

# HY455 Cyber Security

## Assignment 4

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#### Question 1

For the rules described in the assignment I created the following 5 rules:

- log icmp any any -> 139.91.68.70 any (msg:"Captured ICMP packet destined to the host";itype:8;sid:1000001;rev:1;)
- log tcp any any -> any 7000:7999 (msg:"Captured FIN packet destined to the host";flags:F;sid:1000002;rev:1;)
- alert tcp any any -> any any (msg:"FIN and SYN flags detected at the same time!";flags:FS+;sid:1000003;rev:1;)
- log tcp any any -> any 21 (msg:"Root FTP login detected!";content:"USER root";nocase;sid:1000004;rev:1;)
- log tcp any any -> any 22 (detection\_filter:track by\_src, count 3, seconds 60;sid:1000005;rev:1;)

For demonstrating these rules I will run snort default configuration file while including only the local.rules file. In this file I will append my rules mentioned above

For demonstrating the ICMP request rule I will ping my own IP address and will run snort on the lo interface:

```
Instances : 1
  1 byte states : 1
  2 byte states : 0
  4 byte states : 0
Characters : 0
States : 10
Transitions : 18
State density : 0.76
Patterns : 1
Match States : 15.70
Memory (KB) : 0.10
Pattern : 0.10
Match Lists : 0.10
DFA : 0.10
  1 byte states : 2.60
  2 byte states : 0.00
  4 byte states : 0.00
-----
Number of patterns truncated to 20 bytes: 0 ]
snort (AQ) configured to passive.
Acquiring network traffic from "lo".
Reload thread starting...
Reload thread started, thread 0x7f3062a6c0 (579960)
Decoding Ethernet
==== Initialization Complete ====

* Snort! *
Version 2.9.15.1 GRE (Build 15125)
By Martin Roesch & The Snort Team: http://www.snort.org/contactteam
Copyright (C) 2014-2019 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.10.3 (with PACKET_V3)
Using PCRE version: 8.39 2016-06-14
Using ZLIB version: 1.2.13

Rules Engine: SF_SNORT_DETECTION_ENGINE Version 3.1 <Build 1>
Preprocessor Object: apollo Version 1.1 <Build 3>
Preprocessor Object: SF_DNS Version 1.1 <Build 4>
Preprocessor Object: SF_CTP Version 1.1 <Build 1>
Preprocessor Object: SF_PERFMON Version 1.1 <Build 1>
Preprocessor Object: SF_NDOUTS Version 1.1 <Build 1>
Preprocessor Object: SF_ICMP2 Version 1.0 <Build 3>
Preprocessor Object: SF_TNMP Version 1.0 <Build 9>
Preprocessor Object: SF_SMP Version 1.1 <Build 9>
Preprocessor Object: SF_SIP Version 1.1 <Build 1>
Preprocessor Object: SF_SDF Version 1.1 <Build 1>
Preprocessor Object: SF_DW3 Version 1.1 <Build 1>
Preprocessor Object: SF_FITLINE Version 1.2 <Build 13>
Preprocessor Object: SF_POP Version 1.0 <Build 1>
Preprocessor Object: SF_SPLP Version 1.1 <Build 4>
Preprocessor Object: SF_SSH Version 1.1 <Build 3>
Commencing packet processing (pid=579951)

rtt min/avg/max/ndev = 0.086/0.104/0.114/0.010 ms
chrisc@chrisc-Laptop:~$ ping 139.91.68.70 -c 5
PING 139.91.68.70 (139.91.68.70) 56(84) bytes of data:
64 bytes from 139.91.68.70: icmp_seq=1 ttl=64 time=0.085 ms
64 bytes from 139.91.68.70: icmp_seq=2 ttl=64 time=0.087 ms
64 bytes from 139.91.68.70: icmp_seq=3 ttl=64 time=0.107 ms
64 bytes from 139.91.68.70: icmp_seq=4 ttl=64 time=0.125 ms
64 bytes from 139.91.68.70: icmp_seq=5 ttl=64 time=0.107 ms
--- 139.91.68.70 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4079ms
rtt min/avg/max/ndev = 0.070/0.095/0.129/0.020 ms
chrisc@chrisc-Laptop:~$ ping 139.91.68.70 -c 5
PING 139.91.68.70 (139.91.68.70) 56(84) bytes of data:
64 bytes from 139.91.68.70: icmp_seq=1 ttl=64 time=0.075 ms
64 bytes from 139.91.68.70: icmp_seq=2 ttl=64 time=0.077 ms
64 bytes from 139.91.68.70: icmp_seq=3 ttl=64 time=0.107 ms
64 bytes from 139.91.68.70: icmp_seq=4 ttl=64 time=0.121 ms
64 bytes from 139.91.68.70: icmp_seq=5 ttl=64 time=0.162 ms
--- 139.91.68.70 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4075ms
rtt min/avg/max/ndev = 0.075/0.108/0.162/0.032 ms
chrisc@chrisc-Laptop:~$
```

First up I fired up snort and pinged my own IP address demanding ping to send only 5 packets

After the ping is finished, we can observe that snort logged 5 packets (wich are the ICMP request packets sent by ping

```

chris@chris-Laptop:/var/log/snort$ sudo -i
root@chris-Laptop:~# cd /var/log/snort/139.91.68.70/
root@chris-Laptop:/var/log/snort/139.91.68.70# cat ICMP_ECHO
[**] Captured ICMP packet destined to the host [**]
04/27-14:14:21.619609 139.91.68.70 -> 139.91.68.70
ICMP TTL:64 TOS:0x0 ID:39029 IpLen:20 DgmLen:84 DF
Type:8 Code:0 ID:841 Seq:1 ECHO
=====

[**] Captured ICMP packet destined to the host [**]
04/27-14:14:22.651348 139.91.68.70 -> 139.91.68.70
ICMP TTL:64 TOS:0x0 ID:39169 IpLen:20 DgmLen:84 DF
Type:8 Code:0 ID:841 Seq:2 ECHO
=====

[**] Captured ICMP packet destined to the host [**]
04/27-14:14:23.675361 139.91.68.70 -> 139.91.68.70
ICMP TTL:64 TOS:0x0 ID:39251 IpLen:20 DgmLen:84 DF
Type:8 Code:0 ID:841 Seq:3 ECHO
=====

[**] Captured ICMP packet destined to the host [**]
04/27-14:14:24.699399 139.91.68.70 -> 139.91.68.70
ICMP TTL:64 TOS:0x0 ID:39468 IpLen:20 DgmLen:84 DF
Type:8 Code:0 ID:841 Seq:4 ECHO
=====

[**] Captured ICMP packet destined to the host [**]
04/27-14:14:25.723353 139.91.68.70 -> 139.91.68.70
ICMP TTL:64 TOS:0x0 ID:39604 IpLen:20 DgmLen:84 DF
Type:8 Code:0 ID:841 Seq:5 ECHO
=====

```

Examining the log files (in ASCII as I requested from snort using “-K ascii”) we can see the 5 packets logged and the message from the rule I created appearing in before each logged packet

For the demonstration of the second rule, I will use the FIN scan option of nmap in order to send FIN TCP packets to the loopback interface and then capture and log them using snort. I am going to scan ports 6000 through 7999 so that we can check if only the ports 7000-7999 are logged:

```

chris@chris-Laptop:/var/log/snort$ cat
ICMP Disc: 0 ( 0.000%)
All Discard: 0 ( 0.000%)
Other: 0 ( 0.000%)
Bad Chk Sum: 1 ( 0.025%)
Bad TTL: 0 ( 0.000%)
SS C 1: 0 ( 0.000%)
SS C 2: 0 ( 0.000%)
Total: 4001
=====
Action Stats:
Alerts: 0 ( 0.000%)
Logged: 1000 ( 24.994%)
Passed: 0 ( 0.000%)
Limits:
Match: 0
Queue: 0
Log: 0
Event: 0
Alert: 0
Verdicts:
Allow: 4001 ( 49.988%)
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
Frag3 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
=====
Stream statistics:
Total sessions: 0
TCP sessions: 0
UDP sessions: 0
ICMP sessions: 0
IP sessions: 0
TCP Prunes: 0
UDP Prunes: 0
ICMP Prunes: 0

```

After shutting down snort, we can see that exactly 1000 entries are logged which means that the rule works as its supposed to work

checking the logs we can observe that a file named TCP\54574-x is created for every port from 7000 to 7999

```

Snort exiting
chris@chris-Laptop:/var/log/snort$ sudo su
root@chris-Laptop:/var/log/snort# cat
127.0.0.1/ snort.alert snort.alert.fast
root@chris-Laptop:/var/log/snort# cat 127.0.0.1/TCP\54574-7475
[**] Captured FIN packet destined to the host [**]
04/27-17:19:16.182955 127.0.0.1:54574 -> 127.0.0.1:7475
TCP TTL:46 TOS:0x0 ID:24954 IpLen:20 DgmLen:40
*****F Seq: 0xB2352C90 Ack: 0x0 Win: 0x400 TcpLen: 20
=====

root@chris-Laptop:/var/log/snort# cat 127.0.0.1/TCP\54574-7111
[**] Captured FIN packet destined to the host [**]
04/27-17:19:16.215904 127.0.0.1:54574 -> 127.0.0.1:7111
TCP TTL:47 TOS:0x0 ID:34693 IpLen:20 DgmLen:40
*****F Seq: 0xB2352C90 Ack: 0x0 Win: 0x400 TcpLen: 20
=====

root@chris-Laptop:/var/log/snort# █

```

For the alert rule, I will run snort using the option “-A console” which is gonna display alerts in the prompt in real time. On the other terminal I will run nmap with the option “--scanflags 3” to craft a SYN FIN packet and send it to every port.

[illegible]

For the last two rules the tests were not successful...

For the ftp login rule I created a dummy FTP server and then tried to login (unsuccessfully) as root user. Snort did not manage to log the packet even though I managed to find it using packet sniffer mode and displaying the packet contents on the screen. Therefore I still don't know why the highlighted packet doesn't trigger the log rule

```
***AD** Seq: 0x9C6CDAB Ack: 0xF8BC94D6 Win: 0xFFCB TcpLen: 40  
TCP Options (5) => MSS: 65495 SackOK Tis: 1238149311 1238149311 NOP MS: 7
```

---

```
chris@chris-Laptop: ~  
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP Name (localhost:chris): root  
(snort decoder) WARNING: Bad Traffic Loopback IP 228 (vsFPd 3.0.5)  
04/27-18:23:01.739100 00:00:00:00:00:00 -> 00:00:00:00:00:00 type:0x800 len:231 Please specify the password.  
127.0.0.1:54588 -> 127.0.0.1:21 TCP TTL:64 TOS:0x0 ID:16349 Iplen:20 DgLen:421 Timeout.  
***AD** Seq: 0xF8BC94D6 Ack: 0x9C6CDAB Win: 0x4000 TcpLen: 32 ftp: Login failed  
TCP Options (3) => NOP NOP Tis: 1238149311 1238149311 Password:  
ftp>  
ftp>  
ftp> elt  
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP 2 Invalid command.  
(snort decoder) WARNING: Bad Traffic Loopback IP ftp> exl  
04/27-18:23:01.743996 00:00:00:00:00:00 -> 00:00:00:00:00:00 type:0x800 len:421 Service not available, user interrupt. Connection closed.  
127.0.0.1:54588 -> 127.0.0.1:21 TCP TTL:64 TOS:0x0 ID:16350 Iplen:20 DgLen:421 Connected to localhost.  
***AD** Seq: 0x9C6CDAB Ack: 0xF8BC94D6 Win: 0x200 TcpLen: 32 228 (vsFPd 3.0.5)  
TCP Options (3) => NOP NOP Tis: 1238149315 1238149311 Name (localhost:chris): root  
32 32 30 20 28 76 74 46 54 50 64 20 33 2E 30 2E 228 (vsFPd 3.0. 331 Please specify the password.  
35 29 00 0A 5).. Password:  
ftp>  
ftp> exit  
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP 421 Service not available, user interrupt. Connection closed.  
(snort decoder) WARNING: Bad Traffic Loopback IP ftp: Login failed  
04/27-18:23:01.743159 00:00:00:00:00:00 -> 00:00:00:00:00:00 type:0x800 len:421  
127.0.0.1:54588 -> 127.0.0.1:21 TCP TTL:64 TOS:0x10 ID:16353 Iplen:20 DgLen:52 ftp: Login failed  
***AD** Seq: 0x9C6CDAB Ack: 0x9C6CDAB Win: 0x4000 TcpLen: 32 ftp> exit  
TCP Options (3) => NOP NOP Tis: 1238149315 1238149315 chris@chris-Laptop:~$
```

---

```
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP  
(snort decoder) WARNING: Bad Traffic Loopback IP  
04/27-18:23:03.537981 00:00:00:00:00:00 -> 00:00:00:00:00:00 type:0x800 len:0x4D  
127.0.0.1:54588 -> 127.0.0.1:21 TCP TTL:64 TOS:0x10 ID:14679 Iplen:20 DgLen:52 DF  
***AD** Seq: 0xF8BC94D6 Ack: 0xF8BC94E1 Win: 0x4000 TcpLen: 32  
TCP Options (3) => NOP NOP Tis: 1238151110 1238149315
```

---

```
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP  
(snort decoder) WARNING: Bad Traffic Loopback IP  
04/27-18:23:03.537981 00:00:00:00:00:00 -> 00:00:00:00:00:00 type:0x800 len:0x4D  
127.0.0.1:54588 -> 127.0.0.1:54588 TCP TTL:64 TOS:0x0 ID:14679 Iplen:20 DgLen:52 DF  
***AD** Seq: 0x9C6CDAB Ack: 0xF8BC94E1 Win: 0x200 TcpLen: 32  
TCP Options (3) => NOP NOP Tis: 1238151110 1238151110
```

---

```
(snort decoder) WARNING: Bad Traffic Same Src/Dst IP
```

## Question 2

Rule	Explanation
<u>alert icmp any any -&gt; any any (msg:"ICMP Source Quench";ittype:4'icode:0;)</u>	This snort rule alerts for any ICMP packets with the following fields on the header: type=4 (Source Quench) code=0 (echo reply)
<u>alert tcp \$EXTERNAL_NET any -&gt; \$HOME_NET 53 (msg:"DNSEXPOIT named overflow";flags:A+;content:"thisissometempspaceforthesockinaddrinyeahyeahiknowthisislamebutanywaywhocareshorizongotitworkingsoalliscool";reference:cve,CVE-1999-0833;)</u>	This snort rule alerts for any incoming tcp connections from the EXTERNAL_NET variable (default=! HOME_NET=any), destined to the HOME_NET variable (default = any) and to port 53 (Which is used by DNS servers), is an acknowledgment (flags:A+;) and includes the string <i>"thisissometempspaceforthesockinaddrinyeahyeahiknowthisislamebutanywaywhocareshorizongotitworkingsoalliscool"</i> , When this alert is executed, the message that is displayed is "DNSEXPOIT named overflow" and contains a CVE reference.
<u>alert tcp \$EXTERNAL_NET any -&gt; \$HOME_NET 139 (msg:"NETBIOS SMB ADMIN\$access"; flow:to_server,established; content:"\\ADMIN\$ 00 41 3a 00 "; reference:arachnids,340; classtype:attempted-admin; sid:532; rev:4;)</u>	This snort rule alerts any tcp from the EXTERNAL_NET to HOME_NET port 139 (used by SMB dialects that communicate over NetBIOS), triggered when the client sends packet to the server, only for an established TCP connection. The content should contain the following string "\\ADMIN\$ 00 41 3a 00 " (the hex numbers contained in the two columns is treated as hex). The rule also has the classtype attempted-admin which gives the rule high priority as it describes an Attempted Administrator Privilege Gain. Finally it has a message to display, a reference to arachnids an sid and a revision number.
<u>alert ip \$EXTERNAL_NET \$SHELLCODE_PORTS -&gt; \$HOME_NET any (msg:"SHELLCODE sparac NOOP"; content:" a61c c013 a61c c013 a61c c013 a61c c013 "; reference:arachnids,355; classtype:shellcode-detect; sid:646; rev:4;)</u>	This snort rule alerts for any EXTERNAL_NET connections from the SHELLCODE_PORTS (!80) to any HOME_NET port with content as described in the rule (contains hex code). The rule has a classtype of shellcode-detect which is for executable code detected and has high priority. This rule also has a message to display, a reference to arachnids, a sid and a revision number



### Question 4

For the installation of Pulled Pork all I had to do is follow the instructions on the github README file. When I was through with the instructions I had to make some changes to the configuration file, like inputting my oinkcode and describing which rulesets I want to download. I also had to change some path variables. After all the configuration, I ran pulledpork and the rules file was created in the rules directory of snort:

```
chris@chris-Laptop:~/pulledpork3$ sudo python3 pulledpork.py -c /usr/local/etc/pulledpork/pulledpork.conf

https://github.com/shirkdog/pulledpork3

      .-----.\_____) PulledPork v3.0.0.5
     .---==\___/ 
    .---==\___/   Lowcountry yellow mustard bbq sauce is the best bbq sauce. Fight me.
   .-----Y|\\_\_ Copyright (C) 2021 Noah Dietrich, Colin Grady, Michael Shirk
 @_/         / 66\ and the PulledPork Team!
  \         /-||'-' Rules give me wings!
   \       /-||'-'
    \_    _/_\

~~~~~
Loading configuration file: /usr/local/etc/pulledpork/pulledpork.conf
Processing Community ruleset
Preparing to modify rules by sid file
Completed processing all rulesets and local rules:
- Collected Rules: Rules(loaded:4031, enabled:4031, disabled:0)
- Collected Policies:
  - Policy(name:balanced, rules:4031)
Writing rules to: /etc/snort/rules/pulledpork.rules
Writing blacklist file to: /usr/local/etc/lists/default.blocklist
WARNING: Unable to write blacklist: [Errno 2] No such file or directory: '/usr/local/etc/lists/default.blocklist'
```

Due to some compatability issues (pulledpork3 is for snort3 while I ran snort 2) I didn't manage to run snort with the pulledpork.rules rules that beeing because some rules have options not compatitable with snort2 (like service). The generated pulledpork.rules file can be seen below

```

# Rules file created by Pulledpork at 2023.04-27-21.52.50

To Use this file: in your snort.lua, you need the following settings:
lps =
{
  include = "/etc/snort/rules/pulledpork.rules",
  ...
}

You have chosen to enable snort rules.
To prevent errors when running snort, make sure to include
the following command-line option:
--plugin-path "/usr/local/etc/snort/"

alert tcp $HOME_NET 2589 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR - Dagger1.4.0"; flow_to:client,established; content:"2100 00 00 00 00 00 [Drives]24 00"; depth 16; metadata:ruselet_community; classtype:misc-activity; sid:105; rev:1; )

alert tcp $EXTERNAL_NET any -> $HOME_NET 7597 (msg: "MALWARE-BACKDOOR QAZ Worm Client Login access"; flow_to:server,established; content:"qazwzx.hsq"; metadata:ruselet_community; classtype:misc-activity; sid:108; rev:12; )
alert tcp $EXTERNAL_NET any -> $HOME_NET 12345:12346 (msg: "MALWARE-BACKDOOR netbus getinfo"; flow_to:server,established; content:"GetInfo000"; metadata:ruselet_community; classtype:misc-activity; sid:110; rev:10; )
alert tcp $HOME_NET 20934 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Netbus Pro 2.0 connection established"; flow_to:client,established; flowbits:isset,backdoor.netbus.2; content:"B010 00 02 00"; depth 6; content:"[05 00]"; dep
t 2; offset 0; metadata:ruselet_community; classtype:trojan-activity; sid:115; rev:15; )
alert tcp $HOME_NET any -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Infector.1.x"; flow_to:client,established; content:"!MATHIS!"; depth 16; metadata:impact_flag_red,ruselet_community; reference:nessus,11157; classtype:misc-activity; sid:
117; rev:17; )
alert tcp $HOME_NET 666 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR SatanzBackdoor 2.0 Beta"; flow_to:client,established; content:"Remote[3A]"; depth 11; nocase; content:"You are connected to me [100 00] Remote[3A] Ready for commands"; dist
ance 0; nocase; metadata:ruselet_community; reference:url,www.megasecurity.org/trojans/satanzbackdoor/5802_06.html; reference:url,www.3.com/securityadvisor/pest/pest.aspx?id=5260; classtype:trojan-activity; sid:118; rev:12; )
alert tcp $HOME_NET 6789 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Doly 2.0 access"; flow_to:client,established; content:"ntzup use"; depth 32; metadata:ruselet_community; classtype:misc-activity; sid:119; rev:11; )
alert tcp $EXTERNAL_NET 18080:18080 -> $HOME_NET 146 (msg: "MALWARE-BACKDOOR Infector 1.6 Client to Server Connection Request"; flow_to:server,established; content:"Fc "; metadata:ruselet_community; reference:nessus,11157; classtype:misc-a
ctivity; sid:120; rev:14; )
alert tcp $HOME_NET 31785 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR HackAttack 1.20 Connection"; flow_to:client,established; content:"host"; metadata:ruselet_community; classtype:misc-activity; sid:144; rev:10; )
alert tcp $EXTERNAL_NET any -> $HOME_NET 21 (msg: "PROTOCOL-FTP AdminWin ftp login attempt"; flow_to:server,established; content:"USER"; nocase; content:"Worm"; distance 1; nocase; pcre: /USER$|sworm/ins; metadata:ruselet_community; servic
e:ftp; sid:145; rev:1; )
alert tcp $HOME_NET 30100:30102 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR NetSphere access"; flow_to:client,established; content:"NetSphere"; metadata:ruselet_community; classtype:trojan-activity; sid:146; rev:13; )
alert tcp $HOME_NET 6969 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Gatecrasher"; flow_to:client,established; content:"GateCrasher"; depth 11; nocase; content:"Server distance 0; nocase; content:"On-Line..."; distance 0; nocase; pcre: /Ga
teCrasher$|svhVdVcVdVc$|server=on-line$|VcVcVcVcVc$|; metadata:policy_max-detect-tps drop,ruselet_community; reference:url,www.spywaregarden.com/product_show.php?Id=93; classtype:trojan-activity; sid:147; rev:12; )
alert tcp $HOME_NET any -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR BackConstruction 2.1 Connection"; flow_to:client,established; content:"c3a sc"; metadata:ruselet_community; classtype:misc-activity; sid:152; rev:11; )
alert tcp $EXTERNAL_NET any -> $HOME_NET 666 (msg: "MALWARE-BACKDOOR BackConstruction 2.1 Client FTP Open Request"; flow_to:server,established; content:"FTPOP"; metadata:ruselet_community; classtype:misc-activity; sid:157; rev:9; )
alert tcp $HOME_NET 666 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR BackConstruction 2.1 Server FTP Open Reply"; flow_to:client,established; content:"FTPOP Port open"; metadata:ruselet_community; classtype:misc-activity; sid:158; rev:10; )

alert udp $EXTERNAL_NET 3344 -> $HOME_NET 3345 (msg: "MALWARE-BACKDOOR Matrix 2.0 Client connect"; flow_to:server; content:"activate"; metadata:ruselet_community; classtype:misc-activity; sid:161; rev:10; )
alert udp $EXTERNAL_NET 3345 -> $HOME_NET 3344 (msg: "MALWARE-BACKDOOR Matrix 2.0 Server connect"; flow_to:server; content:"logged in"; metadata:ruselet_community; classtype:misc-activity; sid:162; rev:10; )
alert tcp $HOME_NET 5714 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR WinCrash 1.0 Server active"; flow_to:server,established; flowbits:isset,flags.15; content:"[B4 B4]"; metadata:ruselet_community; classtype:misc-activity; sid:163; rev:14; )
alert tcp $EXTERNAL_NET any -> $HOME_NET 79 (msg: "MALWARE-BACKDOOR CIDK"; flow_to:server,established; content:"y9bca"; depth 15; metadata:ruselet_community; classtype:misc-activity; sid:165; rev:10; )
alert udp $HOME_NET 2140 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Deepthroat 3.1 Server Response"; flow_to:client; content:"Ahhhh My Mouth Is Open"; metadata:ruselet_community; reference:nessus,10053; classtype:trojan-activity; sid:1
67; rev:15; )
alert tcp $HOME_NET 555 -> $EXTERNAL_NET any (msg: "MALWARE-BACKDOOR Phasero Server active on Network"; flow_to:client,established; content:"phase zero server"; depth 17; nocase; metadata:policy_max-detect-tps drop,ruselet_community; re
ference:url,www.megasecurity.org/trojans/phasero/phasezer01_06.html; reference:url,www.3.com/securityadvisor/pest/pest.aspx?id=4539; classtype:trojan-activity; sid:208; rev:13; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR W00w00 attempt"; flow_to:server,established; content:"W00w00"; metadata:ruselet_community; classtype:attempted-admin; sid:209; rev:9; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR H155 attempt"; flow_to:server,established; content:"H155"; metadata:ruselet_community; classtype:attempted-admin; sid:210; rev:7; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC root attempt"; flow_to:server,established; content:"root"; metadata:ruselet_community; classtype:attempted-admin; sid:211; rev:7; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC root attempt"; flow_to:server,established; content:"root"; metadata:ruselet_community; classtype:attempted-admin; sid:211; rev:7; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC root attempt"; flow_to:server,established; content:"root"; metadata:ruselet_community; classtype:attempted-admin; sid:211; rev:7; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC Linux rootkit attempt"; flow_to:server,established; content:"wh0t"; metadata:ruselet_community; reference:url,attack.mttr.org/techniques/T1014; classtyp
e:attempted-admin; sid:214; rev:9; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC Linux rootkit attempt"; flow_to:server,established; content:"d3jhk"; nocase; metadata:ruselet_community; reference:url,attack.mttr.org/techniques/T1014; clas
stype:attempted-admin; sid:215; rev:9; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC Linux rootkit sat0rt attempt"; flow_to:server,established; content:"sat0rt"; metadata:ruselet_community; reference:url,attack.mttr.org/techniques/T1014; clas
stype:attempted-admin; sid:216; rev:9; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC smdk attempt"; flow_to:server,established; content:"havr"; metadata:ruselet_community; classtype:attempted-admin; sid:217; rev:7; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC Solaris 2.5 attempt"; flow_to:server,established; content:"friday"; metadata:ruselet_community; classtype:attempted-user; sid:218; rev:8; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR HDdpak backdoor attempt"; flow_to:server,established; content:"Stoog"; metadata:ruselet_community; classtype:misc-activity; sid:219; rev:10; )
alert tcp $EXTERNAL_NET any -> $STELNET_SERVERS 23 (msg: "MALWARE-BACKDOOR MISC backdoor attempt"; flow_to:server,established; content:"MISC"; metadata:ruselet_community; classtype:misc-activity; sid:220; rev:10; )
alert tcp $EXTERNAL_NET any -> $HOME_NET any (msg: "PROTOCOL-Icmp TFN Probe"; tcnp_id:678; typebit:content:"1234"; fast_pattern,nocase; metadata:ruselet_community; reference:uc,2009-0138; classtype:attempted-dos; sid:221; rev:12; )

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