

# LAB :: SNORT (IDS)

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- In this example we are using apnictraining.net as domain name.
- # super user command.
- \$ normal user command.
- X replace with your group no.
- Username `apnic` and password `training`

## Topology

```
[group1.apnictraining.net] [192.168.30.11] [group2.apnictraining.net] [192.168.30.12]
[group3.apnictraining.net] [192.168.30.13] [group4.apnictraining.net] [192.168.30.14]
[group5.apnictraining.net] [192.168.30.15] [group6.apnictraining.net] [192.168.30.16]
[group7.apnictraining.net] [192.168.30.17] [group8.apnictraining.net] [192.168.30.18]
[group9.apnictraining.net] [192.168.30.19] [group10.apnictraining.net] [192.168.30.20]
[group11.apnictraining.net] [192.168.30.21] [group12.apnictraining.net] [192.168.30.22]
[group13.apnictraining.net] [192.168.30.23] [group14.apnictraining.net] [192.168.30.24]
[group15.apnictraining.net] [192.168.30.25] [group16.apnictraining.net] [192.168.30.26]
[group17.apnictraining.net] [192.168.30.27] [group18.apnictraining.net] [192.168.30.28]
[group19.apnictraining.net] [192.168.30.29] [group20.apnictraining.net] [192.168.30.30]
```

## Install SNORT

```
sudo apt-get install snort
```

It will ask for your HOME\_NET. For this lab define it as your host IP. For group1 it will `192.168.30.11/32` . If required we can change it from snort.conf file also.

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### Configuring snort

Please use the CIDR form - for example, 192.168.1.0/24 for a block of 256 addresses or 192.168.1.42/32 for just one. Multiple values should be comma-separated (without spaces).

Please note that if Snort is configured to use multiple interfaces, it will use this value as the HOME\_NET definition for all of them.

Address range for the local network:

192.168.0.0/16

<ok>

After installation check the installation location of SNORT

```
whereis snort
```

### Few important location

1. SNORT configuration : `/etc/snort/snort.conf`
2. SNORT debian configuration : `/etc/snort/snort.debian.conf`
3. SNORT rules : `/etc/snort/rules`
4. SNORT executable : `/usr/sbin/snort`

## Configure SNORT

Check HOME\_NET and Interface related configuration from `/etc/snort/snort.debian.conf`.

During installation process if you define your HOME\_NET properly; no need to edit it. Or you can edit this file.

The main configuration file for SNORT is `/etc/snort/snort.conf` file.

```
sudo vi /etc/snort/snort.conf
```

This is a big configuration file; for lab purpose we will disable all predefined rules. Disable (put #) all the line having `include $RULE_PATH` (in Step 7 of configuration file) except

`include $RULE_PATH/local.rules`. We will put all our local rules in

`include $RULE_PATH/local.rules`

To enable alert log; comment (adding # before the line) the following line:

```
output unified2: filename snort.log, limit 128, nostamp, mpls_event_types, vlan_event_types
```

Save and quit from `snort.conf` file `:wq`

Start SNORT `sudo /etc/init.d/snort start`

Check whether SNORT is running `# ps -ef | grep snort`

## SNORT Rules

Snort rules are divided into two logical sections:

1. Rule Header : The rule header contains the rule's action, protocol, source and destination IP addresses and netmasks, and the source and destination ports information.
2. Rule Options : The rule option section contains alert messages and information on which parts of the packet should be inspected to determine if the rule action should be taken.

### The First Bad Rule

Add the following rules in `/etc/snort/rules/local.rules`

```
alert ip any any -> any any (msg: "IP Packet detected"; sid: 10000;)
```

Save and exit. Restart `snort` service

```
sudo /etc/init.d/snort restart
```

This rules will generate alert for every packet. Try to ping any destination and check `alert` log file:

```
sudo su
tail -f /var/log/snort/alert
```

## SNORT Exercise

Exercise 1 : Write a rules to check XMAS scan on your server from external network

Exercise 2 : Write a rules to check any external network access your webserver /admin pages

Exercise 3 : Write a rules to check SSH brute force attack and log IP trying to connect more than 3 times in 60 seconds

\*\*\*END OF EXERCISE\*\*\*