 MT Desktop Adapter
  2    00:FF:55:9A:C7:43        0000:0000:fe80:0000:0000:0000:844e:f70b \Device\
NPF_{559AC743-5F26-4145-9FF0-C4EAC4B43C72} TAP-Windows Adapter U9

C:\Snort\bin>
```

3. Now for enabling Ethernet Driver and make sure it is working properly  
snort -dev -i2

```
C:\Windows\system32\cmd.exe - snort -dev -i2
NPF_{559AC743-5F26-4145-9FF0-C4EAC4B43C72} TAP-Windows Adapter U9

C:\Snort\bin>snort -dev -i2
Running in packet dump mode

  === Initializing Snort ===
  Initializing Output Plugins!
  pcap DAQ configured to passive.
  The DAQ version does not support reload.
  Acquiring network traffic from "\Device\NPF_{559AC743-5F26-4145-9FF0-C4EAC4B43C72}".
  Decoding Ethernet

  === Initialization Complete ===

  _ _ _ _ _
  o" )~
  ....

  -x> Snort! <x-
  Version 2.9.5.6-WIN32 GRE (Build 208)
  By Martin Roesch & The Snort Team: http://www.snort.org/snort-team

  Copyright (C) 1998-2013 Sourcefire, Inc., et al.
  Using PCRE version: 8.10 2010-06-25
  Using ZLIB version: 1.2.3

  Commencing packet processing (pid=2184)
```

#### 4. Now edit snort.conf using Notepad++

```
94
95 # List of GTP ports for GTP preprocessor
96 portvar GTP_PORTS [2123,2152,3386]
97
98 # other variables, these should not be modified
99 ipvar AIM_SERVERS [64.12.24.0/23,64.12.28.0/23,64.12.161.0/24,64.12.163.0/24,64.12.200.0/24,205.188.3.0/24,205.188.5.0/24,205.
00
01 # Path to your rules files (this can be a relative path)
02 # Note for Windows users: You are advised to make this an absolute path,
03 # such as: c:\snort\rules
04 var RULE_PATH C:\Snort\rules
05 var SO_RULE_PATH C:\Snort\so_rules
06 var PREPROC_RULE_PATH C:\Snort\preproc_rules
07
08 # If you are using reputation preprocessor set these
09 # Currently there is a bug with relative paths, they are relative to where snort is
10 # not relative to snort.conf like the above variables

38 #####
39 config paf_max: 16000
40
41 #####
42 # Step #4: Configure dynamic loaded libraries.
43 # For more information, see Snort Manual, Configuring Snort - Dynamic Modules
44 #####
45
46 # path to dynamic preprocessor libraries
47 dynamicpreprocessor directory C:\Snort\lib\snort_dynamicpreprocessor
48
49 # path to base preprocessor engine
50 dynamicengine /usr/local/lib/snort_dynamicengine/libsfe_engine.so
51

# path to dynamic preprocessor libraries
dynamicpreprocessor directory C:\Snort\lib\snort_dynamicpreprocessor

# path to base preprocessor engine
dynamicengine C:\Snort\lib\snort_dynamicengine\sfe_engine.dll

# path to dynamic rules libraries
dynamicdetection directory /usr/local/lib/snort_dynamicrules

#####
# Step #5: Configure preprocessors
# For more information, see the Snort Manual, Configuring Snort - Preprocessors
#####

# GTP Central Channel Preprocessor. For more information, see README.GTP
```

- Now type `snort -iX -A console -c C:\Snort\etc\snort.conf -I C:\Snort\log -K ascii`

```

C:\Windows\system32\cmd.exe

C:\Snort\bin>snort -iX -A console -c C:\snort\etc\snort.conf -I C:\Snort\log -K
ascii
Running in IDS mode

      ---- Initializing Snort ----
Initializing Output Plugins!
Initializing Preprocessors!
Initializing Plug-ins!
Parsing Rules file "C:\snort\etc\snort.conf"
PortUar 'HTTP_PORTS' defined : [ 36 80:90 311 383 591 593 631 801 818 901 972 1
158 1220 1414 1741 1830 2301 2381 2809 3029 3037 3057 3128 3443 3702 4000 4343 4
848 5117 5250 6080 6988 7000:7001 7144:7145 7510 7770 7777 7779 8000 8008 8014 8
028 8080 8085 8088 8090 8118 8123 8180:8181 8222 8243 8280 8300 8500 8509 8800 8
888 8899 9000 9060 9080 9090:9091 9443 9999:10000 11371 12601 34443:34444 41000
50000 50002 55252 55555 ]
PortUar 'SHELLCODE_PORTS' defined : [ 0:79 81:65535 ]
PortUar 'ORACLE_PORTS' defined : [ 1024:65535 ]
PortUar 'SSH_PORTS' defined : [ 22 ]
PortUar 'FTP_PORTS' defined : [ 21 2100 3535 ]
PortUar 'SIP_PORTS' defined : [ 5060:5061 5600 ]
PortUar 'FILE_DATA_PORTS' defined : [ 36 80:90 110 143 311 383 591 593 631 801
818 901 972 1158 1220 1414 1741 1830 2301 2381 2809 3029 3037 3057 3128 3443 370
2 4000 4343 4848 5117 5250 6080 6988 7000:7001 7144:7145 7510 7770 7777 7779 800
0 8008 8014 8028 8080 8085 8088 8090 8118 8123 8180:8181 8222 8243 8280 8300 850
0 8509 8800 8888 8899 9000 9060 9080 9090:9091 9443 9999:10000 11371 12601 34443
:34444 41000 50000 50002 55252 55555 ]
PortUar 'GTP_PORTS' defined : [ 2123 2152 3386 ]
Detection:
  Search-Method = AC-Full-0
  Split Any/Any group = enabled
  Search-Method-Optimizations = enabled
  Maximum pattern length = 20
ERROR: C:\snort\etc\C:\Snort\rules\local.rules(0) Unable to open rules file "C:\
snort\etc\C:\Snort\rules\local.rules": Invalid argument.

Fatal Error. Quitting..
Could not create the registry key.
C:\Snort\bin>

```

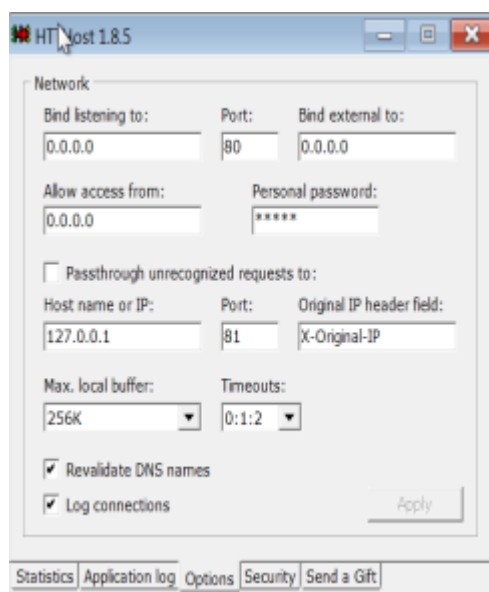
**Note:** Fatal error, this shows that, there was some error in editing snort.conf file.

## Lab Analysis

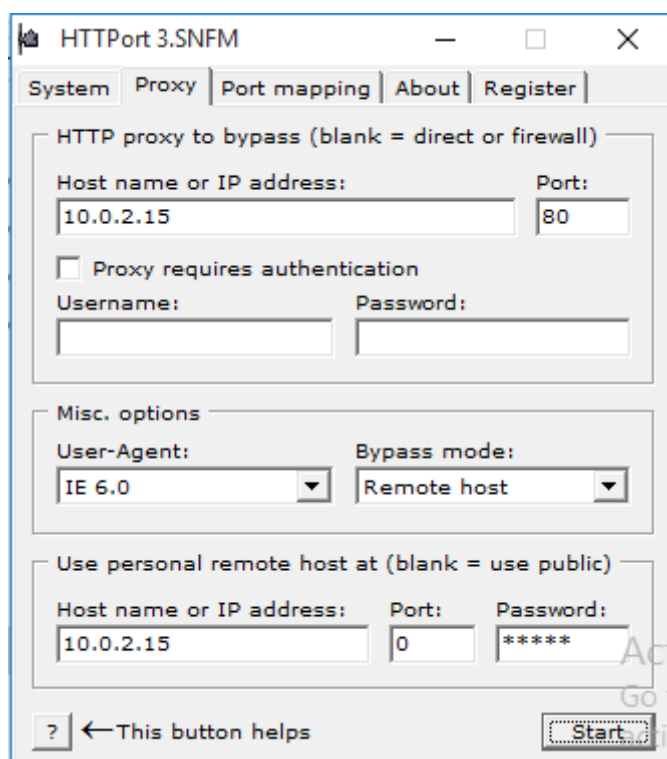
Tool/Utility	Information Collected/Objective Achieved
Snort	Output: Victim machine log were not captured

## HTTP Tunneling Using HTTPPort

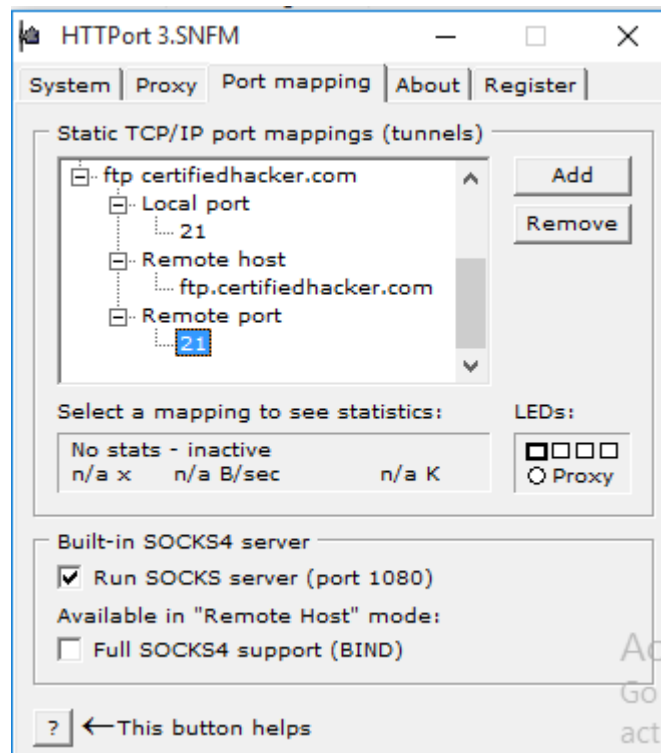
1. Now first start HTTPHost in one virtual box.



2. Now, in another virtual box open HTTPPort, enter the host IP address and port number of the targeted machine.



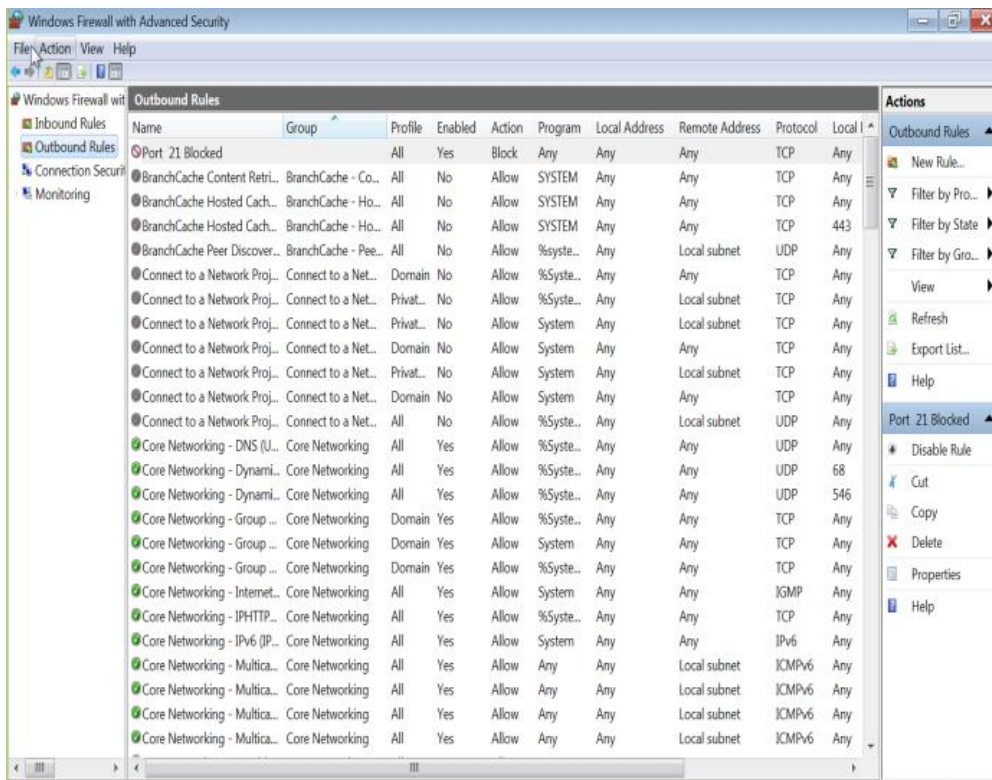
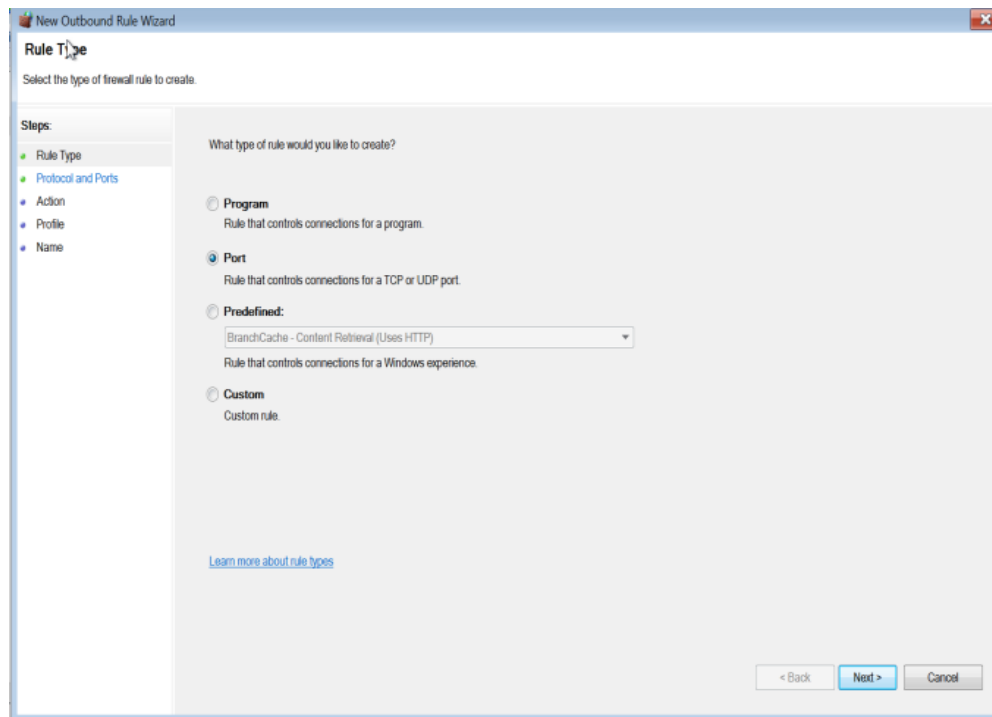
3. Now do port mapping

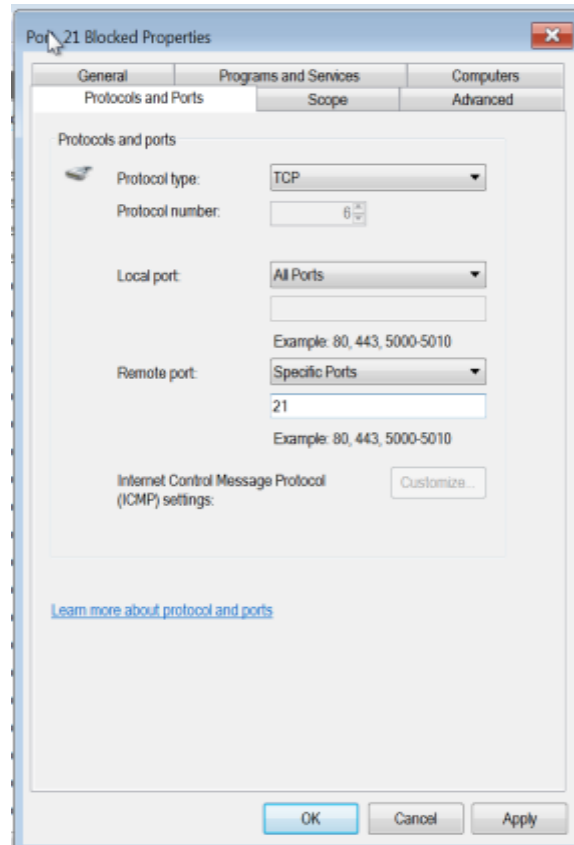


4. Now check whether the listener is listening at 0.0.0.0:80 (running properly)

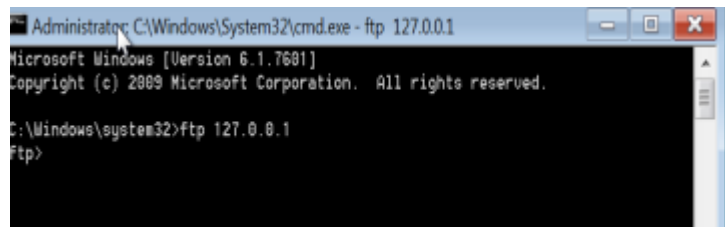


- Now go to windows firewall with advanced security, in outbound rules, create new rule.





6. Now type [ftp 127.0.0.1](ftp://127.0.0.1) in command prompt, we can see the connection is blocked at the local host



#### Lab Analysis

Tool/Utility	Information Collected/Objective Achieved
HTTPPort	Proxy server used: 10.0.0.4
	Port Scanned: 80
	Result : <a href="ftp://127.0.0.1">ftp 127.0.0.1</a> connected to 127.0.0.1