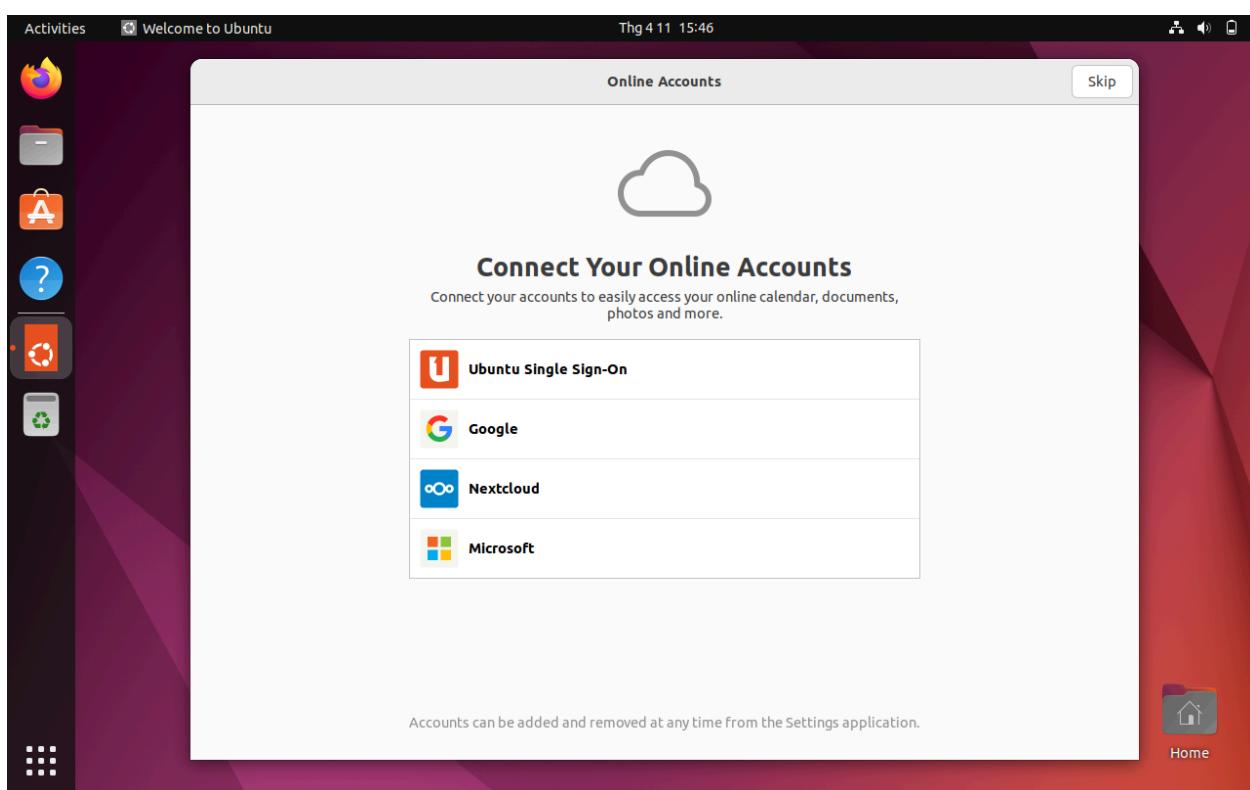
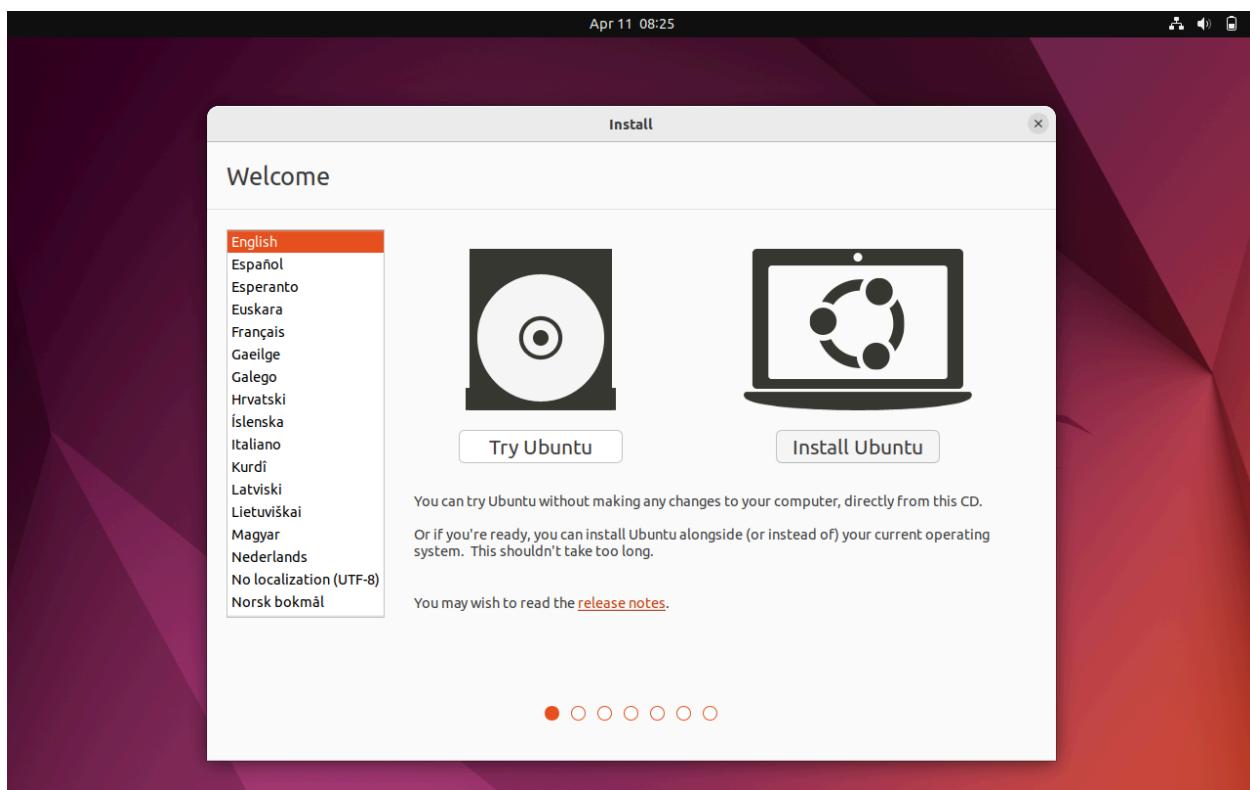
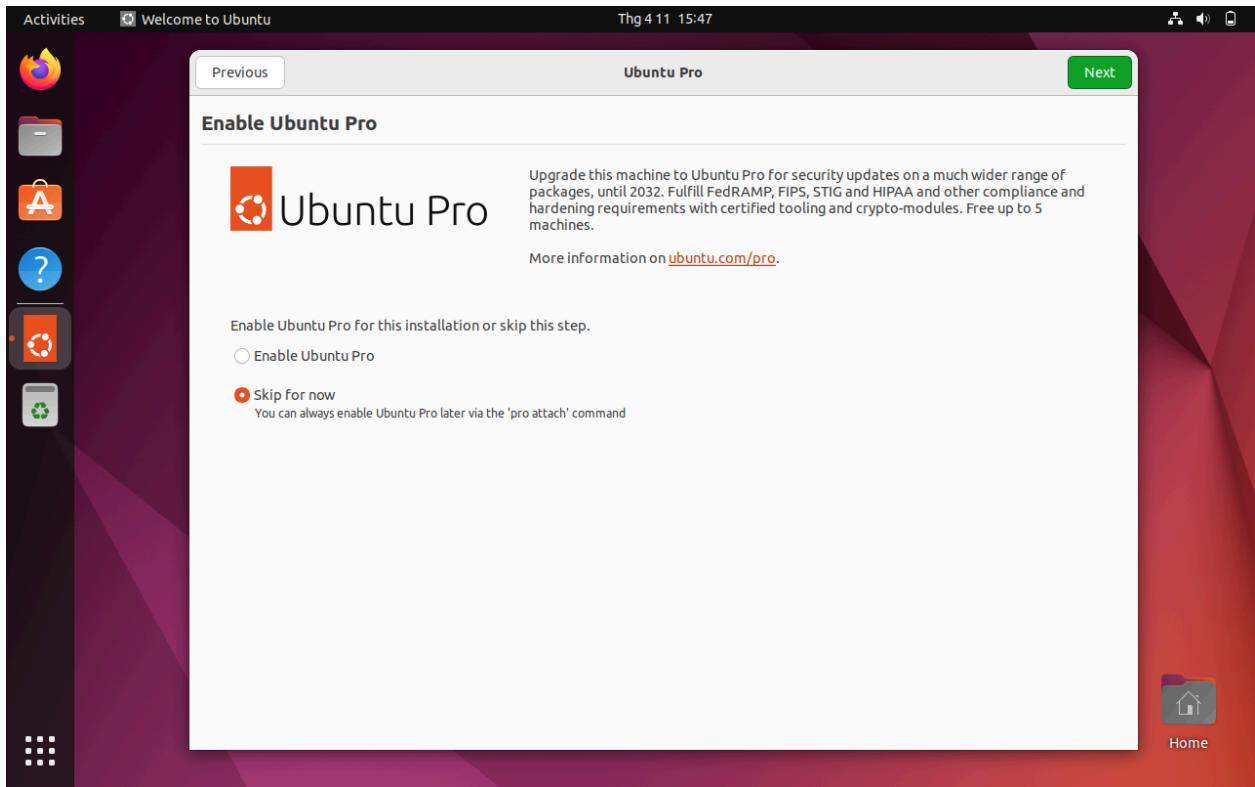


Lab 13.01





Activities Terminal Thg 4 11 15:48

```
nam@nam-VirtualBox: ~
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

nam@nam-VirtualBox: $ sudo apt update && sudo apt upgrade
[sudo] password for nam:
Hit:1 http://vn.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://vn.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://vn.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Fetched 110 kB in 2s (71,9 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
85 packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following NEW packages will be installed:
  ubuntu-pro-client
The following packages will be upgraded:
  accountservice alsas-ucm-conf apt apt-utils bash bsddextrautils bsduutils coreutils cups cups-bsd cups-client cups-common
  cups-core-drivers cups-daemon cups-ipp-utils cups-ppdc cups-server-common dnsmasq-base dpkg fdisk firmware-sof-signed
  gir1.2-accountservic-1.0 gir1.2-mutter-10 less libaccountservic0 libapt-pkg0.0 libblkid1 libcupsc2 libcupsmimage2
  libcurl3-gnutls libcurl4 libexpat1 libfdisk1 libgpme11 libldap-2.5-0 libldap-common libmount1 libmutter-10-0
  libnspr4 libnss3 libpulse-mainloop-glib0 libpulsedsp libsmartcols1 libsmclient libssl3 libsynctex2 libtiff5 libuuuid1
  libuv1 libwbcclient0 libxml2 linux-firmware mount mutter-common openssl pulseaudio pulseaudio-module-bluetooth pulseaudio-utils
  python3-cryptography python3-update-manager rfkill samba-libs snapd tcpdump tracker-extract tracker-miner-fs tzdata
  ubuntu-adantage-tools ubuntu-pro-client-l10n update-manager update-manager-core update-notifier update-notifier-common
  util-linux uuid-runtime vim-common vim-tiny xserver-common xserver-xephyr xserver-xorg-core xserver-xorg-legacy xwayland xxd
85 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
40 standard LTS security updates
Need to get 228 kB/327 MB of archives.
After this operation, 297 kB disk space will be freed.
Do you want to continue? [Y/n]
```

Activities Terminal Thg 4 11 15:51

```
nam@nam-VirtualBox: ~
Processing triggers for ufw (0.36.1-4ubuntu0.1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for dbus (1.12.20-2ubuntu4.1) ...
Processing triggers for install-info (6.8-4build1) ...
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for libglib2.0-0:amd64 (2.72.4-0ubuntu2.2) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
Setting up tracker-miner-fs (3.3.3-0ubuntu0.20.04.2) ...
Setting up libmutter-10-0:amd64 (42.9-0ubuntu7) ...
Setting up update-notifier (3.192.54.8) ...
Setting up gir1.2-mutter-10:amd64 (42.9-0ubuntu7) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
nam@nam-VirtualBox: $ sudo apt install snort wireshark
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libbcg729-0 libc-ares2 libdaq2 libdouble-conversion3 libdumbnet1 libluajit-5.1-2 libluajit-5.1-common libmd4c0
  libminizip1 libnetfilter-queue1 libpcre2-16-0 libqt5core5a libqt5dbus5 libqt5gui5 libqt5multimedias libqt5multimedias5-plugins
  libqt5multimedias5-tools5 libqt5multimediamidiwidgets5 libqt5networks libqt5printsupports5 libqt5svg5 libqt5widgets5 libsmi2l0
  libsnappy1v5 libspandsp2 libssh-gcrypt-4 libwireshark-data libwireshark15 libwireshark15 libwireshark15 libwsutil13 libxcb-xinerama0
  libxcb-xinput0 net-tools oinkmaster qt5-gtk-platformtheme qttranslations5-l10n snort-common snort-common-libraries
  snort-rules-default wireshark-common wireshark-qt
Suggested packages:
  qt5-image-formats-plugins qtwayland5 snmp-mibs-downloader geoipupdate geoip-database geoip-database-extra libjs-leaflet
  libjs-leaflet.markercluster wireshark-doc snort-doc
The following NEW packages will be installed:
  libbcg729-0 libc-ares2 libdaq2 libdouble-conversion3 libdumbnet1 libluajit-5.1-2 libluajit-5.1-common libmd4c0
  libminizip1 libnetfilter-queue1 libpcre2-16-0 libqt5core5a libqt5dbus5 libqt5gui5 libqt5multimedias libqt5multimedias5-plugins
  libqt5multimedias5-tools5 libqt5multimediamidiwidgets5 libqt5networks libqt5printsupports5 libqt5svg5 libqt5widgets5 libsmi2l0
  libsnappy1v5 libspandsp2 libssh-gcrypt-4 libwireshark-data libwireshark15 libwireshark15 libwsutil13 libxcb-xinerama0
  libxcb-xinput0 net-tools oinkmaster qt5-gtk-platformtheme qttranslations5-l10n snort snort-common snort-common-libraries
  snort-rules-default wireshark wireshark-common wireshark-qt
0 upgraded, 44 newly installed, 0 to remove and 0 not upgraded.
Need to get 42,3 MB/42,3 MB of archives.
After this operation, 192 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

Lab 13.02

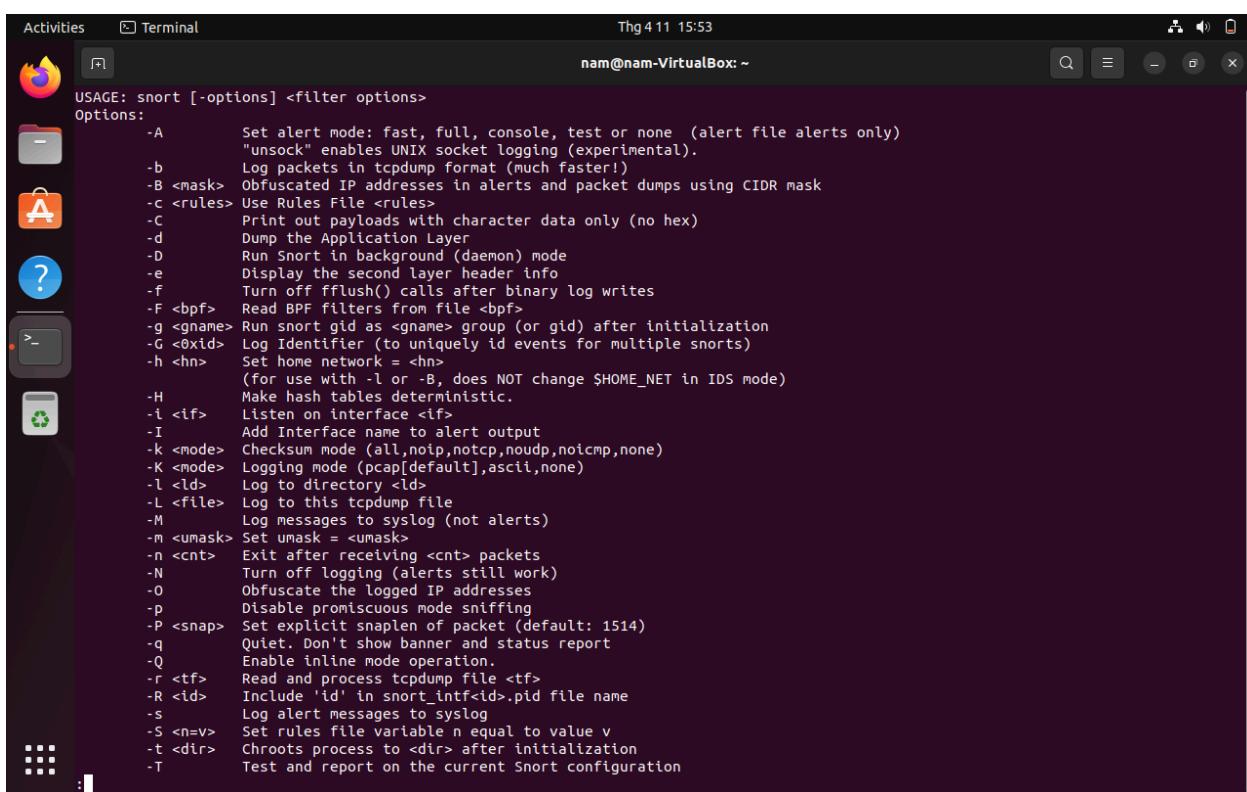
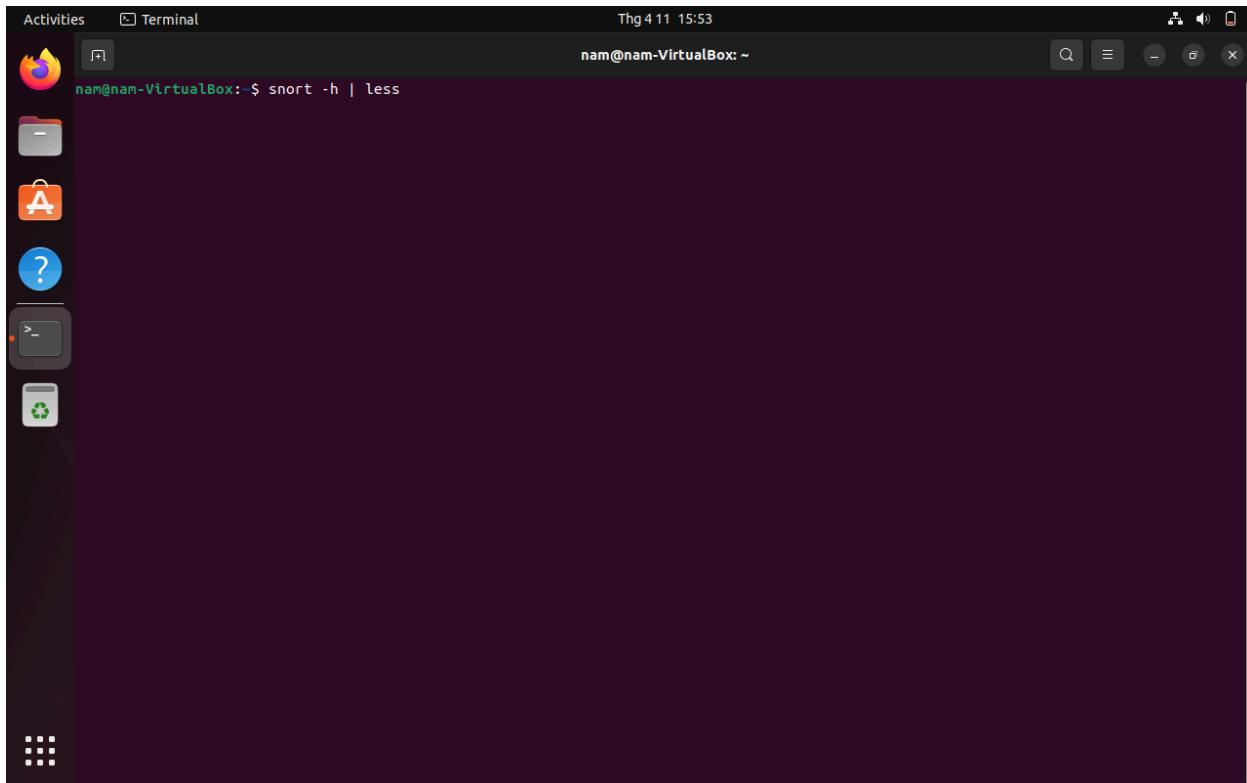
```
cmd C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2006]
(c) Microsoft Corporation. All rights reserved.

C:\Users\nam>ping 10.0.2.15

Pinging 10.0.2.15 with 32 bytes of data:
Reply from 10.0.2.15: bytes=32 time<1ms TTL=64

Ping statistics for 10.0.2.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\nam>
```



Activities Terminal Thg 4 11 15:54 nam@nam-VirtualBox: ~

SNORT(8) System Manager's Manual SNORT(8)

NAME

Snort - open source network intrusion detection system

SYNOPSIS

```
snort [-bcdDeFHMNOpqQsTUVVwMxXy?] [-A alert-mode] [-B address-conversion-mask] [-c rules-file] [-F bpf-file] [-g group-name] [-G id] [-h home-net] [-i interface] [-K checksum-mode] [-L log-dir] [-l bin-log-file] [-m umask] [-n packet-count] [-P snap-length] [-r tcpdump-file] [-R name] [-s variable=value] [-t chroot_directory] [-u user-name] [-z pathname] [-logid id] [-perfmmon-file pathname] [--pid-path pathname] [-snaplen snap-length] [--help] [--version] [-dynamic-engine-lib-dir directory] [-dump-dynamic-rules directory] [-dynamic-preprocessor-lib file] [-dynamic-preprocessor-lib-dir directory] [--dynamic-output-lib-dir directory] [-dynamic-output-lib file] [--alert-before-pass] [--treat-drop-as-alert] [--treat-drop-as-ignore] [-process-all-events] [-enable-inline-test] [-create-pidfile] [-no-lock-pidfile] [-no-interface-pidfile] [-disable-attribute-reload-thread] [-pcap-single=tcpdump-file] [-pcap-filter= filter] [-pcap-list= list] [-pcap-dir= directory] [-pcap-file= file] [-pcap-no-filter] [-pcap-reset] [-pcap-reload] [-pcap-show] [-exit-check count] [-conf-error-out] [-enable-mpls-multicast] [-enable-mpls-overlapping-ip] [-max-mpls-labelchain-len] [-mpls-payload-type] [-require-rule-sid] [-daq type] [-daq-mode mode] [-daq-var name=value] [-daq-dir dir] [-daq-list [dir]] [-dirty-pig] [-cs-dir dir] [-ha-peer] [-ha-out file] [-ha-in file] expression
```

DESCRIPTION

Snort is an open source network intrusion detection system, capable of performing real-time traffic analysis and packet logging on IP networks. It can perform protocol analysis, content searching/matching and can be used to detect a variety of attacks and probes, such as buffer overflows, stealth port scans, CGI attacks, SMB probes, OS fingerprinting attempts, and much more. Snort uses a flexible rules language to describe traffic that it should collect or pass, as well as a detection engine that utilizes a modular plugin architecture. Snort also has a modular real-time alerting capability, incorporating alerting and logging plugins for syslog, a ASCII text files, UNIX sockets or XML.

Snort has three primary uses. It can be used as a straight packet sniffer like `tcpdump(1)`, a packet logger (useful for network traffic debugging, etc), or as a full blown network intrusion detection system.

Snort logs packets in `tcpdump(1)` binary format or in Snort's decoded ASCII format to a hierarchy of logging directories that are named based on the IP address of the "foreign" host.

OPTIONS

```
-A alert-mode
    Alert using the specified alert-mode. Valid alert modes include fast, full, none, and unsock. Fast writes alerts to the default "alert" file in a single-line, syslog style alert message. Full writes the alert to the "alert" file.
```

Manual page `snort(8)` line 1 (press h for help or q to quit)

Activities Terminal Thg 4 11 15:54 nam@nam-VirtualBox: ~

```
nam@nam-VirtualBox: ~$ snort -h | less
nam@nam-VirtualBox: ~$ man snort
nam@nam-VirtualBox: ~$ snort -v
Running in packet dump Mode

==== Initializing Snort ====
Initializing Output Plugins!
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
ERROR: Can't start DAQ (-1) - socket: Operation not permitted!
Fatal Error, Quitting...
nam@nam-VirtualBox: ~$ snort -v

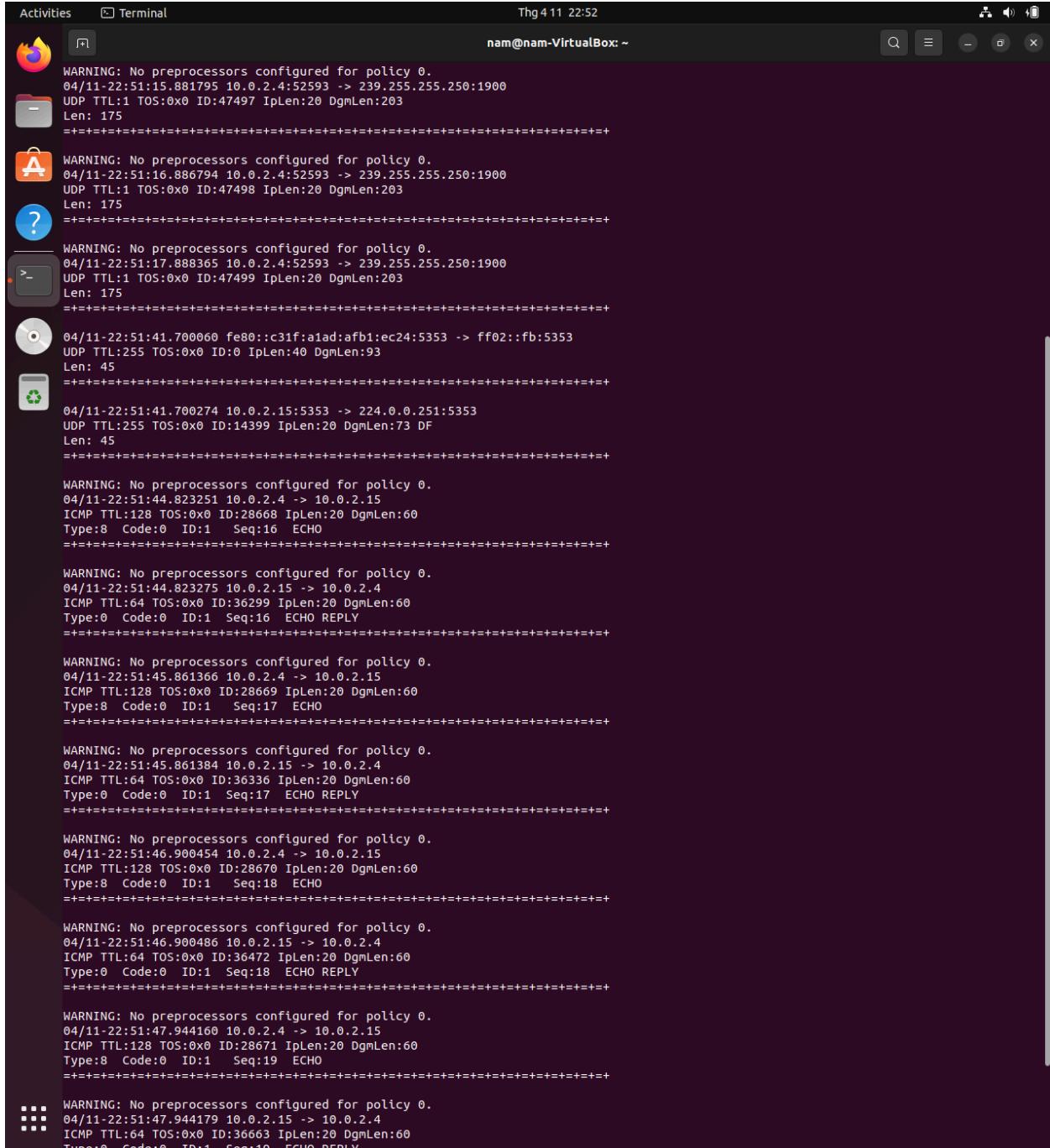
o''~-*> Snort! <*-.
..., Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.1 (with TPACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.11
```

nam@nam-VirtualBox: ~

```
Activities Terminal Thg 4 11 16:26
nam@nam-VirtualBox: ~
=====
Breakdown by protocol (includes rebuilt packets):
  Eth:          12 (100.000%)
  VLAN:         0 (  0.000%)
  IP4:          10 ( 83.333%)
  Frag:         0 (  0.000%)
  ICMP:         0 (  0.000%)
  UDP:          3 ( 25.000%)
  TCP:          7 ( 58.333%)
  IP6:          0 (  0.000%)
  IP6 Ext:      0 (  0.000%)
  IP6 Opts:      0 (  0.000%)
  Frag6:        0 (  0.000%)
  ICMP6:        0 (  0.000%)
  UDP6:         0 (  0.000%)
  TCP6:         0 (  0.000%)
  Teredo:       0 (  0.000%)
  ICMP-IP:      0 (  0.000%)
  IP4/IP4:       0 (  0.000%)
  IP4/IP6:       0 (  0.000%)
  IP6/IP4:       0 (  0.000%)
  IP6/IP6:       0 (  0.000%)
  GRE:          0 (  0.000%)
  GRE Eth:       0 (  0.000%)
  GRE VLAN:     0 (  0.000%)
  GRE IP4:       0 (  0.000%)
  GRE IP6:       0 (  0.000%)
  GRE IP6 Ext:   0 (  0.000%)
  GRE PPTP:      0 (  0.000%)
  GRE ARP:       0 (  0.000%)
  GRE IPX:       0 (  0.000%)
  GRE Loop:      0 (  0.000%)
  MPLS:          0 (  0.000%)
  ARP:           2 ( 16.667%)
  IPX:          0 (  0.000%)
  Eth Loop:      0 (  0.000%)
  Eth Disc:      0 (  0.000%)
  IP4 Disc:      0 (  0.000%)
  IP6 Disc:      0 (  0.000%)
  TCP Disc:      0 (  0.000%)
```

Activities Terminal Thg 4 11 22:37

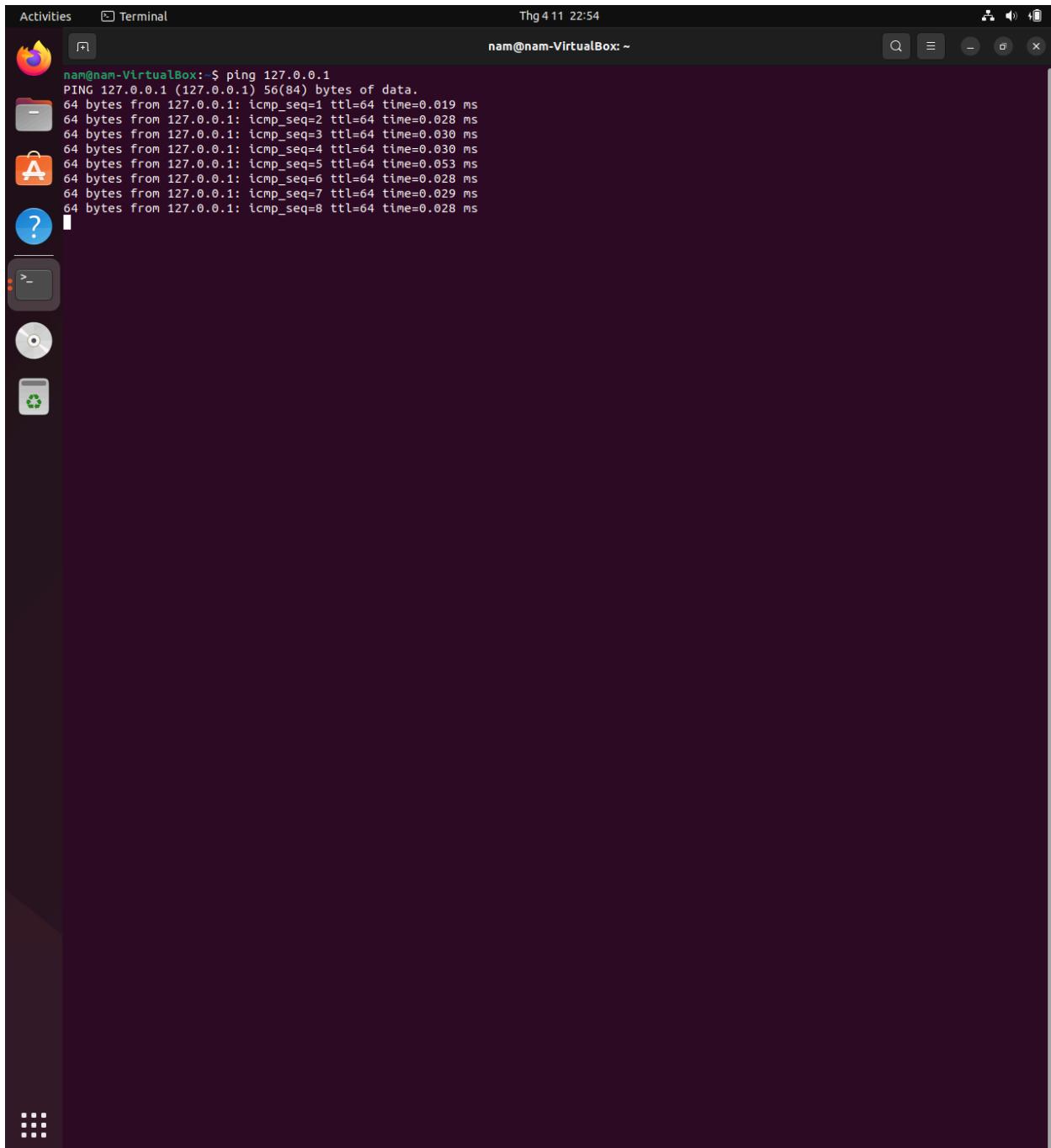
```
nam@nam-VirtualBox: ~ nam@nam-VirtualBox: ~
nam@nam-VirtualBox: $ sudo snort -v -i enp0s3
Running in packet dump mode
      === Initializing Snort ===
      Initializing Output Plugins!
      pcap DAQ configured to passive.
      Acquiring network traffic from "enp0s3".
      Decoding Ethernet
      === Initialization Complete ===
      -*> Snort! <*-
      Version 2.9.15.1 GRE (Build 15125)
      By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
      Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
      Copyright (C) 1998-2013 Sourcefire, Inc., et al.
      Using libpcap version 1.10.1 (with TPACKET_V3)
      Using PCRE version: 8.39 2016-06-14
      Using ZLIB version: 1.2.11
      Commencing packet processing (pid=2119)
```

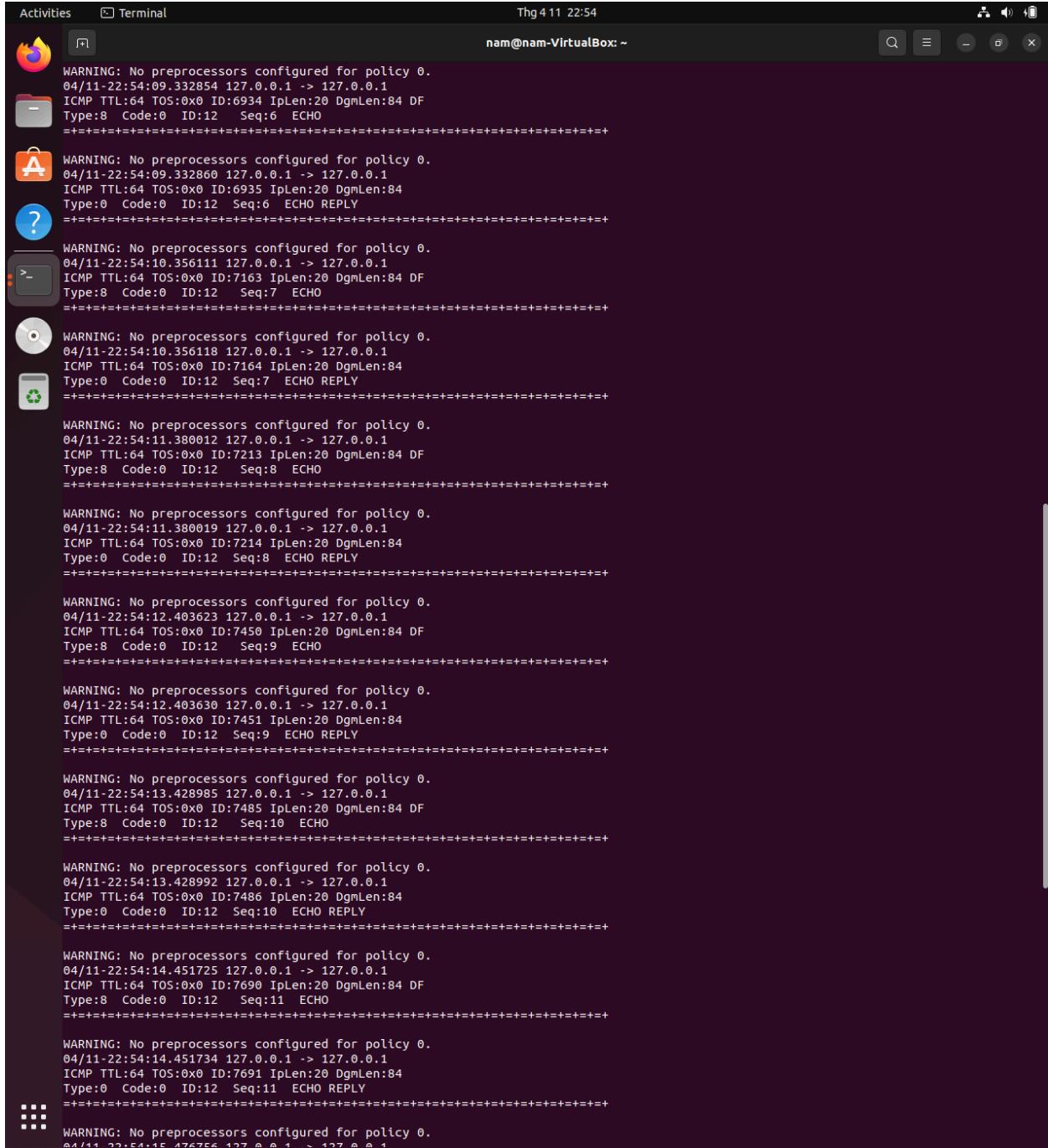


Activities Terminal Thg 4 11 22:53

```
nam@nam-VirtualBox: $ sudo snort -v -i lo
[sudo] password for nam:
Running in packet dump mode
     === Initializing Snort ===
Initializing Output Plugins!
pcap DAQ configured to passive.
Acquiring network traffic from "lo".
Decoding Ethernet
     === Initialization Complete ===
o'')~  -*> Snort! <*- 
Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.1 (with TPACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.11

Commencing packet processing (pid=2683)
```





Lab 13.03

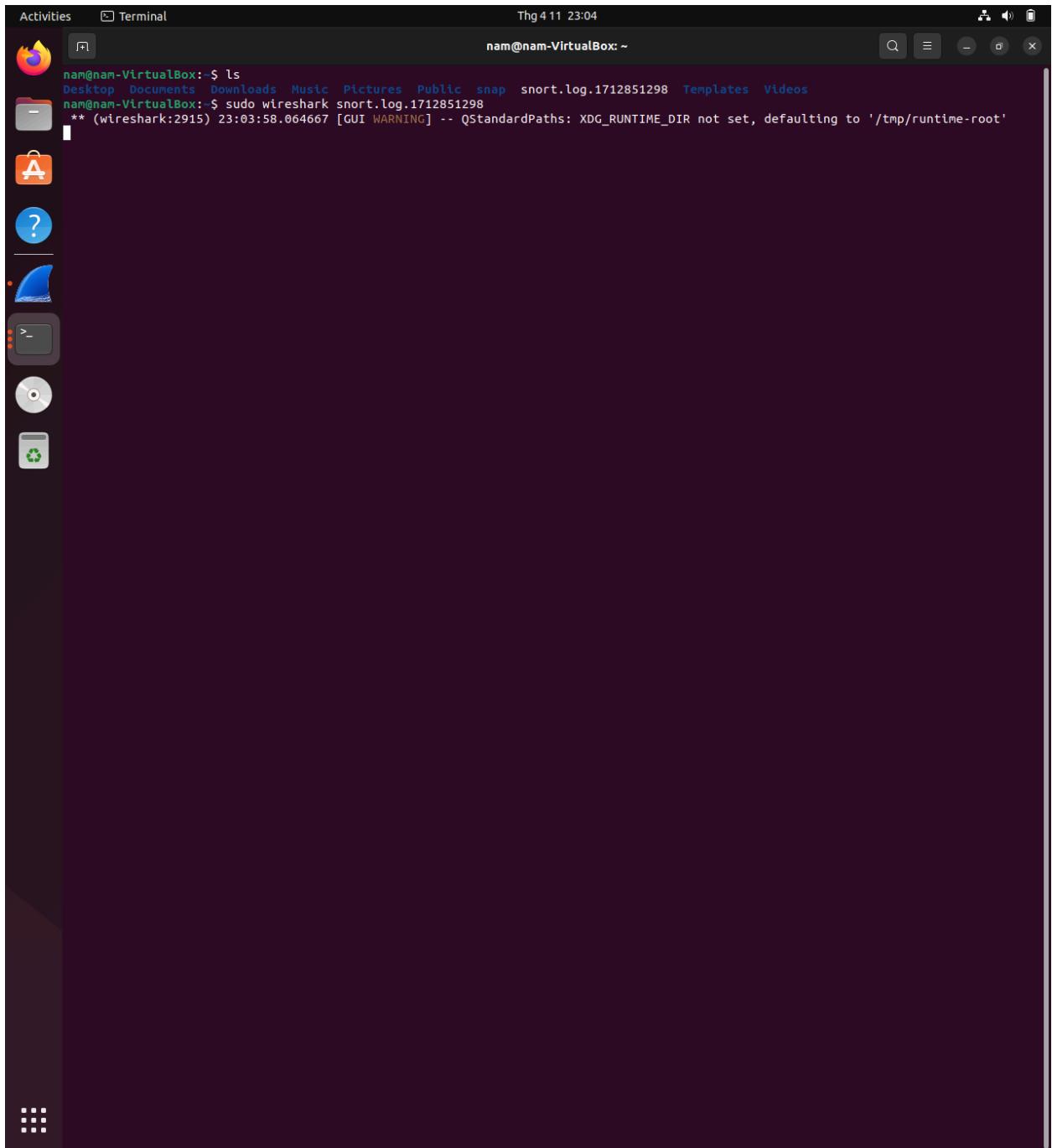
```
cmd C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.2006]
(c) Microsoft Corporation. All rights reserved.

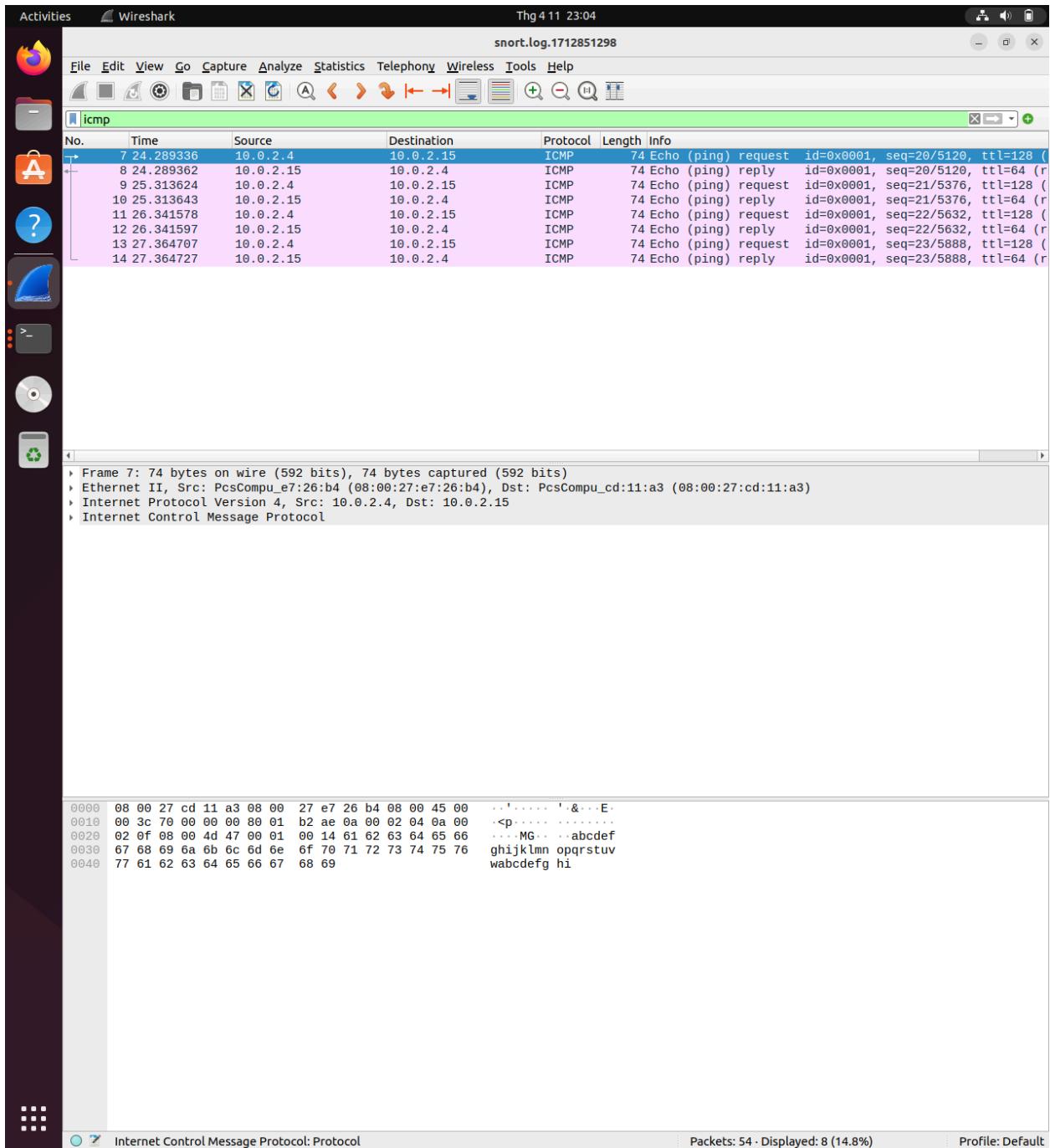
C:\Users\nam>ping 10.0.2.15

Pinging 10.0.2.15 with 32 bytes of data:
Reply from 10.0.2.15: bytes=32 time<1ms TTL=64

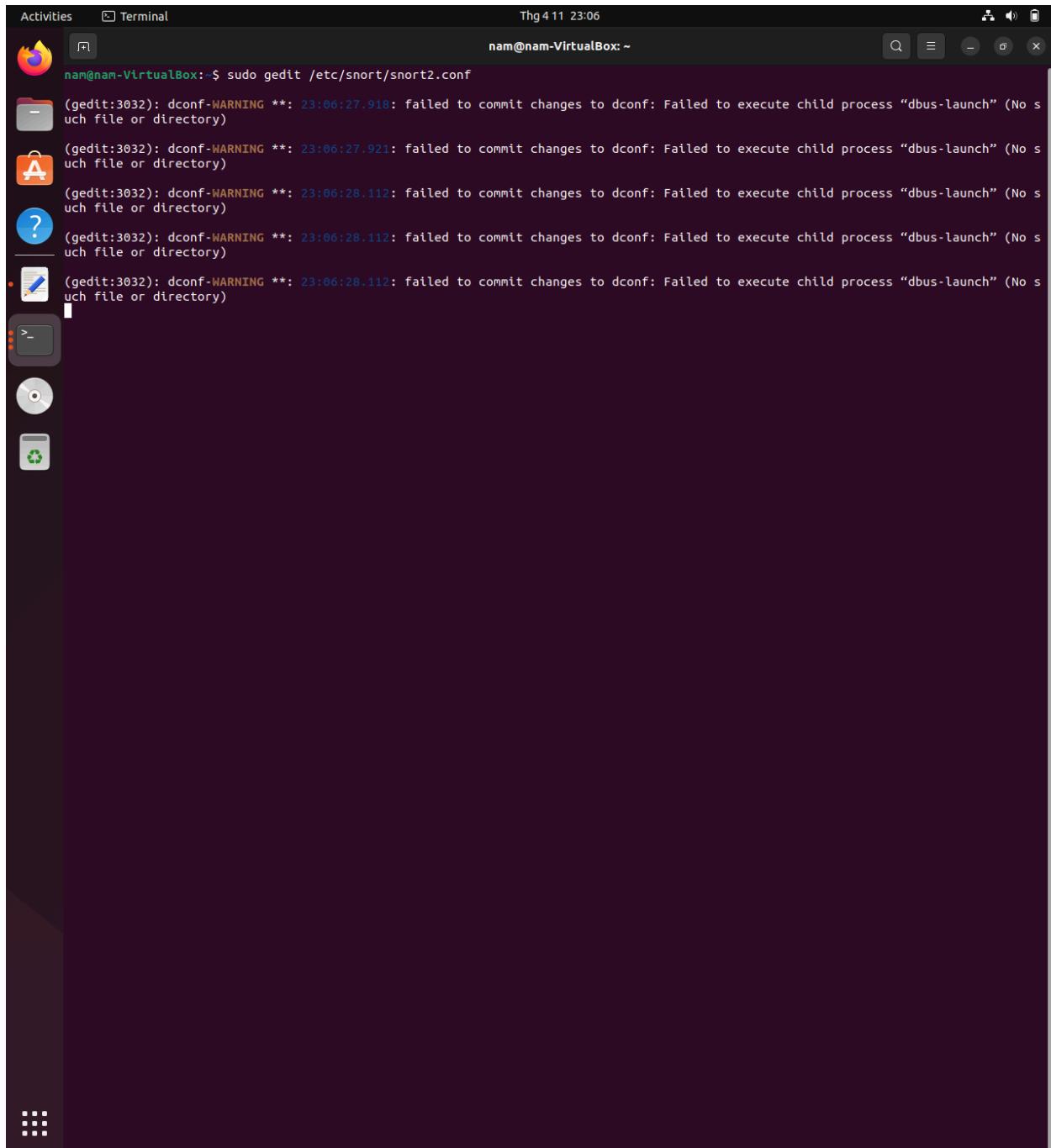
Ping statistics for 10.0.2.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\nam>
```





Lab 13.04



Activities Gedit Thg 4 11 23:07

nam@nam-VirtualBox: ~

*snort2.conf /etc/snort

```
1 preprocessor frag3_global: max_frags 65536
2 include classification.config
3 ipvar HOME_NET 10.0.2.15/24
4 var RULE_PATH /etc/snort/rules
5 include $RULE_PATH/local.rules
```

process "dbus-launch" (No s

Plain Text Tab Width: 8 Ln 3, Col 25 INS

This screenshot shows a Linux desktop environment with a dark theme. A Gedit window is open, displaying a configuration file named 'snort2.conf' located at '/etc/snort'. The file contains several lines of code related to Snort preprocessors and rule paths. The desktop interface includes a dock on the left with icons for various applications like a web browser, terminal, and file manager. The status bar at the bottom shows the current date and time as 'Thg 4 11 23:07'.

Activities Gedit Thg 4 11 23:11

nam@nam-VirtualBox: \$ sudo gedit /etc/snort/rules/local.rules

local.rules
/etc/snort/rules

```
1 # $Id: local.rules,v 1.11 2004/07/23 20:15:44 bmc Exp $  
2 # -----  
3 # LOCAL RULES  
4 # -----  
5 # This file intentionally does not come with signatures. Put your local  
6 # additions here.  
7 alert icmp any any -> $HOME_NET any (msg:"ICMP detected!"; $id: 1000052; rev:1; classtype:icmp-event;)
```

Plain Text Tab Width: 8 Ln 7, Col 60 INS

Activities Terminal Thg 4 11 23:13

```
nam@nam-VirtualBox: $ sudo snort -A console -A fast -c /etc/snort/snort2.conf -i enp0s3
Running in IDS mode

==== Initializing Snort ====
Initializing Output Plugins!
Initializing Preprocessors!
Initializing Plug-ins!
Parsing Rules file "/etc/snort/snort2.conf"
Tagged Packet Limit: 256
Log directory = /var/log/snort
Frag3 global config:
    Max frags: 65536
    Fragment memory cap: 4194304 bytes

+++++ Initializing rule chains...
1 Snort rules read
  1 detection rules
  0 decoder rules
  0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+++++ [Rule Port Counts]
|      tcp   udp   icmp   ip
|  src   0     0     0     0
|  dst   0     0     0     0
|  any   0     0     1     0
|  nc    0     0     1     0
|  s+d   0     0     0     0
+-----[detection-filter-config]-
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]-
| none
+-----[rate-filter-config]-
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]-
| none
+-----[event-filter-config]-
| memory-cap : 1048576 bytes
+-----[event-filter-global]-
+-----[event-filter-local]-
| none
+-----[suppression]-
| none
Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!

[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x7ba91560b640 (3217)
Decoding Ethernet

==== Initialization Complete ====
-*> Snort! <*-  
o'`-~ Version 2.9.15.1 GRE (Build 15125)  
... By Martin Roesch & The Snort Team: http://www.snort.org/contact#team  
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.  
Copyright (C) 1998-2013 Sourcefire, Inc., et al.  
Using libpcap version 1.10.1 (with TPACKET_V3)  
Using PCRE version: 8.39 2016-06-14  
Using ZLIB version: 1.2.11

Compressing packet processing (pid=3200)
```

Activities Terminal Thg 4 11 23:14 nam@nam-VirtualBox: ~

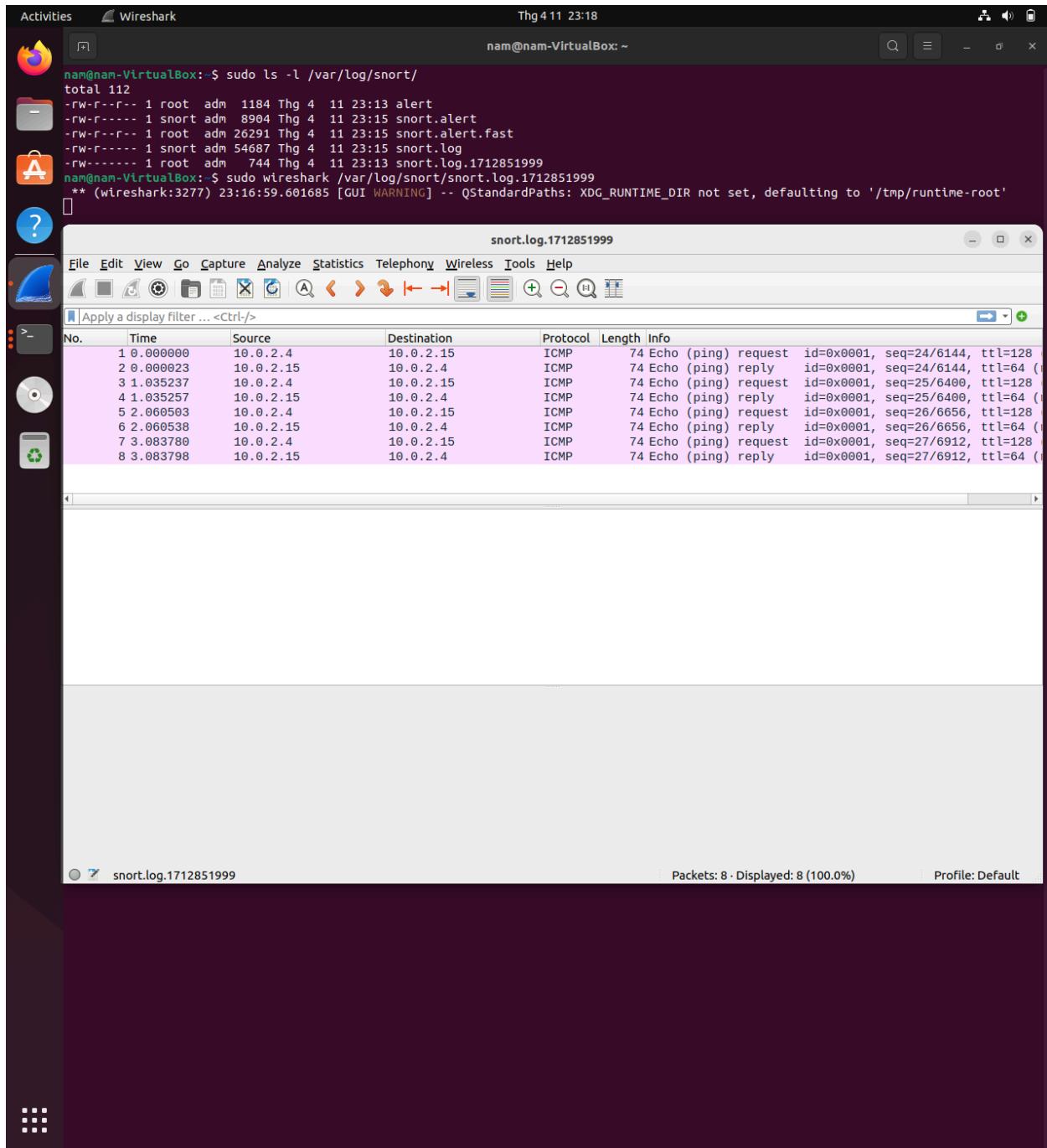
```
0 decoder rules
0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+-----[Rule Port Counts]-----
|   src      tcp    udp    icmp   ip
|   dst      0      0      0      0
|   any     0      0      1      0
|   nc      0      0      1      0
|   s+d     0      0      0      0
+-----[detection-filter-config]-----
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]-----
| none
+-----[rate-filter-config]-----
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]-----
| none
+-----[event-filter-config]-----
| memory-cap : 1048576 bytes
+-----[event-filter-global]-----
+-----[event-filter-local]-----
| none
+-----[suppression]-----
| none
Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!
[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x7ba91560b640 (3217)
Decoding Ethernet
---- Initialization Complete ----
-> Snort! <-
o" )~ Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.1 (with TPACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.11

Commencing packet processing (pid=3208)
04/11/23:13:49.516791 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:13:49.516814 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:13:50.552028 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:13:50.552048 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:13:51.577294 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:13:51.577329 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:13:52.600571 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:13:52.600589 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
```

```
Activities Terminal Thg 4 11 23:14
nam@nam-VirtualBox: ~
=====
Run time for packet processing was 80.83821 seconds
Snort processed 16 packets.
Snort ran for 0 days 0 hours 1 minutes 20 seconds
  Pkts/min:      16
  Pkts/sec:      0
=====
Memory usage summary:
  Total non-mmapped bytes (arena):      4235264
  Bytes in mapped regions (hblkhd):    30130176
  Total allocated space (wordblks):     3353904
  Total free space (fordblks):         881360
  Topmost releasable block (keepcost):  590656
=====
Packet I/O Totals:
  Received:      27
  Analyzed:      16 ( 59.259%)
  Dropped:       0 ( 0.000%)
  Filtered:      0 ( 0.000%)
  Outstanding:   11 ( 40.741%)
  Injected:      0
=====
Breakdown by protocol (includes rebuilt packets):
  Eth:          16 (100.000%)
  VLAN:         0 ( 0.000%)
  IP4:          12 ( 75.000%)
  Frag:         0 ( 0.000%)
  ICMP:         8 ( 50.000%)
  UDP:          4 ( 25.000%)
  TCP:          0 ( 0.000%)
  IP6:          0 ( 0.000%)
  IP6 Ext:      0 ( 0.000%)
  IP6 Opts:     0 ( 0.000%)
  Frag6:        0 ( 0.000%)
  ICMP6:        0 ( 0.000%)
  UDP6:         0 ( 0.000%)
  TCP6:         0 ( 0.000%)
  Teredo:       0 ( 0.000%)
  ICMP-IP:     0 ( 0.000%)
  IP4/IP4:      0 ( 0.000%)
  IP4/IP6:      0 ( 0.000%)
  IP6/IP4:      0 ( 0.000%)
  IP6/IP6:      0 ( 0.000%)
  GRE:          0 ( 0.000%)
  GRE Eth:      0 ( 0.000%)
  GRE VLAN:    0 ( 0.000%)
  GRE IP4:      0 ( 0.000%)
  GRE IP6:      0 ( 0.000%)
  GRE IP6 Ext: 0 ( 0.000%)
  GRE PPTP:    0 ( 0.000%)
  GRE ARP:     0 ( 0.000%)
  GRE IPX:     0 ( 0.000%)
  GRE Loop:    0 ( 0.000%)
  MPLS:         0 ( 0.000%)
  ARP:          4 ( 25.000%)
  IPX:          0 ( 0.000%)
  Eth Loop:    0 ( 0.000%)
  Eth Dtscl:   0 ( 0.000%)
  IP4 Disc:    0 ( 0.000%)
  IP6 Disc:    0 ( 0.000%)
  TCP Disc:    0 ( 0.000%)
  UDP Disc:    0 ( 0.000%)
  ICMP Disc:  0 ( 0.000%)
  All Discard: 0 ( 0.000%)
  Other:        0 ( 0.000%)
Bad Chk Sum:  1 ( 6.250%)
Bad TTL:      0 ( 0.000%)
SS G 1:       0 ( 0.000%)
SS G 2:       0 ( 0.000%)
Total:        16
=====
Action Stats:
  Alerts:      8 ( 50.000%)
```

Activities Terminal Thg 4 11 23:15 nam@nam-VirtualBox: ~

```
UDP6:          0 ( 0.000%)
TCP6:          0 ( 0.000%)
Teredo:        0 ( 0.000%)
ICMP-IP:       0 ( 0.000%)
IP4/IP4:       0 ( 0.000%)
IP4/IP6:       0 ( 0.000%)
IP6/IP4:       0 ( 0.000%)
IP6/IP6:       0 ( 0.000%)
GRE:           0 ( 0.000%)
GRE Eth:        0 ( 0.000%)
GRE VLAN:      0 ( 0.000%)
GRE IP4:        0 ( 0.000%)
GRE IP6:        0 ( 0.000%)
GRE IP6 Ext:   0 ( 0.000%)
GRE PPTP:       0 ( 0.000%)
GRE ARP:        0 ( 0.000%)
GRE IPX:        0 ( 0.000%)
GRE Loop:       0 ( 0.000%)
MPLS:           0 ( 0.000%)
ARP:            4 ( 25.000%)
IPX:            0 ( 0.000%)
Eth Loop:       0 ( 0.000%)
Eth Disc:       0 ( 0.000%)
IP4 Disc:       0 ( 0.000%)
IP6 Disc:       0 ( 0.000%)
TCP Disc:       0 ( 0.000%)
UDP Disc:       0 ( 0.000%)
ICMP Disc:     0 ( 0.000%)
All Discard:    0 ( 0.000%)
Other:          0 ( 0.000%)
Bad Chk Sum:    1 ( 6.250%)
Bad TTL:         0 ( 0.000%)
SS G 1:          0 ( 0.000%)
SS G 2:          0 ( 0.000%)
Total:          16
=====
Action Stats:
Alerts:         8 ( 50.000%)
Logged:         8 ( 50.000%)
Passed:         0 ( 0.000%)
Limits:
Match:          0
Queue:          0
Log:            0
Event:          0
Alert:          0
Verdicts:
Allow:          16 ( 59.259%)
Block:          0 ( 0.000%)
Replace:        0 ( 0.000%)
Whitelist:      0 ( 0.000%)
Blacklist:      0 ( 0.000%)
Ignore:         0 ( 0.000%)
Retry:          0 ( 0.000%)
=====
Frag3 statistics:
Total Fragments: 0
Frgs Reassembled: 0
Discards: 0
Memory Faults: 0
Timeouts: 0
Overlaps: 0
Anomalies: 0
Alerts: 0
Drops: 0
FragTrackers Added: 0
FragTrackers Dumped: 0
FragTrackers Auto Freed: 0
Frag Nodes Inserted: 0
Frag Nodes Deleted: 0
=====
Snort exiting
nam@nam-VirtualBox: $
```



Activities Gedit Thg 4 11 23:18

nam@nam-VirtualBox: \$ sudo gedit /var/log/snort/alert

(gedit:2052):Gtk-WARNING **: 13:49:51.516814 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -> 10.0.2.15

(gedit:2052):Gtk-WARNING **: 13:49.516814 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15 -> 10.0.2.4

(gedit:2052):Gtk-WARNING **: 13:50.552028 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -> 10.0.2.15

(gedit:2052):Gtk-WARNING **: 13:50.552048 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15 -> 10.0.2.4

(gedit:2052):Gtk-WARNING **: 13:51.577294 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -> 10.0.2.15

(gedit:2052):Gtk-WARNING **: 13:51.577329 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15 -> 10.0.2.4

(gedit:2052):Gtk-WARNING **: 13:52.600571 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -> 10.0.2.15

(gedit:2052):Gtk-WARNING **: 13:52.600589 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15 -> 10.0.2.4

Plain Text Tab Width: 8 Ln 1, Col 1 INS

Activities Terminal Thg 4 11 23:20 nam@nam-VirtualBox: ~

```
nam@nam-VirtualBox: $ sudo rm /var/log/snort/alert
nam@nam-VirtualBox: $ sudo snort -A full -c /etc/snort/snort2.conf -i enp0s3
Running in IDS mode

     === Initializing Snort ===
Initializing Output Plugins!
Initializing Preprocessors!
Initializing Plug-ins!
Parsing Rules file "/etc/snort/snort2.conf"
Tagged Packet Limit: 256
Log directory = /var/log/snort
Frag3 global config:
    Max frags: 65536
    Fragment memory cap: 4194304 bytes

+++++ Initializing rule chains...
1 Snort rules read
    1 detection rules
    0 decoder rules
    0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+++++ [Rule Port Counts]
|      tcp      udp      icmp      ip
|      0        0        0        0
|      dst      0        0        0
|      any      0        0        1        0
|      nc      0        0        1        0
|      s+sd    0        0        0        0
+-----[detection-filter-config]
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]
| none

+-----[rate-filter-config]
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]
| none

+-----[event-filter-config]
| memory-cap : 1048576 bytes
+-----[event-filter-global]
+-----[event-filter-local]
| none
+-----[suppression]
| none

Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!

[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x764d612de640 (3405)
Decoding Ethernet

     === Initialization Complete ===

o'')~  -*> Snort! <*-
     Version 2.9.15.1 GRE (Build 15125)
     By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
     Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
     Copyright (C) 1998-2013 Sourcefire, Inc., et al.
     Using libpcap version 1.10.1 (with TPACKET_V3)
     Using PCRE version: 8.39 2016-06-14
     Using ZLIB version: 1.2.11
```

Activities Terminal Thg 4 11 23:20 nam@nam-VirtualBox: ~

```
0 decoder rules
0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+++++-----[Rule Port Counts]-----
|   src      tcp    udp    icmp   ip
|   dst      0      0      0      0
|   any     0      0      1      0
|   nc      0      0      1      0
|   s+d     0      0      0      0
+-----[detection-filter-config]-
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]-
| none
+-----[rate-filter-config]-
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]-
| none
+-----[event-filter-config]-
| memory-cap : 1048576 bytes
+-----[event-filter-global]-
+-----[event-filter-local]-
| none
+-----[suppression]-
| none
Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!
[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x764d612de640 (3405)
Decoding Ethernet
---- Initialization Complete ----
-> Snort! <-
o" )~ Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.1 (with TPACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.11

Commencing packet processing (pid=3396)
04/11/23:20:14.844972 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:20:14.844994 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:20:15.861515 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:20:15.861534 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:20:16.887912 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:20:16.887930 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:20:17.912742 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:20:17.912760 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
^C
```

Activities Gedit Thg 4 11 23:21

nam@nam-VirtualBox: \$ sudo gedit /var/log/snort/alert

Open Save /var/log/snort

```
1 [**] [1:1000052:1] "ICMP detected!" [**]
2 [Classification: Generic ICMP event] [Priority: 3]
3 04/11-23:20:14.844972 10.0.2.4 -> 10.0.2.15
4 ICMP TTL:128 TOS:0x0 ID:28680 IplLen:20 DgmLen:60
5 Type:8 Code:0 ID:1 Seq:28 ECHO
6
7 [**] [1:1000052:1] "ICMP detected!" [**]
8 [Classification: Generic ICMP event] [Priority: 3]
9 04/11-23:20:14.844994 10.0.2.15 -> 10.0.2.4
10 ICMP TTL:64 TOS:0x0 ID:26086 IplLen:20 DgmLen:60
11 Type:0 Code:0 ID:1 Seq:28 ECHO REPLY
12
13 [**] [1:1000052:1] "ICMP detected!" [**]
14 [Classification: Generic ICMP event] [Priority: 3]
15 04/11-23:20:15.861515 10.0.2.4 -> 10.0.2.15
16 ICMP TTL:128 TOS:0x0 ID:28681 IplLen:20 DgmLen:60
17 Type:8 Code:0 ID:1 Seq:29 ECHO
18
19 [**] [1:1000052:1] "ICMP detected!" [**]
20 [Classification: Generic ICMP event] [Priority: 3]
21 04/11-23:20:15.861534 10.0.2.15 -> 10.0.2.4
22 ICMP TTL:64 TOS:0x0 ID:26118 IplLen:20 DgmLen:60
23 Type:0 Code:0 ID:1 Seq:29 ECHO REPLY
24
25 [**] [1:1000052:1] "ICMP detected!" [**]
26 [Classification: Generic ICMP event] [Priority: 3]
27 04/11-23:20:16.887912 10.0.2.4 -> 10.0.2.15
28 ICMP TTL:128 TOS:0x0 ID:28682 IplLen:20 DgmLen:60
29 Type:8 Code:0 ID:1 Seq:30 ECHO
30
31 [**] [1:1000052:1] "ICMP detected!" [**]
32 [Classification: Generic ICMP event] [Priority: 3]
33 04/11-23:20:16.887930 10.0.2.15 -> 10.0.2.4
34 ICMP TTL:64 TOS:0x0 ID:26264 IplLen:20 DgmLen:60
35 Type:0 Code:0 ID:1 Seq:30 ECHO REPLY
36
37 [**] [1:1000052:1] "ICMP detected!" [**]
```

Plain Text Tab Width: 8 Ln 1, Col 1 INS

Activities Terminal Thg 4 11 23:22 nam@nam-VirtualBox: ~

```
nam@nam-VirtualBox: $ sudo rm /var/log/snort/alert
nam@nam-VirtualBox: $ sudo snort -A console -A fast -A full -c /etc/snort/snort2.conf -i enp0s3
Running in IDS mode

     === Initializing Snort ===
Initializing Output Plugins!
Initializing Preprocessors!
Initializing Plug-ins!
Parsing Rules file "/etc/snort/snort2.conf"
Tagged Packet Limit: 256
Log directory = /var/log/snort
Frag3 global config:
    Max frags: 65536
    Fragment memory cap: 4194304 bytes

+++++ Initializing rule chains...
1 Snort rules read
  1 detection rules
  0 decoder rules
  0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+++++ [Rule Port Counts]
|      tcp      udp      icmp      ip
|  src      0       0       0       0
|  dst      0       0       0       0
|  any      0       0       1       0
|  nc      0       0       1       0
|  s+d      0       0       0       0
+-----[detection-filter-config]
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]
| none

+-----[rate-filter-config]
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]
| none

+-----[event-filter-config]
| memory-cap : 1048576 bytes
+-----[event-filter-global]
+-----[event-filter-local]
| none
+-----[suppression]
| none

Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!

[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x766caf6b6640 (3451)
Decoding Ethernet

     === Initialization Complete ===

o'')~  -*> Snort! <*-
     Version 2.9.15.1 GRE (Build 15125)
     By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
     Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
     Copyright (C) 1998-2013 Sourcefire, Inc., et al.
     Using libpcap version 1.10.1 (with TPACKET_V3)
     Using PCRE version: 8.39 2016-06-14
     Using ZLIB version: 1.2.11
```

Activities Terminal Thg 4 11 23:22 nam@nam-VirtualBox: ~

```

0 decoder rules
0 preprocessor rules
1 Option Chains linked into 1 Chain Headers
+++++-----[Rule Port Counts]-----
|   tcp    udp    icmp   ip
|   src     0      0      0
|   dst     0      0      0
|   any    0      0      1      0
|   nc     0      0      1      0
|   s+d    0      0      0      0
+-----[detection-filter-config]-
| memory-cap : 1048576 bytes
+-----[detection-filter-rules]-
| none
+-----[rate-filter-config]-
| memory-cap : 1048576 bytes
+-----[rate-filter-rules]-
| none
+-----[event-filter-config]-
| memory-cap : 1048576 bytes
+-----[event-filter-global]-
+-----[event-filter-local]-
| none
+-----[suppression]-
| none
Rule application order: pass->drop->sdrop->reject->alert->log
Verifying Preprocessor Configurations!
[ Port Based Pattern Matching Memory ]
pcap DAQ configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0x766caf6b6640 (3451)
Decoding Ethernet
---- Initialization Complete ----
-> Snort! <-
o" )~ Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contact#team
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.1 (with TPACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.11

Commencing packet processing (pid=3442)
04/11/23:22:32.202624 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:22:32.202646 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:22:33.228631 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:22:33.228652 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:22:34.254735 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:22:34.254754 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4
04/11/23:22:35.278781 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4 -
> 10.0.2.15
04/11/23:22:35.278800 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.15
-> 10.0.2.4

```

Activities Gedit Thg 4 11 23:23
nam@nam-VirtualBox: ~

nam@nam-VirtualBox: \$ sudo gedit /var/log/snort/alert
[sudo] password for nam:

Open / alert /var/log/snort Save ⌂ ⌂ ⌂ ⌂ ⌂ ⌂

```
1 [**] [1:1000052:1] "ICMP detected!" []
2 [Classification: Generic ICMP event] [Priority: 3]
3 04/11-23:22:32.202624 10.0.2.4 -> 10.0.2.15
4 ICMP TTL:128 TOS:0x0 ID:28684 Iplen:20 DgmLen:60
5 Type:8 Code:0 ID:1 Seq:32 ECHO
6
7 04/11-23:22:32.202624 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4
-> 10.0.2.15
8 [**] [1:1000052:1] "ICMP detected!" []
9 [Classification: Generic ICMP event] [Priority: 3]
10 04/11-23:22:32.202646 10.0.2.15 -> 10.0.2.4
11 ICMP TTL:64 TOS:0x0 ID:33209 Iplen:20 DgmLen:60
12 Type:0 Code:0 ID:1 Seq:32 ECHO REPLY
13
14 04/11-23:22:32.202646 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP}
10.0.2.15 -> 10.0.2.4
15 [**] [1:1000052:1] "ICMP detected!" []
16 [Classification: Generic ICMP event] [Priority: 3]
17 04/11-23:22:33.228631 10.0.2.4 -> 10.0.2.15
18 ICMP TTL:128 TOS:0x0 ID:28685 Iplen:20 DgmLen:60
19 Type:8 Code:0 ID:1 Seq:33 ECHO
20
21 04/11-23:22:33.228631 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP} 10.0.2.4
-> 10.0.2.15
22 [**] [1:1000052:1] "ICMP detected!" []
23 [Classification: Generic ICMP event] [Priority: 3]
24 04/11-23:22:33.228652 10.0.2.15 -> 10.0.2.4
25 ICMP TTL:64 TOS:0x0 ID:33403 Iplen:20 DgmLen:60
26 Type:0 Code:0 ID:1 Seq:33 ECHO REPLY
27
28 04/11-23:22:33.228652 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] {ICMP}
10.0.2.15 -> 10.0.2.4
29 [**] [1:1000052:1] "ICMP detected!" []
30 [Classification: Generic ICMP event] [Priority: 3]
31 04/11-23:22:34.254735 10.0.2.4 -> 10.0.2.15
32 ICMP TTL:128 TOS:0x0 ID:28686 Iplen:20 DgmLen:60
33 Type:8 Code:0 ID:1 Seq:34 ECHO
```

Plain Text Tab Width: 8 Ln 1, Col 1 INS

Activities Terminal Thg 4 11 23:23 nam@nam-VirtualBox: ~

```
nam@nam-VirtualBox: $ ls -l /etc/snort/rules/
total 1600
-rw-r--r-- 1 root root 5520 Thg 12 3 2021 attack-responses.rules
-rw-r--r-- 1 root root 17898 Thg 12 3 2021 backdoor.rules
-rw-r--r-- 1 root root 3862 Thg 12 3 2021 bad-traffic.rules
-rw-r--r-- 1 root root 7994 Thg 12 3 2021 chat.rules
-rw-r--r-- 1 root root 12759 Thg 12 3 2021 community-bot.rules
-rw-r--r-- 1 root root 1223 Thg 12 3 2021 community-deleted.rules
-rw-r--r-- 1 root root 2042 Thg 12 3 2021 community-dos.rules
-rw-r--r-- 1 root root 2176 Thg 12 3 2021 community-exploit.rules
-rw-r--r-- 1 root root 249 Thg 12 3 2021 community-ftp.rules
-rw-r--r-- 1 root root 1376 Thg 12 3 2021 community-game.rules
-rw-r--r-- 1 root root 689 Thg 12 3 2021 community-icmp.rules
-rw-r--r-- 1 root root 2777 Thg 12 3 2021 community-imap.rules
-rw-r--r-- 1 root root 948 Thg 12 3 2021 community-inappropriate.rules
-rw-r--r-- 1 root root 257 Thg 12 3 2021 community-mail-client.rules
-rw-r--r-- 1 root root 7837 Thg 12 3 2021 community-misc.rules
-rw-r--r-- 1 root root 621 Thg 12 3 2021 community-nntp.rules
-rw-r--r-- 1 root root 775 Thg 12 3 2021 community-oracle.rules
-rw-r--r-- 1 root root 1621 Thg 12 3 2021 community-policy.rules
-rw-r--r-- 1 root root 3551 Thg 12 3 2021 community-sip.rules
-rw-r--r-- 1 root root 2722 Thg 12 3 2021 community-smtp.rules
-rw-r--r-- 1 root root 4063 Thg 12 3 2021 community-sql-injection.rules
-rw-r--r-- 1 root root 3742 Thg 12 3 2021 community-virus.rules
-rw-r--r-- 1 root root 2406 Thg 12 3 2021 community-web-attacks.rules
-rw-r--r-- 1 root root 5128 Thg 12 3 2021 community-web-cgi.rules
-rw-r--r-- 1 root root 4589 Thg 12 3 2021 community-web-client.rules
-rw-r--r-- 1 root root 254 Thg 12 3 2021 community-web-dos.rules
-rw-r--r-- 1 root root 1473 Thg 12 3 2021 community-web-iis.rules
-rw-r--r-- 1 root root 68917 Thg 12 3 2021 community-web-misc.rules
-rw-r--r-- 1 root root 163259 Thg 12 3 2021 community-web-php.rules
-rw-r--r-- 1 root root 7646 Thg 12 3 2021 ddos.rules
-rw-r--r-- 1 root root 64313 Thg 12 3 2021 deleted.rules
-rw-r--r-- 1 root root 6743 Thg 12 3 2021 dns.rules
-rw-r--r-- 1 root root 6296 Thg 12 3 2021 dos.rules
-rw-r--r-- 1 root root 1335 Thg 12 3 2021 experimental.rules
-rw-r--r-- 1 root root 30744 Thg 12 3 2021 exploit.rules
-rw-r--r-- 1 root root 4210 Thg 12 3 2021 finger.rules
-rw-r--r-- 1 root root 22000 Thg 12 3 2021 ftp.rules
-rw-r--r-- 1 root root 16482 Thg 12 3 2021 icmp-info.rules
-rw-r--r-- 1 root root 5352 Thg 12 3 2021 icmp.rules
-rw-r--r-- 1 root root 13741 Thg 12 3 2021 imap.rules
-rw-r--r-- 1 root root 3287 Thg 12 3 2021 info.rules
-rw-r--r-- 1 root root 306 Thg 4 11 23:11 local.rules
-rw-r--r-- 1 root root 18486 Thg 12 3 2021 misc.rules
-rw-r--r-- 1 root root 3730 Thg 12 3 2021 multimedia.rules
-rw-r--r-- 1 root root 1935 Thg 12 3 2021 mysql.rules
-rw-r--r-- 1 root root 283854 Thg 12 3 2021 netbios.rules
-rw-r--r-- 1 root root 4755 Thg 12 3 2021 nntp.rules
-rw-r--r-- 1 root root 177773 Thg 12 3 2021 oracle.rules
-rw-r--r-- 1 root root 2247 Thg 12 3 2021 other-ids.rules
-rw-r--r-- 1 root root 5067 Thg 12 3 2021 p2p.rules
-rw-r--r-- 1 root root 6183 Thg 12 3 2021 policy.rules
-rw-r--r-- 1 root root 2088 Thg 12 3 2021 pop2.rules
-rw-r--r-- 1 root root 9591 Thg 12 3 2021 pop3.rules
-rw-r--r-- 1 root root 5918 Thg 12 3 2021 porn.rules
-rw-r--r-- 1 root root 52531 Thg 12 3 2021 rpc.rules
-rw-r--r-- 1 root root 3784 Thg 12 3 2021 rservices.rules
-rw-r--r-- 1 root root 4952 Thg 12 3 2021 scan.rules
-rw-r--r-- 1 root root 9904 Thg 12 3 2021 shellcode.rules
-rw-r--r-- 1 root root 23990 Thg 12 3 2021 smtp.rules
-rw-r--r-- 1 root root 5779 Thg 12 3 2021 snmp.rules
-rw-r--r-- 1 root root 18330 Thg 12 3 2021 sql.rules
-rw-r--r-- 1 root root 5118 Thg 12 3 2021 telnet.rules
-rw-r--r-- 1 root root 3424 Thg 12 3 2021 tftp.rules
-rw-r--r-- 1 root root 2075 Thg 12 3 2021 virus.rules
-rw-r--r-- 1 root root 11089 Thg 12 3 2021 web-attacks.rules
-rw-r--r-- 1 root root 103203 Thg 12 3 2021 web-cgi.rules
-rw-r--r-- 1 root root 16980 Thg 12 3 2021 web-client.rules
-rw-r--r-- 1 root root 10026 Thg 12 3 2021 web-coldfusion.rules
-rw-r--r-- 1 root root 10417 Thg 12 3 2021 web-frontpage.rules
-rw-r--r-- 1 root root 40907 Thg 12 3 2021 web-iis.rules
-rw-r--r-- 1 root root 97307 Thg 12 3 2021 web-misc.rules
-rw-r--r-- 1 root root 25661 Thg 12 3 2021 web-obj.rules
```

```

Activities Terminal Thg 4 11 23:27
nam@nam-VirtualBox: ~
nam@nam-VirtualBox: $ cat /etc/snort/rules/dns.rules
# Copyright 2001-2005 Sourcefire, Inc. All Rights Reserved
#
# This file may contain proprietary rules that were created, tested and
# certified by Sourcefire, Inc. (the "VRT Certified Rules") as well as
# rules that were created by Sourcefire and other third parties and
# distributed under the GNU General Public License (the "GPL Rules"). The
# VRT Certified Rules contained in this file are the property of
# Sourcefire, Inc. Copyright 2005 Sourcefire, Inc. All Rights Reserved.
# The GPL Rules created by Sourcefire, Inc. are the property of
# Sourcefire, Inc. Copyright 2002-2005 Sourcefire, Inc. All Rights
# Reserved. All other GPL Rules are owned and copyrighted by their
# respective owners (please see www.snort.org/contributors for a list of
# owners and their respective copyrights). In order to determine what
# rules are VRT Certified Rules or GPL Rules, please refer to the VRT
# Certified Rules License Agreement.
#
#
# $Id: dns.rules,v 1.38.2.3.2.3 2005/05/31 17:13:02 mwatchinski Exp $
#-----#
# DNS RULES
#-----#
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS zone transfer TCP"; flow:to_server,established; content:"|00 00 FC|"; offset:15; reference:arachnids,212; reference:cve,1999-0532; reference:nessus,10595; classtype:attempted-recon; sid:255; rev:13;)
alert udp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS zone transfer UDP"; content:"|00 00 FC|"; offset:14; reference:arachnids,212; reference:cve,1999-0532; reference:nessus,10595; classtype:attempted-recon; sid:1948; rev:6;)

alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS named authors attempt"; flow:to_server,established; content:"|07|authors"; offset:12; nocase; content:"|04|bind|00|"; offset:12; nocase; reference:arachnids,480; reference:nessus,10728; classtype:attempted-recon; sid:1435; rev:7;)
alert udp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS named authors attempt"; content:"|07|authors"; offset:12; nocase; content:"|04|bind|00|"; offset:12; nocase; reference:arachnids,480; reference:nessus,10728; classtype:attempted-recon; sid:256; rev:6;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS named version attempt"; flow:to_server,established; content:"|07|version"; offset:12; nocase; content:"|04|bind|00|"; offset:12; nocase; reference:arachnids,278; reference:nessus,10028; classtype:attempted-recon; sid:257; rev:9;)
alert udp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS named version attempt"; content:"|07|version"; offset:12; nocase; content:"|04|bind|00|"; offset:12; nocase; reference:arachnids,278; reference:nessus,10028; classtype:attempted-recon; sid:1616; rev:7;)

alert udp $EXTERNAL_NET 53 -> $HOME_NET any (msg:"DNS SPOOF query response PTR with TTL of 1 min. and no authority"; content:"|85 80 00 01 00 00 00 00 00 00 00 00 00 00 00 00|"; content:"|C0 0C 00 0C 00 01 00 00 00 00|<|00 0F|"; classtype:bad-unknown; sid:253; rev:4;)
alert udp $EXTERNAL_NET 53 -> $HOME_NET any (msg:"DNS SPOOF query response with TTL of 1 min. and no authority"; content:"|81 80 00 01 00 01 00 00 00 00 00 00 00 00 00 00|"; content:"|C0 0C 00 01 00 01 00 00 00 00|<|00 04|"; classtype:bad-unknown; sid:254; rev:4;)

alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named 8.2->8.2.1"; flow:to_server,established; content:"..../.."; reference:bugtraq,788; reference:cve,1999-0833; classtype:attempted-admin; sid:258; rev:6;)

alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named tsig overflow attempt"; flow:to_server,established; content:"|AB CD 09 80 00 00 00 01 00 00 00 00 01 00 01|      |02|a"; reference:arachnids,482; reference:bugtraq,2302; reference:cve,2001-0010; classtype:attempted-admin; sid:303; rev:11;)
alert udp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named tsig overflow attempt"; content:"|80 00 07 00 00 00 00 00 00 00 01|?|00 01 02|"; reference:bugtraq,2303; reference:cve,2001-0010; classtype:attempted-admin; sid:314; rev:9;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named overflow ADM"; flow:to_server,established; content:"thisissometime spaceforthesock\ndadrinyeahlyahknewthistislamebutanywaywhocares\horizon\gotitworkingsoalliscool"; reference:bugtraq,788; reference:cve,1999-0833; classtype:attempted-admin; sid:259; rev:7;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named overflow ADMROCKS"; flow:to_server,established; content:"ADMROCKS"; reference:bugtraq,788; reference:cve,1999-0833; reference:url,www.cert.org/advisories/CA-1999-14.html; classtype:attempted-admin; sid:260; rev:9;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT named overflow attempt"; flow:to_server,established; content:"|CD 80 E 8 D7 FF FF|/bin/sh"; reference:url,www.cert.org/advisories/CA-1998-05.html; classtype:attempted-admin; sid:261; rev:6;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT x86 Linux overflow attempt"; flow:to_server,established; content:"|1C0 B0|?|1|DB B3 FF|?|C9 CD 80|?|C0|"; classtype:attempted-admin; sid:262; rev:6;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT x86 Linux overflow attempt"; flow:to_server,established; content:"|1|C0 B0 02 CD 80 85 C0|?|EB|?|B0|"; classtype:attempted-admin; sid:264; rev:6;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT x86 Linux overflow attempt ADMv2"; flow:to_server,established; content:"|?|89 F7 29 C7 89 F3 89 F9 89 F2 ACl|<|FEI|"; classtype:attempted-admin; sid:265; rev:7;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT x86 FreeBSD overflow attempt"; flow:to_server,established; content:"|E B|?|C6 06 9A|?|C9 89|?|01 C6|?|05|"; classtype:attempted-admin; sid:266; rev:6;)
alert tcp $EXTERNAL_NET any -> $HOME_NET 53 (msg:"DNS EXPLOIT space overflow attempt"; flow:to_server,established; content:"|00 1A C

```

2c, The 5 most interesting categories are backdoor.rules, ddos.rules, virus.rules, community-sql-injection.rules, community-virus.rules

2d, The 5 most important rules individual rules are

- alert tcp \$HOME_NET any -> \$EXTERNAL_NET 25 (msg:"VIRUS OUTBOUND bad file attachment"; flow:to_server,established; content:"Content-Disposition|3A|"; nocase; pcre:"/filename\s*=\s*.*?\.(?=[abcdehijlmnoprsvwx])(a(d[ep])|s[dfx])|c([ho|m|li|md|pp])|d(iz|l|ot)|e(m[fl]|xe)|h(l|p|sq|ta)|jse?|m(d[abew]|s[ip])|p(p[st]|if|[lm]|ot)|r(e|tf)|s(cr|[hy]|s[wf])|v(b[e|s]?|cf|xd)|w(m[dfsz]|p[dmsz]|s[cfh])|xl[tw]|bat|ini|lnk|nws|ocx)|\x27|\x22|\n|r\s|/iR"; classtype:suspicious-filename-detect; sid:721; rev:8;)

- alert tcp \$EXTERNAL_NET any -> \$HOME_NET 27665 (msg:"DDOS Trin00 Attacker to Master default mdie password"; flow:established,to_server; content:"killme"; classtype:bad-unknown; sid:235; rev:2;)
 - alert icmp \$EXTERNAL_NET any <> \$HOME_NET any (msg:"DDOS Stacheldraht handler->agent niggahbitch"; icmp_id:9015; itype:0; content:"niggahbitch"; reference:url,staff.washington.edu/dittrich/misc/stacheldraht.analysis; classtype:attempted-dos; sid:1854; rev:7;)
 - alert tcp \$EXTERNAL_NET any -> \$HTTP_SERVERS \$HTTP_PORTS (msg:"COMMUNITY SQL-INJECTION WIZZ ForumAuthDetails Sql Injection attempt"; flow:to_server,established; uricontent:"/ForumAuthDetails.php"; nocase; uricontent:"AuthID|3D|"; nocase; uricontent:"union"; nocase; uricontent:"select"; nocase; uricontent:"from"; nocase; uricontent:"ForumUser"; nocase; uricontent:"where"; nocase; reference:bugtraq,15410; reference:url,www.osvdb.org/displayvuln.php?osvdb_id=20845; classtype:web-application-attack; sid:100000193; rev:2;)
- alert tcp \$EXTERNAL_NET any -> \$HTTP_SERVERS \$HTTP_PORTS (msg:"COMMUNITY SQL-INJECTION Diesel Joke Script Sql Injection attempt"; flow:to_server,established; uricontent:"/category.php"; nocase; uricontent:"id="; uricontent:"union"; nocase; uricontent:"select"; nocase; uricontent:"admin"; nocase; reference:bugtraq,18760; classtype:web-application-attack; sid:100000691; rev:2;)

Activities Gedit Thg 4 11 23:39

```
nam@nam-VirtualBox: $ sudo cp /etc/snort/snort.conf /etc/snort/snort3.conf
nam@nam-VirtualBox: $ sudo gedit /etc/snort/snort3.conf
```

Open snort3.conf /etc/snort Save

```
43 #####
44 #
45 # If you want to run Snort in Debian using different
46 # instances each handling a different interface and
47 # a different configuration you can copy this file to
48 # /etc/snort/snort.$Interface.conf (where '$Interface' is the name of your
49 # network interface) and adjust the value there.
50 #
51 # The Debian init.d script is defined in such a way
52 # that you can run multiple instances.
53
54 #####
55 # Step #1: Set the network variables. For more information, see README.variables
56 #####
57
58 # Setup the network addresses you are protecting
59 #
60 # Note to Debian users: this value is overridden when starting
61 # up the Snort daemon through the init.d script by the
62 # value of DEBIAN_SNORT_HOME_NET s defined in the
63 # /etc/snort/snort.debian.conf configuration file
64 #
65 ipvar HOME_NET 10.0.2.0/24
66
67 # Set up the external network addresses. Leave as "any" in most situations
68 ipvar EXTERNAL_NET any
69 # If HOME_NET is defined as something other than "any", alternative, you can
70 # use this definition if you do not want to detect attacks from your internal
71 # IP addresses:
72 #ipvar EXTERNAL_NET !$HOME_NET
73
74 # List of DNS servers on your network
75 ipvar DNS_SERVERS $HOME_NET
76
77 # List of SMTP servers on your network
78 ipvar SMTP_SERVERS $HOME_NET
79
```

Plain Text ~ Tab Width: 8 ~ Ln 68, Col 23 ~ INS

```
** (gedit:3777): WARNING **: 23:39:34.421: Set document metadata failed: Setting attribute metadata::gedit-spell-language not supported
** (gedit:3777): WARNING **: 23:39:34.421: Set document metadata failed: Setting attribute metadata::gedit-encoding not supported
```

Activities Terminal Thg 4 11 23:40

```
nam@nam-VirtualBox: ~ nam@nam-VirtualBox: ~
nam@nam-VirtualBox: $ sudo snort -A console -A full -c /etc/snort/snort3.conf -i enp0s3
Running in IDS mode

==== Initializing Snort ====
Initializing Output Plugins!
Initializing Preprocessors!
Initializing Plug-ins!
Parsing Rules file "/etc/snort/snort3.conf"
PortVar 'HTTP_PORTS' defined : [ 80:81 311 383 591 593 901 1220 1414 1741 1830 2301 2381 2809 3037 3128 3702 4343 4848 5259 6988 7000:7001 7144:7145 7510 7777 7779 8000 8008 8014 8028 8080 8085 8088 8090 8118 8123 8180:8181 8243 8280 8300 8800 8888 8899 9000 9060 9088 9090:9091 9443 9999 11371 34443:34444 41080 50002 55555 ]
PortVar 'SHELLCODE_PORTS' defined : [ 0:79 81:65535 ]
PortVar 'ORACLE_PORTS' defined : [ 1024:65535 ]
PortVar 'SSH_PORTS' defined : [ 22 ]
PortVar 'FTP_PORTS' defined : [ 21 2100 3535 ]
PortVar 'SIP_PORTS' defined : [ 5060:5061 5600 ]
PortVar 'FILE_DATA_PORTS' defined : [ 80:81 110 143 311 383 591 593 901 1220 1414 1741 1830 2301 2381 2809 3037 3128 3702 4343 4848 5259 6988 7000:7001 7144:7145 7510 7777 7779 8000 8008 8014 8028 8080 8085 8088 8090 8118 8123 8180:8181 8243 8280 8300 8800 8888 8899 9000 9060 899 9000 9060 9088 9090:9091 9443 9999 11371 34443:34444 41080 50002 55555 ]
PortVar 'GTP_PORTS' defined : [ 2123 2152 3386 ]

Detection:
  Search-Method = AC-Full-Q
  Split Any/Any group = enabled
  Search-Method-Optimizations = enabled
  Maximum pattern length = 20
Tagged Packet Limit: 256
Loading dynamic engine /usr/lib/snort/snort_dynamicengine/libsf_engine.so... done
Loading all dynamic detection libs from /usr/lib/snort/snort_dynamicrules...
WARNING: No dynamic libraries found in directory /usr/lib/snort/snort_dynamicrules.
Finished Loading all dynamic detection libs from /usr/lib/snort/snort_dynamicrules
Loading all dynamic preprocessor libs from /usr/lib/snort/snort_dynamicpreprocessor...
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_pop_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_gtp_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_ssl_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_appid_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_modbus_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_sdf_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_sip_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_smtp_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_dns_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_imap_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_reputation_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_dce2_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_dn3_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_ftptelnet_preproc.so... done
  Loading dynamic preprocessor library /usr/lib/snort/snort_dynamicpreprocessor//libsf_ssh_preproc.so... done
  Finished Loading all dynamic preprocessor libs from /usr/lib/snort/snort_dynamicpreprocessor/
Log directory = /var/log/snort
WARNING: ip4 normalizations disabled because not inline.
WARNING: tcp normalizations disabled because not inline.
WARNING: icmp4 normalizations disabled because not inline.
WARNING: ip6 normalizations disabled because not inline.
WARNING: icmp6 normalizations disabled because not inline.
Frag3 global config:
  Max frags: 65536
  Fragment memory cap: 4194304 bytes
Frag3 engine config:
  Bound Address: default
  Target-based policy: WINDOWS
  Fragment timeout: 180 seconds
  Fragment min_ttl: 1
  Fragment Anomalies: Alert
  Overlap Limit: 10
  Min fragment Length: 100
  Max Expected Streams: 768
Stream global config:
  Track TCP sessions: ACTIVE
  Max TCP sessions: 262144
  TCP cache pruning timeout: 30 seconds
  TCP cache nominal timeout: 180 seconds
  Memcap (for reassembly packet storage): 8388608
  Track UDP sessions: ACTIVE
  Max UDP sessions: 131072
  UDP cache pruning timeout: 30 seconds
```

Activities Gedit Thg 4 11 23:51
nam@nam-VirtualBox:~

```
nam@nam-VirtualBox:~$ sudo vt /etc/snmp
snmp/ snort/
nam@nam-VirtualBox:~$ sudo vt /etc/snort/snort3.conf
[sudo] password for nam:
Open ▾ R alert /var/log/snort
Save ▾ X
51 [Classification: generic ICMP event] [Priority: 3]
51 ICMP TTL:64 TOS:0x0 ID:33740 Iplen:20 DgnLen:60
54 Type:0 Code:0 ID:1 Seq:35 ECHO REPLY
55
56 04/11-23:22:35.278800 [*] [1:1000052:1] "ICMP detected!" [*]
57 [Classification: Generic ICMP event] [Priority: 3]
57 ICMP TTL:64 TOS:0x0 ID:33741 Iplen:20 DgnLen:60
59 04/11-23:40:43.557910 10.0.2.4 -> 10.0.2.15
60 ICMP TTL:64 TOS:0x0 ID:28688 Iplen:20 DgnLen:60
61 Type:0 Code:0 ID:1 Seq:36 ECHO
62
62 [*] [1:1000052:1] "ICMP detected!" [*]
64 [Classification: Generic ICMP event] [Priority: 3]
65 04/11-23:40:43.557935 10.0.2.15 -> 10.0.2.4
66 ICMP TTL:64 TOS:0x0 ID:21903 Iplen:20 DgnLen:60
67 Type:0 Code:0 ID:1 Seq:33 ECHO REPLY
68
69 [*] [1:1000052:1] "ICMP detected!" [*]
70 [Classification: Generic ICMP event] [Priority: 3]
71 04/11-23:40:44.603574 10.0.2.4 -> 10.0.2.15
72 ICMP TTL:64 TOS:0x0 ID:28689 Iplen:20 DgnLen:60
73 Type:0 Code:0 ID:1 Seq:37 ECHO
74
75 [*] [1:1000052:1] "ICMP detected!" [*]
76 [Classification: Generic ICMP event] [Priority: 3]
77 04/11-23:40:44.603593 10.0.2.15 -> 10.0.2.4
78 ICMP TTL:64 TOS:0x0 ID:22086 Iplen:20 DgnLen:60
79 Type:0 Code:0 ID:1 Seq:37 ECHO REPLY
80
81 [*] [1:1000052:1] "ICMP detected!" [*]
82 [Classification: Generic ICMP event] [Priority: 3]
83 04/11-23:40:45.632562 10.0.2.4 -> 10.0.2.15
84 ICMP TTL:128 TOS:0x0 ID:28690 Iplen:20 DgnLen:60
85 Type:0 Code:0 ID:1 Seq:38 ECHO
86
87 [*] [1:1000052:1] "ICMP detected!" [*]
88 [Classification: Generic ICMP event] [Priority: 3]
89 04/11-23:40:45.632597 10.0.2.15 -> 10.0.2.4
90 ICMP TTL:64 TOS:0x0 ID:22290 Iplen:20 DgnLen:60
91 Type:0 Code:0 ID:1 Seq:39 ECHO REPLY
92
93 [*] [1:1000052:1] "ICMP detected!" [*]
94 [Classification: Generic ICMP event] [Priority: 3]
95 04/11-23:40:46.665547 10.0.2.4 -> 10.0.2.15
96 ICMP TTL:128 TOS:0x0 ID:28691 Iplen:20 DgnLen:60
97 Type:0 Code:0 ID:1 Seq:39 ECHO
98
99 [*] [1:1000052:1] "ICMP detected!" [*]
100 [Classification: Generic ICMP event] [Priority: 3]
101 04/11-23:40:46.665579 10.0.2.15 -> 10.0.2.4
102 ICMP TTL:64 TOS:0x0 ID:22308 Iplen:20 DgnLen:60
103 Type:0 Code:0 ID:1 Seq:39 ECHO REPLY
104
```

Plain Text ▾ Tab Width: 8 ▾ Ln 85, Col 36 ▾ INS

```

Activities Terminal Thg 4 12:00:00
nam@nam-VirtualBox: ~

[ Instances : 215
| 1 byte states : 204
| 2 byte states : 11
| 4 byte states : 0
|
| Characters : 31755
| States : 31951
| Transitions : 863868
| State Density : 10.6%
| Patterns : 5041
| Match States : 3836
| Memory (MB) : 16.90
| Patterns : 0.51
| Match Lists : 1.01
| DFA :
|   1 byte states : 1.02
|   2 byte states : 13.96
|   4 byte states : 0.00
.....
[ Number of patterns truncated to 20 bytes: 1038 ]
pcap DAO configured to passive.
Acquiring network traffic from "enp0s3".
Reload thread starting...
Reload thread started, thread 0xb2d1a679640 (4323)
Decoding Ethernet

--== Initialization Complete ==--


o'`--> Snort! <-- Version 2.9.15.1 GRE (Build 15125)
o'`--> Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
o'`--> Copyright (C) 1998-2013 Sourcefire, Inc., et al.
o'`--> Using libpcap version 1.10.1 (with TPACKET_V3)
o'`--> Using PCRE version 8.39 2016-06-14
o'`--> Using ZLIB version: 1.2.11
Rules Engine: SF_SNORT_DETECTION_ENGINE Version 3.1 <Build 1>
Preprocessor Object: SF_SSH Version 1.1 <Build 3>
Preprocessor Object: SF_FTPTELNET Version 1.2 <Build 13>
Preprocessor Object: SF_DNP3 Version 1.1 <Build 1>
Preprocessor Object: SF_PCAPGRE Version 1.0 <Build 3>
Preprocessor Object: SF_IPMUTATION Version 1.1 <Build 1>
Preprocessor Object: SF_IMAP Version 1.0 <Build 1>
Preprocessor Object: SF_DNS Version 1.1 <Build 4>
Preprocessor Object: SF_SMTS Version 1.1 <Build 9>
Preprocessor Object: SF_SIP Version 1.1 <Build 1>
Preprocessor Object: SF_SNMP Version 1.1 <Build 1>
Preprocessor Object: SF_MODBUS Version 1.1 <Build 1>
Preprocessor Object: apnid Version 1.1 <Build 5>
Preprocessor Object: SF_SSLPP Version 1.1 <Build 4>
Preprocessor Object: SF_GTP Version 1.1 <Build 1>
Preprocessor Object: SF_POP Version 1.0 <Build 1>
Preprocessor Object: SF_AMQP Version 1.0 <Build 1>
Command-line processing completed.
04/11/23:59:59.108869 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.4 -> 10.0.2.5
04/11/23:59:59.108893 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.5 -> 10.0.2.4
04/11/23:59:00.145850 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.4 -> 10.0.2.15
04/11/23:59:01.145871 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.15 -> 10.0.2.4
04/11/23:59:01.177899 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.4 -> 10.0.2.15
04/11/23:59:01.177920 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.15 -> 10.0.2.4
04/11/23:59:02.209854 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.4 -> 10.0.2.15
04/11/23:59:02.209875 [**] [1:1000052:1] "ICMP detected!" [**] [Classification: Generic ICMP event] [Priority: 3] [ICMP] 10.0.2.15 -> 10.0.2.4

Activities Wireshark Thg 4 12:00:03
nam@nam-VirtualBox: ~

Activities Wireshark Thg 4 12:00:03
nam@nam-VirtualBox: ~

nam@nam-VirtualBox: $ ls -l /var/log/snort/
total 180
-rw-r--r-- 1 root adm 3656 Thg 4 12:00:02 alert
-rw-r--r-- 1 root adm 16248 Thg 4 12:00:02 snort.alert
-rw-r--r-- 1 root adm 48350 Thg 4 12:00:02 snort.alert.fast
-rw-r--r-- 1 snort adm 99172 Thg 4 12:00:02 snort.log
-rw-r----- 1 root adm 744 Thg 4 12:00:02 snort.log.1712854969
nam@nam-VirtualBox: $ sudo wireshark /var/log/snort/snort.log.1712854969
[sudo] password for nam:
** (wireshark:4571) --> (Wireshark:4571) [GUI WARNING] -- QStandardPaths: XDG_RUNTIME_DIR not set, defaulting to '/tmp/runtime-root'

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
snort.log.1712854969

[Apply a display filter ... <Ctrl-/>
No. Time Source Destination Protocol Length Info
1 0.000000 10.0.2.4 10.0.2.15 ICMP 74 Echo (ping) request id=0x0001, seq=17/4352, ttl=128 (reply in 2)
2 0.000025 10.0.2.15 10.0.2.4 ICMP 74 Echo (ping) reply id=0x0001, seq=17/4352, ttl=64 (request in 1)
3 1.023999 10.0.2.4 10.0.2.15 ICMP 74 Echo (ping) request id=0x0001, seq=18/4668, ttl=128 (reply in 4)
4 1.024008 10.0.2.15 10.0.2.4 ICMP 74 Echo (ping) reply id=0x0001, seq=18/4668, ttl=64 (request in 3)
5 2.046616 10.0.2.4 10.0.2.15 ICMP 74 Echo (ping) request id=0x0001, seq=19/4864, ttl=128 (reply in 6)
6 2.046637 10.0.2.15 10.0.2.4 ICMP 74 Echo (ping) reply id=0x0001, seq=19/4864, ttl=64 (request in 5)
7 3.071519 10.0.2.4 10.0.2.15 ICMP 74 Echo (ping) request id=0x0001, seq=20/5120, ttl=128 (reply in 8)
8 3.071537 10.0.2.15 10.0.2.4 ICMP 74 Echo (ping) reply id=0x0001, seq=20/5120, ttl=64 (request in 7)

Frame 1: 74 bytes on wire (592 bits), 74 bytes captured (592 bits)
Ethernet II, Src: PcsCompu_e7:26:b4 (08:00:27:e7:26:b4), Dst: PcsCompu_cd:11:a3 (08:00:27:cd:11:a3)
Internet Protocol Version 4, Src: 10.0.2.4, Dst: 10.0.2.15
Internet Control Message Protocol

0000  00 00 27 cd 11 a3 08 00 27 e7 26 b4 08 00 45 00 ..'...`&..E.
0010  00 3c 21 7b 00 00 00 01 01 34 0a 00 02 04 0a 00 ..-{...`4...
0020  02 0f 08 00 4d 4a 00 01 00 11 61 62 63 64 65 66 ...MJ...abcdef
0030  07 68 69 6a 6b 6c 6d 6e 6f 78 71 72 73 74 75 76 ghiijklmn oppqrstuvwxyz
0040  77 61 62 63 64 65 66 67 68 69 wabcdefg hi

Packets: 8 - Displayed: 8 (100.0%)
Profile: Default

```