Computer Systems Technology

British Columbia Institute of Technology

COMP 8006 - Assignment3- How-to

Albert Huang &

Aiyan Ma

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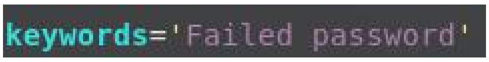
1. Config the Monitor by hard code

1. Ensure you are running the terminal as root.
2. Set variables key words for filter information from log file; for example:

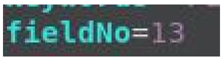
   Keywords=’Failed password’



```
keywords='Failed password'
```

3. Set variable ip by using awk, set field number; for example:

   fieldNo=13 (if you are trying to monitor secure file , this value should be 11)

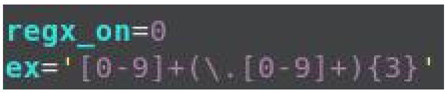


```
fieldNo=13
```

4. Set variable target ip by using regular expression: set regular expression switch and pattern.

   Regx_on=1 (0 means off, 1 means on)

   Ex='[0-9]+(\.[0-9]+){3}'



```
regx_on=0
ex='[0-9]+(\.[0-9]+){3}'
```

5. Set variables attempt times, blocking time, log file path and service port number and run:

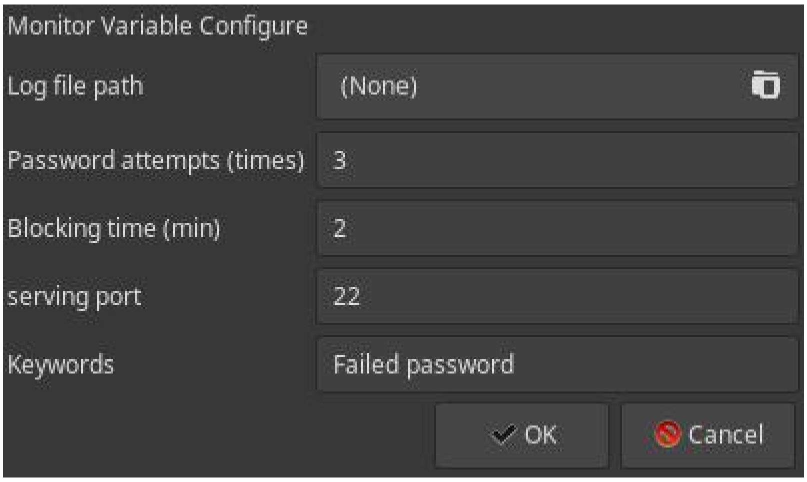
   #./monitor.sh -set 3 30 /var/log/secure 22

   This command set :

   attempt time = 3;
   blocking time = 30 min;
   log file path = /var/log/secure;
   service port number = 22 (ssh service)

2. Config the Monitor in GUI

1. Set vary information which including attempt times, blocking time, port number, key words etc; see below



Monitor Variable Configure

Log file path: (None)

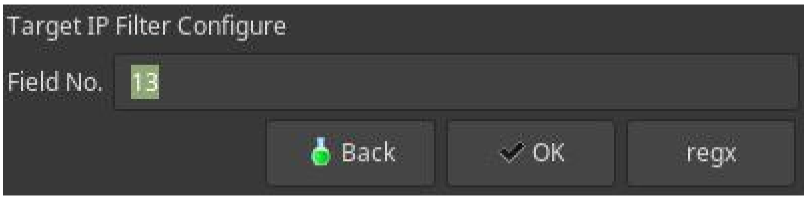
Password attempts (times): 3

Blocking time (min): 2

serving port: 22

Keywords: Failed password

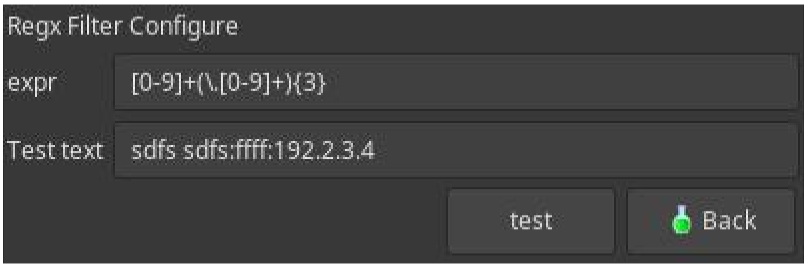
2. If use awk to get the target ip, input field number:



Target IP Filter Configure

Field No.: 13

3. Set regular expression to get target ip, click regx button on above dialog then you will see:

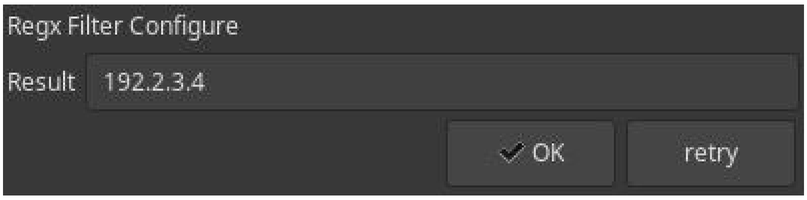


Regx Filter Configure

expr: [0-9]+(\.[0-9]+){3}

Test text: sdfs sdfs:ffff:192.2.3.4

The expr is regular expression pattern; the second line is testing text for you to try if your pattern works or not; for example click button test:



Regx Filter Configure

Result: 192.2.3.4

It works! This pattern catch the ip part from the line!

3. Running the Monitor

1. Ensure the file has executable permission by the root user with the command:

   ```
   #chmod 755 monitor.sh
   #./monitor.sh -gui
   ```

2. Ensure you already installed yad, if not, run the command below:

   ```
   #dnf install yad
   ```

3. Input the following arguments while executing the file:

   ```
   #./monitor.sh [ -set | timelimit | -gui ]
   ```

4. Arguments list:

-set	//start in command line interface
timelimit	//call to clear a firewall rule and cron task
-gui	//start gui for user