Scanning with Masscan, Nmap

Scanning with tools MASSCAN and NESSUS tool

Masscan is port scanner and built to use to scan internet very fast

https://github.com/robertdavidgraham/masscan

Masscan: Open terminal and Type the commands

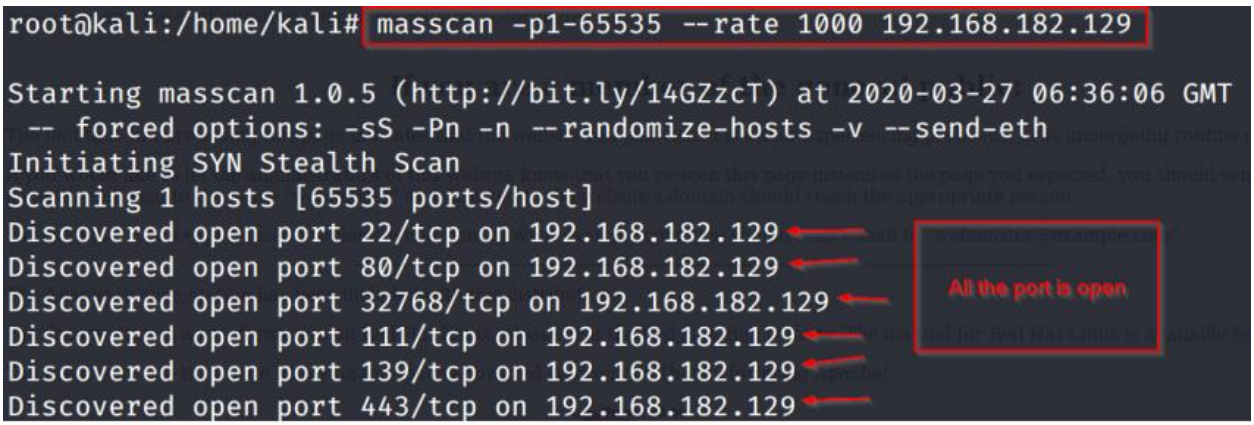
>> **masscan -p1-65535 192.168.182.129** or (if scanner will take more time stop and run this command)

>> **masscan -p1-65535 --rate 1000 192.168.182.129** (this will scan faster, limited no ports) and another terminal setup Nmap

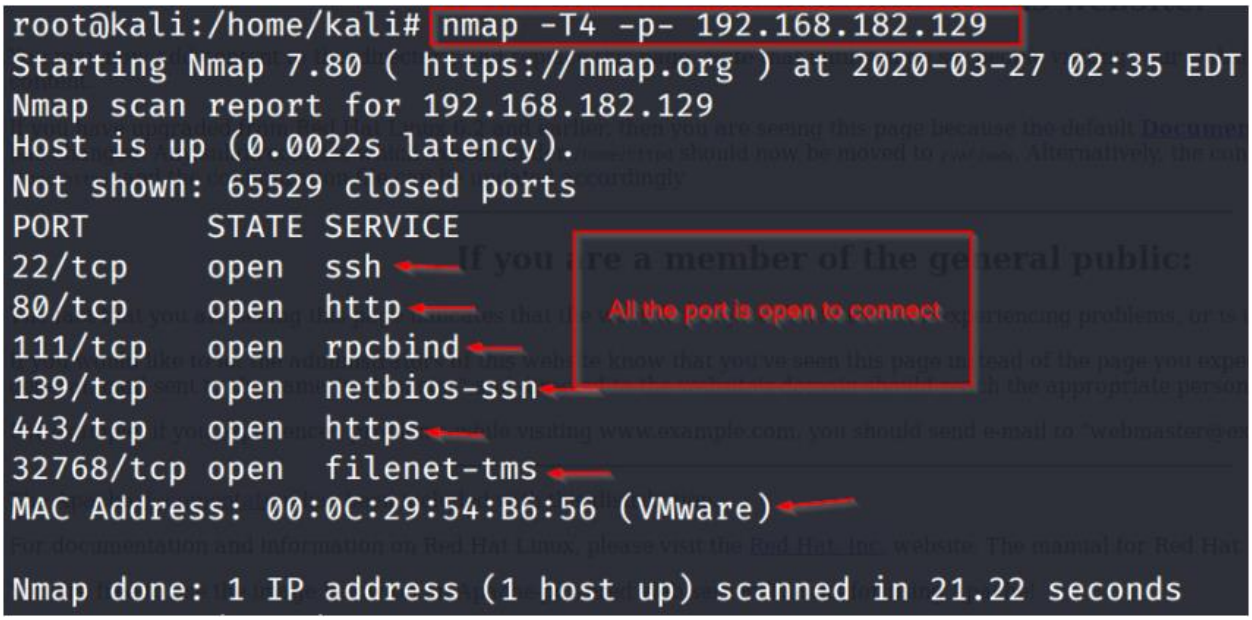
>> **nmap -T4 -p- 192.168.182 129** or also run specified port know that is open

>> **nmap -T4 -p 22,80,111,139,443,32768 -A 192.168.182.129**

RESULTS with MASSCAN:



RESULTS WITH NMAP:



```
root@kali:/home/kali# nmap -T4 -p 22,80,111,139,443,32768 -A 192.168.182.129
Starting Nmap 7.80 ( https://nmap.org ) at 2020-03-27 02:51 EDT
Nmap scan report for 192.168.182.129
Host is up (0.00073s latency).

PORT      STATE SERVICE     VERSION
22/tcp    open  ssh         OpenSSH 2.9p2 (protocol 1.99)
| ssh-hostkey:
|   1024 b8:74:6c:db:fd:8b:e6:66:e9:2a:2b:df:5e:6f:64:86 (RSA1)
|   1024 8f:8e:5b:81:ed:21:ab:c1:80:e1:57:a3:3c:85:c4:71 (DSA)
|_  1024 ed:4e:a9:4a:06:14:ff:15:14:ce:da:3a:80:db:e2:81 (RSA)
| sshv1: Server supports SSHv1
80/tcp    open  http        Apache httpd 1.3.20 ((Unix)  (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b)
| http-methods:
|_  Potentially risky methods: TRACE
|_http-server-header: Apache/1.3.20 (Unix)  (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b
|_http-title: Test Page for the Apache Web Server on Red Hat Linux
111/tcp   open  rpcbind     2 (RPC #100000)
139/tcp   open  netbios-ssn Samba smbd (workgroup: MYGROUP)
443/tcp   open  ssl/https   Apache/1.3.20 (Unix)  (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b
|_http-server-header: Apache/1.3.20 (Unix)  (Red-Hat/Linux) mod_ssl/2.8.4 OpenSSL/0.9.6b
|_http-title: 400 Bad Request
|_ssl-date: 2020-03-25T12:34:42+00:00; -1d18h18m30s from scanner time.
| sslv2:
|   SSLv2 supported
|   ciphers:
|     SSL2_DES_192_EDE3_CBC_WITH_MD5
|     SSL2_RC4_128_WITH_MD5
|     SSL2_RC2_128_CBC_WITH_MD5
|     SSL2_RC4_64_WITH_MD5
|     SSL2_RC2_128_CBC_EXPORT40_WITH_MD5
|     SSL2_RC4_128_EXPORT40_WITH_MD5
|_    SSL2_DES_64_CBC_WITH_MD5
32768/tcp open  status      1 (RPC #100024)
MAC Address: 00:0C:29:54:B6:56 (VMware)
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running: Linux 2.4.X
OS CPE: cpe:/o:linux:linux_kernel:2.4
OS details: Linux 2.4.9 - 2.4.18 (likely embedded)
Network Distance: 1 hop

Host script results:
|_clock-skew: -1d18h18m30s
|_nbstat: NetBIOS name: KIOPTRIX, NetBIOS user: <unknown>, NetBIOS MAC: <unknown> (unknown)
|_smb2-time: Protocol negotiation failed (SMB2)

TRACEROUTE
HOP RTT     ADDRESS
1   0.73 ms 192.168.182.129

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
```

Scanning with Metasploit

Command with required run in kali terminal:

>> **msfconsole**

>> **search portscan**

```
msf5 > search portscan

Matching Modules
================

   #  Name                                                Disclosure Date  Rank    Check  Description
   -  ----                                                ---------------  ----    -----  -----------
   0  auxiliary/scanner/http/wordpress_pingback_access                     normal  No     Wordpress Pingback Locator
   1  auxiliary/scanner/natpmp/natpmp_portscan             normal  No     NAT-PMP External Port Scanner
   2  auxiliary/scanner/portscan/ack                       normal  No     TCP ACK Firewall Scanner
   3  auxiliary/scanner/portscan/ftpbounce                 normal  No     FTP Bounce Port Scanner
   4  auxiliary/scanner/portscan/syn                       normal  No     TCP SYN Port Scanner
   5  auxiliary/scanner/portscan/tcp                       normal  No     TCP Port Scanner
   6  auxiliary/scanner/portscan/xmas                      normal  No     TCP "XMas" Port Scanner
   7  auxiliary/scanner/sap/sap_router_portscanner         normal  No     SAPRouter Port Scanner
```

>> **use 4 or use auxiliry/scanner/portscan/syn**

```
msf5 > use 4
msf5 auxiliary(scanner/portscan/syn) >
```

>> **options** # it will ask for requirements but it is already filled actually.

```
msf5 auxiliary(scanner/portscan/syn) > options

Module options (auxiliary/scanner/portscan/syn):

   Name       Current Setting  Required  Description
   ----       ---------------  --------  -----------
   BATCHSIZE  256              yes       The number of hosts to scan per set
   DELAY      0                yes       The delay between connections, per thread, in milliseconds
   INTERFACE                   no        The name of the interface
   JITTER     0                yes       The delay jitter factor (maximum value by which to +/- DELAY) in milliseconds.
   PORTS      1-10000          yes       Ports to scan (e.g. 22-25,80,110-900)
   RHOSTS                      yes       The target address range or CIDR identifier
   SNAPLEN    65535            yes       The number of bytes to capture
   THREADS    1                yes       The number of concurrent threads
   TIMEOUT    500              yes       The reply read timeout in milliseconds
```

>> **set rhosts 192.168.182.129** (attacker machine ip address)

```
msf5 > set rhosts 192.168.182.129
rhosts => 192.168.182.129
```

>> **set port 1-65535**

```
msf5 > set port 1-65535
port => 1-65535
```

>> **run** #this will start the post scanning

```
msf5 auxiliary(scanner/portscan/syn) > run

[+]  TCP OPEN 192.168.182.129:22
[+]  TCP OPEN 192.168.182.129:80
[+]  TCP OPEN 192.168.182.129:111
[+]  TCP OPEN 192.168.182.129:139
[+]  TCP OPEN 192.168.182.129:443
^C[*] Caught interrupt from the console...
[*] Auxiliary module execution completed
```

>> **set threads 100** (or we can set the threads)

>> **run**

```
msf5 auxiliary(scanner/portscan/syn) > set threads 100
threads ⇒ 100
msf5 auxiliary(scanner/portscan/syn) > run

[+]  TCP OPEN 192.168.182.129:22
[+]  TCP OPEN 192.168.182.129:80
[+]  TCP OPEN 192.168.182.129:111
[+]  TCP OPEN 192.168.182.129:139
```

Scanning with Nessus – Part 1

Nessus is called vulnerability scanner, if you do external assessment there is chances that you are use Nessus in the assessment, and kick of the scan,

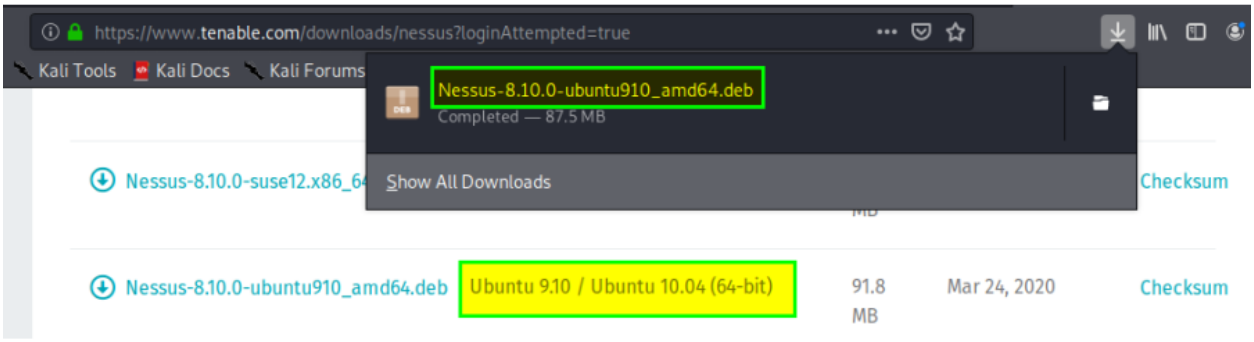
- Information gathering,

- Breach credential try to find juicy on the client

We can scan private ip address and 16 ip we can scan at one time.

DOWLOAD NESSUS:

https://www.tenable.com/downloads/nessus?loginAttempted=true (Download 64 bit version debian file)



We can download the file in linux and run below command to install in machine.

>>**dpkg -i Nessus-8.10.0-ubuntu910_amd64.deb**

```
root@kali:/home/kali/Downloads# dpkg -i Nessus-8.10.0-ubuntu910_amd64.deb
Selecting previously unselected package nessus.
(Reading database ... 257678 files and directories currently installed.)
Preparing to unpack Nessus-8.10.0-ubuntu910_amd64.deb ...
Unpacking nessus (8.10.0) ...
Setting up nessus (8.10.0) ...
Unpacking Nessus Scanner Core Components...

 - You can start Nessus Scanner by typing /etc/init.d/nessusd start
 - Then go to https://kali:8834/ to configure your scanner

Processing triggers for systemd (244-3) ...
```

#we can copy the /etc/init/.d.nessusd start and navigate to this URL

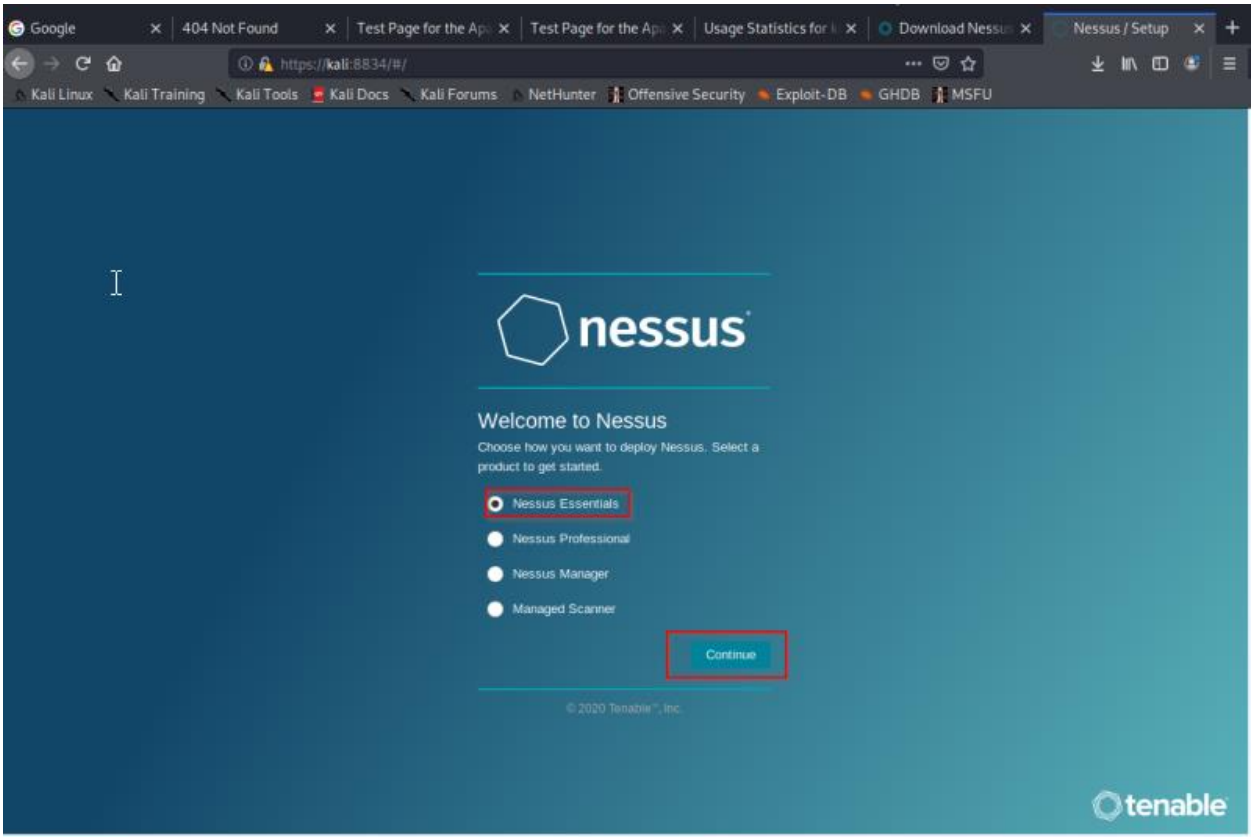
>> http://kali:8834/ (paste in the browser)

```
root@kali:/home/kali/Downloads# /etc/init.d/nessusd start
Starting Nessus : .
root@kali:/home/kali/Downloads# [Fri Mar 27 06:20:54 2020][20334.1][op=qdb_sync][name=services-udp.db][fd=7][map_sz=0][file_size=13084
9]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=qdb_sync][name=services-tcp.db][fd=6][map_sz=0][file_size=137898]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=_qdb_map][name=services-udp.db][fd=-1][map_sz=38575]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=_qdb_map][name=services-tcp.db][fd=-1][map_sz=40899]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=_qdb_map][name=services-tcp.db][fd=-1][map_sz=40899]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=qdb_sync][name=upgrades.db][fd=5][map_sz=0][file_size=20]: complete
[Fri Mar 27 06:20:54 2020][20334.1][op=qdb_sync][name=upgrades.db][fd=5][map_sz=0][file_size=55]: complete
[Fri Mar 27 06:20:55 2020][20334.1][op=qdb_sync][name=plugins-desc.db][fd=8][map_sz=0][file_size=20]: complete
[Fri Mar 27 06:20:55 2020][20334.1][op=qdb_sync][name=plugins-code.db][fd=7][map_sz=0][file_size=20]: complete
[Fri Mar 27 06:20:55 2020][20334.1][op=_qdb_map_lowmem][name=plugins-code.db.15853044552130473316][fd=7][map_sz=0][file_size=20]: comp
lete
[Fri Mar 27 06:20:55 2020][20334.1][op=_qdb_map_lowmem][name=plugins-desc.db.15853044551954417946][fd=8][map_sz=0][file_size=20]: comp
lete
```

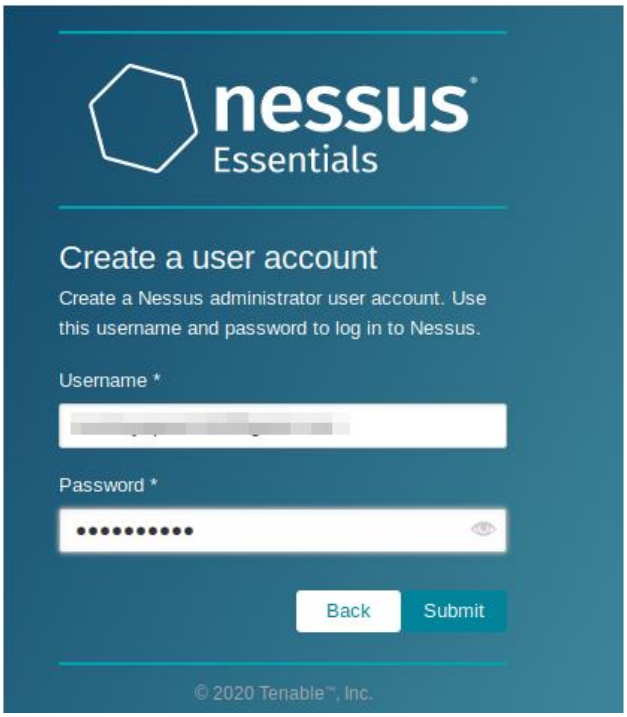
Now open browser, select below option, continue, and set username and last name and email

Enter activation code received on mail

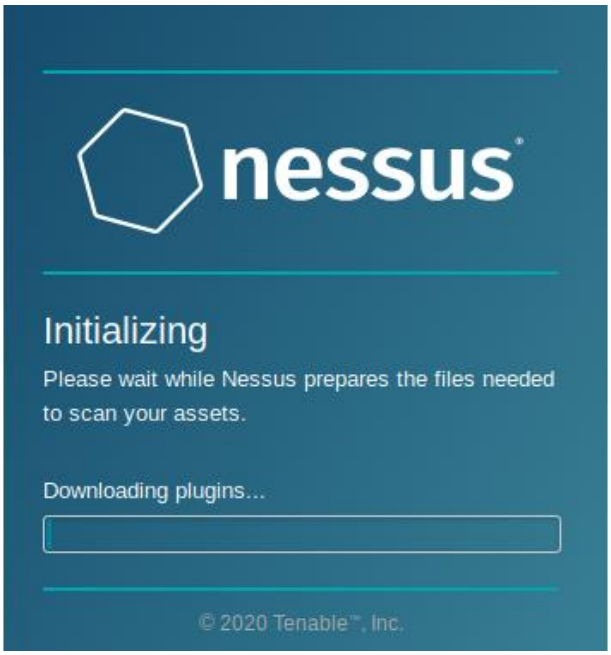
7C42-126F-2D18-FF2B-4CDE like this.



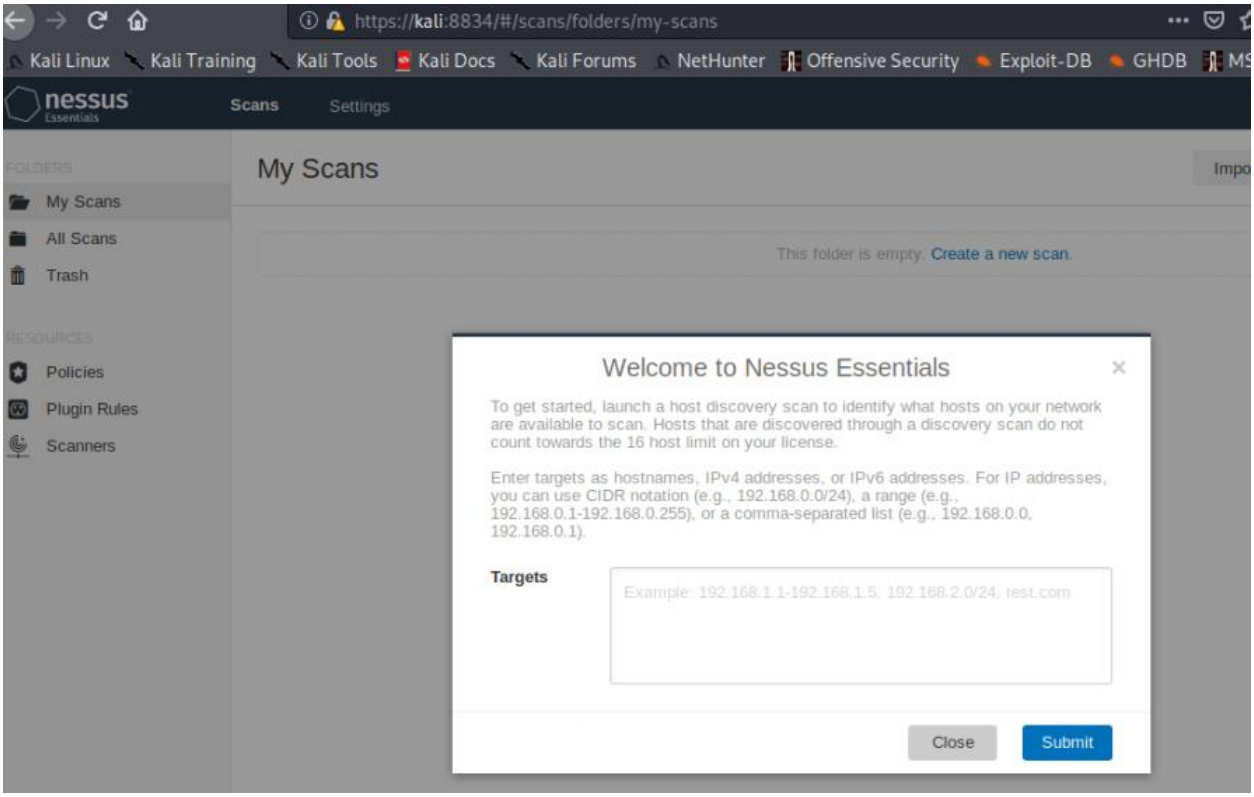
ENTER USERNAME AND PASSWORD – email7@gmail.com , ab@15



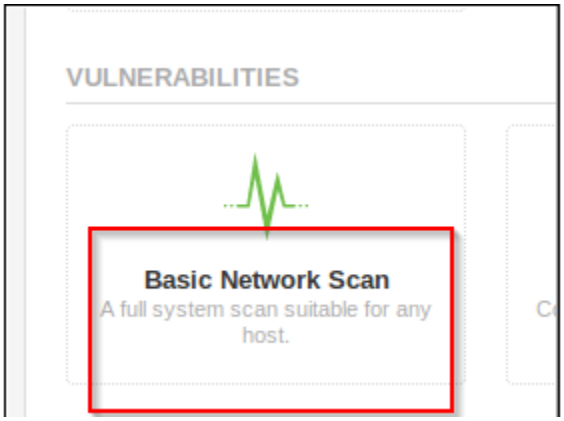
This will take some time to install



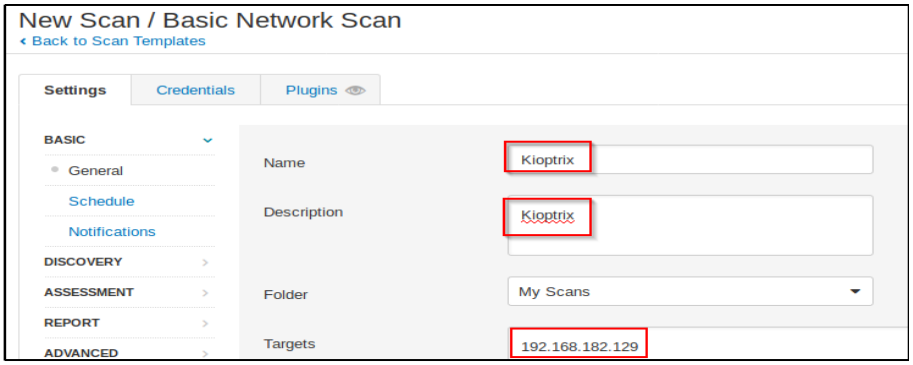
We now open Nessus with login credentials click on cancel



>> click on new scan on top right side of corner and click on basic network scan.



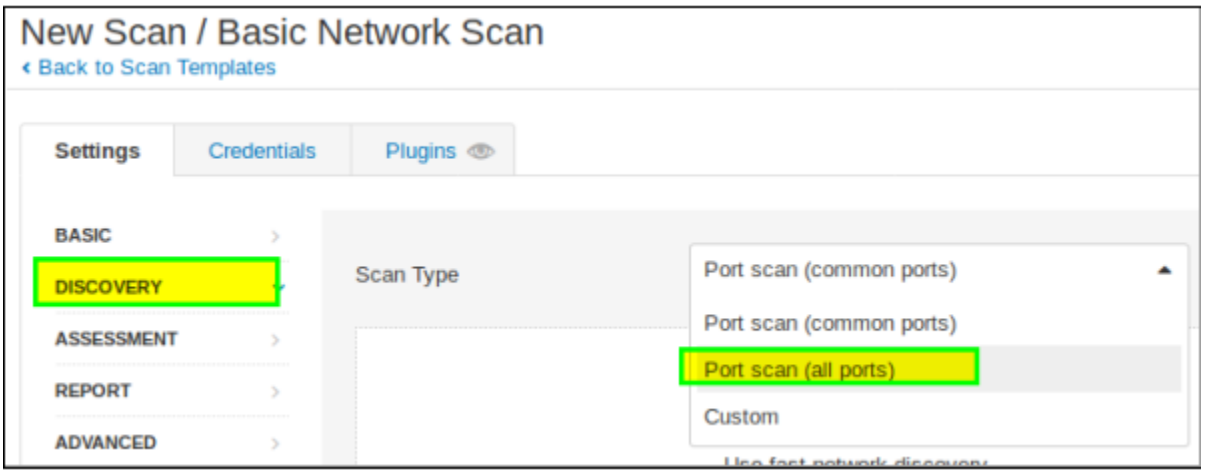
Now enter details and save all the details



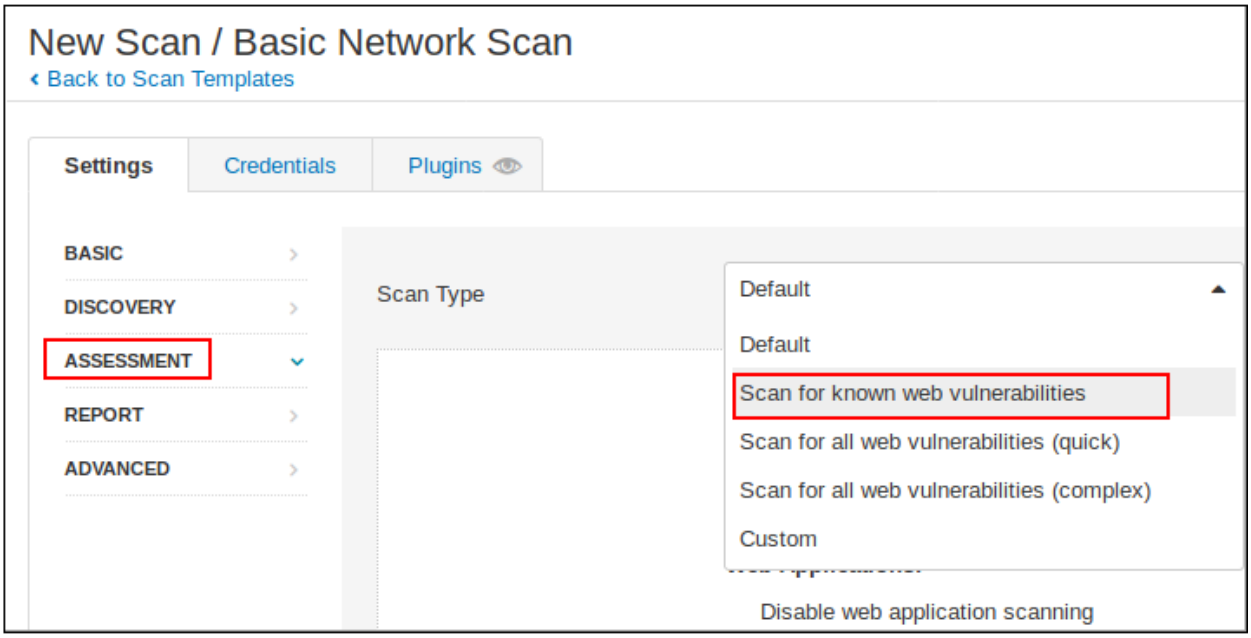
>> Now go through schedule the scan weekly daily monthly we can also set this

>> We can also set notification from SMTP server.

>> go to discovery tab we have to select all port scanning

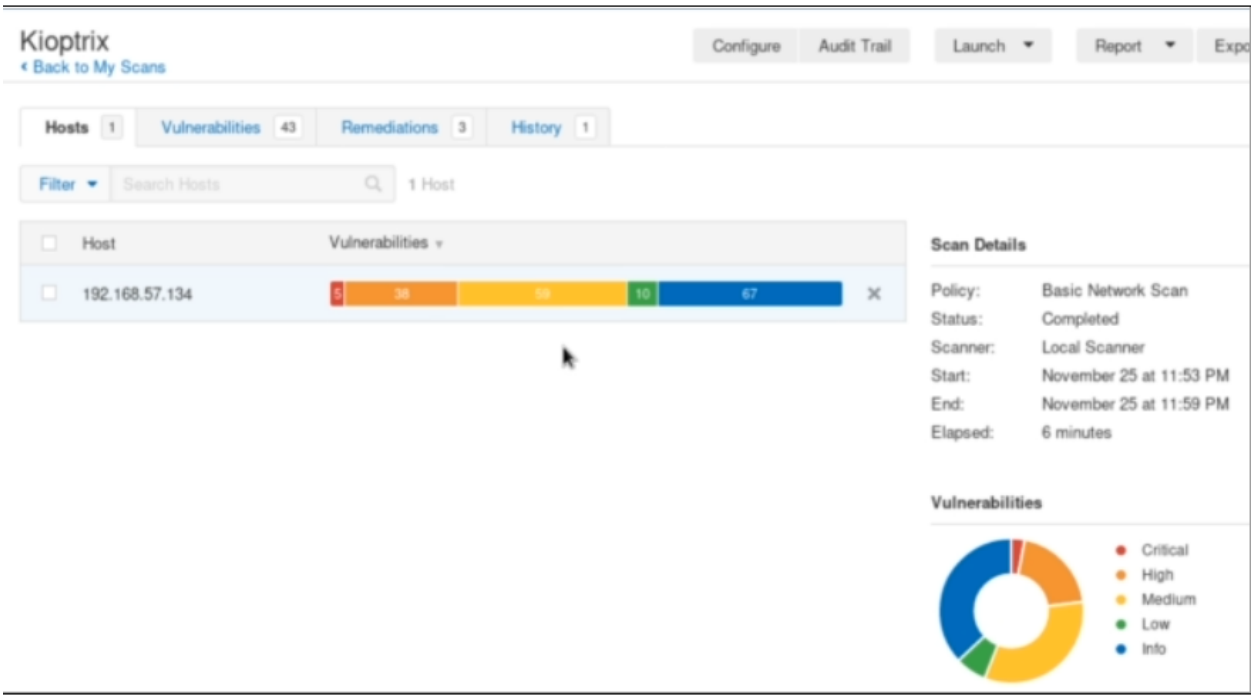


>> We can go assessment tab and select scan for web vulnerabilities.

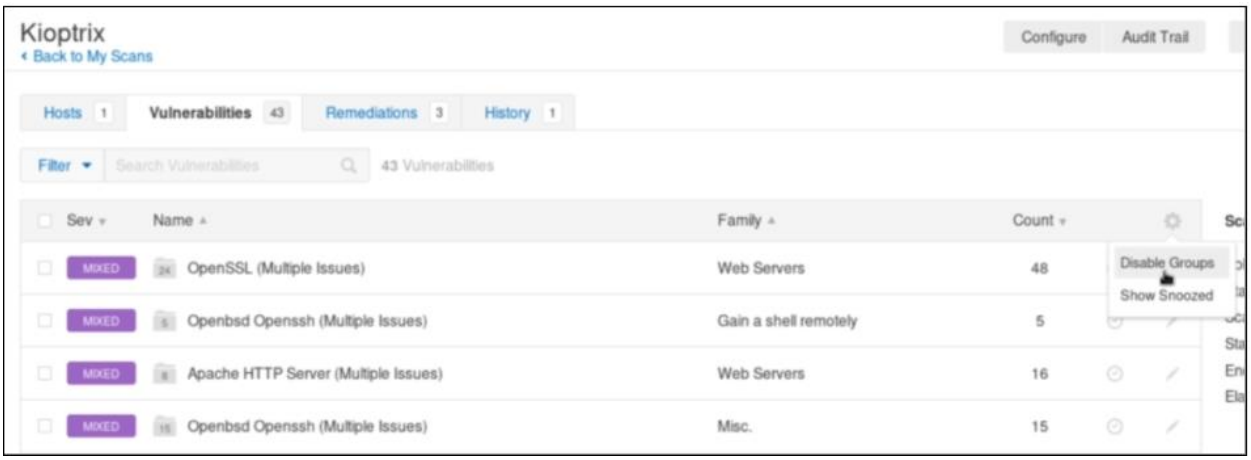


>> In Report and Advanced tab its default setting we can apply and now we can run the scan.

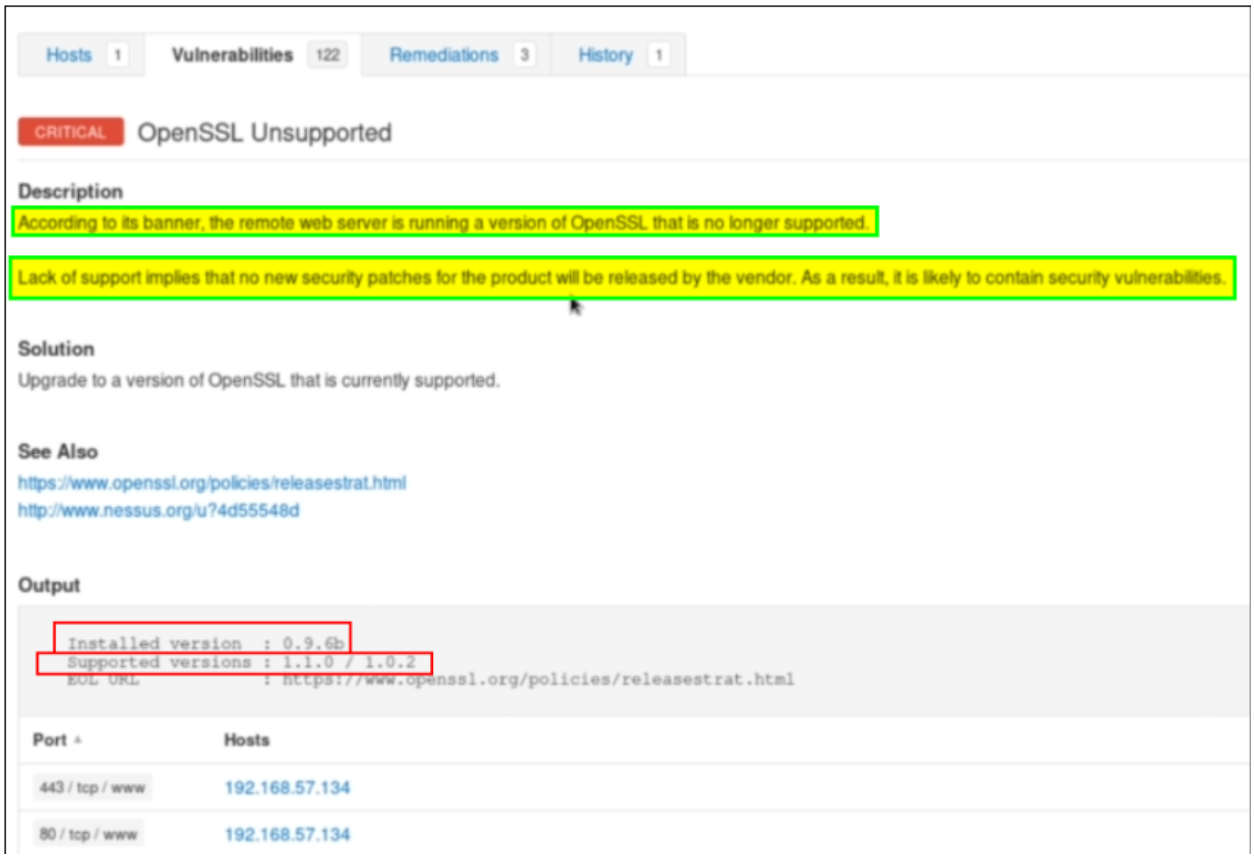
Scanning with Nessus part -2



Now we can check the scan report via severity: we can choose disable groups. Check very critical scan item.



However, we cannot add output: supported version information because it is our side to make them do work.



Installed version 0.9.6b

Supported version 1.1.0 / 1.0.2

We can download Nessus file and convert them into Excel file with online convertor