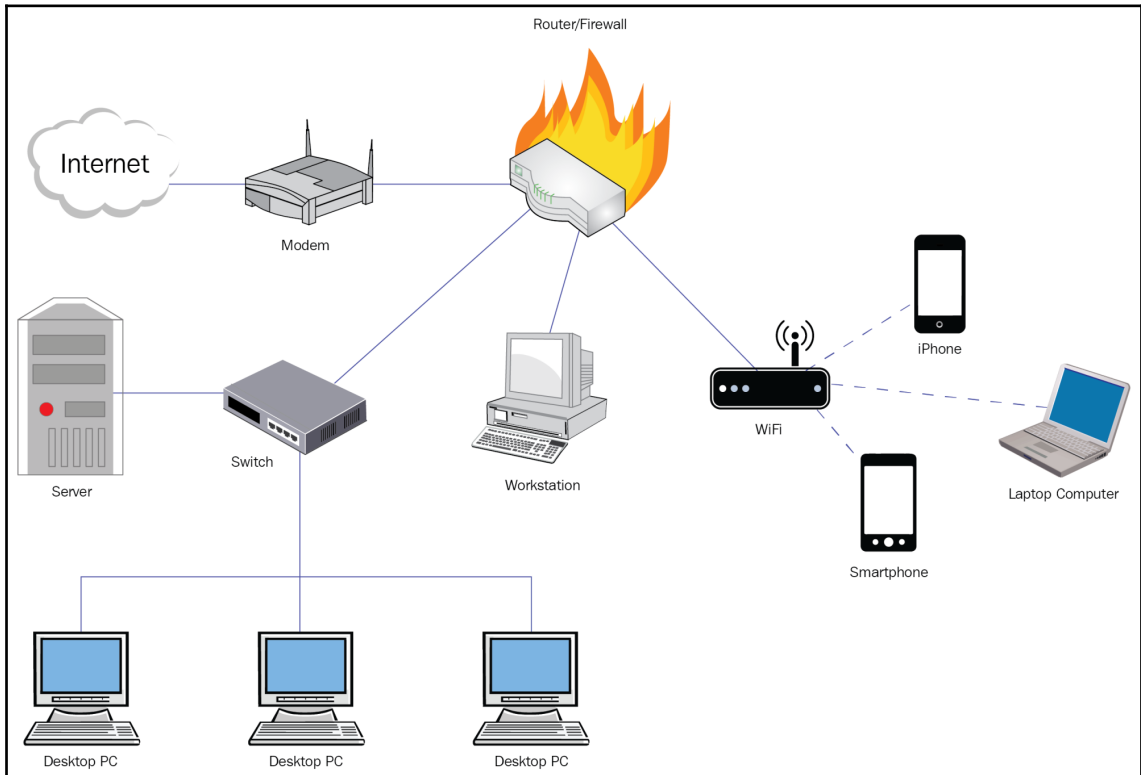


# Chapter 1: Introduction to Network Vulnerability Scanning



```
C:\Users\admin>nmap -Pn 192.168.100.142
Starting Nmap 7.70 ( https://nmap.org ) at 2018-06-11 14:04 Arabian Standard Time
Nmap scan report for 192.168.100.142
Host is up (0.00064s latency).
All 1000 scanned ports on 192.168.100.142 are closed
MAC Address: 00:0C:29:DF:F9:77 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 28.07 seconds
```

```

C:\Users\admin>nmap -sS -Pn -p80 192.168.100.143
Starting Nmap 7.70 < https://nmap.org > at 2018-06-11 14:29 Arabian Standard Time
Nmap scan report for 192.168.100.143
Host is up (0.00s latency).

PORT      STATE SERVICE
80/tcp    open  http
MAC Address: 00:0C:29:DF:F9:77 <VMware>

Nmap done: 1 IP address (1 host up) scanned in 27.77 seconds

```

Vulnerability	Severity	QoD	Host	Location	Created
HTTP Server type and version	0.0 (Log)	80%	192.168.1.107	5357/tcp	Mon Jun 11 22:42:12 2018
SMB NativeLanMan	0.0 (Log)	95%	192.168.1.107	445/tcp	Mon Jun 11 22:37:31 2018
DIRB (NASL wrapper)	0.0 (Log)	80%	192.168.1.107	5357/tcp	Mon Jun 11 22:49:45 2018
DIRB (NASL wrapper)	0.0 (Log)	80%	192.168.1.107	2869/tcp	Mon Jun 11 22:49:45 2018
DIRB (NASL wrapper)	0.0 (Log)	80%	192.168.1.107	443/tcp	Mon Jun 11 22:49:48 2018
DIRB (NASL wrapper)	0.0 (Log)	80%	192.168.1.107	443/tcp	Mon Jun 11 22:49:48 2018
SSL/TLS: Certificate - Self-Signed Certificate Detection	0.0 (Log)	98%	192.168.1.107	443/tcp	Mon Jun 11 22:47:07 2018

#### Log Method

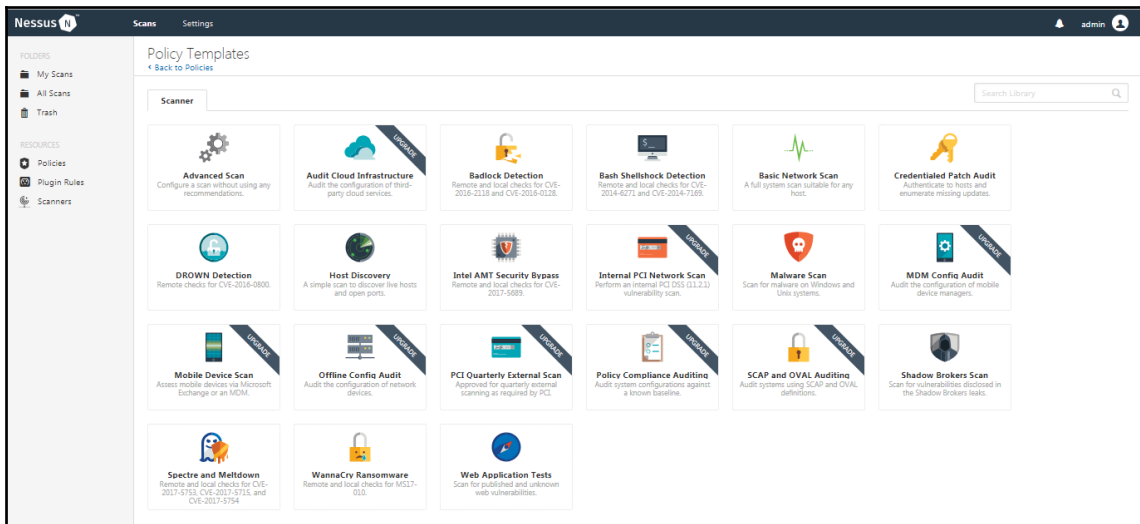
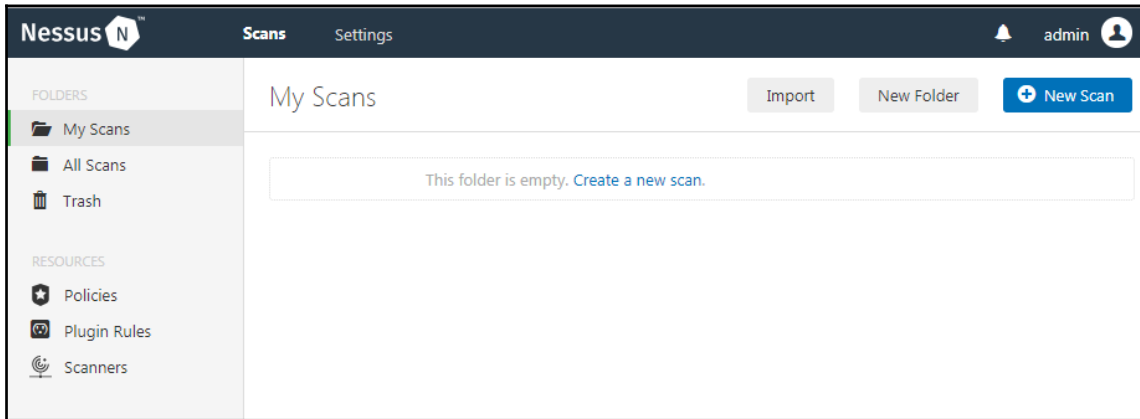
Details: [Check for SMB accessible registry \(OID: 1.3.6.1.4.1.25623.1.0.10400\)](#)

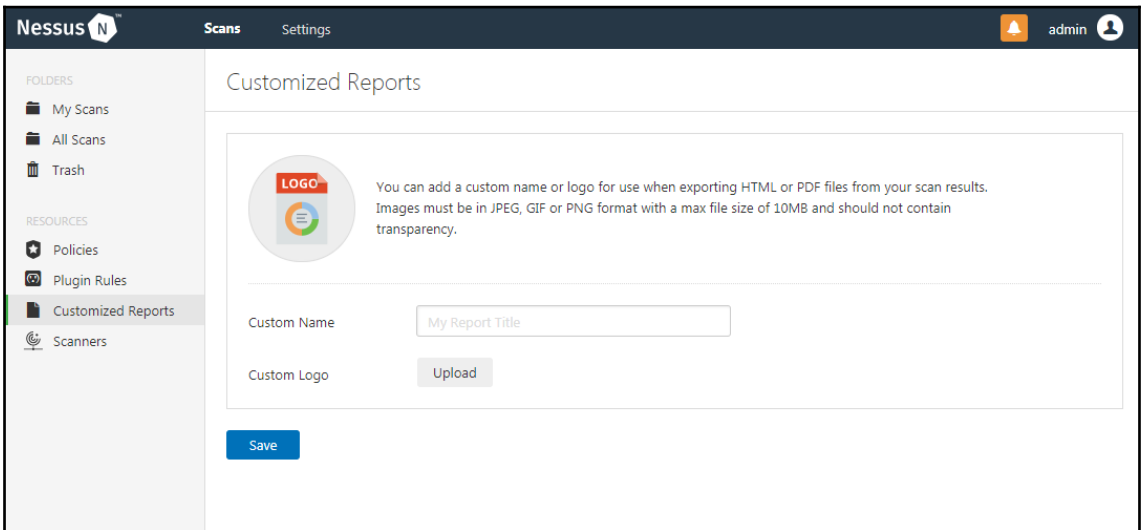
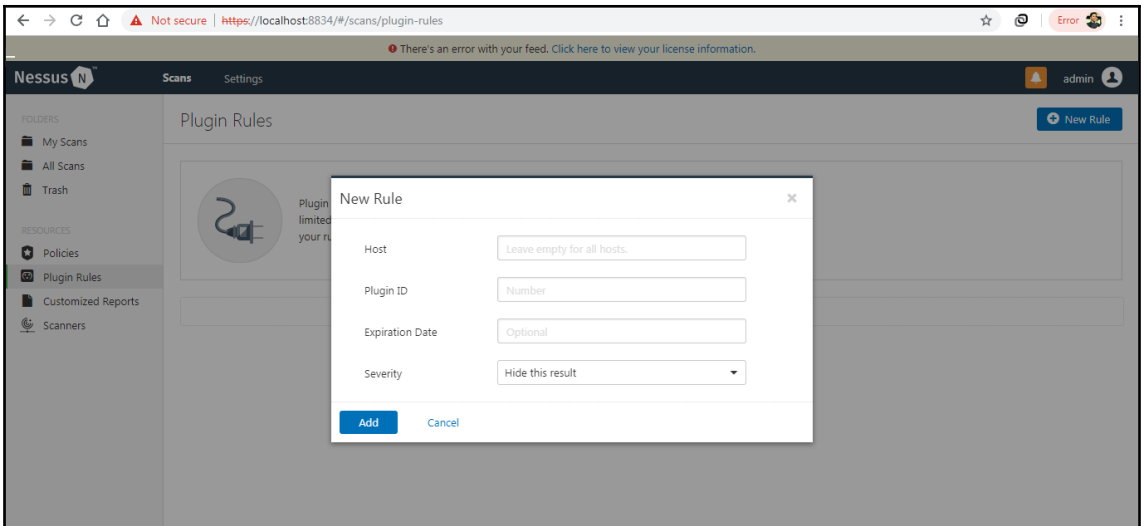
Version used: \$Revision: 7186 \$

#### References

Other: <http://docs.greenbone.net/GSM-Manual/gos-3.1/en/scanning.html#requirements-on-target-systems-with-windows>  
<http://docs.greenbone.net/GSM-Manual/gos-4/en/vulnerabilitymanagement.html#requirements-on-target-systems-with-windows>

# Chapter 2: Understanding Network Scanning Tools







Nessus Scans Settings admin

Scanners / Local Scanner

Scanner Details

Nessus Scanner		Plugins	
Status	Online	Last Updated	September 20 at 2:51 PM
Version	7.2.1 (#144) WINDOWS	Expiration	September 30, 2018
Linked On	September 18 at 1:25 AM	Plugin Set	201809201451
Last Connection	Today at 2:43 PM	Activation Code	WQ27-TG83-9725-M4HU

This scanner is currently idle.

Not secure https://localhost:8834/#/settings/about/master-password

Nessus Scans Settings

About

Overview Software Update Master Password

Setting a master password protects the encryption key used for ciphering policies, scans results, and scan configurations. When a password is set, the application will prompt you for the password whenever the Nessus service restarts. NOTICE: If your master password is lost, it cannot be recovered by your administrator nor by Tenable Support.

New Password

Save Cancel

Nessus Scans Settings


SETTINGS

- About
- Advanced
- Proxy Server**
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users

## Proxy Server

 Proxy servers are used to forward HTTP requests. If your organization requires one, Nessus will use these settings to perform plugin updates and communicate with remote scanners and agents. Only the host and port fields are required. Username, password, authentication type and user-agent are available if needed.

Host

Port

Username

Password

Auth Method

User-Agent

Nessus Scans Settings


SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server**
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users

### SMTP Server

 Simple Mail Transfer Protocol (SMTP) is an industry standard for sending and receiving email. Once configured for SMTP, scan results will be emailed to the list of recipients specified in a scan's "Email Notifications" configuration. These results can be custom tailored through filters and require an HTML compatible email client.

Host

Port

From (sender email)

Encryption

Hostname (for email links)

Auth Method



Nessus Scans Settings


SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users

## Password Management

 Password Management allows you to set parameters for passwords, as well as turn on login notifications and set the session timeout. Login notifications allow the user to see the last successful login, last failed login attempts (date, time and IP) and if any failed login attempts have occurred since the last successful login. Changes will take effect after a soft restart.

Password Complexity  OFF ?

Session Timeout (mins)

Max Login Attempts

Min Password Length

Login Notifications  OFF

[Save](#) [Cancel](#)



## Nessus Home Evaluation

Welcome to Nessus Home and congratulations on taking action to secure your personal network! We offer the latest plugins for vulnerability scanning today, helping you identify more vulnerabilities and keep your personal network protected.

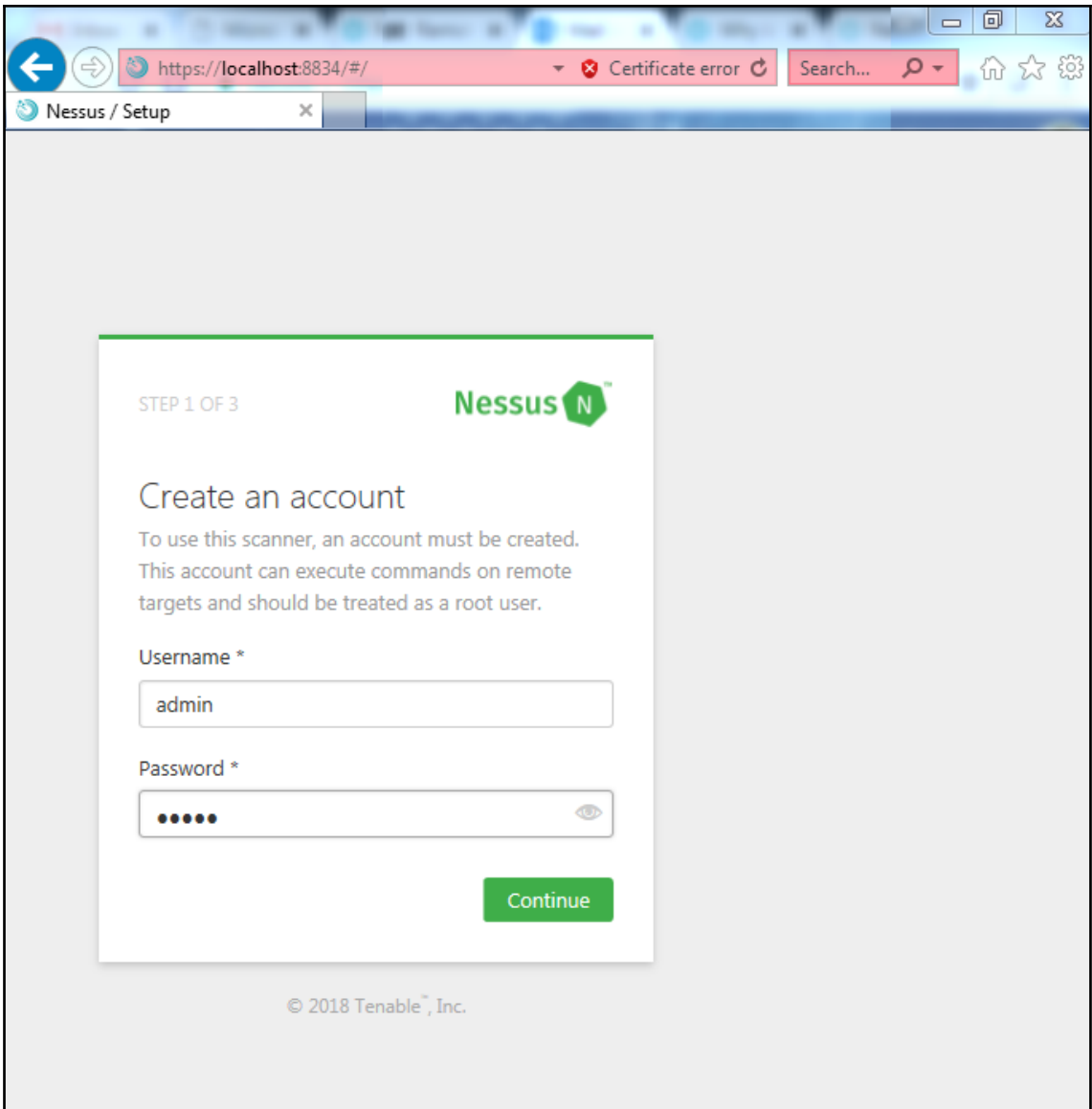
If you use Nessus in a professional capacity and want advanced capabilities such as unlimited assessments, or the ability to perform compliance checks or content audits, [Nessus Professional](#) may be better suited to your needs. To learn more view the [Nessus Professional datasheet](#) or [request a free evaluation](#).

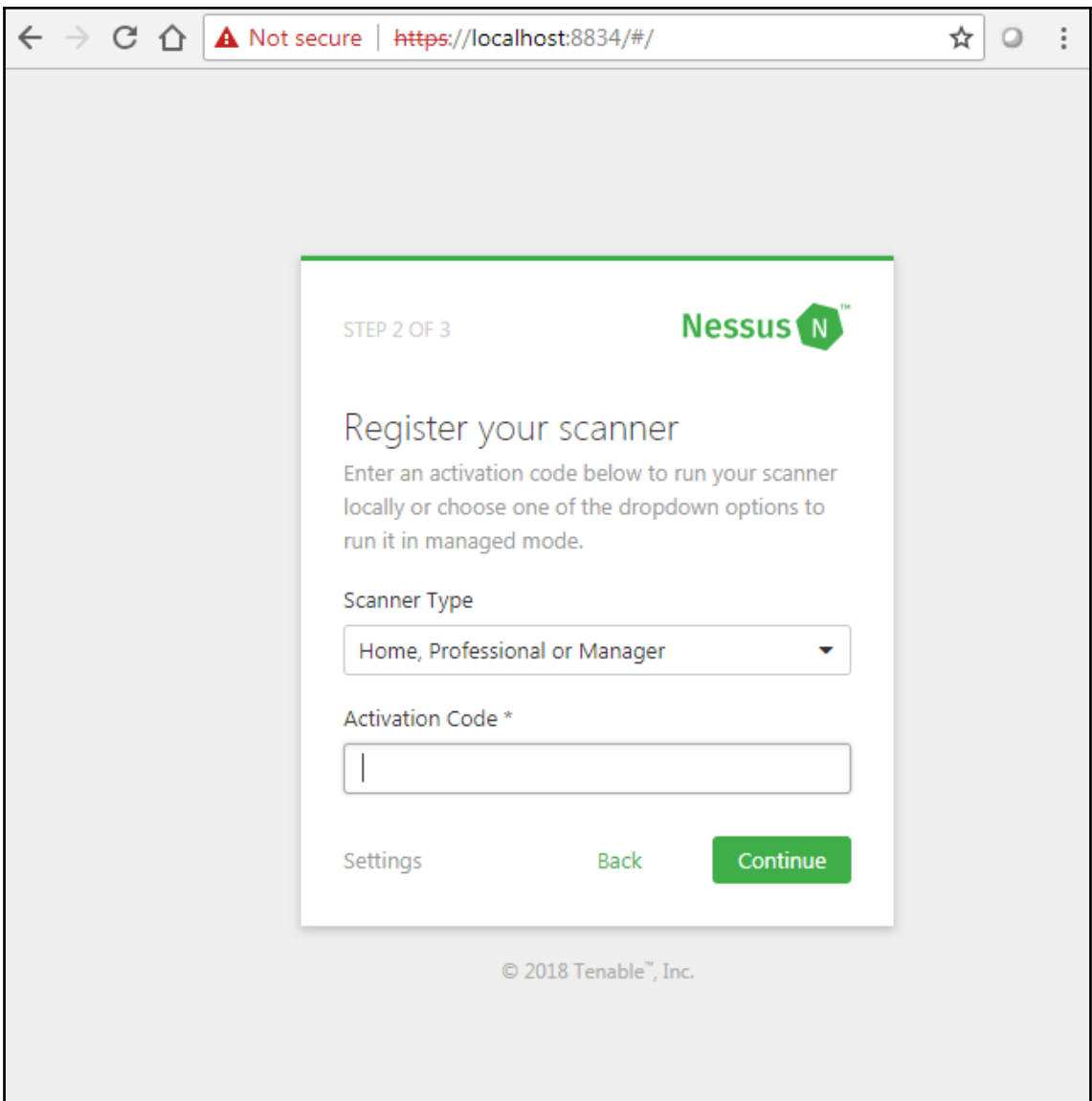
### Activating Your Nessus Home Subscription

Your activation code for Nessus Home is:



This is a one time code. If you uninstall and then reinstall you will need to register the scanner again and receive another activation code.

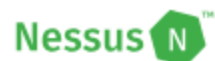






---

STEP 2 OF 3



## Register your scanner

Enter an activation code below to run your scanner locally or choose one of the dropdown options to run it in managed mode.

Scanner Type

To create a key, [click here](#) and use the following challenge code:

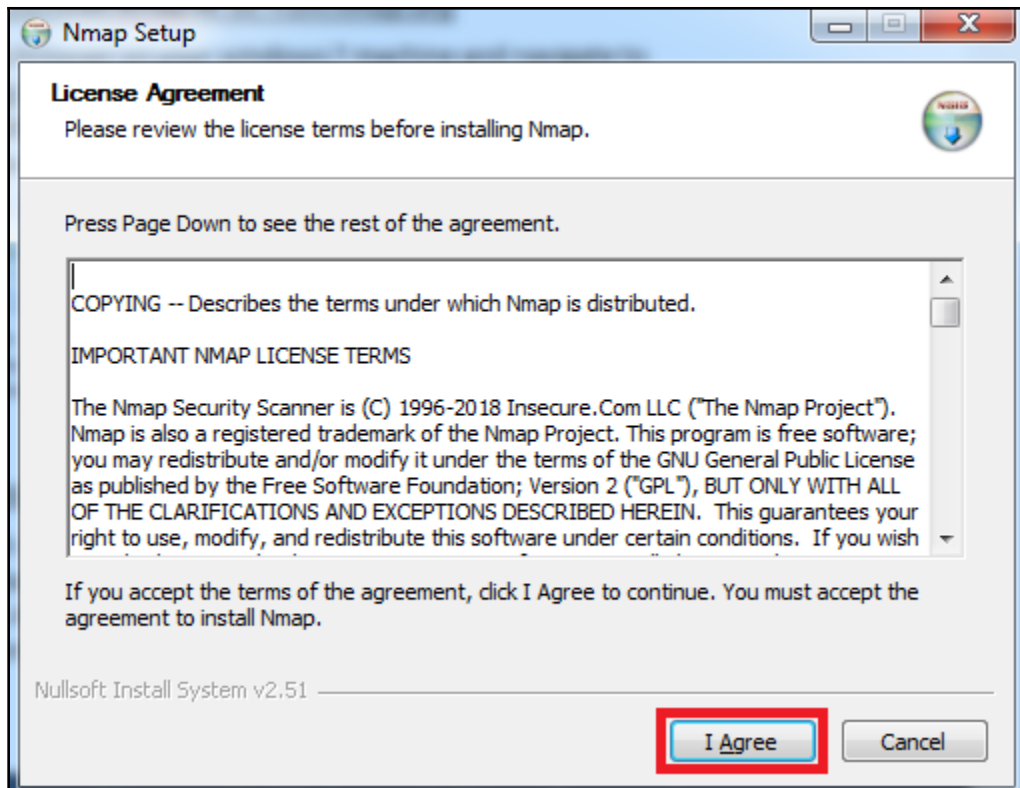


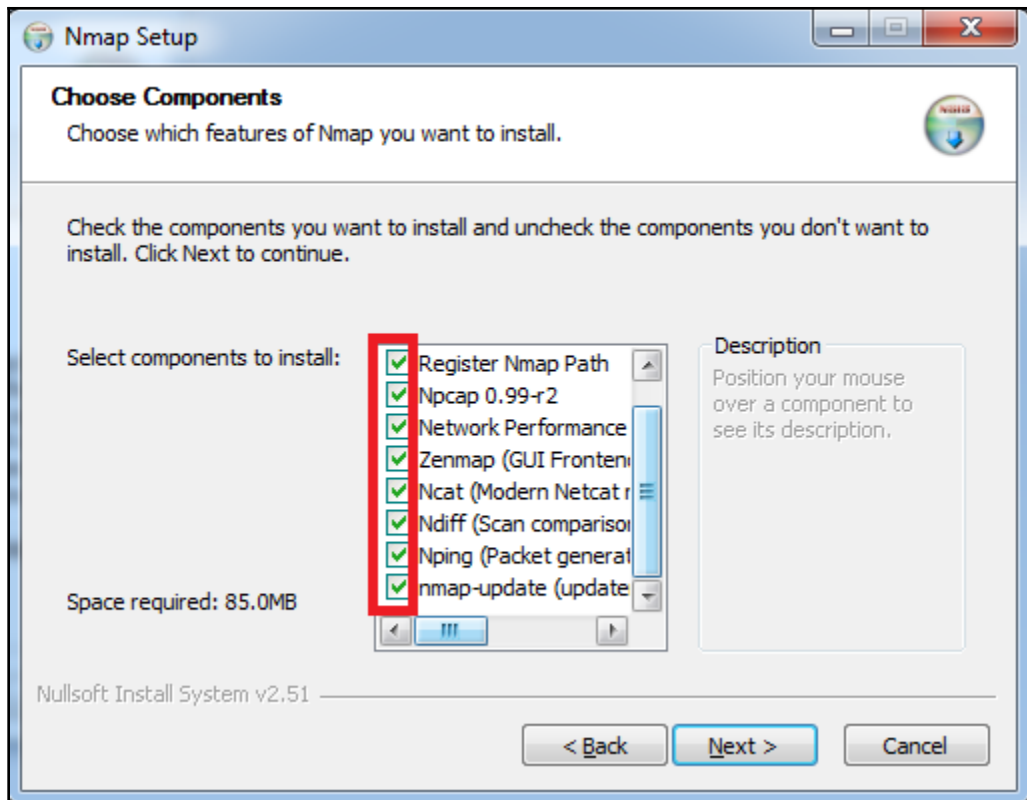
Nessus License \*

[Settings](#)

[Back](#)


[Continue](#)





```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap
Nmap 7.70 < https://nmap.org >
Usage: nmap [Scan Type(s)] [Options] <target specification>
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2][,host3],...>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PU/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2],...>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
```

Nessus  Scans **Settings**

SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS


- My Account
- Users

## About

Overview **Software Update** Master Password

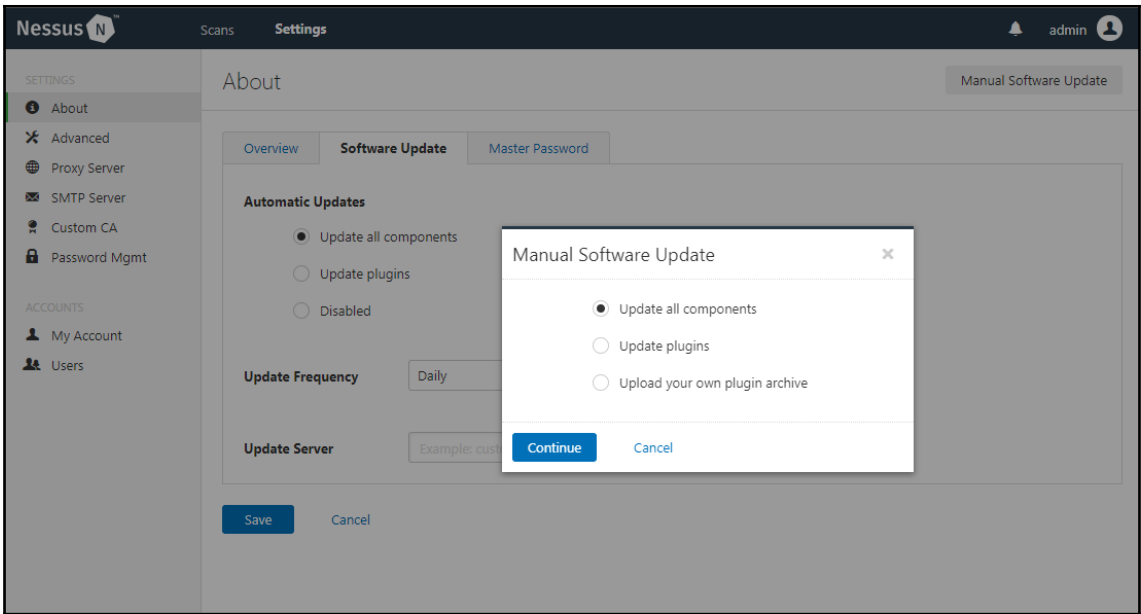
**Automatic Updates**

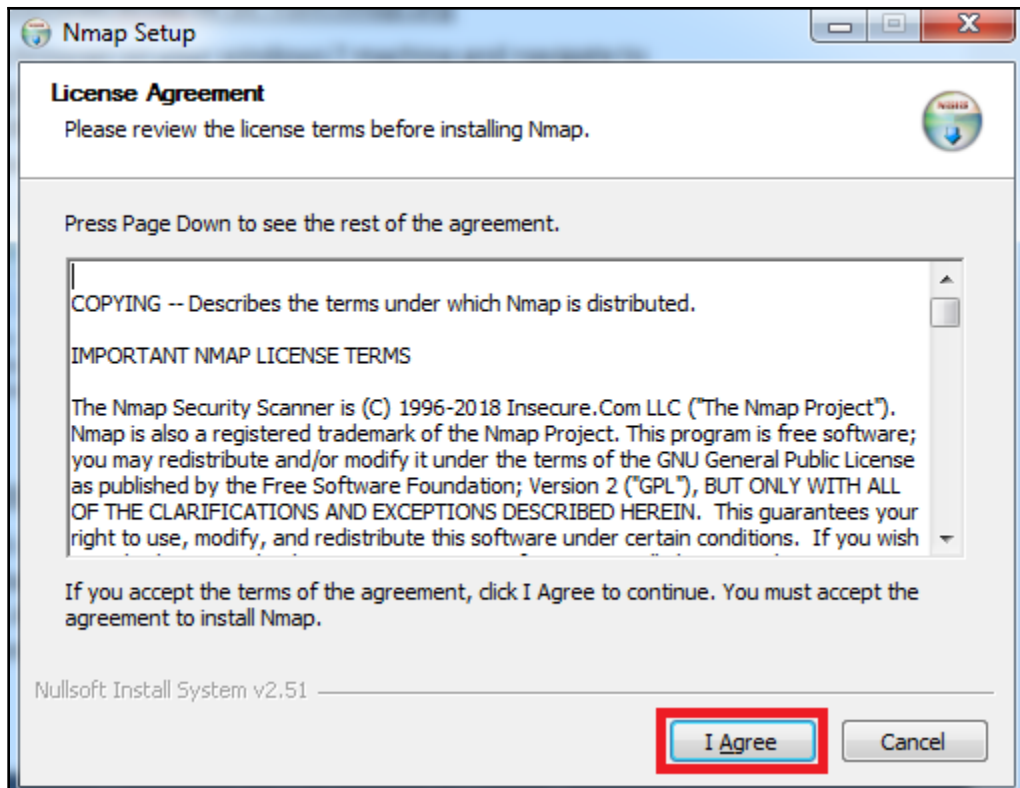
- Update all components
- Update plugins
- Disabled

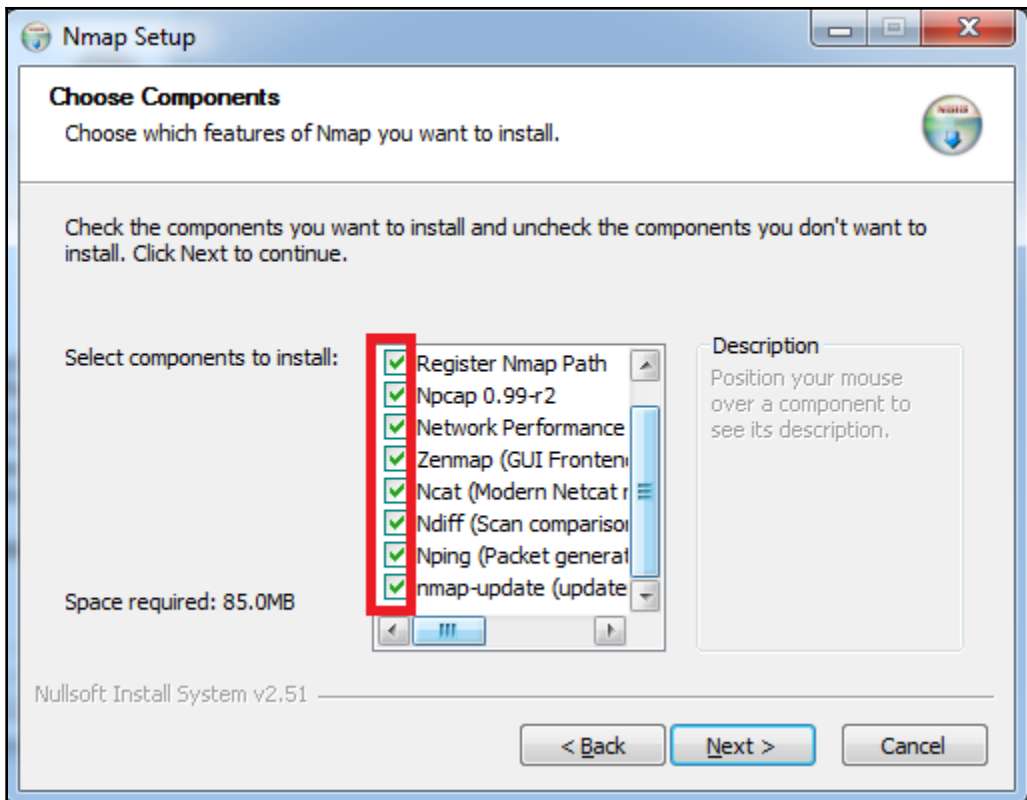
**Update Frequency** Daily  

**Update Server**

**Save** Cancel







---

## Chapter 3: Port Scanning

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap
Nmap 7.70 < https://nmap.org >
Usage: nmap [Scan Type(s)] [Options] <target specification>
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2][,host3],...>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PU/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2],...>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
SCAN TECHNIQUES:
  -sS/sI/sA/sW/sM: TCP SYN/Connect()/ACK/Window/Mainon scans
  -sU: UDP Scan
  -sN/sF/sX: TCP Null, FIN, and Xmas scans
  --scanflags <flags>: Customize ICP scan flags
```

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap 192.168.75.136
Starting Nmap 7.70 < https://nmap.org > at 2018-09-02 23:09 Arabian Standard Time
Nmap scan report for 192.168.75.136
Host is up (0.027s latency).
Not shown: 999 closed ports
PORT      STATE SERVICE
80/tcp    open  http
MAC Address: 00:0C:29:5A:B2:9D (VMware)

Nmap done: 1 IP address (1 host up) scanned in 36.04 seconds
```



```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -iL ip.txt
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-02 23:15 Arabian Standard Time
Nmap scan report for 192.168.75.136
Host is up (0.00038s latency).
Not shown: 999 closed ports
PORT      STATE SERVICE
80/tcp    open  http
MAC Address: 00:0C:29:5A:B2:9D (VMware)

Nmap done: 1 IP address (1 host up) scanned in 34.04 seconds
C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -v 192.168.75.135/28 --exclude 192.168.75.136
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-02 23:41 Arabian Standard Time
Initiating ARP Ping Scan at 23:41
Scanning 15 hosts [1 port/host]
Completed ARP Ping Scan at 23:41, 2.55s elapsed (15 total hosts)
Nmap scan report for 192.168.75.128 [host down]
Nmap scan report for 192.168.75.129 [host down]
Nmap scan report for 192.168.75.130 [host down]
Nmap scan report for 192.168.75.131 [host down]
Nmap scan report for 192.168.75.132 [host down]
Nmap scan report for 192.168.75.133 [host down]
Nmap scan report for 192.168.75.134 [host down]
Nmap scan report for 192.168.75.135 [host down]
Nmap scan report for 192.168.75.137 [host down]
Nmap scan report for 192.168.75.138 [host down]
Nmap scan report for 192.168.75.139 [host down]
Nmap scan report for 192.168.75.140 [host down]
Nmap scan report for 192.168.75.141 [host down]
Nmap scan report for 192.168.75.142 [host down]
Nmap scan report for 192.168.75.143 [host down]
Read data files from: C:\Program Files (x86)\Nmap
Nmap done: 15 IP addresses (0 hosts up) scanned in 16.17 seconds
Raw packets sent: 30 (840B) | Rcvd: 0 (0B)

C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -v 192.168.75.135/28 --excludefile ip.txt
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-02 23:44 Arabian Standard Time
Failed to resolve "uv".
Stats: 0:00:09 elapsed; 0 hosts completed (0 up), 15 undergoing ARP Ping Scan
ARP Ping Scan Timing: About 3.33% done; ETC: 23:44 (0:00:29 remaining)
Nmap done: 15 IP addresses (0 hosts up) scanned in 23.52 seconds

C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -sn -v 192.168.75.135/28
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 15:35 Arabian Standard Time
Initiating ARP Ping Scan at 15:35
Scanning 16 hosts [1 port/host]
Completed ARP Ping Scan at 15:35, 3.31s elapsed (16 total hosts)
Initiating Parallel DNS resolution of 16 hosts. at 15:35
Completed Parallel DNS resolution of 16 hosts. at 15:36, 16.50s elapsed
Nmap scan report for 192.168.75.128 [host down]
Nmap scan report for 192.168.75.129 [host down]
Nmap scan report for 192.168.75.130 [host down]
Nmap scan report for 192.168.75.131 [host down]
Nmap scan report for 192.168.75.132 [host down]
Nmap scan report for 192.168.75.133 [host down]
Nmap scan report for 192.168.75.134 [host down]
Nmap scan report for 192.168.75.135 [host down]
Nmap scan report for 192.168.75.136 [host down]
Nmap scan report for 192.168.75.137
Host is up (0.00s latency).
MAC Address: 00:0C:29:74:1C:63 (VMware)
Nmap scan report for 192.168.75.138 [host down]
Nmap scan report for 192.168.75.139 [host down]
Nmap scan report for 192.168.75.140 [host down]
Nmap scan report for 192.168.75.141 [host down]
Nmap scan report for 192.168.75.142 [host down]
Nmap scan report for 192.168.75.143 [host down]
Read data files from: C:\Program Files (x86)\Nmap
Nmap done: 16 IP addresses (1 host up) scanned in 34.25 seconds
Raw packets sent: 31 (868B) | Rcvd: 1 (28B)

C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -Pn -v 192.168.75.135/28
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 15:39 Arabian Standard Time
Initiating ARP Ping Scan at 15:39
Scanning 16 hosts [1 port/host]
Completed ARP Ping Scan at 15:39, 2.84s elapsed (16 total hosts)
Initiating Parallel DNS resolution of 16 hosts. at 15:39
Completed Parallel DNS resolution of 16 hosts. at 15:40, 16.50s elapsed
Nmap scan report for 192.168.75.128 [host down]
Nmap scan report for 192.168.75.129 [host down]
Nmap scan report for 192.168.75.130 [host down]
Nmap scan report for 192.168.75.131 [host down]
Nmap scan report for 192.168.75.132 [host down]
Nmap scan report for 192.168.75.133 [host down]
Nmap scan report for 192.168.75.134 [host down]
Nmap scan report for 192.168.75.135 [host down]
Nmap scan report for 192.168.75.136 [host down]
Nmap scan report for 192.168.75.138 [host down]
Nmap scan report for 192.168.75.139 [host down]
Nmap scan report for 192.168.75.140 [host down]
Nmap scan report for 192.168.75.141 [host down]
Nmap scan report for 192.168.75.142 [host down]
Nmap scan report for 192.168.75.143 [host down]
Initiating SYN Stealth Scan at 15:40
Scanning 192.168.75.137 [1000 ports]
Discovered open port 25/tcp on 192.168.75.137
Discovered open port 3306/tcp on 192.168.75.137
Discovered open port 22/tcp on 192.168.75.137
Discovered open port 111/tcp on 192.168.75.137
Discovered open port 445/tcp on 192.168.75.137
Discovered open port 80/tcp on 192.168.75.137
Discovered open port 21/tcp on 192.168.75.137
Discovered open port 53/tcp on 192.168.75.137
Discovered open port 23/tcp on 192.168.75.137
Discovered open port 5900/tcp on 192.168.75.137
Discovered open port 139/tcp on 192.168.75.137
Discovered open port 1099/tcp on 192.168.75.137
Discovered open port 2121/tcp on 192.168.75.137
Discovered open port 6667/tcp on 192.168.75.137
Discovered open port 1524/tcp on 192.168.75.137
Discovered open port 8180/tcp on 192.168.75.137
Discovered open port 514/tcp on 192.168.75.137
Discovered open port 2049/tcp on 192.168.75.137
Discovered open port 513/tcp on 192.168.75.137
Discovered open port 6000/tcp on 192.168.75.137
Discovered open port 512/tcp on 192.168.75.137
Discovered open port 8009/tcp on 192.168.75.137
Discovered open port 5432/tcp on 192.168.75.137
Completed SYN Stealth Scan at 15:40, 0.10s elapsed (1000 total ports)
```

```
C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -v -sS 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:16 Arabian Standard Time
Initiating ARP Ping Scan at 23:16
Scanning 192.168.75.137 [1 port]
Completed ARP Ping Scan at 23:16. 1.38s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 23:16
Completed Parallel DNS resolution of 1 host. at 23:16. 16.51s elapsed
Initiating SYN Stealth Scan at 23:16
Scanning 192.168.75.137 [1000 ports]
Discovered open port 80/tcp on 192.168.75.137
Discovered open port 3306/tcp on 192.168.75.137
Discovered open port 22/tcp on 192.168.75.137
Discovered open port 445/tcp on 192.168.75.137
Discovered open port 111/tcp on 192.168.75.137
Discovered open port 5900/tcp on 192.168.75.137
Discovered open port 2121/tcp on 192.168.75.137
Discovered open port 513/tcp on 192.168.75.137
Discovered open port 512/tcp on 192.168.75.137
Discovered open port 6000/tcp on 192.168.75.137
Discovered open port 5432/tcp on 192.168.75.137
Discovered open port 514/tcp on 192.168.75.137
Discovered open port 2049/tcp on 192.168.75.137
Discovered open port 1099/tcp on 192.168.75.137
Discovered open port 6667/tcp on 192.168.75.137
Discovered open port 8009/tcp on 192.168.75.137
Discovered open port 8180/tcp on 192.168.75.137
Discovered open port 1524/tcp on 192.168.75.137
Discovered open port 21/tcp on 192.168.75.137
Discovered open port 23/tcp on 192.168.75.137
Discovered open port 53/tcp on 192.168.75.137
Discovered open port 25/tcp on 192.168.75.137
Discovered open port 139/tcp on 192.168.75.137
Completed SYN Stealth Scan at 23:17. 1.11s elapsed (1000 total ports)
Nmap scan report for 192.168.75.137
Host is up (0.0023s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  nethios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
```

```
C:\Windows\system32\cmd.exe - nmap -v -sT 192.168.75.137

C:\Users\admin>nmap -v -sT 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:18 Arabian Standard Time
Initiating ARP Ping Scan at 23:18
Scanning 192.168.75.137 [1 port]
Completed ARP Ping Scan at 23:18, 1.43s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 23:18
Completed Parallel DNS resolution of 1 host. at 23:18, 16.50s elapsed
Initiating Connect Scan at 23:18
Scanning 192.168.75.137 [1000 ports]
Discovered open port 111/tcp on 192.168.75.137
Discovered open port 53/tcp on 192.168.75.137
Discovered open port 80/tcp on 192.168.75.137
Discovered open port 3306/tcp on 192.168.75.137
Discovered open port 445/tcp on 192.168.75.137
Discovered open port 21/tcp on 192.168.75.137
Discovered open port 139/tcp on 192.168.75.137
Discovered open port 23/tcp on 192.168.75.137
Discovered open port 5900/tcp on 192.168.75.137
Discovered open port 22/tcp on 192.168.75.137
Discovered open port 25/tcp on 192.168.75.137
Discovered open port 512/tcp on 192.168.75.137
Discovered open port 6000/tcp on 192.168.75.137
Discovered open port 2049/tcp on 192.168.75.137
Connect Scan Timing: About 15.10% done; ETC: 23:22 (0:02:54 remaining)
Discovered open port 5432/tcp on 192.168.75.137
Connect Scan Timing: About 29.47% done; ETC: 23:22 (0:02:26 remaining)
Discovered open port 8180/tcp on 192.168.75.137
Connect Scan Timing: About 44.40% done; ETC: 23:22 (0:01:54 remaining)
Connect Scan Timing: About 57.73% done; ETC: 23:22 (0:01:29 remaining)
Discovered open port 2121/tcp on 192.168.75.137
Discovered open port 513/tcp on 192.168.75.137
Connect Scan Timing: About 70.37% done; ETC: 23:22 (0:01:04 remaining)
Discovered open port 514/tcp on 192.168.75.137
Discovered open port 1524/tcp on 192.168.75.137
Discovered open port 8009/tcp on 192.168.75.137
Discovered open port 1099/tcp on 192.168.75.137
Connect Scan Timing: About 84.87% done; ETC: 23:22 (0:00:32 remaining)
Discovered open port 6667/tcp on 192.168.75.137
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -v -sN 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:22 Arabian Standard Time
Initiating ARP Ping Scan at 23:23
Scanning 192.168.75.137 [1 port]
Completed ARP Ping Scan at 23:23, 1.45s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 23:23
Completed Parallel DNS resolution of 1 host. at 23:23, 16.50s elapsed
Initiating NULL Scan at 23:23
Scanning 192.168.75.137 [1000 ports]
Completed NULL Scan at 23:23, 1.21s elapsed (1000 total ports)
Nmap scan report for 192.168.75.137
Host is up (0.0033s latency).
Not shown: 977 closed ports
PORT      STATE      SERVICE
21/tcp    open|filtered ftp
22/tcp    open|filtered ssh
23/tcp    open|filtered telnet
25/tcp    open|filtered smtp
53/tcp    open|filtered domain
80/tcp    open|filtered http
111/tcp   open|filtered rpcbind
139/tcp   open|filtered netbios-ssn
445/tcp   open|filtered microsoft-ds
512/tcp   open|filtered exec
513/tcp   open|filtered login
514/tcp   open|filtered shell
1099/tcp  open|filtered rmiregistry
1524/tcp  open|filtered ingreslock
2049/tcp  open|filtered nfs
2121/tcp  open|filtered ccproxy-ftp
3306/tcp  open|filtered mysql
5432/tcp  open|filtered postgresql
5900/tcp  open|filtered vnc
6000/tcp  open|filtered X11
6667/tcp  open|filtered irc
8009/tcp  open|filtered ajp13
8180/tcp  open|filtered unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)

Read data files from: C:\Program Files (x86)\Nmap
Nmap done: 1 IP address (1 host up) scanned in 28.52 seconds
Raw packets sent: 1024 (40.948KB) | Rcvd: 978 (39.108KB)
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap 192.168.75.137 -p0-100
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:43 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0028s latency).
Not shown: 95 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
MAC Address: 00:0C:29:74:1C:63 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.87 seconds
C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin> nmap -F 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:46 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.00094s latency).
Not shown: 82 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
513/tcp   open  login
514/tcp   open  shell
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
8009/tcp  open  ajp13
MAC Address: 00:0C:29:74:1C:63 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 28.35 seconds
C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin> nmap 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-03 23:47 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0027s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.50 seconds

C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -sU 192.168.75.137 -p0-100
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 00:14 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0029s latency).
Not shown: 95 closed ports
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 2.3.4
22/tcp    open  ssh      OpenSSH 4.7p1 Debian 8ubuntu1 (protocol 2.0)
23/tcp    open  telnet   Linux telnetd
25/tcp    open  smtp     Postfix smtpd
53/tcp    open  domain   ISC BIND 9.4.2
80/tcp    open  http     Apache httpd 2.2.8 ((Ubuntu) DAV/2)
MAC Address: 00:0C:29:74:1C:63 (VMware)
Service Info: Host: metasploitable.localdomain; OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 42.49 seconds

C:\Users\admin>
```



```

C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -sU 192.168.75.137 -p0-100 --version-trace
Npcap.dll present. Library version: Npcap version 0.99-r2, based on libpcap version 1.8.1
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 00:20 Arabian Standard Time
----- Timing report -----
hostgroups: min 1, max 100000
rtt-timeouts: init 1000, min 100, max 10000
max-scan-delay: TCP 1000, UDP 1000, SCTP 1000
parallelism: min 0, max 0
max-retries: 10, host-timeout: 0
min-rate: 0, max-rate: 0
-----
NSE: Using Lua 5.3.
NSE: Arguments from CLI:
NSE: Loaded 43 scripts for scanning.
Packet capture filter (device eth5): arp and arp[18:4] = 0x005056C0 and arp[22:2] = 0x0008
Overall sending rates: 0.65 packets / s, 27.27 bytes / s.
mass_rdns: Using DNS server 192.168.1.1
mass_rdns: Using DNS server 10.32.156.112
mass_rdns: Using DNS server 10.37.161.54
mass_rdns: Using DNS server 10.65.157.40
mass_rdns: Using DNS server 10.55.151.81
mass_rdns: Using DNS server 192.168.137.1
mass_rdns: Using DNS server 192.168.75.2
mass_dns: warning: got a READ:ERROR in read_evt_handler()
mass_dns: warning: got a READ:ERROR in read_evt_handler()
mass_rdns: 25.79s 0/1 [#: 8, OK: 0, NX: 0, DR: 0, SF: 0, TR: 6]
DNS resolution of 1 IPs took 25.79s. Mode: Async [#: 8, OK: 0, NX: 0, DR: 1, SF: 0, TR: 6, CN: 0]
Packet capture filter (device eth5): dst host 192.168.75.1 and (icmp or icmp6 or (tcp or udp or sctp) and (src host 192.168.75.137))
Overall sending rates: 14428.57 packets / s, 634857.14 bytes / s.
NSOCK INFO [29.6910s] nssock_io_new2(): nssock_io_new (IOD #1)
NSOCK INFO [29.6910s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:21 (IOD #1) EID 8
NSOCK INFO [29.6940s] nssock_io_new2(): nssock_io_new (IOD #2)
NSOCK INFO [29.6940s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:22 (IOD #2) EID 16
NSOCK INFO [29.6940s] nssock_io_new2(): nssock_io_new (IOD #3)
NSOCK INFO [29.6940s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:23 (IOD #3) EID 24
NSOCK INFO [29.6940s] nssock_io_new2(): nssock_io_new (IOD #4)
NSOCK INFO [29.6940s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:25 (IOD #4) EID 32
NSOCK INFO [29.6940s] nssock_io_new2(): nssock_io_new (IOD #5)
NSOCK INFO [29.6940s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:53 (IOD #5) EID 40
NSOCK INFO [29.6940s] nssock_io_new2(): nssock_io_new (IOD #6)
NSOCK INFO [29.6960s] nssock_connect_tcp(): TCP connection requested to 192.168.75.137:80 (IOD #6) EID 48
NSOCK INFO [29.6960s] nssock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 8 [192.168.75.137:21]
Service scan sending probe NULL to 192.168.75.137:21 (tcp)
NSOCK INFO [29.6960s] nssock_read(): Read request from IOD #1 [192.168.75.137:21] (timeout: 6000ms) EID 58
NSOCK INFO [29.6960s] nssock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 16 [192.168.75.137:22]
Service scan sending probe NULL to 192.168.75.137:22 (tcp)
NSOCK INFO [29.6960s] nssock_read(): Read request from IOD #2 [192.168.75.137:22] (timeout: 6000ms) EID 66
NSOCK INFO [29.6960s] nssock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 24 [192.168.75.137:23]
Service scan sending probe NULL to 192.168.75.137:23 (tcp)
NSOCK INFO [29.6960s] nssock_read(): Read request from IOD #3 [192.168.75.137:23] (timeout: 6000ms) EID 74
NSOCK INFO [29.6960s] nssock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 32 [192.168.75.137:25]
Service scan sending probe NULL to 192.168.75.137:25 (tcp)
NSOCK INFO [29.6960s] nssock_read(): Read request from IOD #4 [192.168.75.137:25] (timeout: 6000ms) EID 82
NSOCK INFO [29.6960s] nssock_trace_handler_callback(): Callback: CONNECT SUCCESS for EID 40 [192.168.75.137:53]

```

```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -o 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 00:41 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.00069s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)
Device type: general purpose
Running: Linux 2.6.x
OS CPE: cpe:/o:linux:linux_kernel:2.6
OS details: Linux 2.6.9 - 2.6.33
Network Distance: 1 hop

OS detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 29.78 seconds

C:\Users\admin>
```

```
ca: C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -f 192.168.75.137
Warning: Packet fragmentation selected on a host other than Linux, OpenBSD, FreeBSD, or NetBSD.
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 01:09 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0025s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 27.30 seconds
C:\Users\admin>
```

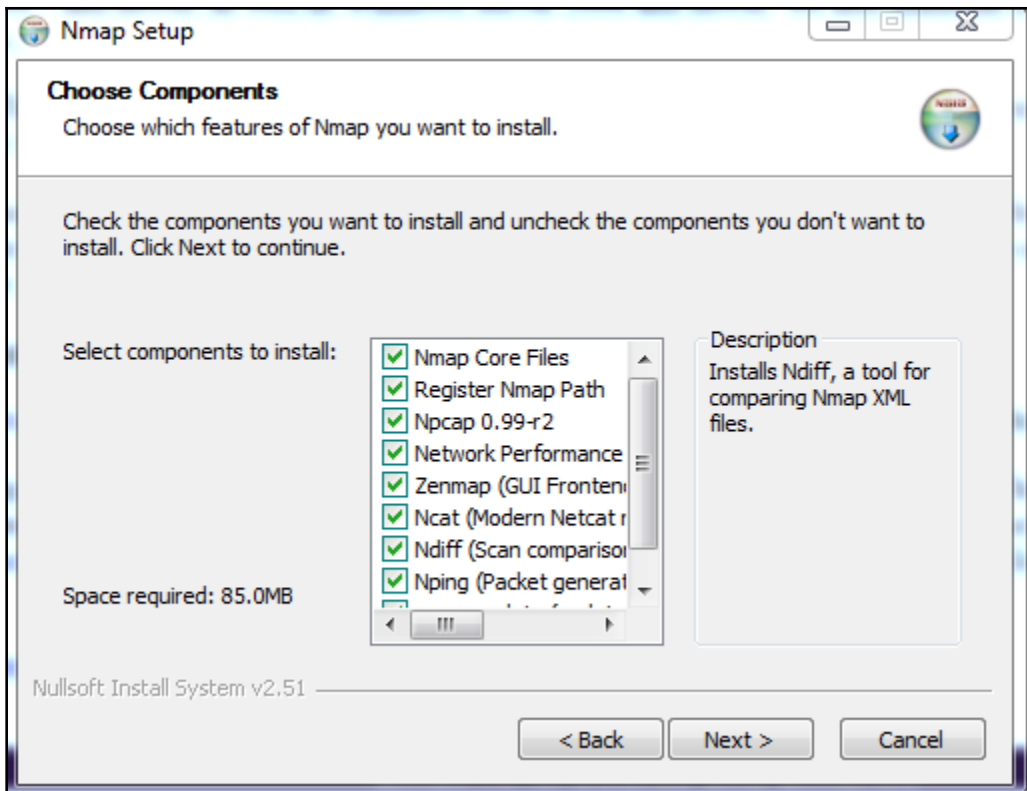
```
ca: C:\Windows\system32\cmd.exe
C:\Users\admin>nmap --mtu 24 192.168.75.137
Warning: Packet fragmentation selected on a host other than Linux, OpenBSD, FreeBSD, or NetBSD.
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 01:11 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0026s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)

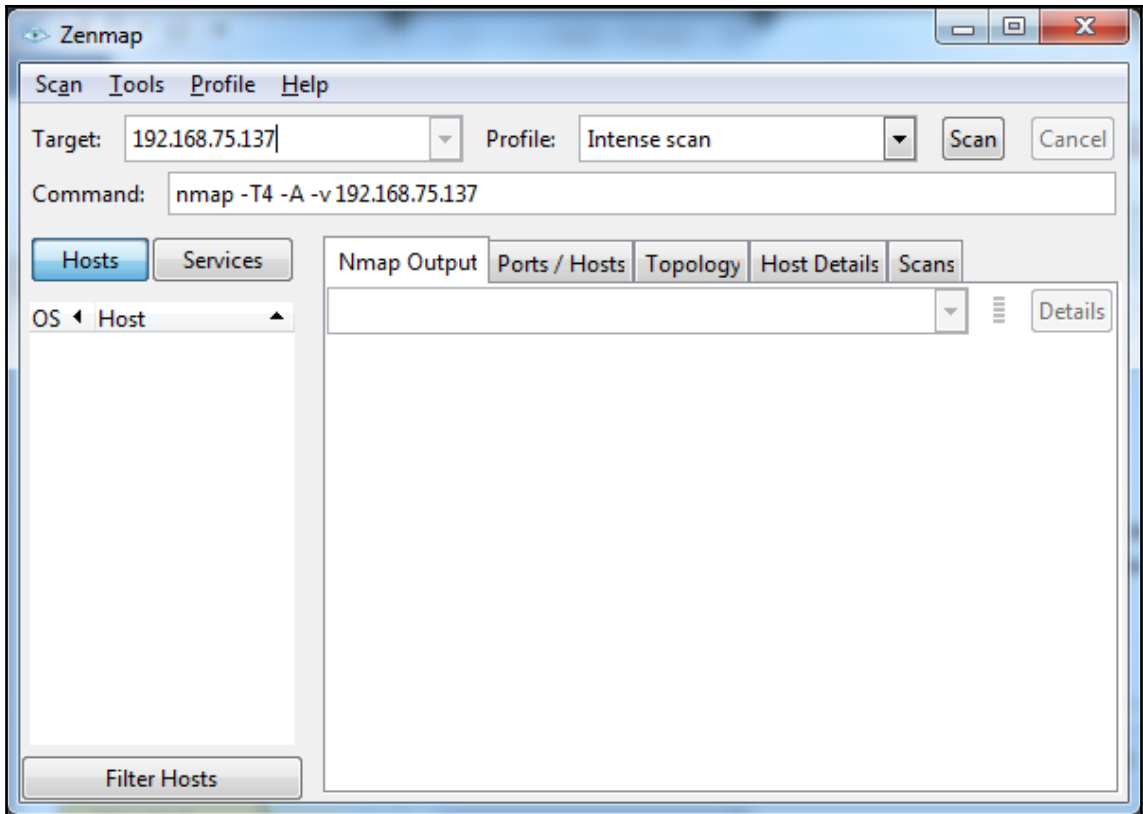
Nmap done: 1 IP address (1 host up) scanned in 27.57 seconds
C:\Users\admin>
```

```
C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -D 192.168.75.138 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 01:18 Arabian Standard Time
Nmap scan report for 192.168.75.137
Host is up (0.0015s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:74:1C:63 (VMware)

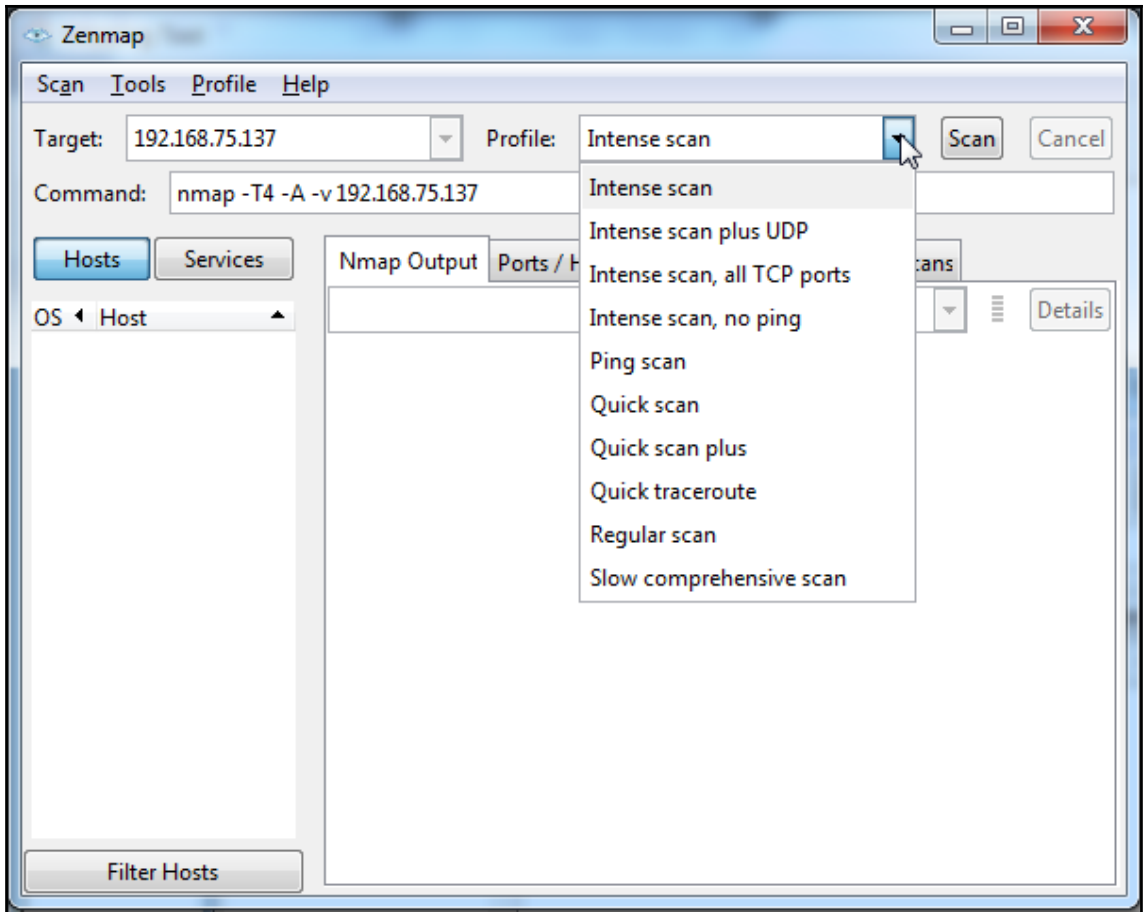
Nmap done: 1 IP address (1 host up) scanned in 30.50 seconds
```

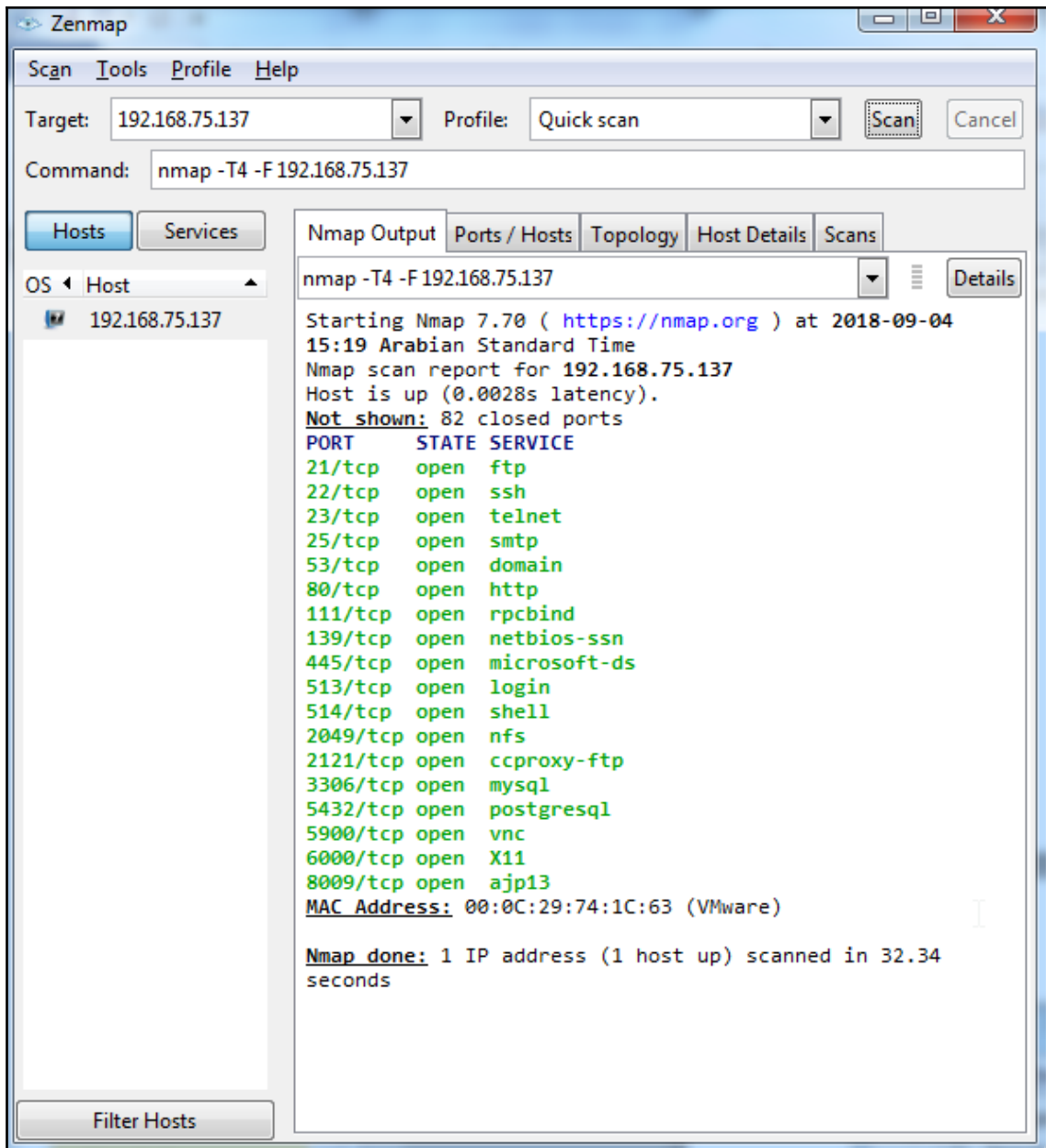
```
C:\Windows\system32\cmd.exe
C:\Users\admin>nmap -v --data-length 25 192.168.75.137
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-04 01:24 Arabian Standard Time
Initiating ARP Ping Scan at 01:24
Scanning 192.168.75.137 [1 port]
Completed ARP Ping Scan at 01:24, 1.56s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 01:24
Completed Parallel DNS resolution of 1 host. at 01:24, 16.50s elapsed
Initiating SYN Stealth Scan at 01:24
Scanning 192.168.75.137 [1000 ports]
Discovered open port 445/tcp on 192.168.75.137
Discovered open port 5900/tcp on 192.168.75.137
Discovered open port 80/tcp on 192.168.75.137
Discovered open port 139/tcp on 192.168.75.137
Discovered open port 53/tcp on 192.168.75.137
Discovered open port 3306/tcp on 192.168.75.137
Discovered open port 25/tcp on 192.168.75.137
Discovered open port 111/tcp on 192.168.75.137
Discovered open port 23/tcp on 192.168.75.137
Discovered open port 22/tcp on 192.168.75.137
Discovered open port 21/tcp on 192.168.75.137
Discovered open port 1099/tcp on 192.168.75.137
Discovered open port 8180/tcp on 192.168.75.137
Discovered open port 1524/tcp on 192.168.75.137
Discovered open port 512/tcp on 192.168.75.137
Discovered open port 6667/tcp on 192.168.75.137
Discovered open port 8009/tcp on 192.168.75.137
Discovered open port 5432/tcp on 192.168.75.137
Discovered open port 6000/tcp on 192.168.75.137
Discovered open port 2121/tcp on 192.168.75.137
Discovered open port 514/tcp on 192.168.75.137
Discovered open port 2049/tcp on 192.168.75.137
Discovered open port 513/tcp on 192.168.75.137
Completed SYN Stealth Scan at 01:24, 0.07s elapsed (1000 total ports)
```

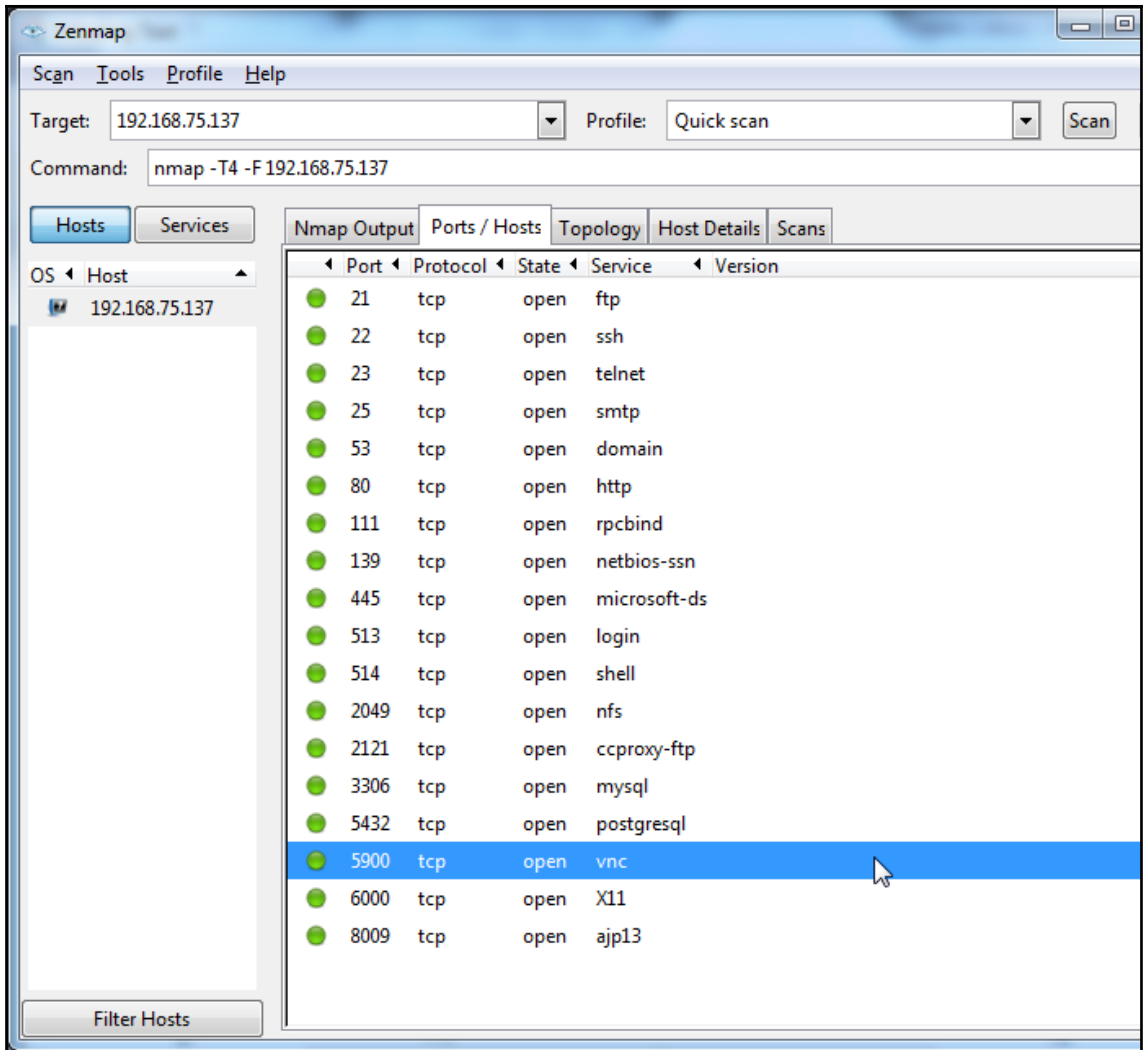


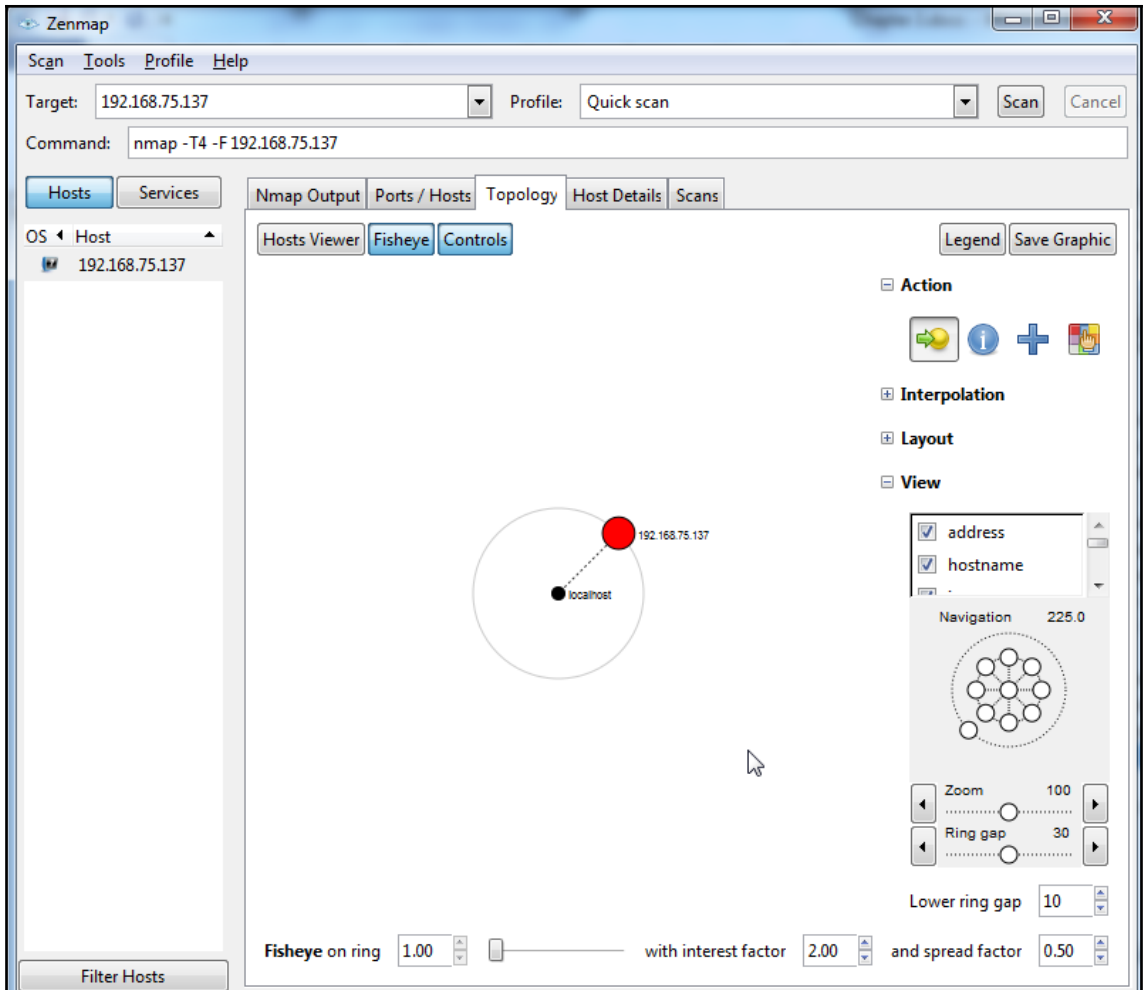


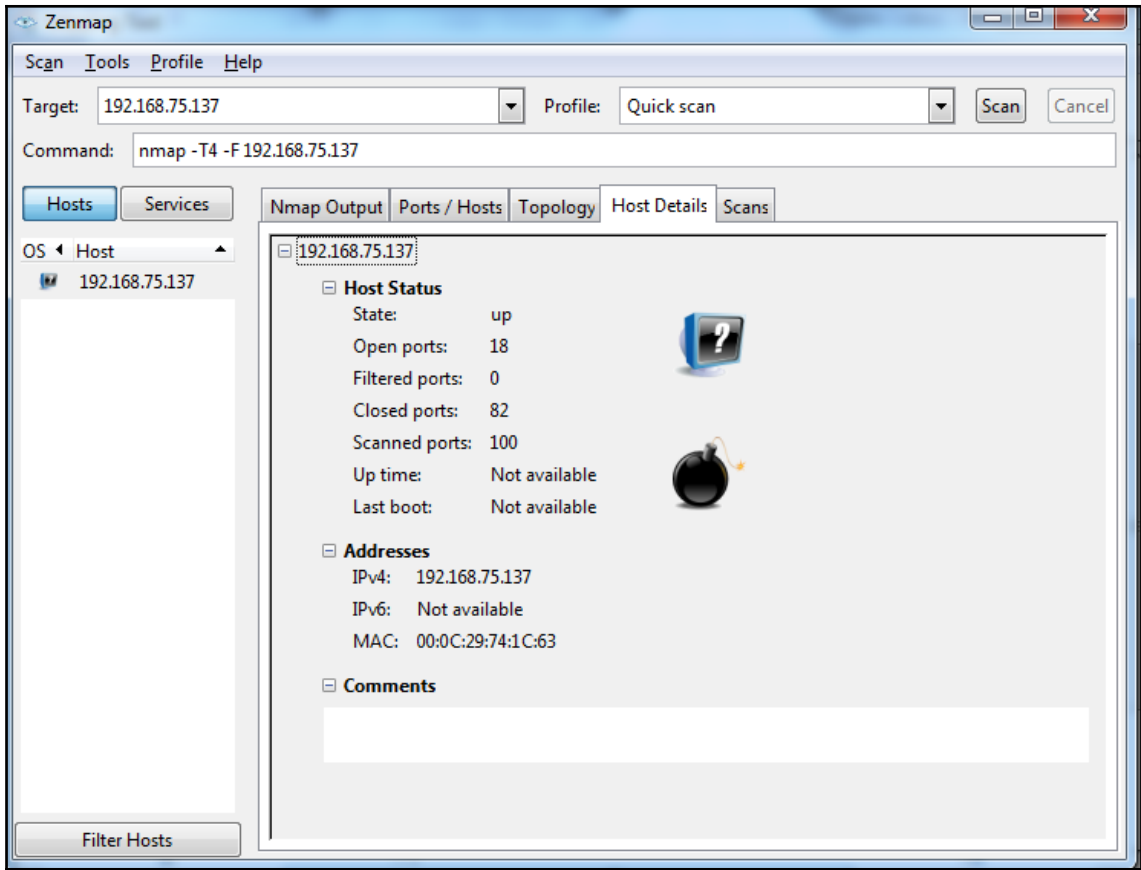


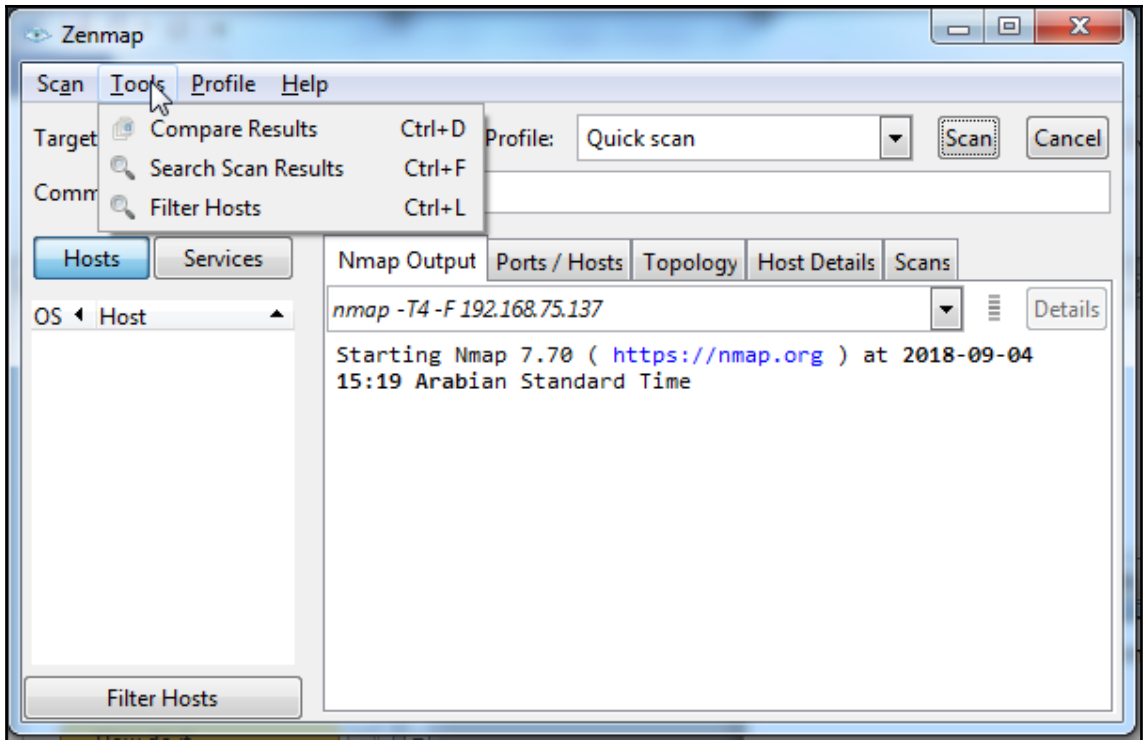




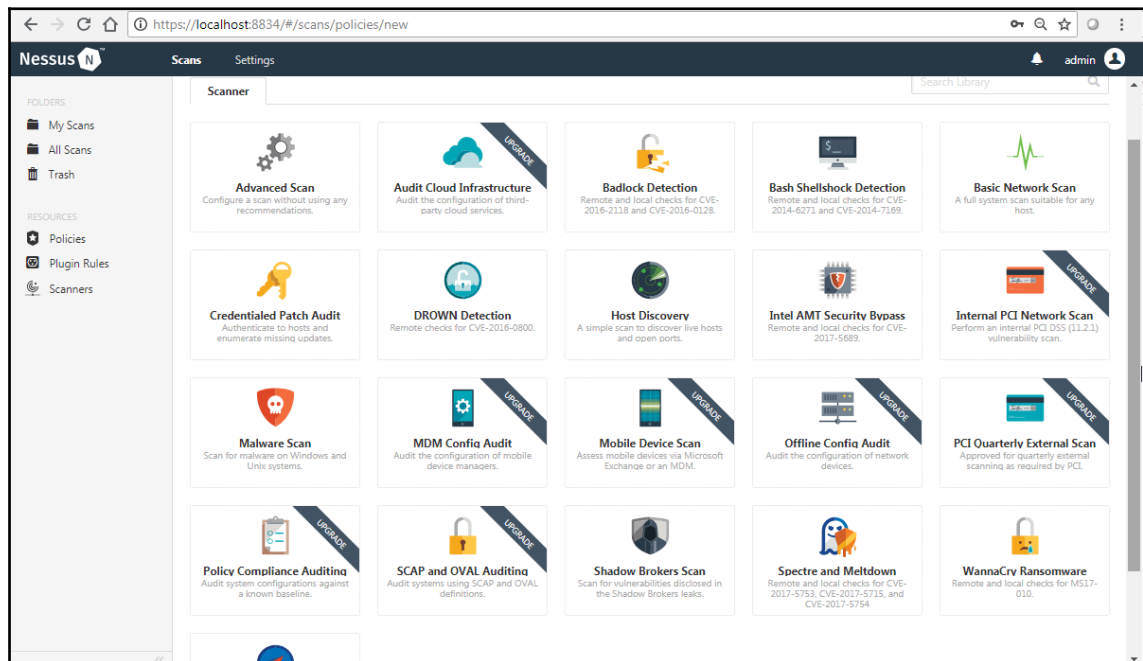
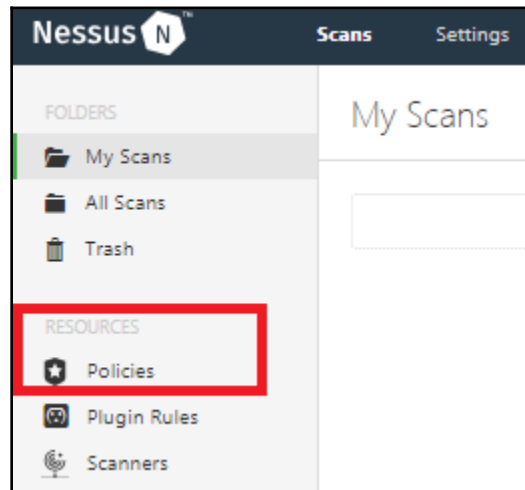


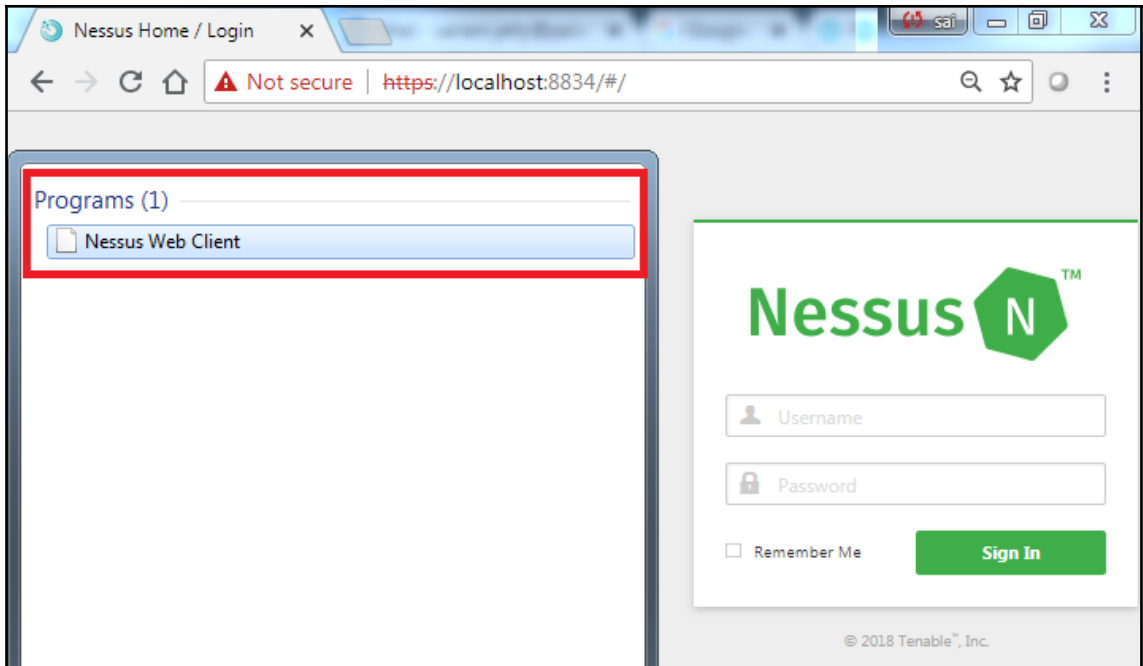




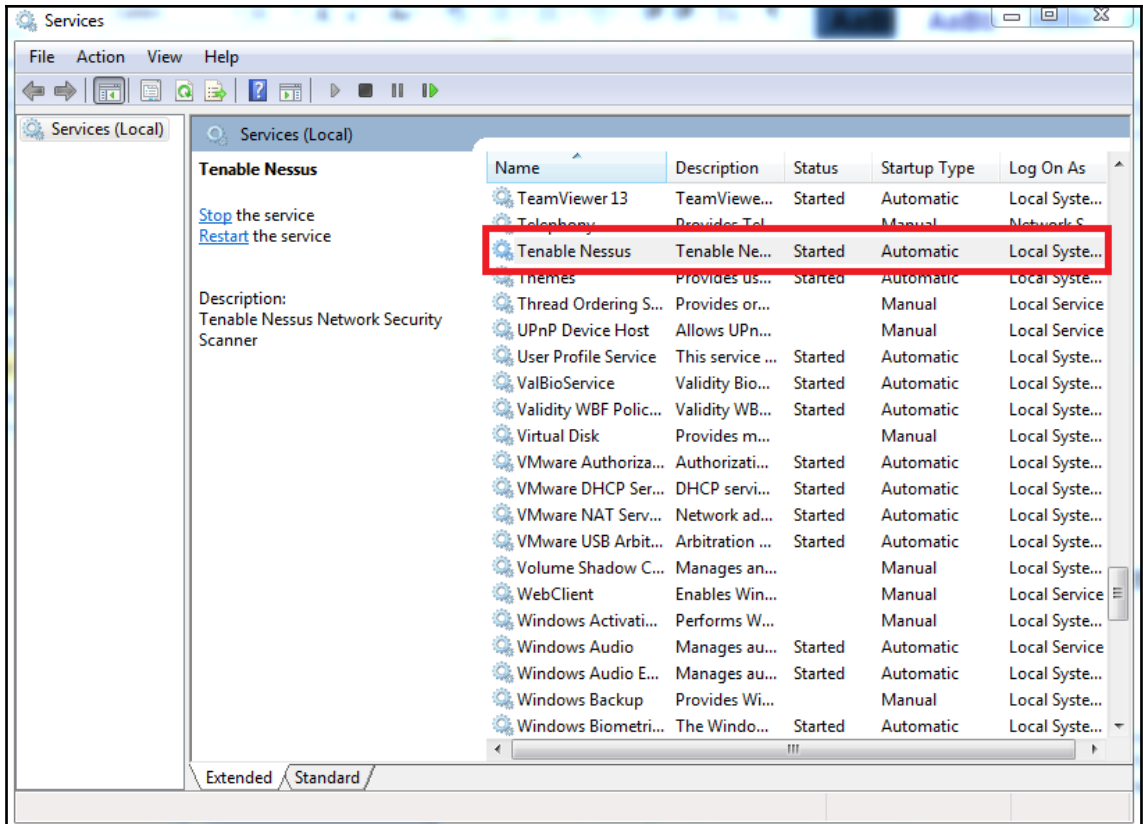


# Chapter 4: Vulnerability Scanning









```
C:\Windows\system32\cmd.exe

C:\>cd "Program Files"

C:\Program Files>cd Tenable

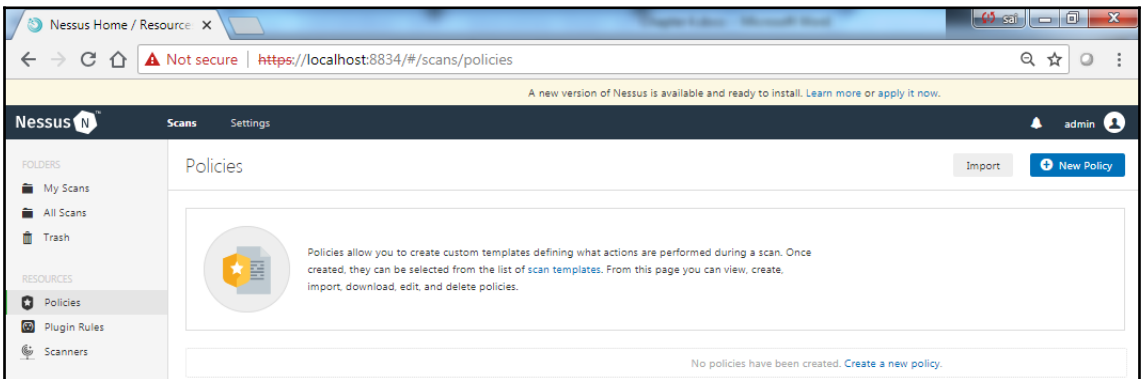
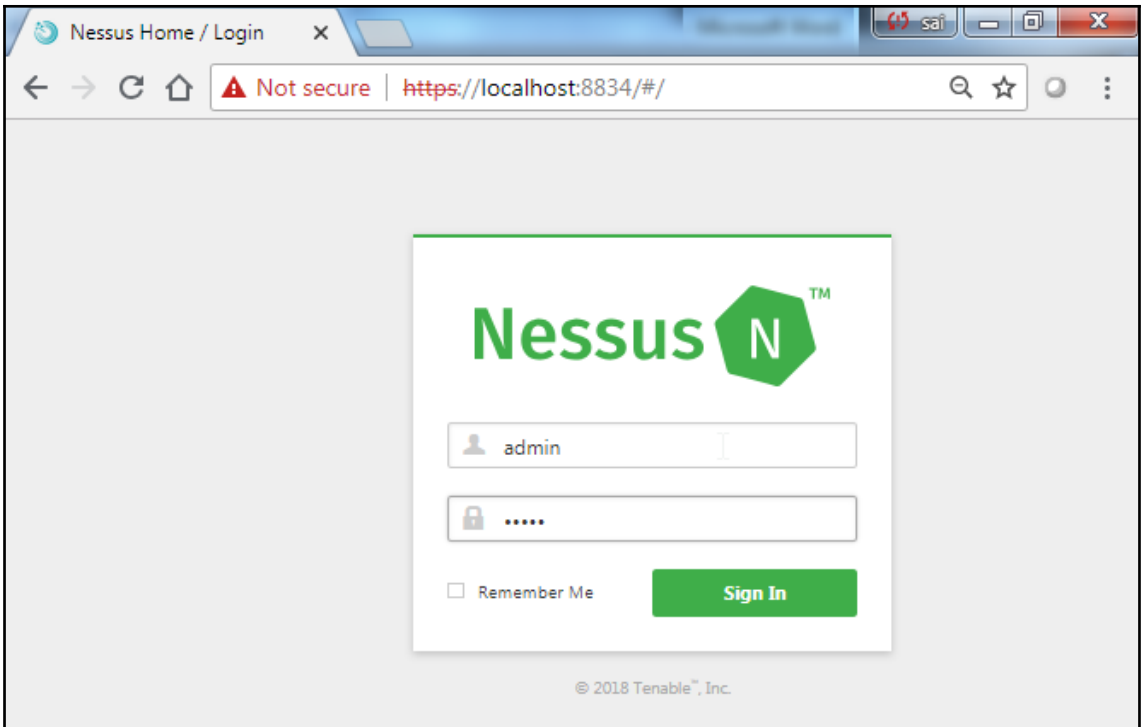
C:\Program Files\Tenable>cd Nessus

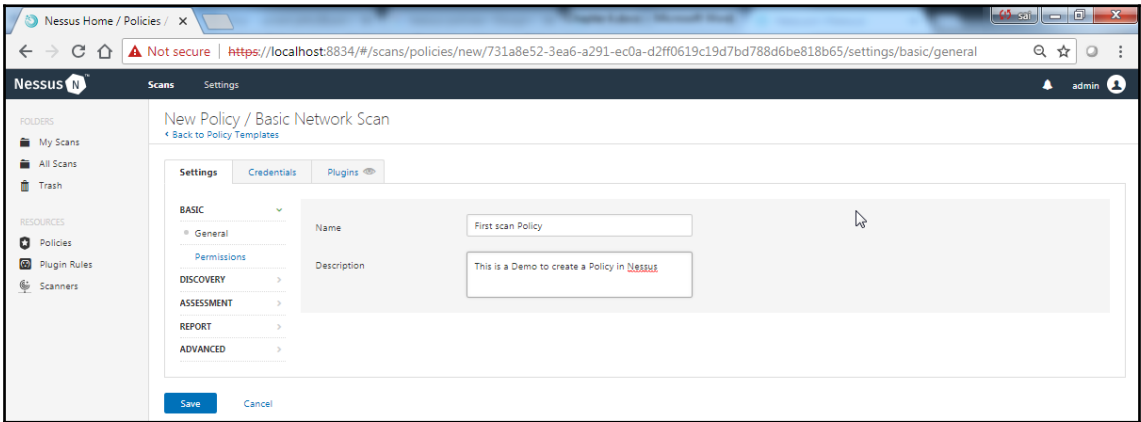
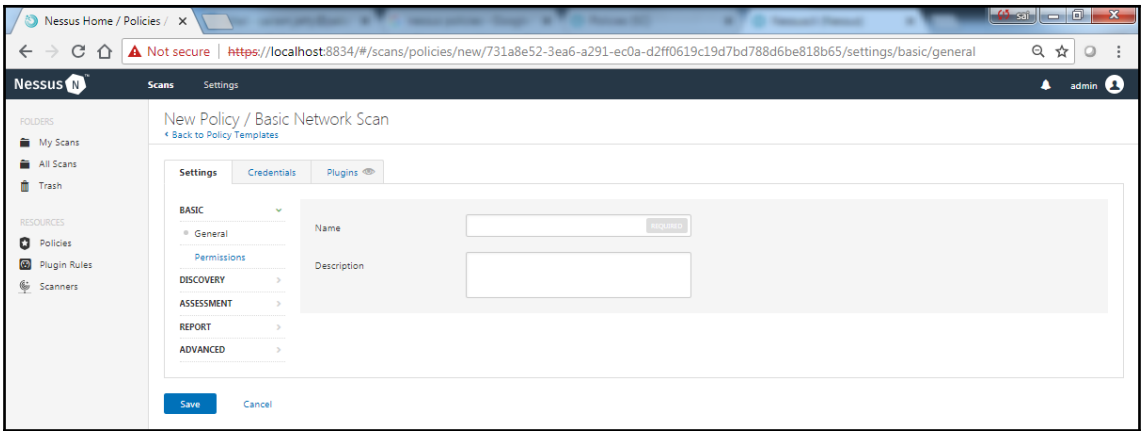
C:\Program Files\Tenable\Nessus>dir
Volume in drive C has no label.
Volume Serial Number is B234-0E80

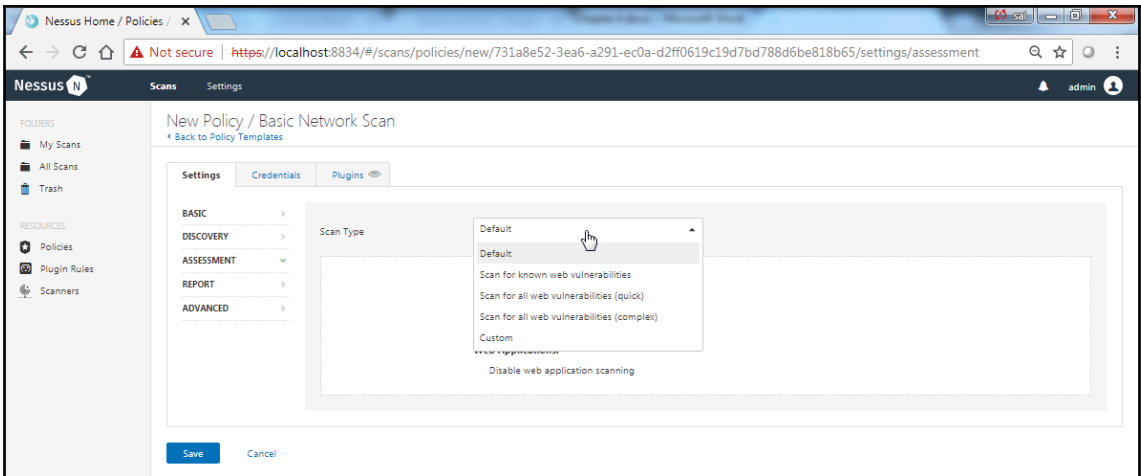
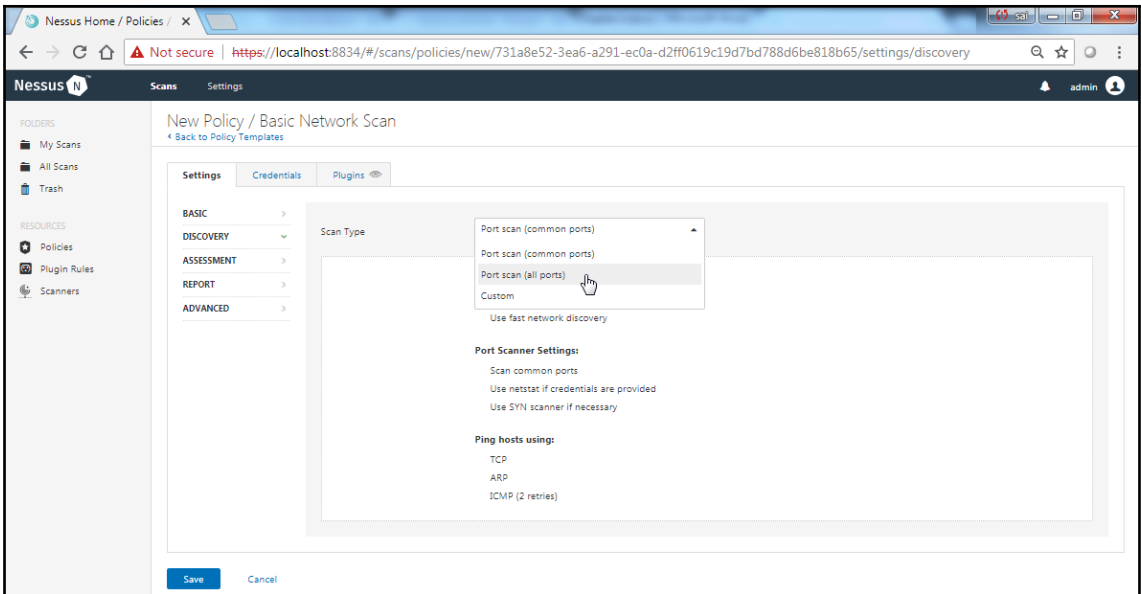
Directory of C:\Program Files\Tenable\Nessus

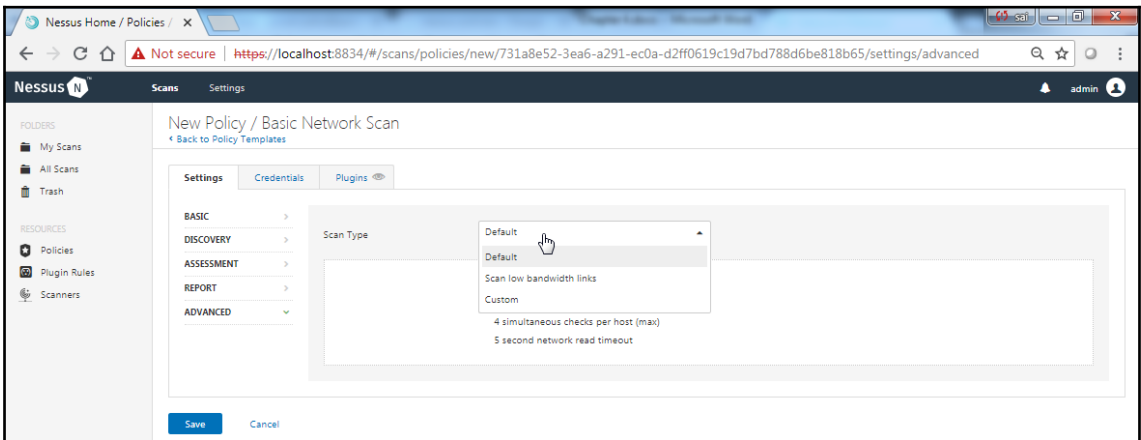
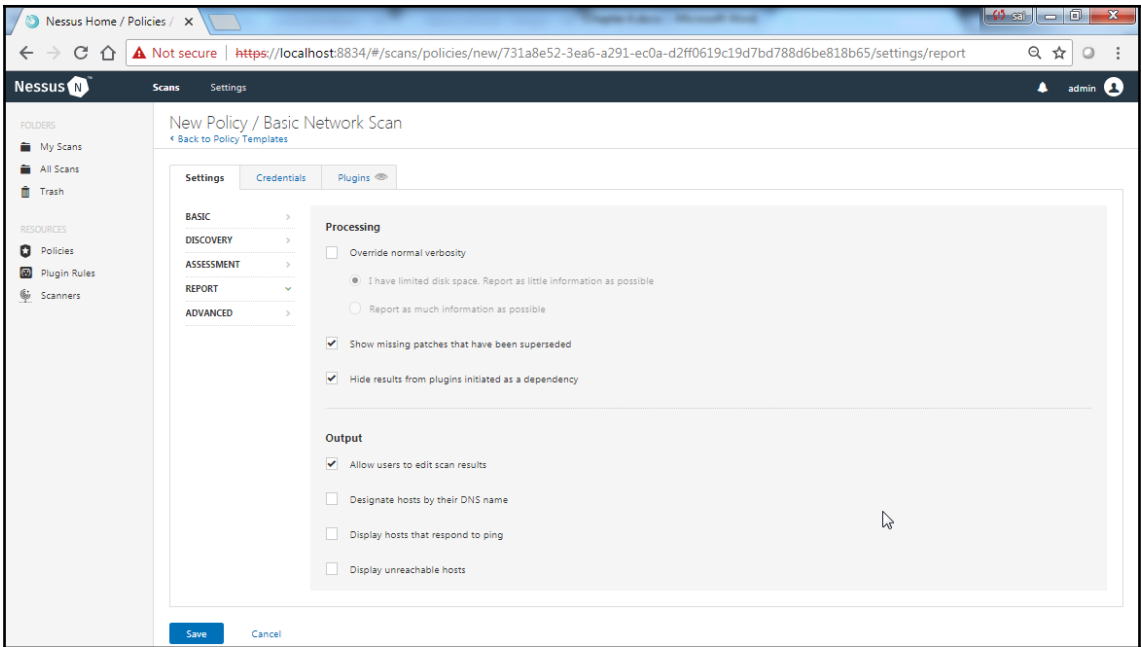
16-07-2018  11:45    <DIR>          .
16-07-2018  11:45    <DIR>          ..
16-07-2018  11:45                1 .winperms
19-06-2018  17:25           45,113 License.rtf
19-06-2018  19:25          6,459,904 nasl.exe
19-06-2018  19:25           46,592 ndbg.exe
19-06-2018  17:25                46 Nessus Web Client.url
19-06-2018  19:22           17,424 nessus-service.exe
19-06-2018  19:25          6,405,120 nessuscli.exe
19-06-2018  19:25          6,837,776 nessusd.exe
                8 File(s)          19,811,976 bytes
                2 Dir(s)    1,970,270,208 bytes free

C:\Program Files\Tenable\Nessus>
```









Nessus Home / Policies / x

Not secure | https://localhost:8834/#/scans/policies/new/731a8e52-3ea6-a291-ec0a-d2ff0619c19d7bd788d6be818b65/settings/advanced/general

Nessus Scans Settings admin

FOLDERS

- My Scans
- All Scans
- Trash

RESOURCES

- Policies
- Plugin Rules
- Scanners

BASIC >

DISCOVERY >

ASSESSMENT >

REPORT >

ADVANCED >

- General

General Settings

- Enable safe checks
- Stop scanning hosts that become unresponsive during the scan
- Scan IP addresses in a random order

Performance Options

- Slow down the scan when network congestion is detected

Network timeout (in seconds)

Max simultaneous checks per host

Max simultaneous hosts per scan

Max number of concurrent TCP sessions per host

Max number of concurrent TCP sessions per scan

Debug Settings

- Log scan details  
Logs the start and finish time for each plugin used during a scan to `nessus.messages`.
- Enable plugin debugging  
Attaches available debug logs from plugins to the vulnerability output of this scan.

Nessus Home / Resource x

Not secure | https://localhost:8834/#/scans/policies

Nessus Scans Settings admin

FOLDERS

- My Scans
- All Scans
- Trash

RESOURCES

- Policies
- Plugin Rules
- Scanners

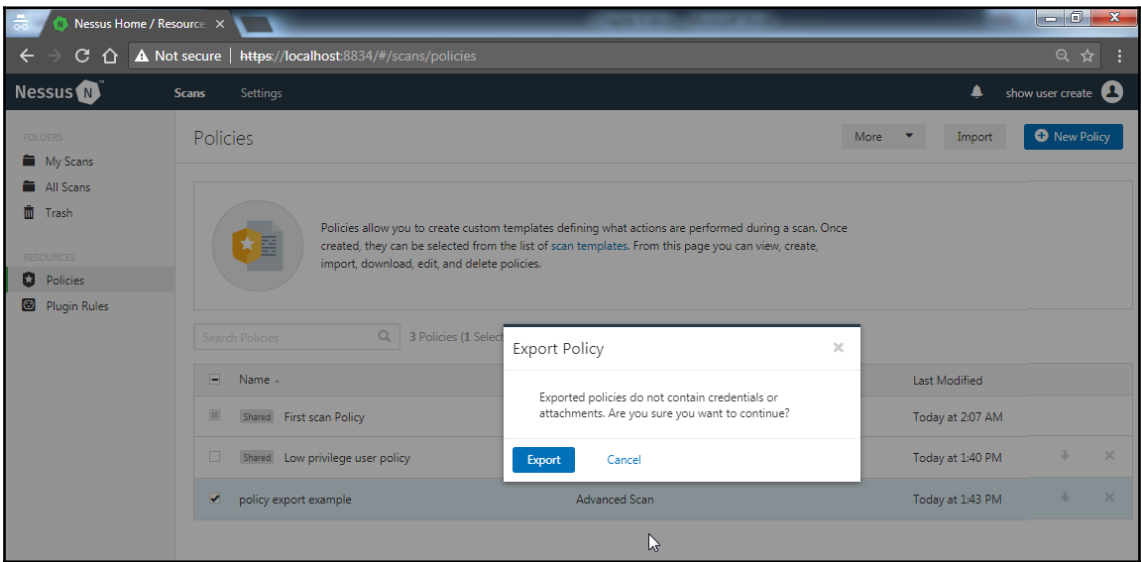
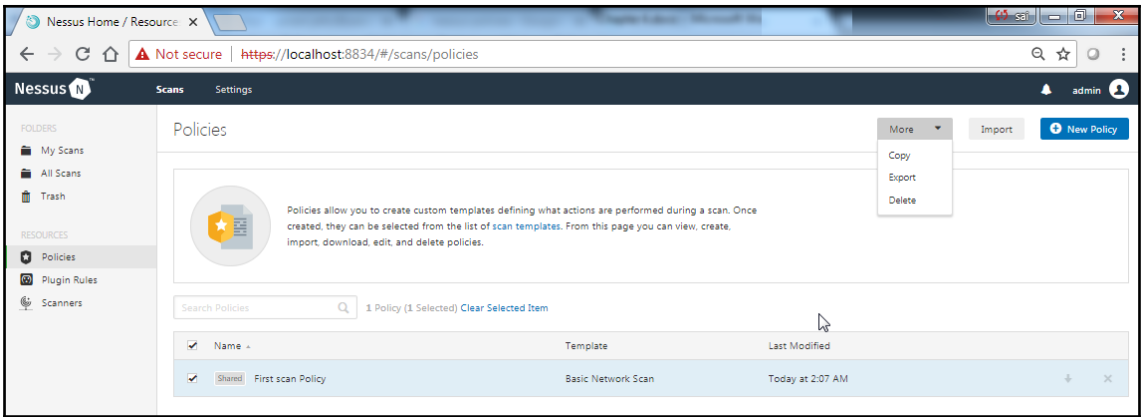
Policies

Import New Policy

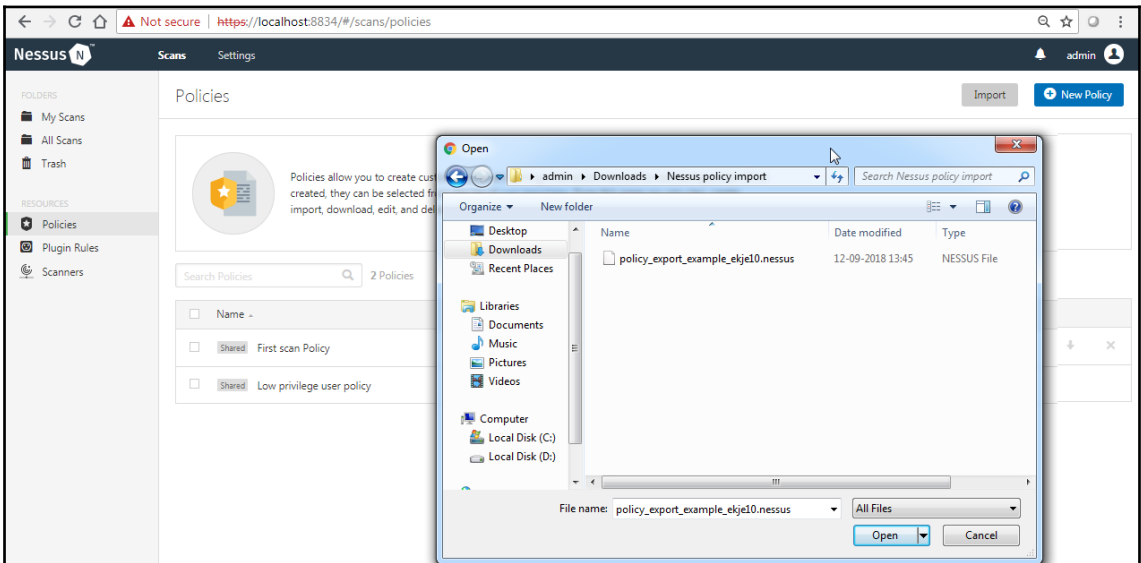
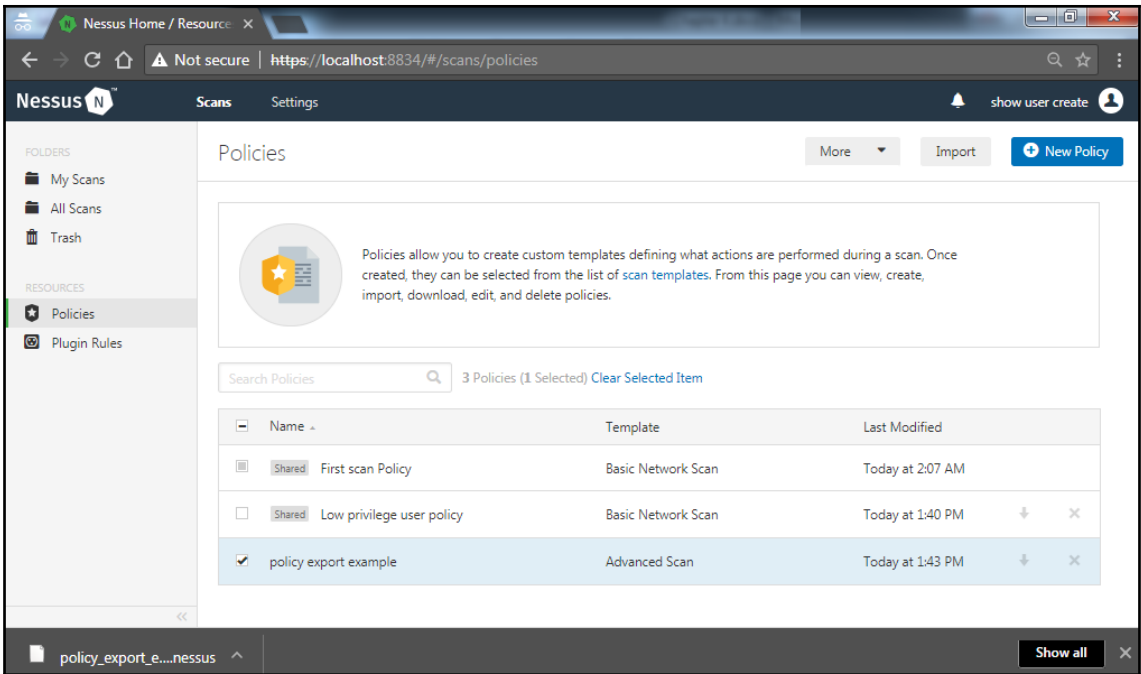
Policies allow you to create custom templates defining what actions are performed during a scan. Once created, they can be selected from the list of scan templates. From this page you can view, create, import, download, edit, and delete policies.

Search Policies 1 Policy

<input type="checkbox"/>	Name	Template	Last Modified	
<input type="checkbox"/>	Shared First scan Policy	Basic Network Scan	Today at 2:07 AM	+ x







Nessus Home / Resource X

Not secure | https://localhost:8834/#/scans/policies

Nessus Scans Settings admin

FOLDERS


- My Scans
- All Scans
- Trash

RESOURCES

- Policies**
- Plugin Rules
- Scanners

## Policies

File uploaded successfully.

 Policies allow you to create custom templates defining what actions are performed during a scan. Once created, they can be selected from the list of [scan templates](#). From this page you can view, create, import, download, edit, and delete policies.

Search Policies  3 Policies

<input type="checkbox"/>	Name	Template	Last Modified		
<input type="checkbox"/>	Shared First scan Policy	Basic Network Scan	Today at 2:07 AM	↓	×
<input type="checkbox"/>	Shared Low privilege user policy	Basic Network Scan	Today at 1:40 PM		
<input type="checkbox"/>	policy export example	Advanced Scan	Today at 1:47 PM	↓	×

https://localhost:8834/#/settings/about

Nessus Scans Settings admin

SETTINGS



- About**
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

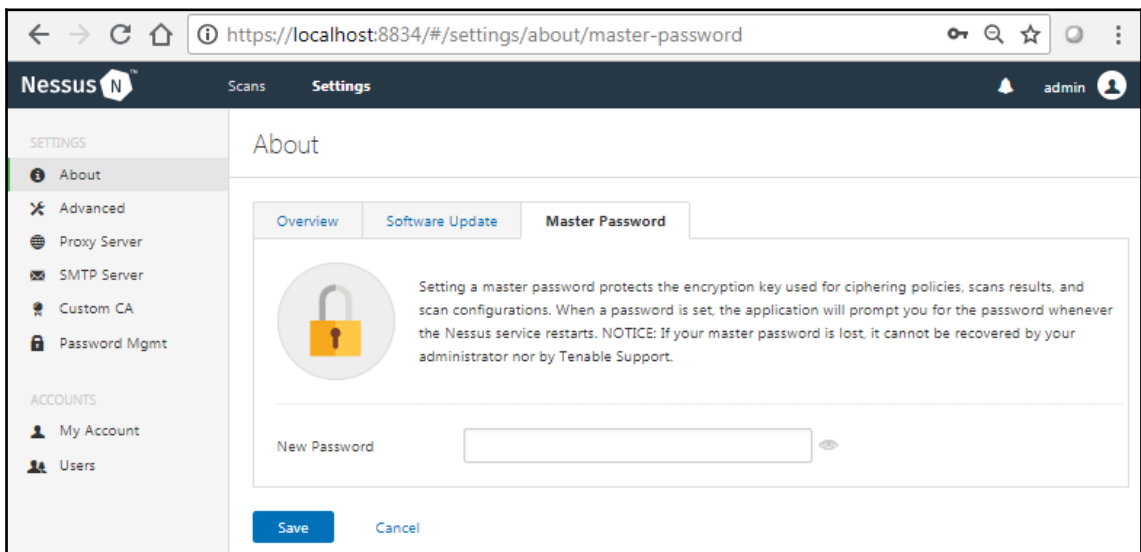
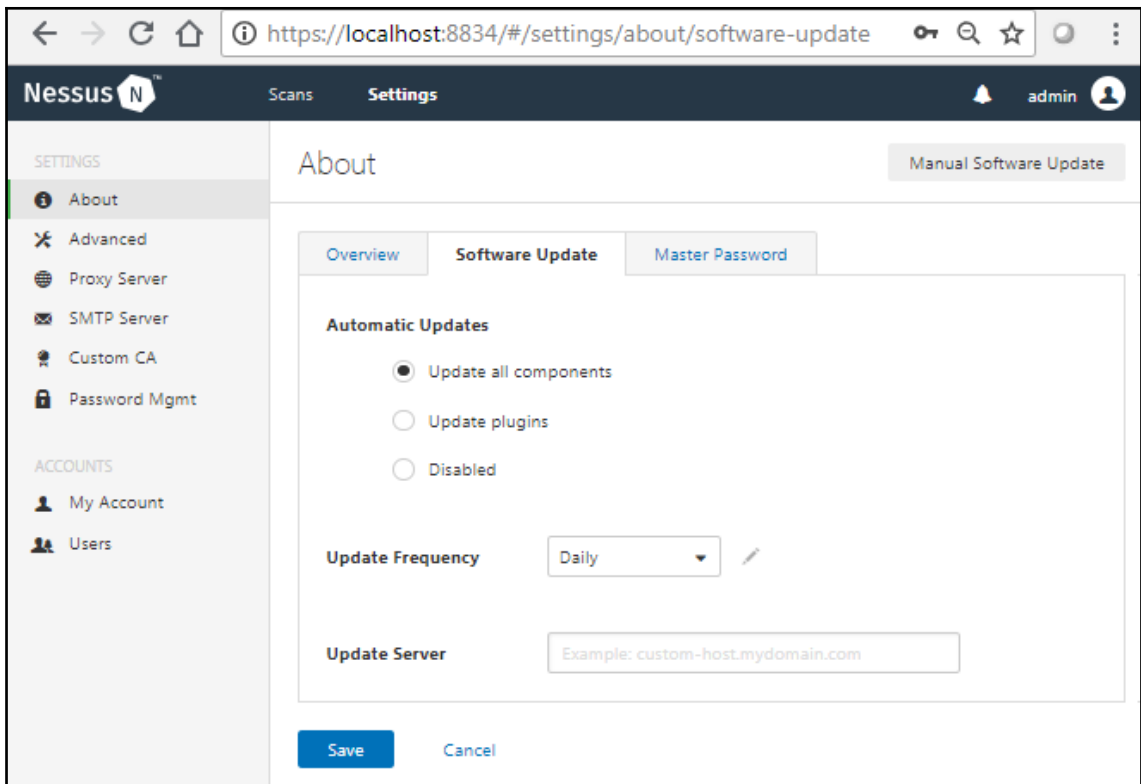
ACCOUNTS

- My Account
- Users

## About

Overview [Software Update](#) [Master Password](#)

Nessus Home		Plugins	
Version	7.1.3 (#120) WINDOWS	Last Updated	September 11 at 6:50 AM 
Licensed Hosts	None	License Expiration	July 15, 2023
		Plugin Set	201809110650
		Activation Code	E126-6E41-20B7-42C0-296B 




Browser address bar: <https://localhost:8834/#/settings/advanced>

Nessus Scans Settings admin

### Advanced Settings

[+ New Setting](#)

 Advanced Settings allow you to manually configure global settings. In order for these settings to take effect, a restart of the Nessus service or server may be required. NOTICE: Settings configured in scans or policies will override these values.

Search Settings  45 Settings

Setting	Value	
allow_post_scan_editing	yes	✕
auto_enable_dependencies	yes	i ✕
auto_update	yes	i ✕
auto_update_delay	24	i ✕
cgi_path	/cgi-bin/scripts	i ✕
checks_read_timeout	5	i ✕

← → ↻ 🏠 <https://localhost:8834/#/settings/proxy-server> 🔑 🔍 ☆ 🌐

Nessus **Settings** Scans admin


SETTINGS

- About
- Advanced
- Proxy Server**
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users

### Proxy Server


 Proxy servers are used to forward HTTP requests. If your organization requires one, Nessus will use these settings to perform plugin updates and communicate with remote scanners and agents. Only the host and port fields are required. Username, password, authentication type and user-agent are available if needed.

Host

Port

Username

Password

Auth Method  

User-Agent

← → ↻ 🏠 🔒 🔍 ☆ 🌐 :  
https://localhost:8834/#/settings/smtp-server

Nessus Scans Settings admin


SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users

### SMTP Server

 Simple Mail Transfer Protocol (SMTP) is an industry standard for sending and receiving email. Once configured for SMTP, scan results will be emailed to the list of recipients specified in a scan's "Email Notifications" configuration. These results can be custom tailored through filters and require an HTML compatible email client.

Host

Port

From (sender email)

Encryption

Hostname (for email links)

Auth Method

← → ↻ 🏠 <https://localhost:8834/#/settings/custom-ca> 🔍 ⭐ ⌵


**Nessus** Scans Settings admin

SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users



Saving a Custom Certificate Authority (CA) helps to mitigate findings from Plugin #51192 (SSL Certificate Cannot Be Trusted) during scans.

---

Certificate

```

-----BEGIN CERTIFICATE-----
MIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AKGA1UEBhMCR0Ix
EzARBgNVBAgTC1NvbWUcU3RhdGUxFTZ0Ta1d+NAjwLe4nOb77..k05ShhBrJGBK6xb
VQOLEy5DbGFzcyAxIFB1YmtpYyBQcm1tYXJ5IEN1cn..XRpb24gQXV0aG9y
aXR5MRQwEgYDVQDEwCZXM0IENBIEExOZDDeFvOwMD..TUwMTZaFvOwMTAy
MDQxOTUwMTZaMIGHMQswCQYDVQQGEwJRQjETMBEGA1..29t2S1tdGF0ZTEU
MBIGA1UEChMLQmVzdCBDQSEmGQxNzA1BGNVBAAsTLk..DEgUHV1bG1jIFBy
aW1hcnkgQ2VydG1maW5hdG1vbiBBdXR0b3JpdHkxZD..AMTC0Jlc3QgQ0Eg
THRkMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCq..Tz2mr7SZ1AMFYyu
vBjM901JjRazXBZ1BjP5CE/Wm/Rr500PRK+Lh9x5eJ../ANBE0sTKOZsDGM
ak2mlg7oruI3dY3VHqIxFTz0Ta1d+NAjwLe4nOb77..k05ShhBrJGBK6xb
8n104o/5p8HAsZPdzbfMIyNjJzBM2o5y5A13wiLi+E..fyYkQzaxCw0Awz1
KVHiIyCuaF4wj571pSzkv6sv+4IDMbT/XpCo8L6wTa..sh+etLD6FtTjYbb
rvz8RQM1t1KkdcMhg2qpraAV++HNBmNws0duEdjUbJ..XI9TtnS4o1Ck7P
Of1jiQIDAQABo4HnMIHwMB0GA1UdDgQWBQB8urMCRl..5AkTp9NjHJw5TCB
tAYDVR0jB1GeMIGpgBQ8urMCRLYMHURK05AkTp9NjH..a5B1jCBhzELMAkG
A1UEBhMCR0IxEzARBgNVBAgTC1NvbWUcU3RhdGUxFTZ0Ta1d+NAjwLe4nOb77..
k05ShhBrJGBK6xbVQOLEy5DbGFzcyAxIFB1YmtpYyBQcm1tYXJ5IEN1cn..
EN1cnRpZmljYXRp
b24gQXV0aG9yYXR5MRQwEgYDVQDEwCZXM0IENBIEExOZDDeFvOwMD..DAMBgNVRMEBTAD
AQH/MAOGCSqGSIb3DQEBAUA4IBAQC1uYBcsSncwA..DCsQer772C2ucpX
xQUE/C0pWm6gDkwd5D0DSMDJRqV/weoZ4wC6B73f5..bLhGYHaXJeSD6Kr
It8una2gY4120//on88r5IWJlm1L0oA8e4FR2yrBHX..adsGeFKKyNrwG1/
7vQMFxdGsRrXNGRGnX+vWDZ3/zWIOj0DtCKNqEpVn..HoX
-----END CERTIFICATE-----

```

← → ↻ 🏠 <https://localhost:8834/#/settings/password-management> 🔍 ☆ 🔄 ⋮

Nessus **Settings** 🔔 admin 👤


SETTINGS

- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt**

ACCOUNTS

- My Account
- Users

## Password Management

 Password Management allows you to set parameters for passwords, as well as turn on login notifications and set the session timeout. Login notifications allow the user to see the last successful login, last failed login attempts (date, time and IP) and if any failed login attempts have occurred since the last successful login. Changes will take effect after a soft restart.

Password Complexity  OFF ?

Session Timeout (mins)

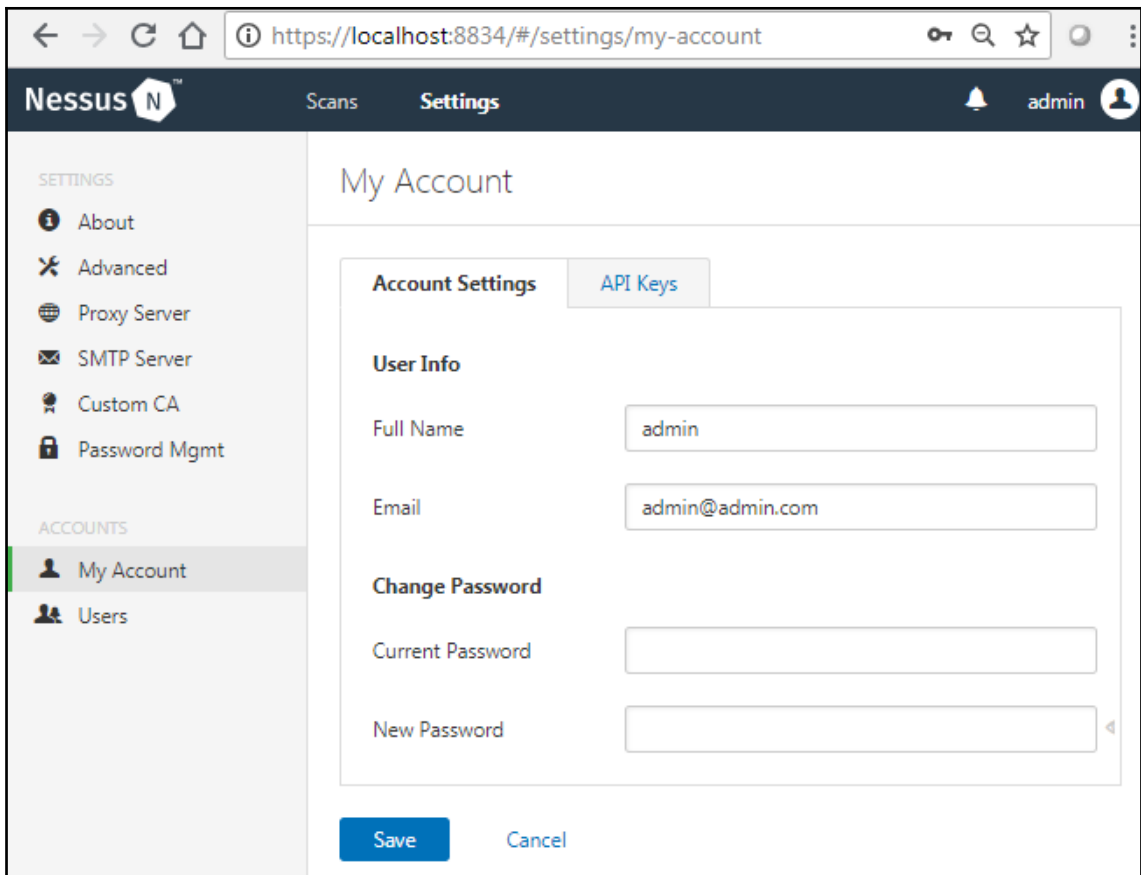
Max Login Attempts

Min Password Length

Login Notifications  OFF

[Save](#) [Cancel](#)





Browser address bar: <https://localhost:8834/#/settings/my-account/api-keys>

Nessus Settings

My Account

Account Settings | **API Keys**

API Keys are used to authenticate with the Nessus REST API (version 6.4 or greater) and passed with requests using the "X-ApiKeys" HTTP header. For more details, see the [API documentation](#).

**NOTICE:** API Keys are only presented upon initial generation. Please store them in a safe location as they can not be retrieved later and will need to be regenerated if lost.

**Access Key:** 27b1dcf8954dfaa6303de33847c78c7d00ee6fcb77c628d9affeb1cdf50a00a

**Secret Key:** 6e28eb921b1f502ad67e35d8f7875a5a11e73c6a9958425bfb84d67fd4c2a3ba

[Generate](#)

Browser address bar: <https://localhost:8834/#/settings/users>

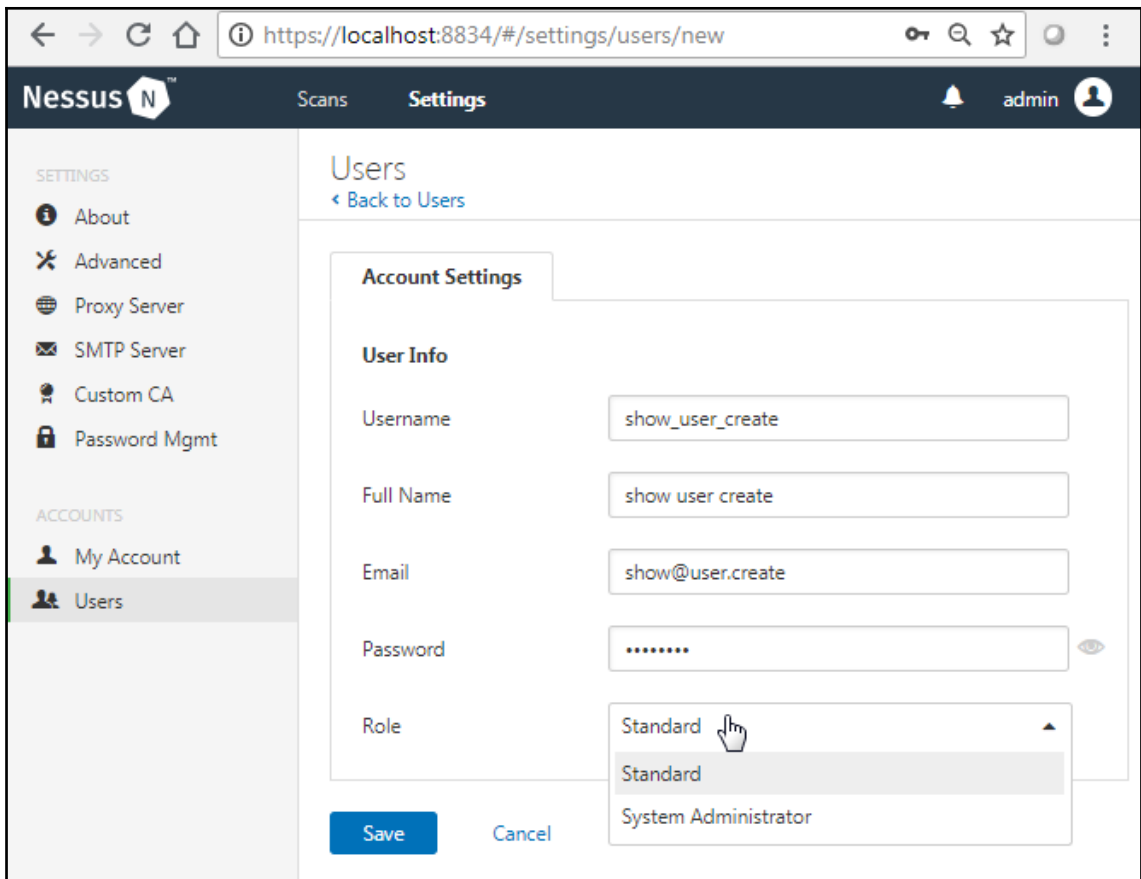
Nessus Settings

Users [+ New User](#)

From this page, you can view, create, edit, and delete users. Once created, a user is configured with a role, which determines their scanner permissions. Additionally, each user can generate a custom API key to authenticate with the REST API.

Search Users  1 User

<input type="checkbox"/>	Name	Last Login	Role
<input checked="" type="checkbox"/>	admin	Today at 12:36 PM	System Administrator



← → ↻ 🏠 <https://localhost:8834/#/settings/users> 🔍 ☆ 🌐

Nessus **Scans** **Settings** 🔔 admin 👤

SETTINGS


- About
- Advanced
- Proxy Server
- SMTP Server
- Custom CA
- Password Mgmt

ACCOUNTS

- My Account
- Users**

## Users

[+ New User](#)

 From this page, you can view, create, edit, and delete users. Once created, a user is configured with a role, which determines their scanner permissions. Additionally, each user can generate a custom API key to authenticate with the REST API.

Search Users 🔍 2 Users

<input type="checkbox"/>	Name ▾	Last Login	Role
<input checked="" type="checkbox"/>	admin	Today at 12:36 PM	System Administrator
<input type="checkbox"/>	show_user_create	Never	Standard <span>✕</span>

Nessus Home / Resource x 🔍 sai ⌵ 🏠 ✕

← → ↻ 🏠 ⚠ Not secure | <https://localhost:8834/#/scans/policies> 🔍 ☆ 🌐

Nessus **Scans** **Settings** 🔔 admin 👤

FOLDERS


- My Scans
- All Scans
- Trash

RESOURCES

- Policies**
- Plugin Rules
- Scanners

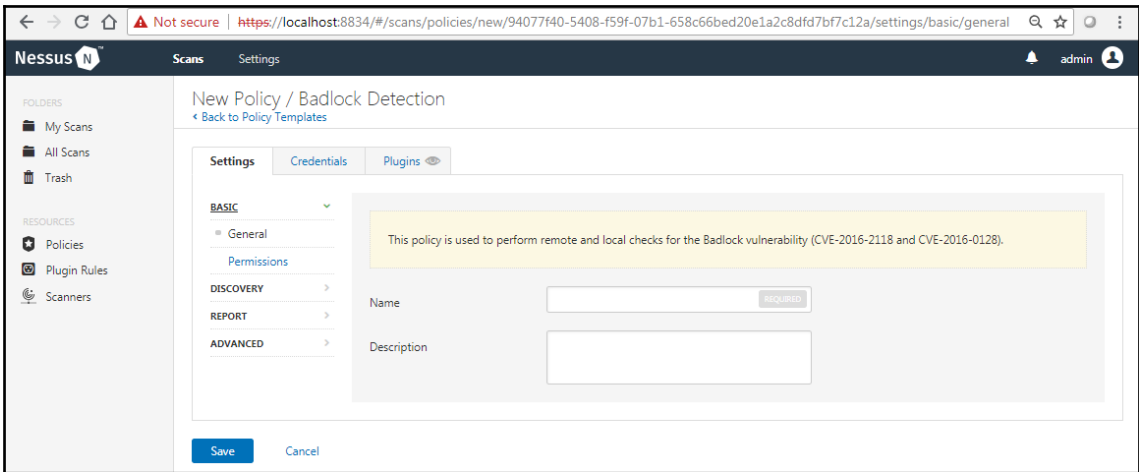
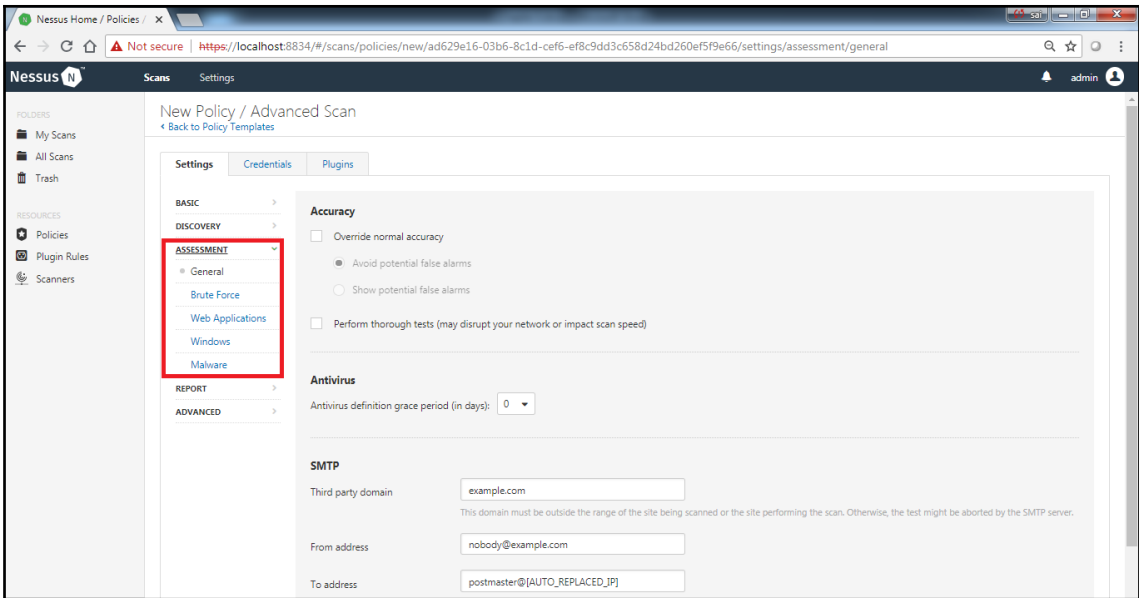
## Policies

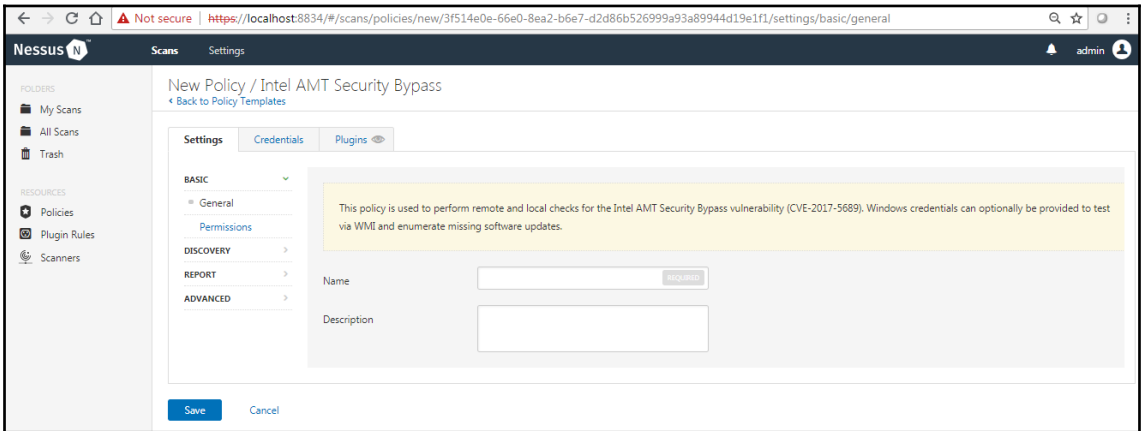
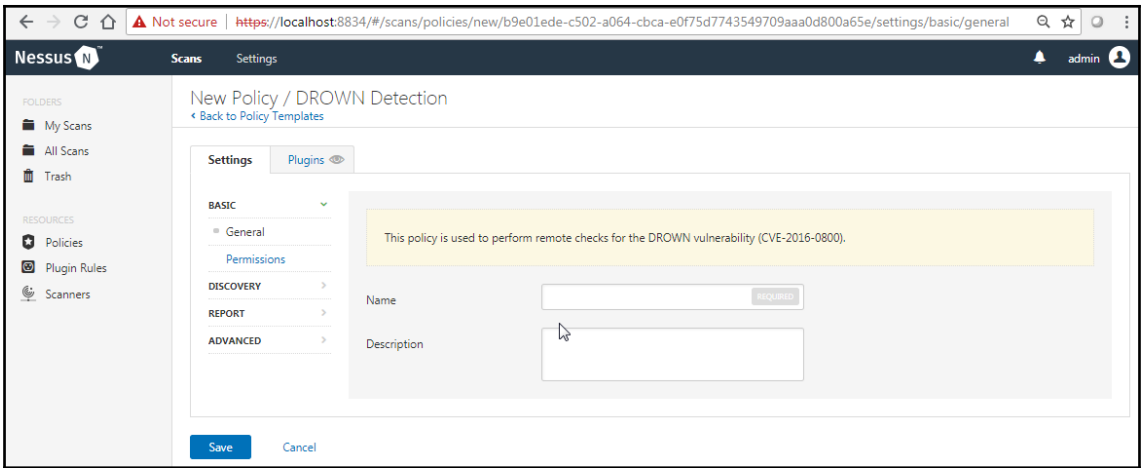
Import [+ New Policy](#)

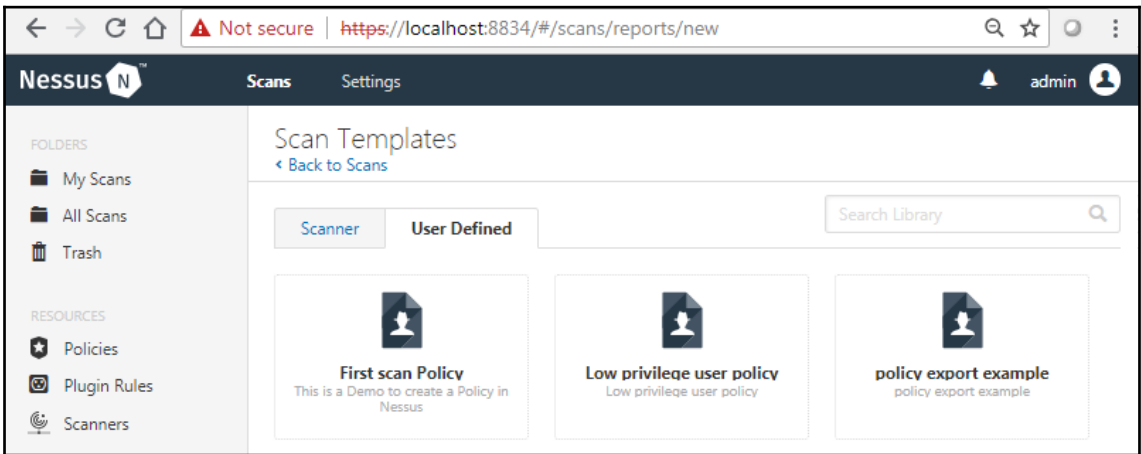
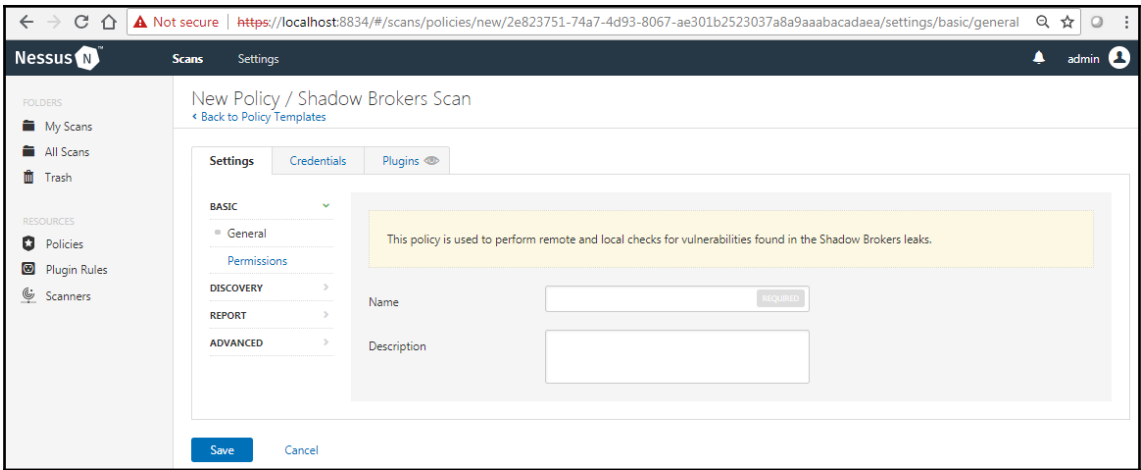
 Policies allow you to create custom templates defining what actions are performed during a scan. Once created, they can be selected from the list of [scan templates](#). From this page you can view, create, import, download, edit, and delete policies.

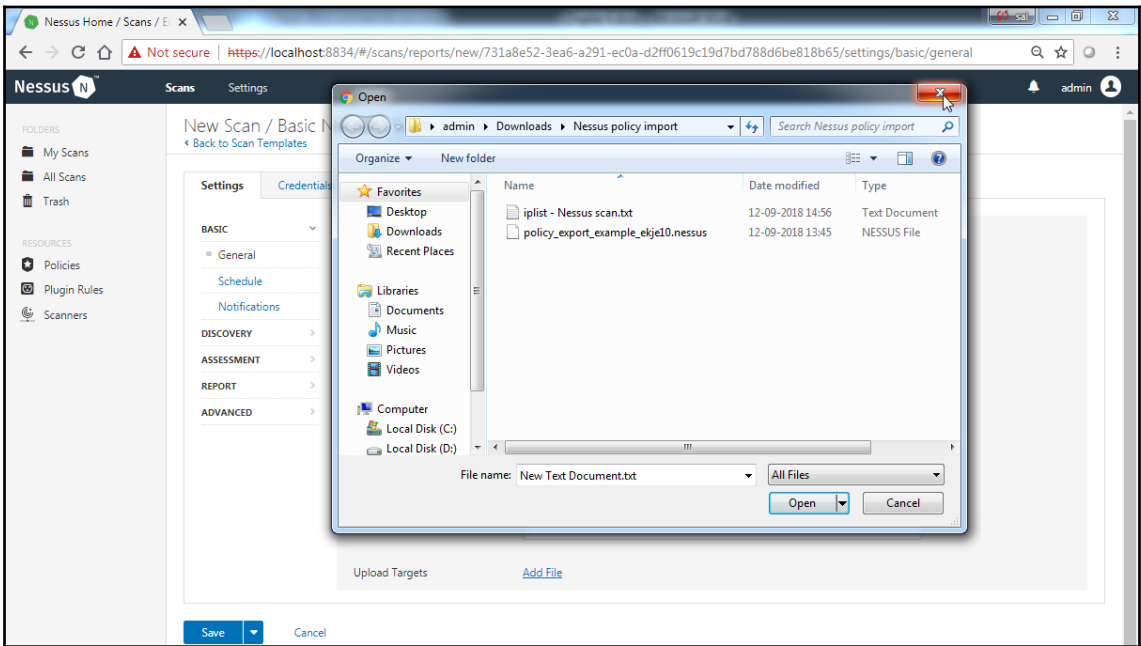
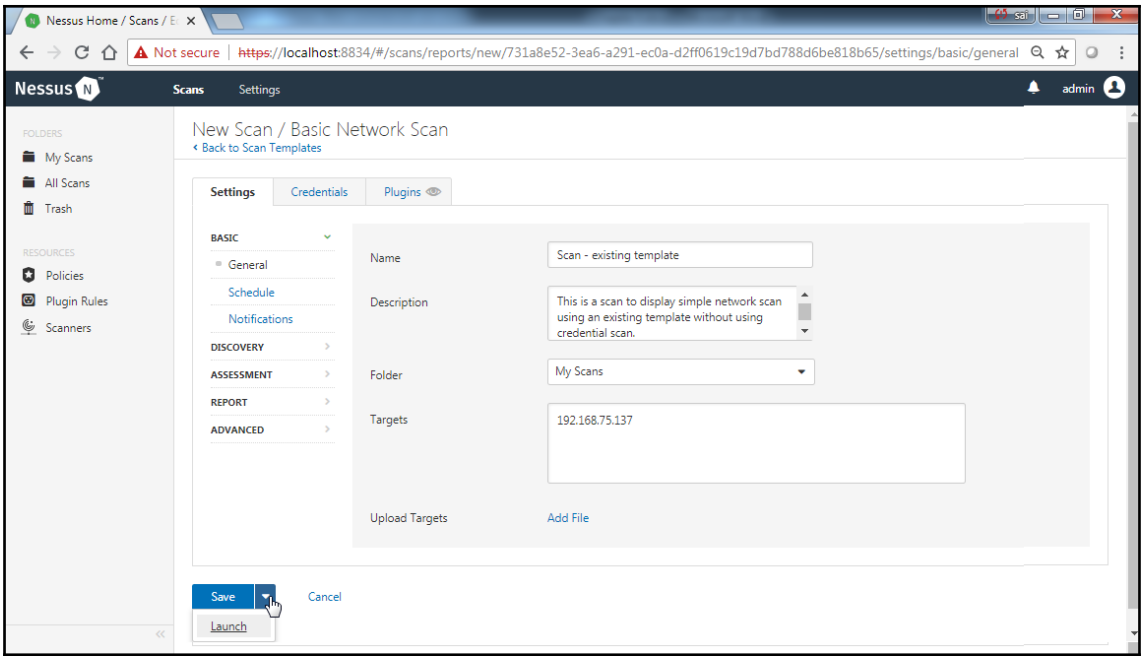
Search Policies 🔍 2 Policies

<input type="checkbox"/>	Name ▾	Template	Last Modified
<input type="checkbox"/>	<span style="background-color: #ccc;">Shared</span> First scan Policy	Basic Network Scan	Today at 2:07 AM <span>⬇</span> <span>✕</span>
<input type="checkbox"/>	<span style="background-color: #ccc;">Shared</span> Low privilege user policy	Basic Network Scan	Today at 1:40 PM

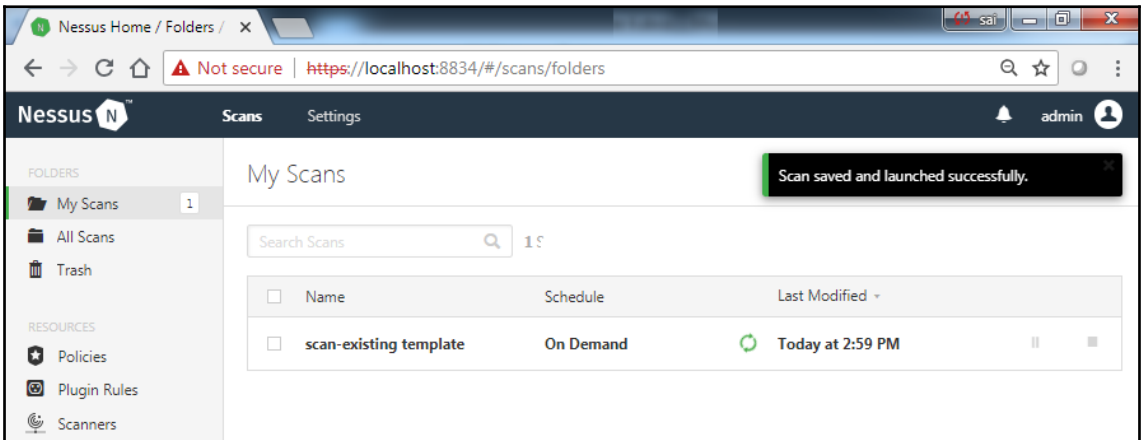
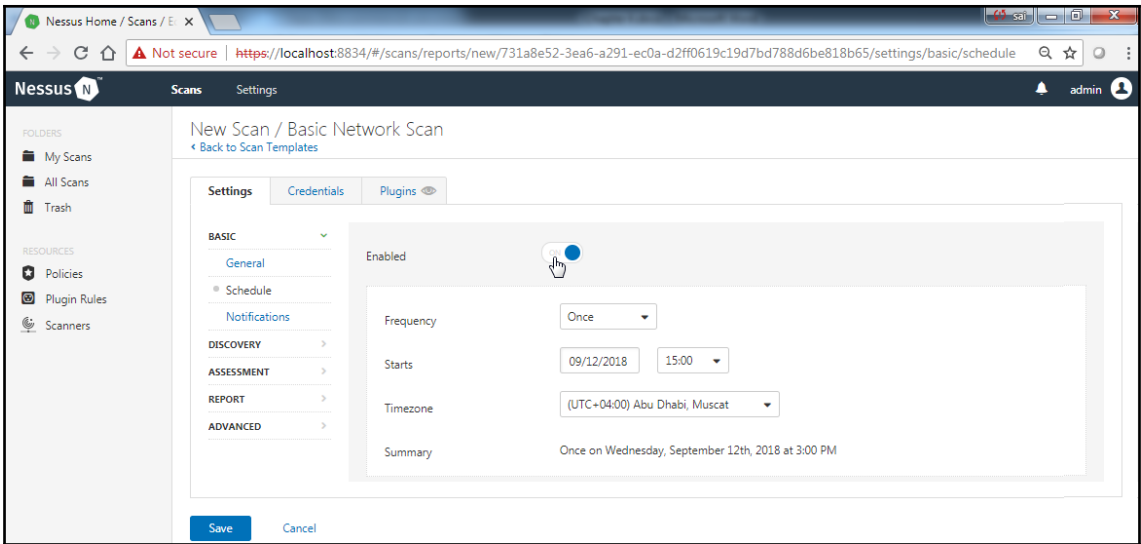












Nessus Home / Folders / x

Not secure | https://localhost:8834/#/scans/reports/13/hosts

Nessus Scans Settings admin

### scan-existing template

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 10 History 2

Filter Search Hosts 1 Host

Host	Vulnerabilities
<input type="checkbox"/> 192.167.75.137	12

#### Scan Details

Name: scan-existing template  
Status: Completed  
Policy: Basic Network Scan  
Scanner: Local Scanner  
Start: Today at 3:04 PM  
End: Today at 3:20 PM  
Elapsed: 15 minutes

#### Vulnerabilities

- Critical
- High
- Medium
- Low
- Info

Nessus Home / Folders / x

Not secure | https://localhost:8834/#/scans/reports/13/hosts/2/vulnerabilities

Nessus Scans Settings admin

scan-existing template / 192.167.75.137

Configure Audit Trail Launch Export

Vulnerabilities 10

Filter Search Vulnerabilities 10 Vulnerabilities

Sev	Name	Plugin ID: 11219	Family	Count
INFO	Nessus SYN scanner		Port scanners	2
INFO	Service Detection		Service detection	2
INFO	Common Platform Enumeration (CPE)		General	1
INFO	Device Type		General	1
INFO	Host Fully Qualified Domain Name (FQDN) Resolution		General	1
INFO	Nessus Launched Plugin List		Settings	1
INFO	Nessus Scan Information		Settings	1
INFO	OS Identification		General	1
INFO	TCP/IP Timestamps Supported		General	1
INFO	Traceroute Information		General	1

**Host Details**

IP: 192.167.75.137  
 DNS: timework.unipiv.it  
 OS: Linux Kernel 2.6  
 Start: Today at 3:04 PM  
 End: Today at 3:20 PM  
 Elapsed: 15 minutes  
 KB: Download

**Vulnerabilities**

- Critical
- High
- Medium
- Low
- Info

Nessus Home / Scans / E / x

Not secure | https://localhost:8834/#/scans/reports/new/731a8e52-3ea6-a291-ec0a-d2ff0619c19d7bd788d6be818b65/settings/basic/general

Nessus Scans Settings admin

New Scan / Basic Network Scan

Back to Scan Templates

Settings Credentials Plugins

**BASIC**

- General
- Schedule
- Notifications

**DISCOVERY**

**ASSESSMENT**

**REPORT**

**ADVANCED**

Name: Scan - existing template (credentialed)

Description: This displays a credentialed scan of a remote host using an existing template.

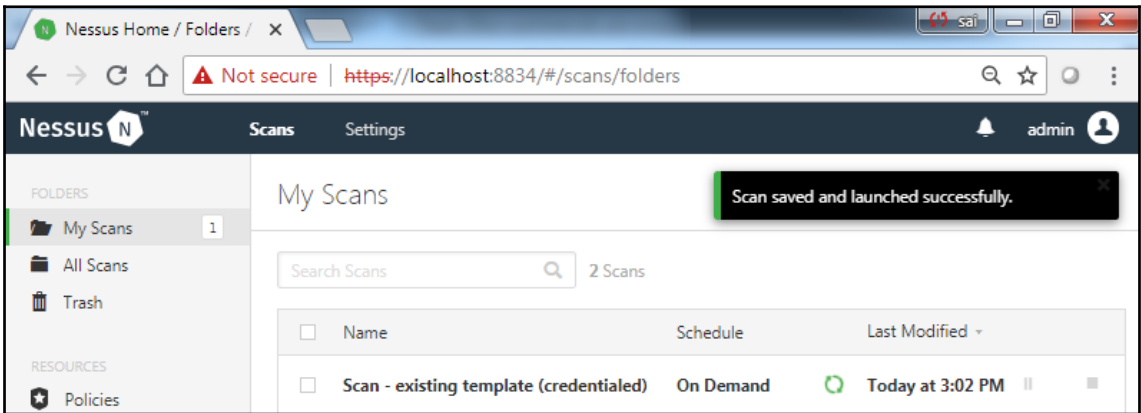
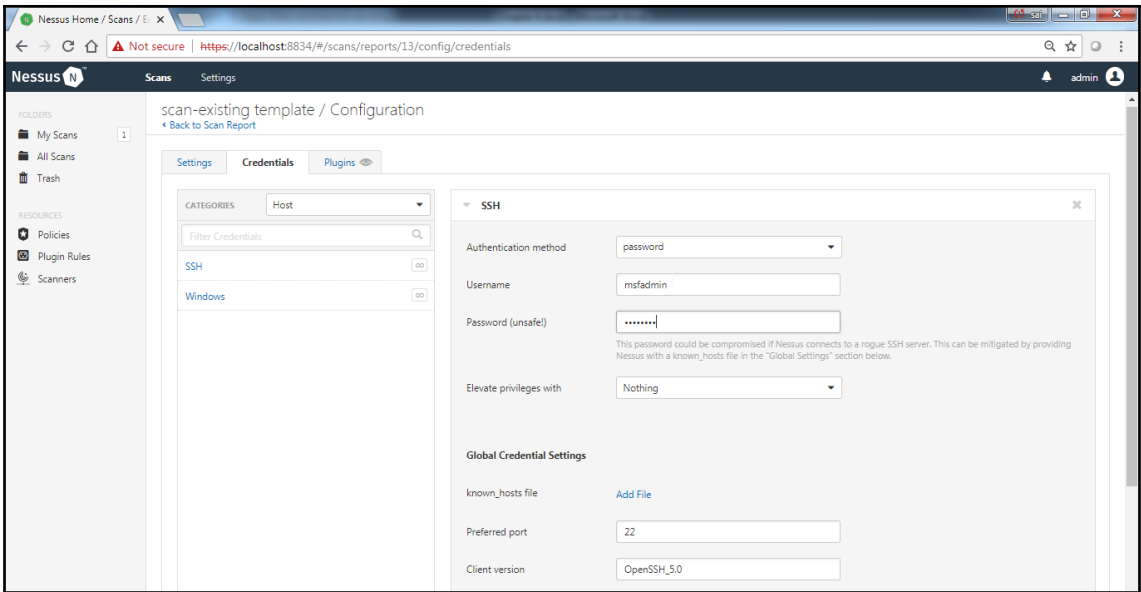
Folder: My Scans

Targets: 192.168.75.137

Upload Targets Add File

Save Cancel

Launch



Nessus Home / Folders / x

Not secure | https://localhost:8834/#/scans/reports/16/hosts

Nessus Scans Settings admin

Scan - existing template (credentialed)

Configure Audit Trail Launch Export

Back to My Scans

Hosts 1 Vulnerabilities 115 Remediations 3 History 1

Filter Search Hosts 1 Host

Host	Vulnerabilities -
<input type="checkbox"/> 192.168.75.137	7 5 19 7 124

Scan Details

Name: Scan - existing template (credentialed)  
 Status: Completed  
 Policy: Basic Network Scan  
 Scanner: Local Scanner  
 Start: Today at 3:02 PM  
 End: Today at 3:12 PM  
 Elapsed: 10 minutes

Vulnerabilities

Nessus Home / Folders / x

Not secure | https://localhost:8834/#/scans/reports/16/hosts/2/vulnerabilities

Nessus Scans Settings admin

Scan - existing template (credentialed) / 192.168.75.137

Configure Audit Trail Launch Export

Back to Hosts

Vulnerabilities 115

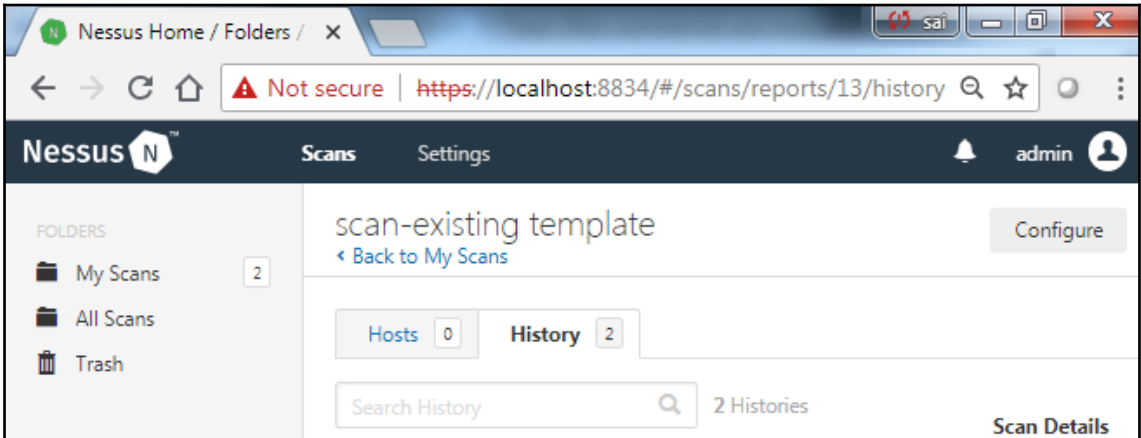
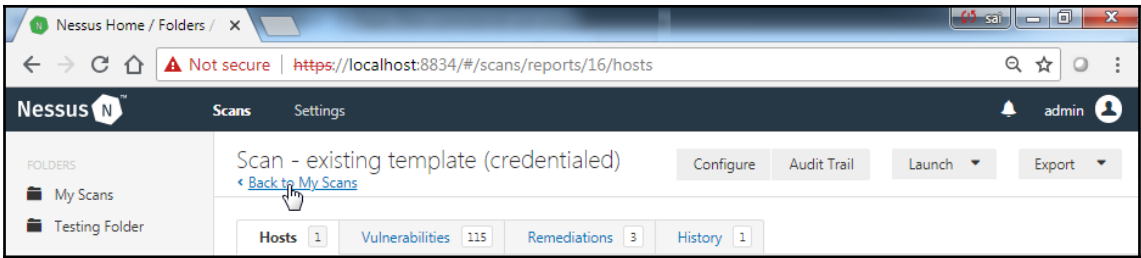
Filter Search Vulnerabilities 115 Vulnerabilities

Sev	Name	Plugin ID: 51988	Family	Count
CRITICAL	Bind Shell Backdoor Detection		Backdoors	1
CRITICAL	Debian OpenSSH/OpenSSL Package Random Number Generator...		Gain a shell remotely	1
CRITICAL	Debian OpenSSH/OpenSSL Package Random Number Generator...		Gain a shell remotely	1
CRITICAL	NFS Exported Share Information Disclosure		RPC	1
CRITICAL	Unix Operating System Unsupported Version Detection		General	1
CRITICAL	UnrealIRCd Backdoor Detection		Backdoors	1
CRITICAL	VNC Server 'password' Password		Gain a shell remotely	1
HIGH	Multiple Vendor DNS Query ID Field Prediction Cache Poisoning		DNS	1
HIGH	rlogin Service Detection		Service detection	1
HIGH	rsh Service Detection		Service detection	1

Host Details

IP: 192.168.75.137  
 MAC: 00:0C:29:74:1C:63  
 OS: Linux Kernel 2.6 on Ubuntu 8.04 (gutsy)  
 Start: Today at 3:02 PM  
 End: Today at 3:12 PM  
 Elapsed: 10 minutes  
 KB: Download

Vulnerabilities



Nessus Home / Folders / X

Not secure | <https://localhost:8834/#/scans/reports/13/history>

Nessus Scans Settings admin

scan-existing template Configure

[Back to My Scans](#)

Hosts 1 Vulnerabilities 1 History 2

Search History 2 Histories

Start Time	End Time	Status
Current Today at 3:04 PM	N/A	Running
Today at 2:59 PM	Today at 3:03 PM	Canceled

**Scan Details**

Name: scan-existing template  
 Status: Running  
 Policy: Basic Network Scan  
 Scanner: Local Scanner  
 Start: Today at 3:04 PM

**Vulnerabilities**

- Critical
- High
- Medium
- Low
- Info


Nessus Home / Scan Tem X

Not secure | <https://localhost:8834/#/scans/reports/new>


Nessus Scans Settings admin

Scan Templates Back to Scans


Scanner User Defined Search Library



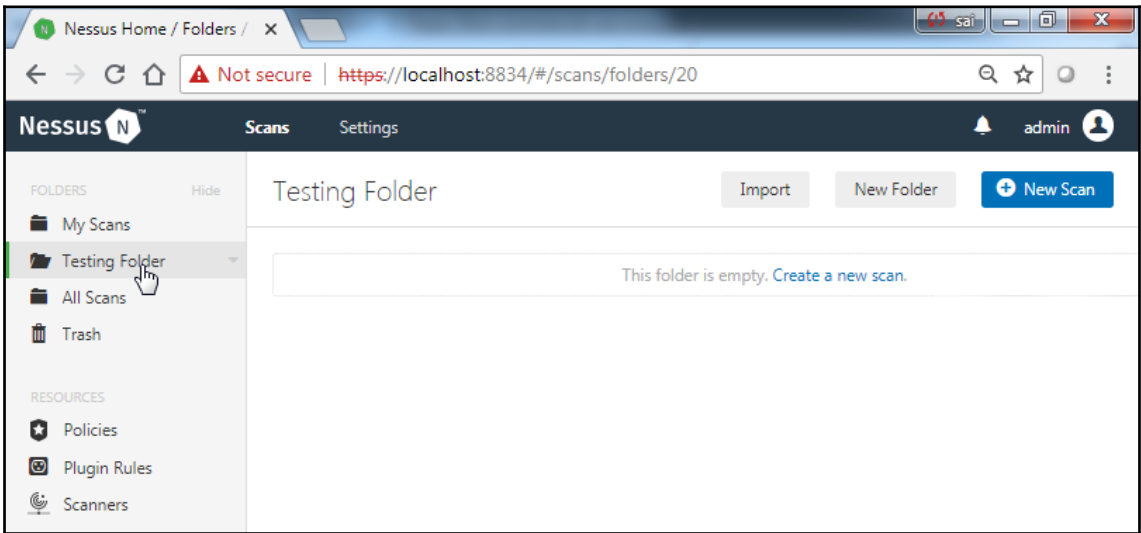
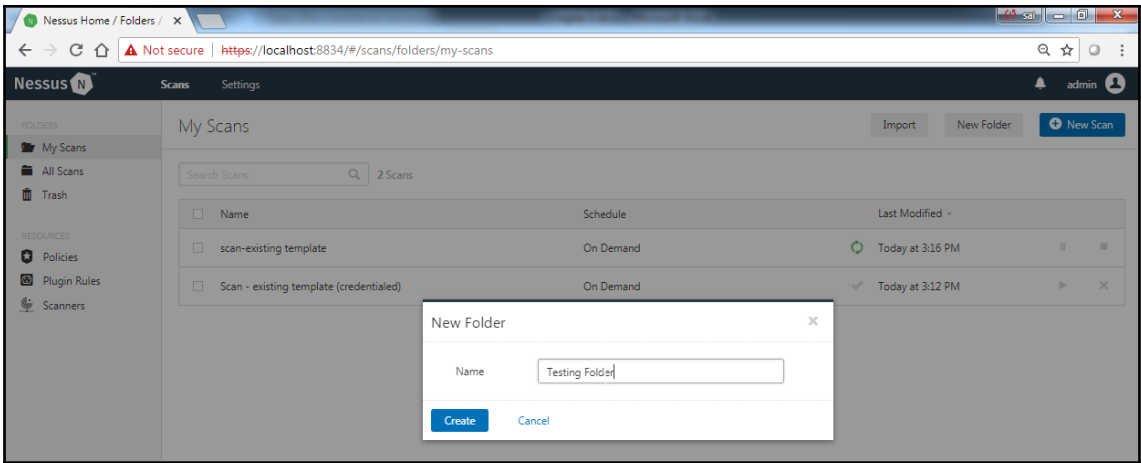
**First scan Policy**  
This is a Demo to create a Policy in Nessus



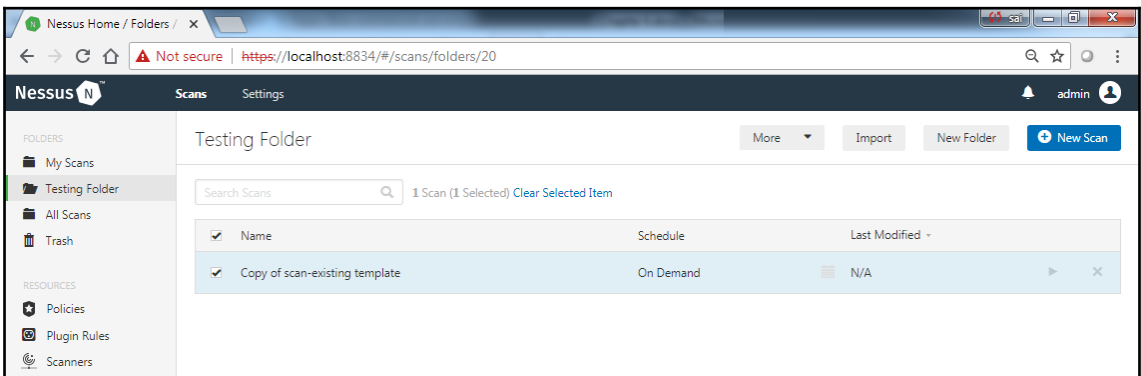
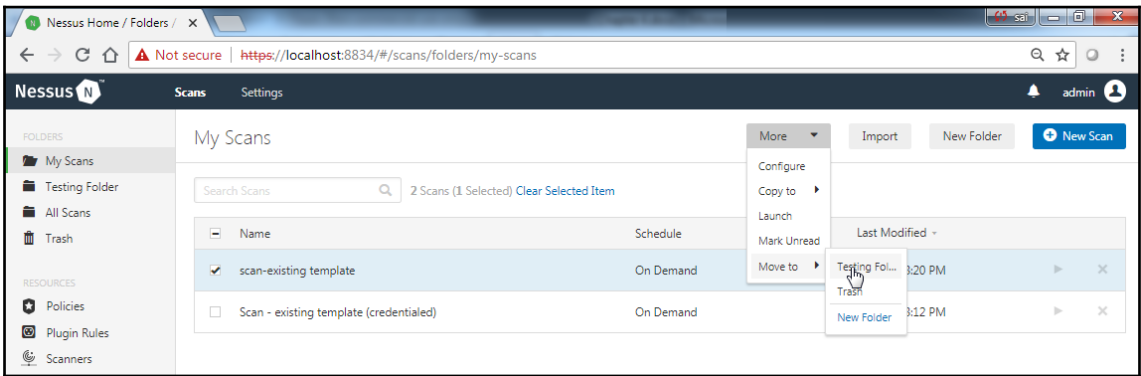
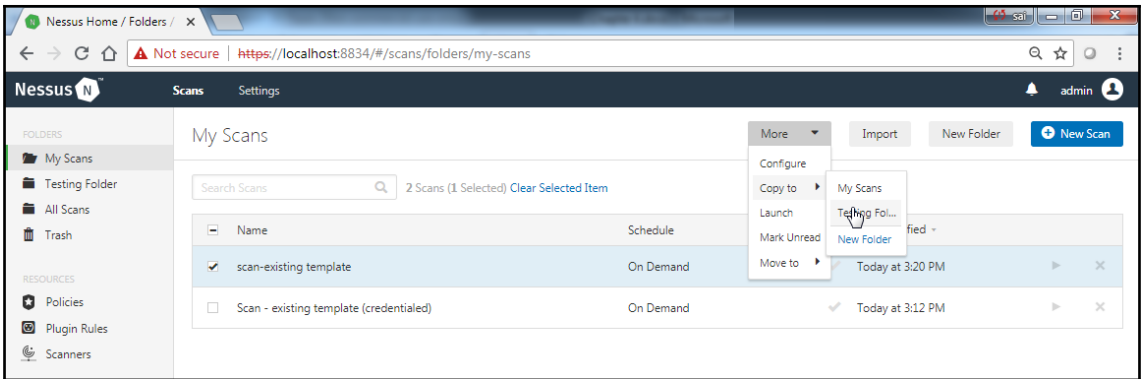
**Low privilege user policy**  
Low privilege user policy

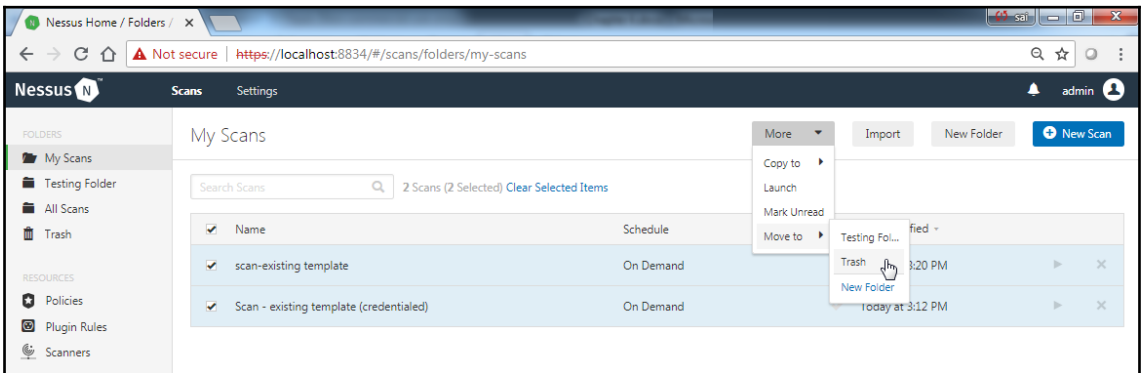
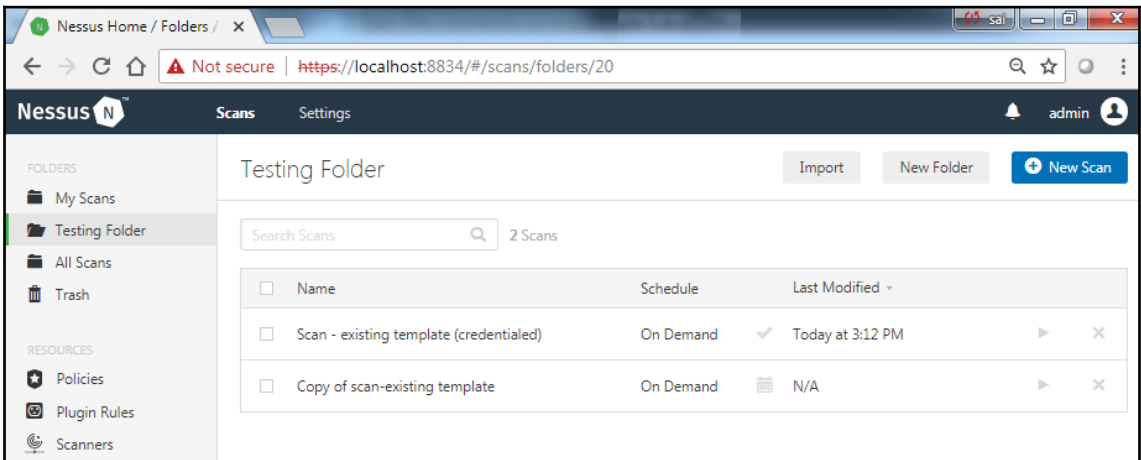
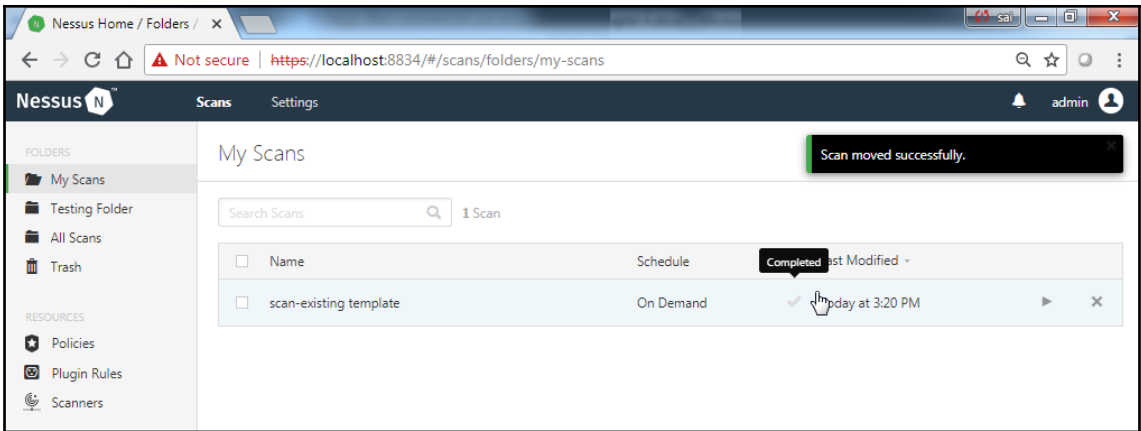


**policy export example**  
policy export example









# Chapter 5: Configuration Audits

Nessus Professional / Scans... x

Nessus Scans Settings Filter Search Plugin Families admin

New Scan / Advanced Scan  
Back to Scan Templates

Settings Credentials Compliance Plugins Show Enabled | Show All

STATUS	PLUGIN FAMILY	TOTAL	STATUS	PLUGIN NAME	PLUGIN ID
ENABLED	ADX Local Security Checks	11334	ENABLED	ADX 5.1 : IY19744	22372
ENABLED	Amazon Linux Local Security Checks	1121	ENABLED	ADX 5.1 : IY20486	22373
ENABLED	Backdoors	114	ENABLED	ADX 5.1 : IY21309	22374
ENABLED	CentOS Local Security Checks	2647	ENABLED	ADX 5.1 : IY22266	22375
ENABLED	CGI abuses	3913	ENABLED	ADX 5.1 : IY22268	22376
ENABLED	CGI abuses : XSS	667	ENABLED	ADX 5.1 : IY23041	22377
ENABLED	CISCO	933	ENABLED	ADX 5.1 : IY23846	22378
ENABLED	Databases	590	ENABLED	ADX 5.1 : IY23847	22379
ENABLED	Debian Local Security Checks	5732	ENABLED	ADX 5.1 : IY24231	22380
ENABLED	Default Unix Accounts	169	ENABLED	ADX 5.1 : IY25437	22381

Save Cancel

Nessus Scans Settings Filter Search Plugin Families admin

New Scan / Advanced Scan  
Back to Scan Templates

Settings Credentials Compliance Plugins Show Enabled | Show All

AIX 5.1 : IY19744

**Synopsis**  
The remote host is missing a vendor-supplied security patch

**Description**  
The remote host is missing AIX Critical Security Patch number IY19744 (SECURITY: Buffer Overflow in xntpd).  
You should install this patch for your system to be up-to-date.

**Solution**  
<http://www-912.ibm.com/eserver/support/fixes/>

**Plugin Information**  
ID: 22372  
Version: \$Revision: 1.5 \$  
Published: September 16, 2006

**Risk Information**  
Risk Factor: High

Save Cancel

https://localhost:8834/#/scans/reports/new/af629e16-0316-8c1d-cef5-ef8c9dd3c658d24bd260ef5f9e66/plugins

Nessus Professional / Scans... x

Nessus Scans Settings Filter Search Plugin Families admin

New Scan / Advanced Scan  
[Back to Scan Templates](#) Disable All Enable All

Settings Credentials Compliance **Plugins** Show Enabled | Show All

STATUS	PLUGIN NAME	PLUGINS	STATUS	PLUGIN NAME	PLUGIN ID
ENABLED	SMTP problems	140	DISABLED	2X ApplicationServer TuxSystem ActiveX ExportSettings...	58484
ENABLED	SNMP	33	ENABLED	2X Client TuxClientSystem ActiveX InstallClient() Metho...	58321
DISABLED	Solaris Local Security Checks	3585	ENABLED	3CTftpSvc Long Transport Mode Remote Overflow	23735
ENABLED	SuSE Local Security Checks	11873	ENABLED	3D-FTP Multiple Directory Traversal Vulnerabilities	33218
ENABLED	Ubuntu Local Security Checks	4258	ENABLED	3DGreetings Player ActiveX Multiple Buffer Overflows	26020
ENABLED	Virtuozzo Local Security Checks	206	ENABLED	3ivx MPEG-4 < 5.0.2 Buffer Overflow	29749
ENABLED	VMware ESX Local Security Checks	120	ENABLED	7-Zip < 16.00 Multiple Vulnerabilities	91230
ENABLED	Web Servers	1097	ENABLED	7-Zip < 16.03 NULL Pointer Dereference DoS	109799
MIXED	Windows	4070	ENABLED	7-Zip < 18.00 Multiple Vulnerabilities	109800
ENABLED	Windows : Microsoft Bulletins	1590	ENABLED	7-Zip < 18.05 Memory Corruption Arbitrary Code Execu...	109730
ENABLED	Windows : User management	28			

Nessus Scans Settings Filter Search Plugin Families admin

New Scan / Advanced Scan  
[Back to Scan Templates](#) Disable All Enable All

Settings Credentials Compliance **Plugins** Show Enabled | Show All

STATUS	PLUGIN NAME	PLUGINS	STATUS	PLUGIN NAME	PLUGIN ID
ENABLED	SMTP problems	140	DISABLED	Oracle Solaris Critical Patch Update : apr2012_SRU3	76800
ENABLED	SNMP	33	DISABLED	Oracle Solaris Critical Patch Update : apr2012_SRU4	76801
DISABLED	Solaris Local Security Checks	3585	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU0	76802
ENABLED	SuSE Local Security Checks	11873	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU3	76803
ENABLED	Ubuntu Local Security Checks	4258	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU4_5	76804
ENABLED	Virtuozzo Local Security Checks	206	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU4a	76805
ENABLED	VMware ESX Local Security Checks	120	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU5	76807
ENABLED	Web Servers	1097	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU5_5	76806
MIXED	Windows	4070	DISABLED	Oracle Solaris Critical Patch Update : apr2014_SRU11_1_...	76808
ENABLED	Windows : Microsoft Bulletins	1590	DISABLED	Oracle Solaris Critical Patch Update : apr2015_SRU11_2_...	82817
ENABLED	Windows : User management	28			

Browser: https://localhost:8834/#/scans/reports/new/ad629e16-03b6-8c1d-cef6-ef8c9dd3c658d24b260ef5f9e66/plugins

Nessus Professional / Scans... x

Nessus Professional Scans Settings Filter Search Plugin Families admin

### New Scan / Advanced Scan

Back to Scan Templates

Disable All Enable All

Show Enabled | Show All

Settings Credentials Compliance **Plugins**

STATUS	PLUGIN NAME	TOTAL	STATUS	PLUGIN NAME	PLUGIN ID
DISABLED	SMTP problems	140	DISABLED	Oracle Solaris Critical Patch Update : apr2012_SRU3	76800
DISABLED	SNMP	33	DISABLED	Oracle Solaris Critical Patch Update : apr2012_SRU4	76801
DISABLED	Solaris Local Security Checks	3585	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU0	76802
DISABLED	SuSE Local Security Checks	11873	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU3	76803
DISABLED	Ubuntu Local Security Checks	4258	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU4_5	76804
DISABLED	Virtuozzo Local Security Checks	206	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU4a	76805
DISABLED	VMware ESX Local Security Checks	120	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU5	76807
DISABLED	Web Servers	1097	DISABLED	Oracle Solaris Critical Patch Update : apr2013_SRU5_5	76806
DISABLED	Windows	4070	DISABLED	Oracle Solaris Critical Patch Update : apr2014_SRU11_1_...	76808
DISABLED	Windows : Microsoft Bulletins	1590	DISABLED	Oracle Solaris Critical Patch Update : apr2015_SRU11_2_...	82817
DISABLED	Windows : User management	28			

Save Cancel

Browser: https://localhost:8834/#/scans/reports/new/ad629e16-03b6-8c1d-cef6-ef8c9dd3c658d24b260ef5f9e66/plugins

Nessus Professional / Scans... x

Nessus Professional Scans Settings Filter policy admin

### New Scan / Advanced Scan

Back to Scan Templates

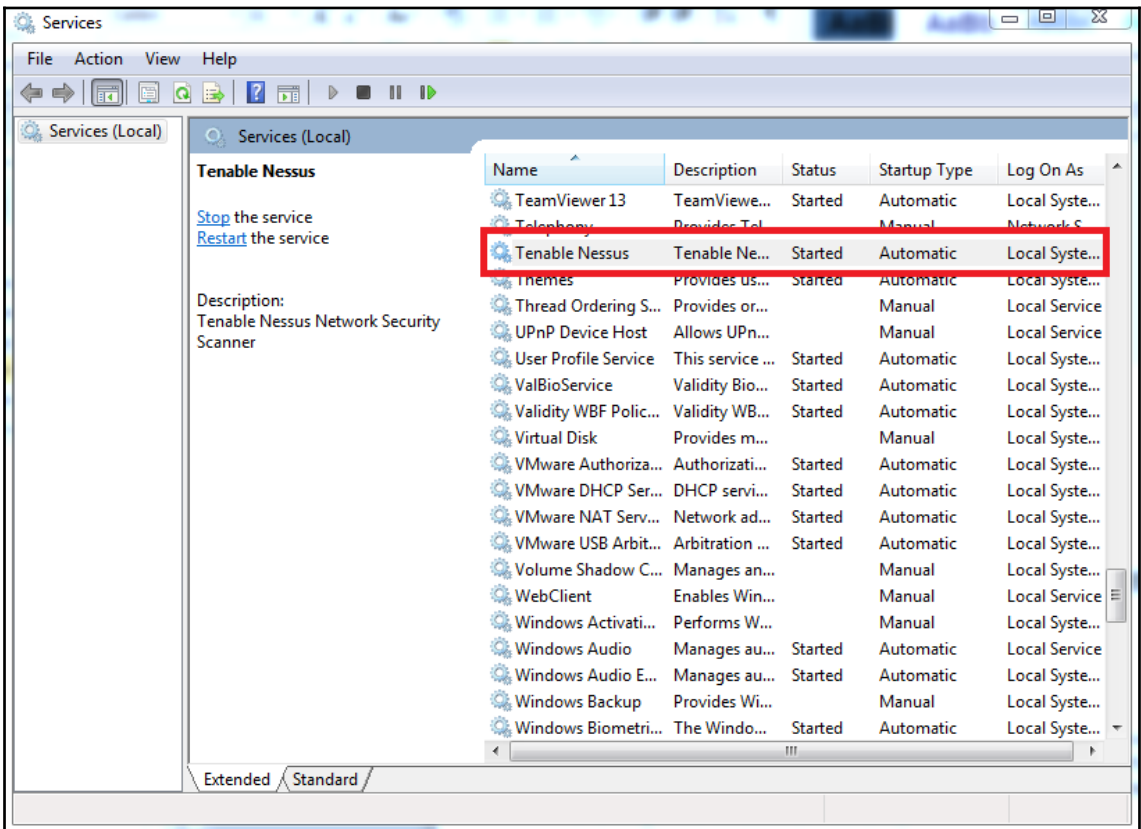
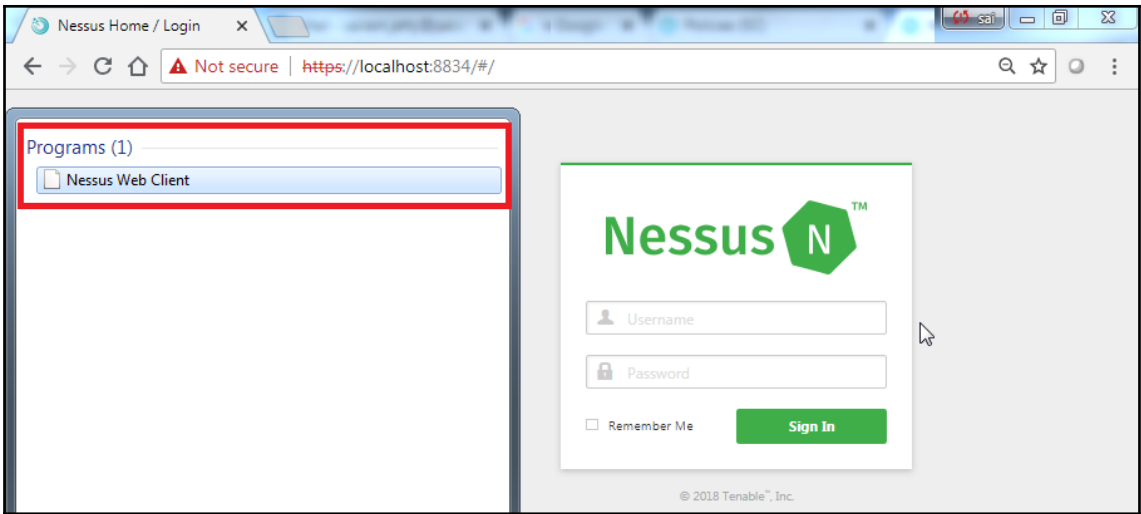
Disable All Enable All

Show Enabled | Show All

Settings Credentials Compliance **Plugins**

STATUS	PLUGIN FAMILY	TOTAL	STATUS	PLUGIN NAME	TOTAL
MIXED	Policy Compliance	50	DISABLED	SCAP Information	66759
			DISABLED	SCAP Linux Compliance Checks	66757
			DISABLED	SCAP Windows Compliance Checks	66756
			DISABLED	SCAP XML Results	66758
			DISABLED	SonicWALL SonicOS Compliance Checks	71955
			DISABLED	Unix Compliance Checks	21157
			DISABLED	Unix File Contents Compliance Checks	72095
			DISABLED	VMware vCenter/vSphere Compliance Checks	64455
			DISABLED	WatchGuard Compliance Checks	86269
			ENABLED	Windows Compliance Checks	21156
			DISABLED	Windows File Contents Compliance Checks	24760

Save Cancel



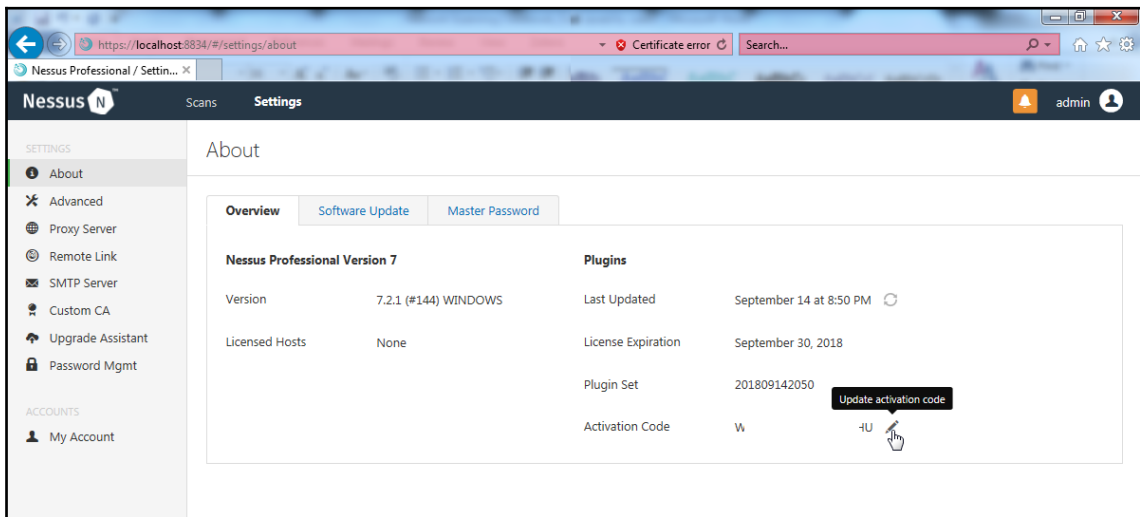
```
C:\Windows\system32\cmd.exe

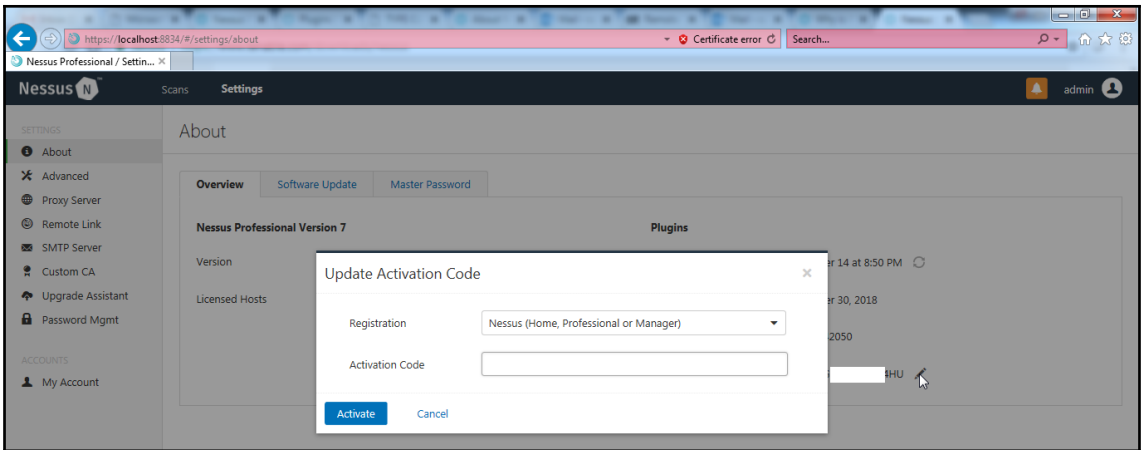
C:\>cd "Program Files"
C:\Program Files>cd Tenable
C:\Program Files\Tenable>cd Nessus
C:\Program Files\Tenable\Nessus>dir
Volume in drive C has no label.
Volume Serial Number is B234-0E80






Directory of C:\Program Files\Tenable\Nessus

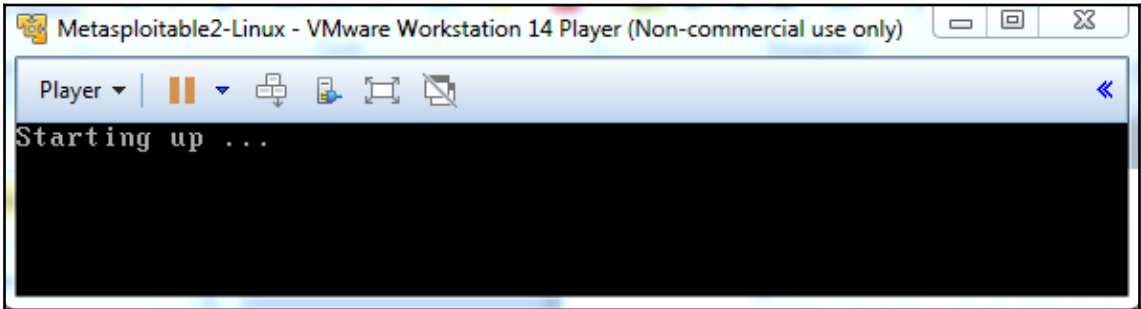
16-07-2018  11:45    <DIR>          .
16-07-2018  11:45    <DIR>          ..
16-07-2018  11:45                1 .winperms
19-06-2018  17:25           45,113 License.rtf
19-06-2018  19:25          6,459,904 nasl.exe
19-06-2018  19:25           46,592 ndbg.exe
19-06-2018  17:25              46 Nessus Web Client.url
19-06-2018  19:22           17,424 nessus-service.exe
19-06-2018  19:25          6,405,120 nessuscli.exe
19-06-2018  19:25          6,837,776 nessusd.exe
                8 File(s)      19,811,976 bytes
                2 Dir(s)      1,970,270,208 bytes free

C:\Program Files\Tenable\Nessus>
```

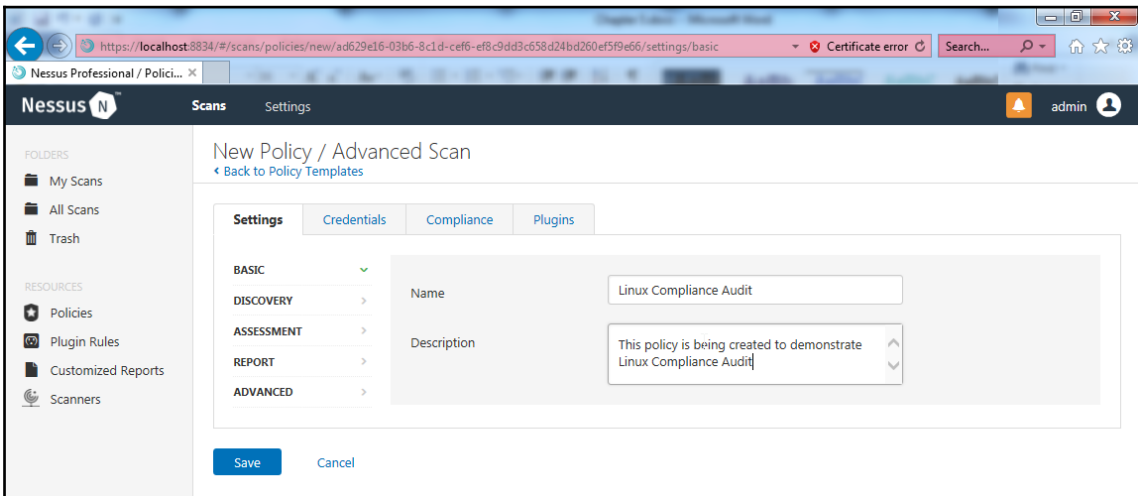
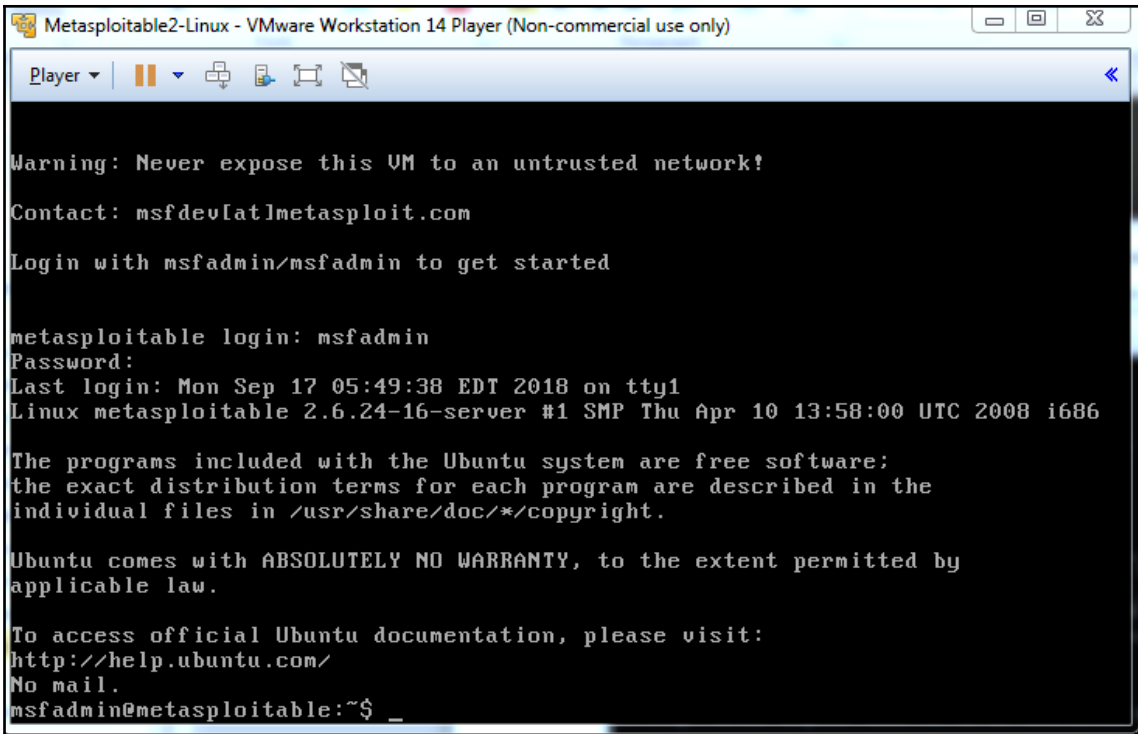




 Metasploitable.nvram	04-09-2018 16:53	NVRAM File	9 KB
 Metasploitable.vmdk	17-09-2018 13:48	VMware virtual dis...	18,81,024 KB
 Metasploitable.vmsd	07-05-2010 14:46	VMSD File	0 KB
 Metasploitable.vmx	17-09-2018 13:47	VMware virtual m...	3 KB
 Metasploitable.vmx	07-05-2010 14:46	VMXF File	1 KB







## New Policy / Advanced Scan

[← Back to Policy Templates](#)

Settings   Credentials   **Compliance**   Plugins

CATEGORIES: All

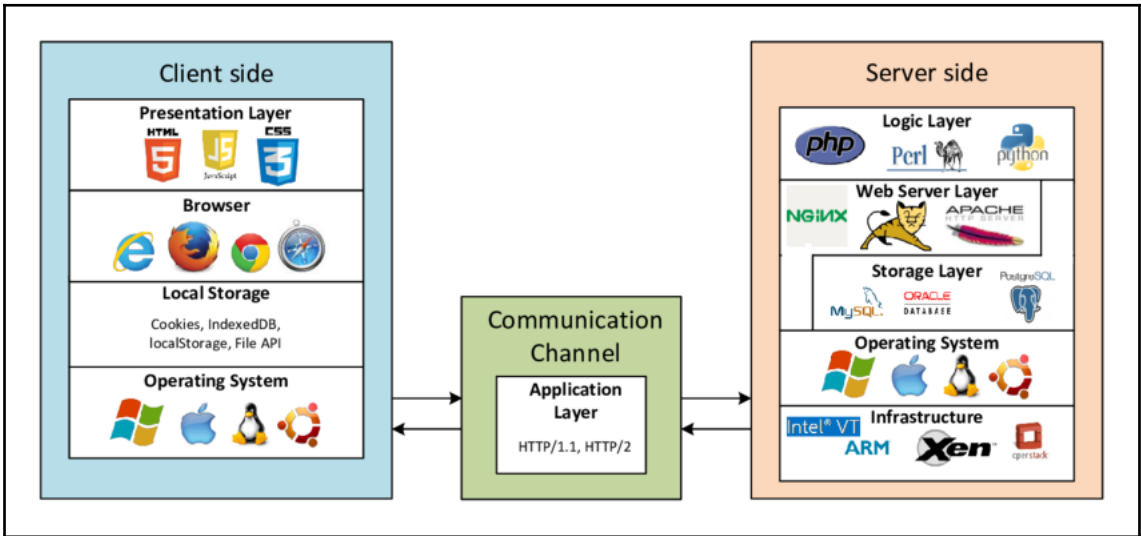
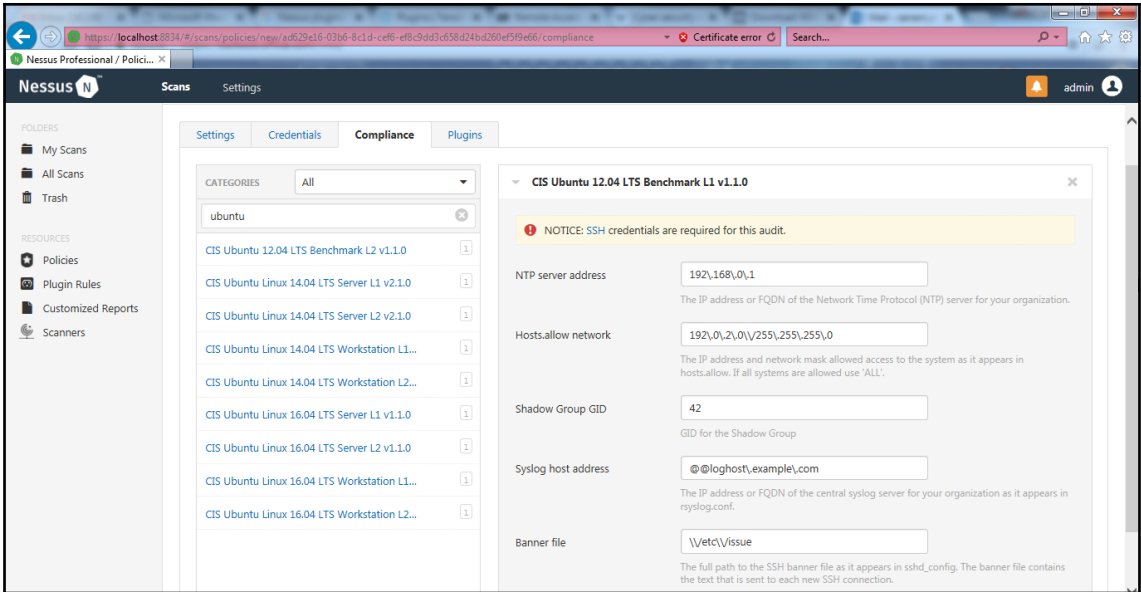
ubuntu

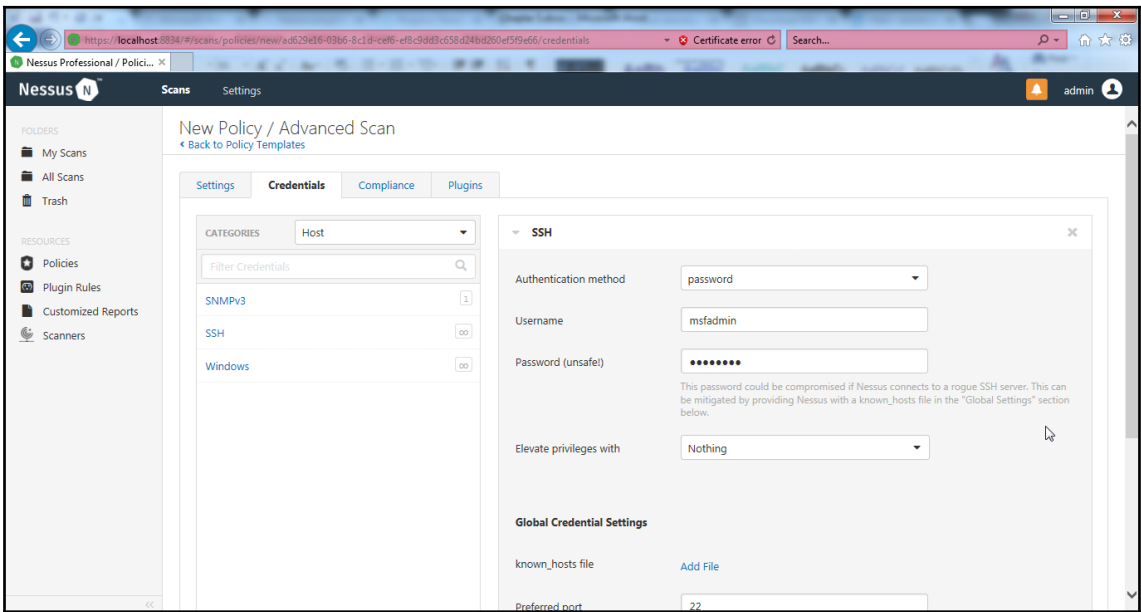
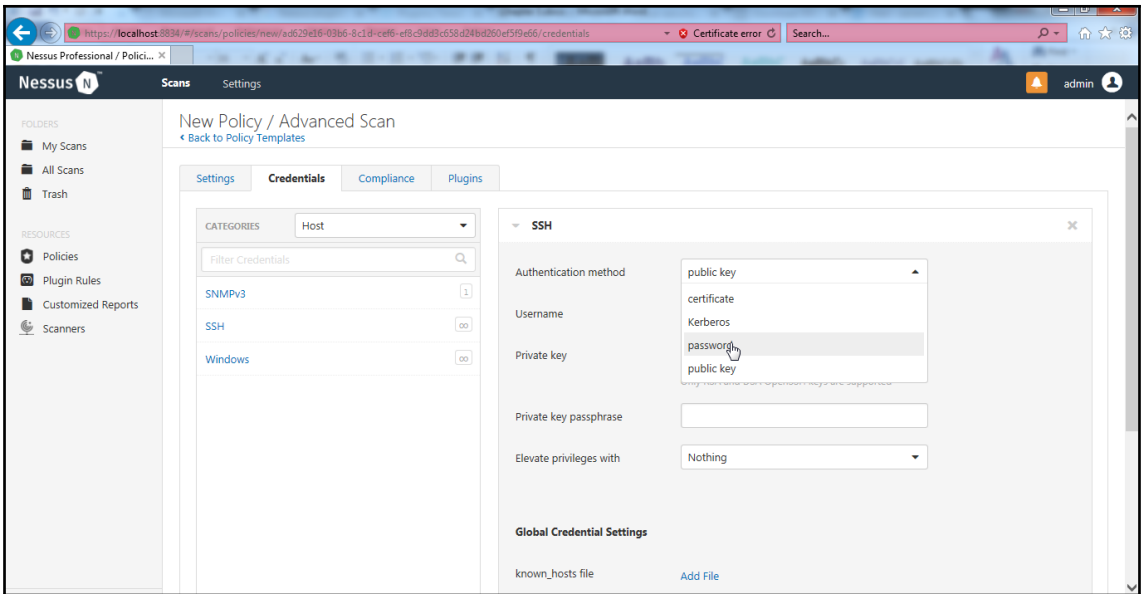
- CIS Ubuntu 12.04 LTS Benchmark L1 v1.1.0
- CIS Ubuntu 12.04 LTS Benchmark L2 v1.1.0
- CIS Ubuntu Linux 14.04 LTS Server L1 v2.1.0
- CIS Ubuntu Linux 14.04 LTS Server L2 v2.1.0
- CIS Ubuntu Linux 14.04 LTS Workstation L1...
- CIS Ubuntu Linux 14.04 LTS Workstation L2...
- CIS Ubuntu Linux 16.04 LTS Server L1 v1.1.0
- CIS Ubuntu Linux 16.04 LTS Server L2 v1.1.0

*Add compliance checks from the adjacent list*

Save   Cancel

```
msfadmin@metasploitable:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 8.04
Release:        8.04
Codename:       hardy
msfadmin@metasploitable:~$
msfadmin@metasploitable:~$
```





Browser: <https://localhost:8834/#/scans/policies/4/config/plugins>

Nessus Professional / Policies / Configuration

Linux policy compliance / Configuration

Disable All Enable All

Settings Credentials Compliance **Plugins** Show Enabled | Show All

STATUS	PLUGIN FAMILY	TOTAL	STATUS	PLUGIN NAME	PLUGIN ID
ENABLED	Policy Compliance	50		No plugins were found.	
ENABLED	Ubuntu Local Security Checks	4258			

Save Cancel

Browser: <https://localhost:8834/#/scans/policies>

Nessus Professional / Resources / Policies

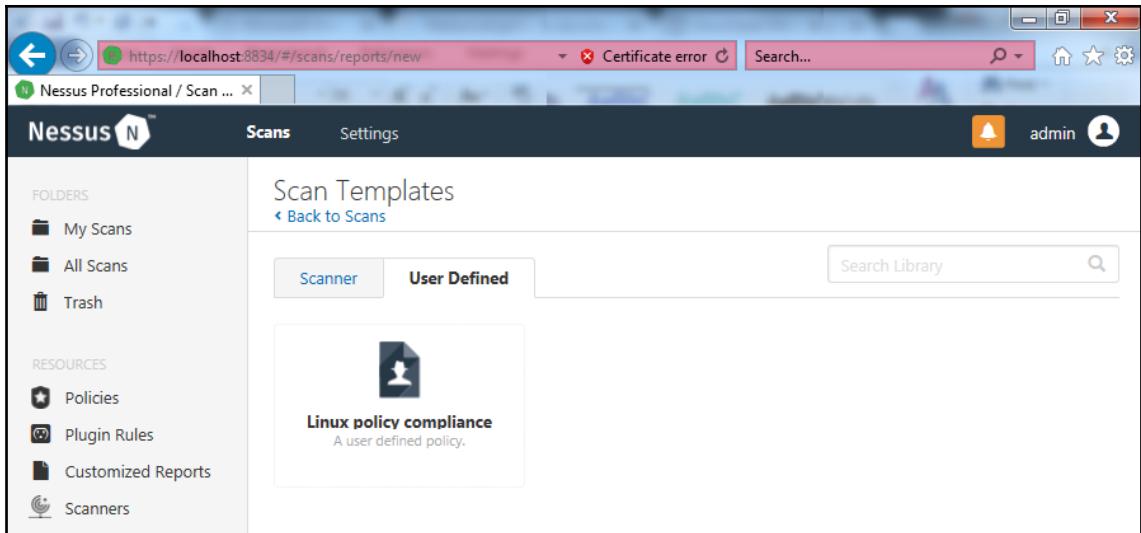
Policies

Import New Policy

Policies allow you to create custom templates defining what actions are performed during a scan. Once created, they can be selected from the list of scan templates. From this page you can view, create, import, download, edit, and delete policies.

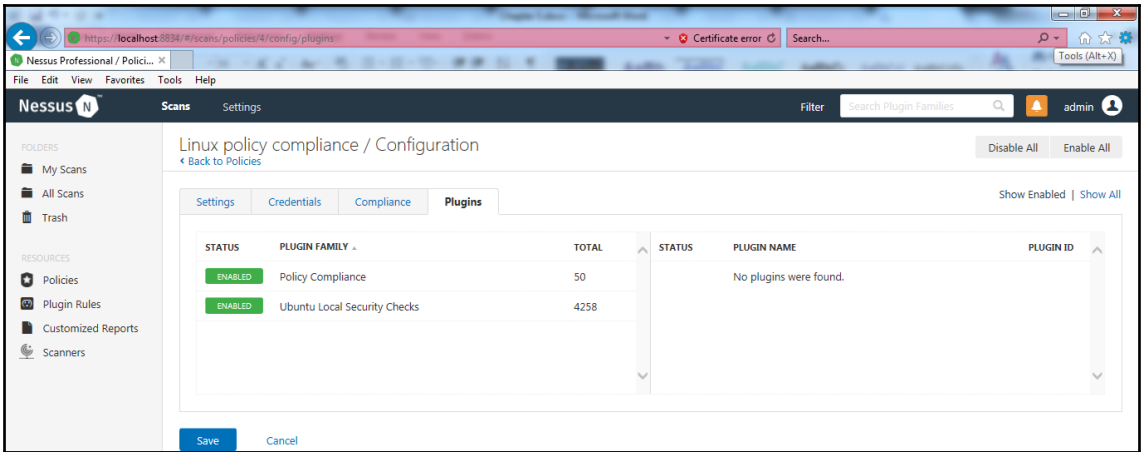
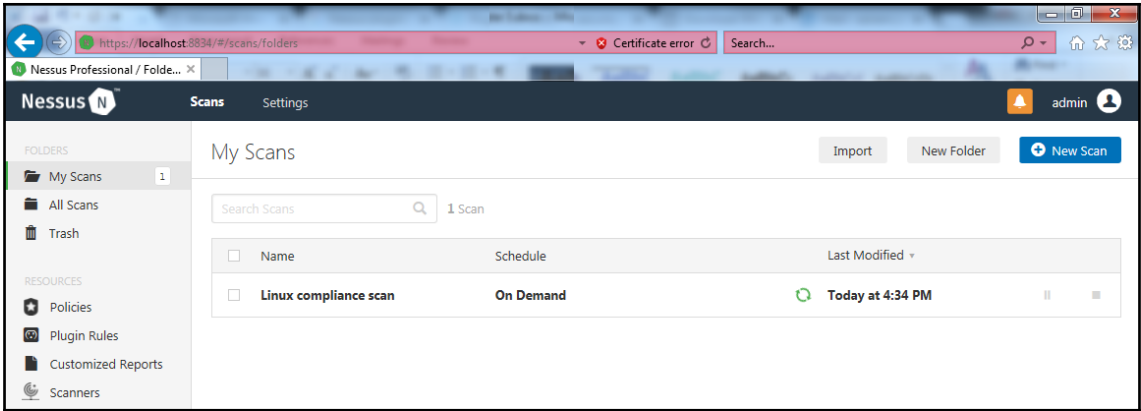
Search Policies 1 Policy

<input type="checkbox"/>	Name	Template	Last Modified
<input type="checkbox"/>	Linux policy compliance	Advanced Scan	Today at 4:25 PM



```
msfadmin@metasploitable:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0c:29:74:1c:63
          inet addr:192.168.75.137  Bcast:192.168.75.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe74:1c63/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:2786 errors:0 dropped:0 overruns:0 frame:0
          TX packets:172 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:188676 (184.2 KB)  TX bytes:20942 (20.4 KB)
          Interrupt:17 Base address:0x2000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:764 errors:0 dropped:0 overruns:0 frame:0
          TX packets:764 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:332277 (324.4 KB)  TX bytes:332277 (324.4 KB)
```



Linux compliance scan

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 230 Compliance 236 History 1

Filter Search Hosts 1 Host

Host	Compliance
192.168.75.137	147 / 8 / 80

Scan Details

Name: Linux compliance scan  
 Status: Completed  
 Policy: Linux policy compliance  
 Scanner: Local Scanner  
 Start: Today at 7:48 PM  
 End: Today at 8:37 PM  
 Elapsed: an hour

Compliance By Host

Linux compliance scan

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 230 Compliance 236 History 1

Filter Search Vulnerabilities 230 Vulnerabilities

Sev	Name	Family	Count
CRITICAL	Ubuntu 6.06 LTS / 7.04 / 7.10 / 8.04 LTS : gnutils12, gnutils...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 7.04 / 7.10 / 8.04 LTS : libxml2 vulnerab...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 7.04 / 7.10 / 8.04 LTS : Plugin ID: 36916	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 7.10 / 8.04 LTS / 8.10 : libxml2 vulnerab...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 7.10 / 8.04 LTS : linux-source-2.6.15/22...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 8.04 LTS / 8.10 / 9.04 / 9.10 : linux, linu...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 8.04 LTS / 8.10 / 9.04 : dhcp3 vulnerabi...	Ubuntu Local Security Checks	1
CRITICAL	Ubuntu 6.06 LTS / 8.04 LTS / 8.10 / 9.04 : libxml2 vulnerab...	Ubuntu Local Security Checks	1

Scan Details

Name: Linux compliance scan  
 Status: Completed  
 Policy: Linux policy compliance  
 Scanner: Local Scanner  
 Start: Today at 7:48 PM  
 End: Today at 8:37 PM  
 Elapsed: an hour

Vulnerabilities



Nessus Professional / Folde... x

File Edit View Favorites Tools Help

Nessus Scans Settings admin

Linux compliance scan / Plugin #32432

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 230 Compliance 236 History 1

**CRITICAL** Ubuntu 6.06 LTS / 7.04 / 7.10 / 8.04 LTS : gnutls12, gnutls13 vulnerabilities (USN-613-1)

**Description**  
Multiple flaws were discovered in the connection handling of GnuTLS. A remote attacker could exploit this to crash applications linked against GnuTLS, or possibly execute arbitrary code with permissions of the application's user.

Note that Tenable Network Security has extracted the preceding description block directly from the Ubuntu security advisory. Tenable has attempted to automatically clean and format it as much as possible without introducing additional issues.

**Solution**  
Update the affected packages.

**Output**

```

- Installed package : libgnutls13_2.0.4-1ubuntu2
  Fixed package    : libgnutls13_2.0.4-1ubuntu2.1
  
```

**Port**      **Hosts**

N/A	192.168.75.137
-----	----------------

**Plugin Details**

Severity: Critical  
ID: 32432  
Version: 1.13  
Type: local  
Family: Ubuntu Local Security Checks  
Published: May 22, 2008  
Modified: August 15, 2018

**Risk Information**

Risk Factor: Critical  
CVSS Base Score: 10.0  
CVSS Vector: CVSS2#AVN/ACLU/Au:N/C/C/C/AC

**Vulnerability Information**

CPE: cpe:/o:canonical/ubuntu\_linux:6.06-its  
cpe:/o:canonical/ubuntu\_linux:7.04

Nessus Scans Settings admin

Linux compliance scan

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 230 Compliance 236 History 1

Filter Search Compliance Checks 236 Compliance Checks

Sev	Name	Family	Count
FAILED	10.1.1 Set Password Expiration Days	Unix Compliance Checks	1
FAILED	10.1.2 Set Password Change Minimum Number of Days	Unix Compliance Checks	1
FAILED	10.2 Disable System Accounts	Unix Compliance Checks	1
FAILED	10.4 Set Default umask for Users - /etc/login.defs	Unix Compliance Checks	1
FAILED	10.5 Lock Inactive User Accounts	Unix Compliance Checks	1
FAILED	11.1 Set Warning Banner for Standard Login Services - /etc/issue	Unix Compliance Checks	1
FAILED	11.1 Set Warning Banner for Standard Login Services - /etc/issue.net	Unix Compliance Checks	1
FAILED	11.1 Set Warning Banner for Standard Login Services - /etc/motd	Unix Compliance Checks	1

**Scan Details**

Name: Linux compliance scan  
Status: Completed  
Policy: Linux policy compliance  
Scanner: Local Scanner  
Start: Today at 7:48 PM  
End: Today at 8:37 PM  
Elapsed: an hour

**Compliance**

● Failed  
● Warning  
● Passed

Nessus Scans Settings admin

Linux compliance scan / Check #1940

Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 230 Compliance 236 History 1

**FAILED** 10.1.1 Set Password Expiration Days

**Description**  
 The PASS\_MAX\_DAYS parameter in /etc/login.defs allows an administrator to force passwords to expire once they reach a defined age. It is recommended that the PASS\_MAX\_DAYS parameter be set to less than or equal to 90 days. The window of opportunity for an attacker to leverage compromised credentials or successfully compromise credentials via an online brute force attack is limited by the age of the password. Therefore, reducing the maximum age of a password also reduces an attacker's window of opportunity.

**Solution**  
 Set the PASS\_MAX\_DAYS parameter to 90 in /etc/login.defs: PASS\_MAX\_DAYS 90 Modify active user parameters to match: # chage --maxdays 90 <user>

**See Also**  
[https://benchmarks.cisecurity.org/tools2/linux/CIS\\_Ubuntu\\_12.04\\_LTS\\_Server\\_Benchmark\\_v1.1.0.pdf](https://benchmarks.cisecurity.org/tools2/linux/CIS_Ubuntu_12.04_LTS_Server_Benchmark_v1.1.0.pdf)

**Audit File**  
 CIS\_Ubuntu\_12.04\_LTS\_Server\_v1.1.0.L1.audit

**Policy Value**  
 1.90

**Output**

Status	Hosts
<b>FAILED</b>	192.168.75.137

**Reference Information**

- 800-171: 3.5.10, 3.5.7, 3.5.8, 3.5.9
- PCI-DSSV3.1: 8.2.4
- LEVEL: 15
- HIPAA: 164.308(a)(5)(i)(D)
- CSF: PRAC-1
- CN-13: 7.1.2.7(a), 7.1.3.1(b)
- ITSG-33: IA-5
- TBA-FIBS: 26.2.2
- ISO/IEC-27001: A.9.4.3
- 800-53: IA-5
- SWIFT-CSCV1: 4.1
- CIIP: 007-6-R5
- PCI-DSSV3.2: 8.2.4

```

root@kali:~# service mysql start
root@kali:~# mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 32
Server version: 10.1.26-MariaDB-1 Debian buildd-unstable

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

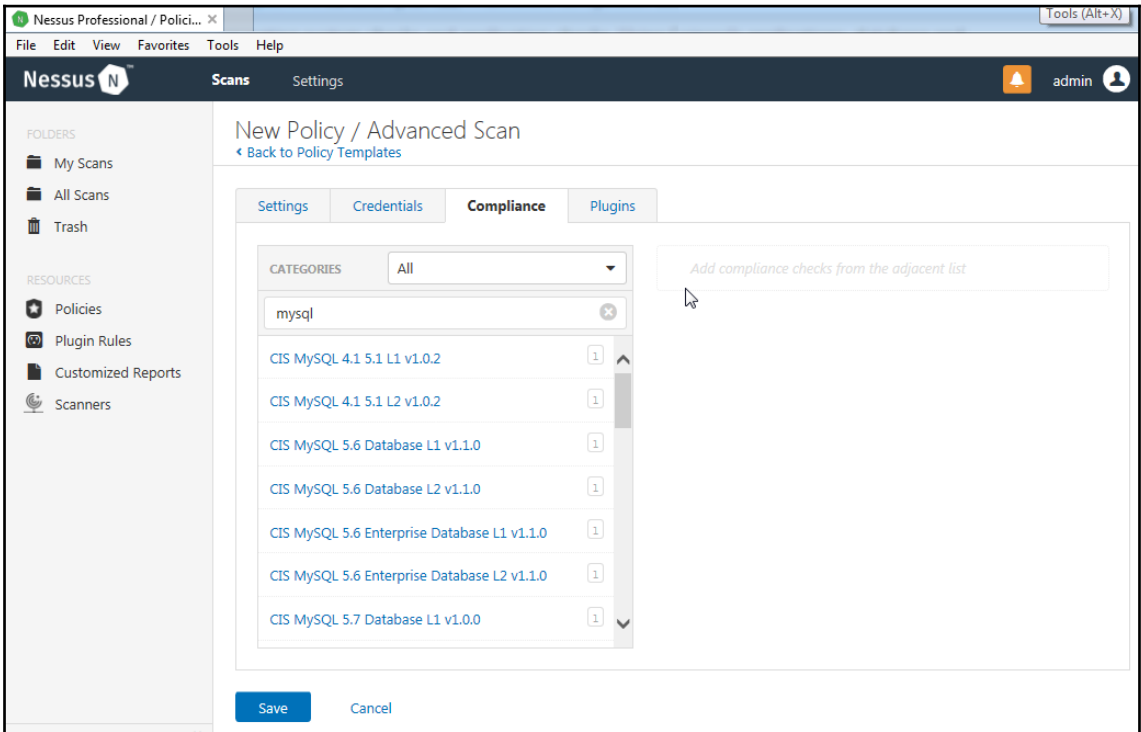
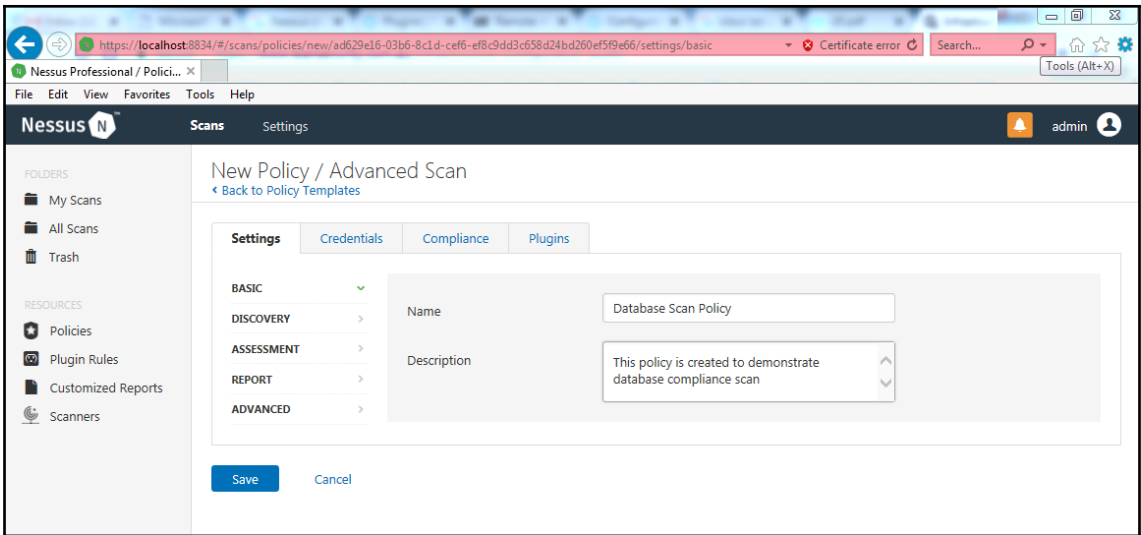
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

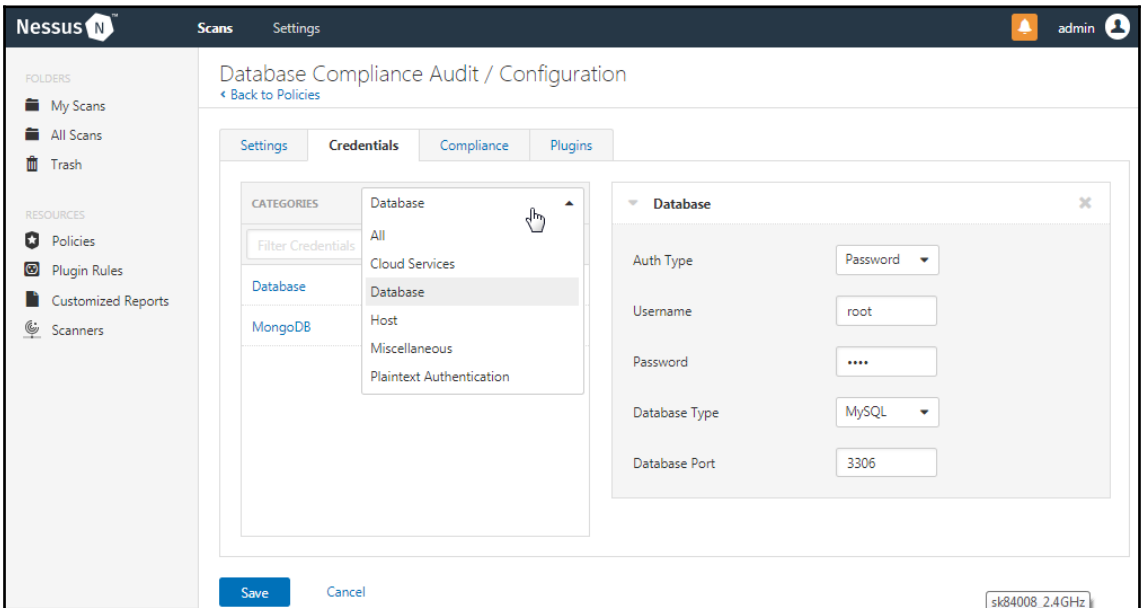
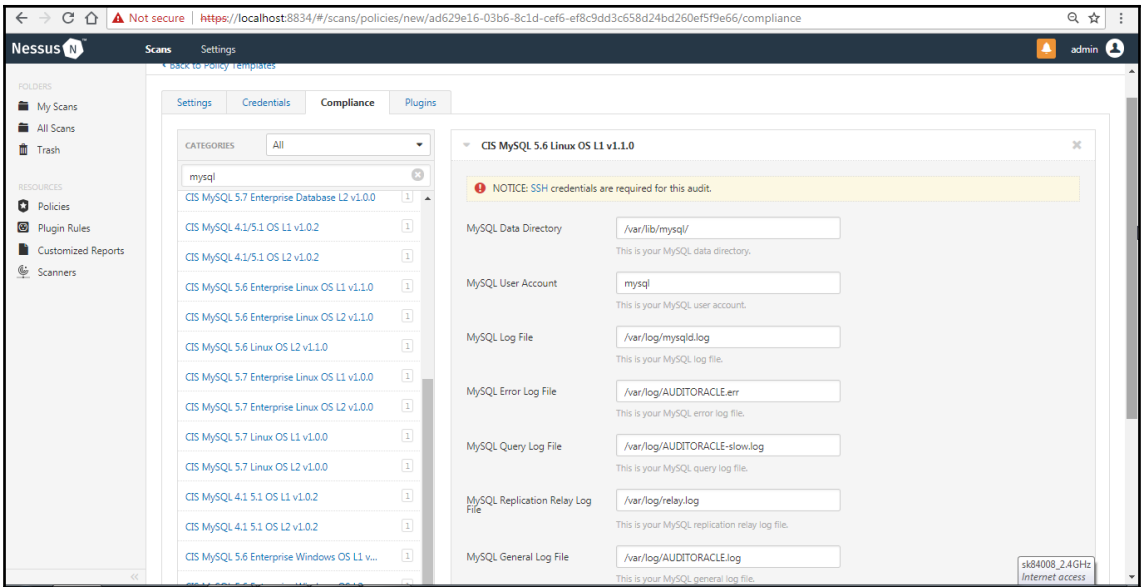
MariaDB [(none)]> use mysql
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [mysql]> update user set password=PASSWORD("toor") where User='root';
Query OK, 1 row affected (0.18 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [mysql]> Ctrl-C -- exit!

```





Nessus **N** Scans Settings Filter Search Plugin Families admin

New Policy / Advanced Scan Disable All Enable All  
[Back to Policy Templates](#)

Settings Credentials Compliance **Plugins** Show Enabled | Show All


STATUS	PLUGIN FAMILY -	TOTAL	STATUS	PLUGIN NAME	PLUGIN ID
ENABLED	Databases	590	No plugins were found.		
ENABLED	Policy Compliance	50			

Save Cancel sk84008\_2.4GHz

Nessus **N** Scans Settings admin

Scan Templates Back to Scans

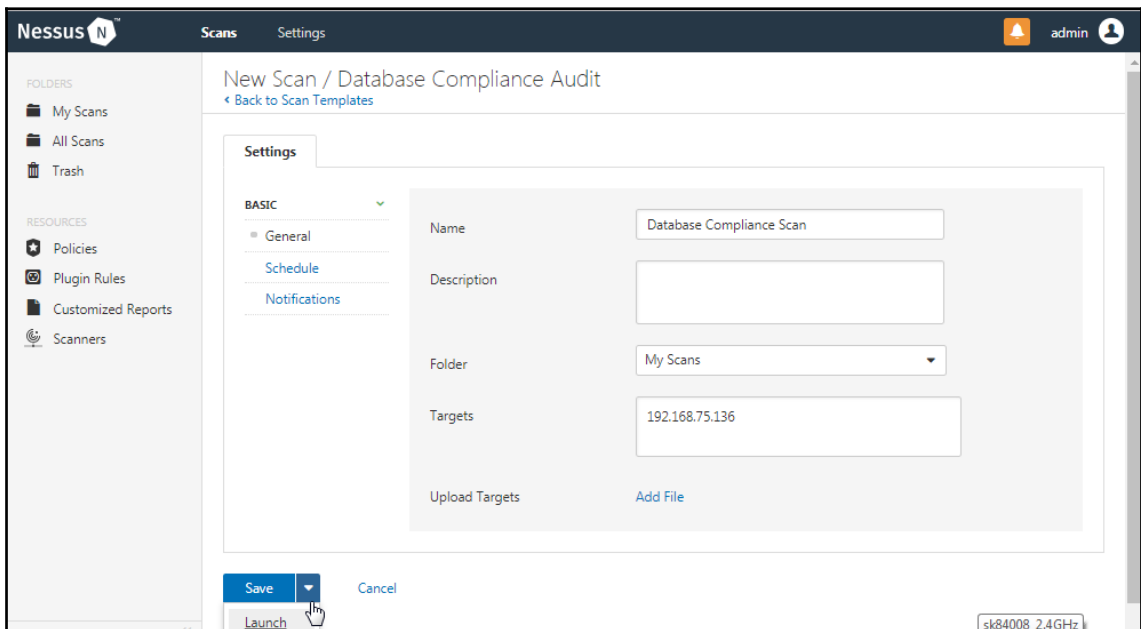
Scanner **User Defined** Search Library



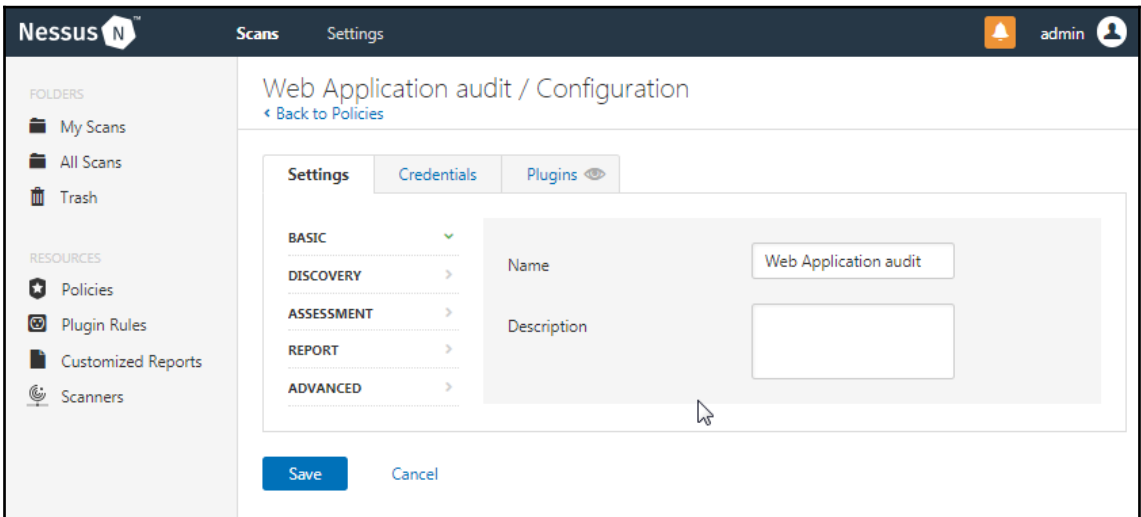
**Database Compliance Audit**  
A user defined policy.

```
root@kali:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.75.136 netmask 255.255.255.0 broadcast 192.168.75.255
    inet6 fe80::20c:29ff:fe5a:b29d prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:5a:b2:9d txqueuelen 1000 (Ethernet)
    RX packets 394 bytes 29891 (29.1 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 99 bytes 8251 (8.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 19 base 0x2000

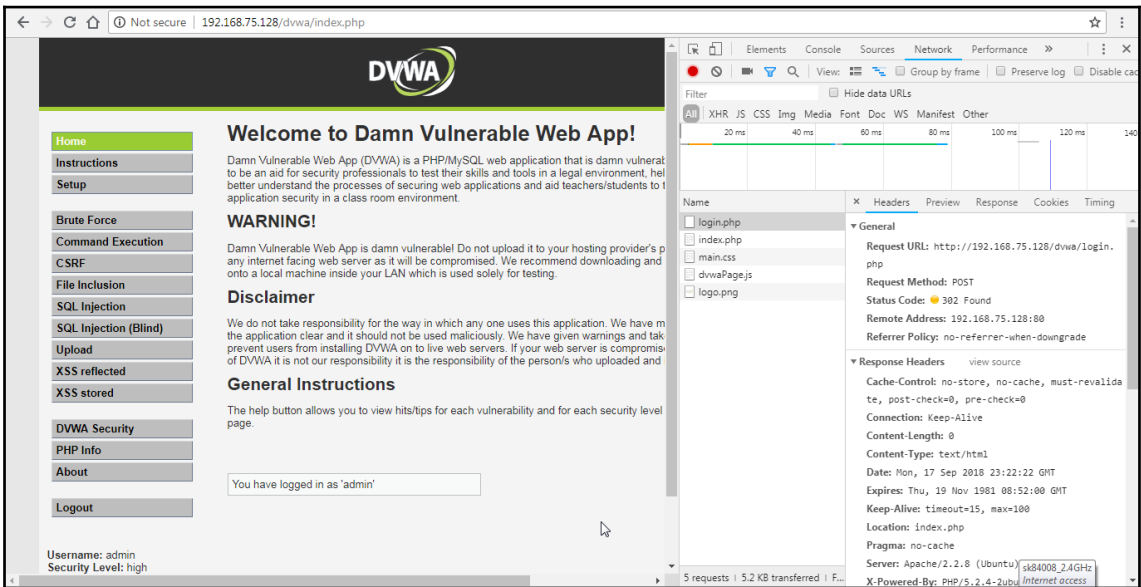
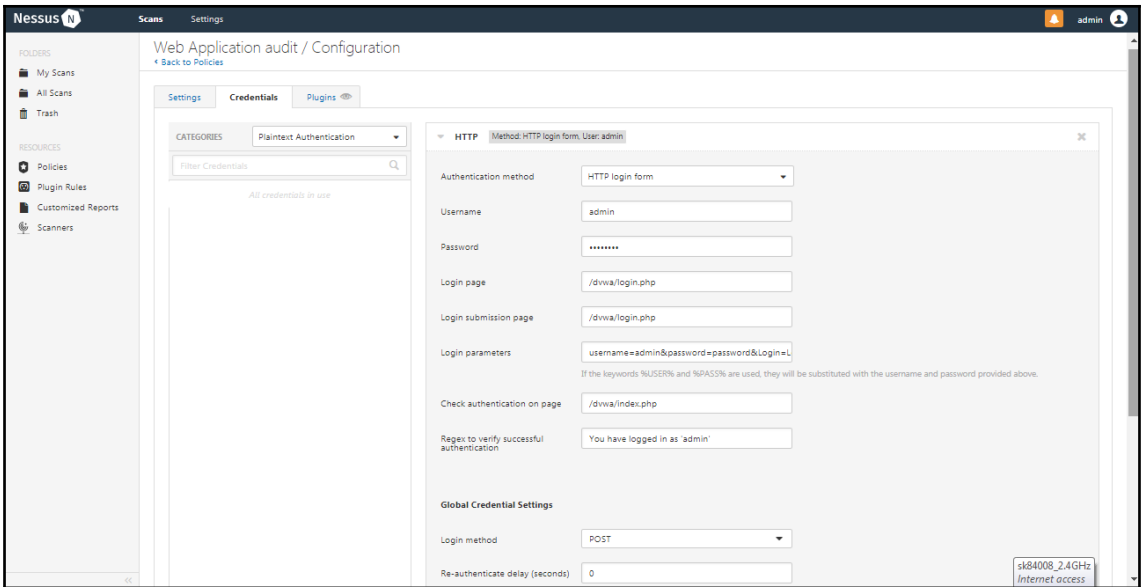
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 28 bytes 1596 (1.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 28 bytes 1596 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

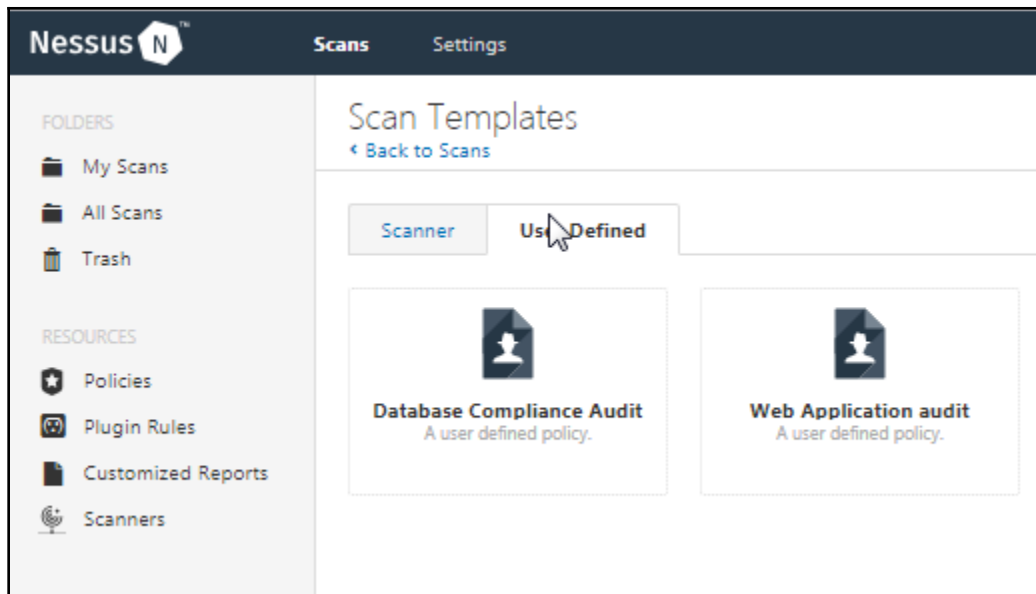












Nessus Scans Settings

## web application audit / Configuration

[Back to Scan Report](#)

**Settings**

**BASIC**

- General
- Schedule
- Notifications

Name: web application audit

Description:

Folder: My Scans

Policy: Web Application audit

Targets: 192.168.75.128

Upload Targets: [Add File](#)

[Save](#) [Cancel](#)

Nessus Scans Settings

## web application audit

[Back to My Scans](#) [Configure](#) [Audit Trail](#) [Launch](#) [Export](#)

Hosts: 1 Vulnerabilities: 64 History: 1

Filter Search Hosts 1 Host

Host	Vulnerabilities
192.168.75.128	<div style="display: flex; justify-content: space-between; width: 100px;"> <span>7</span> <span>19</span> <span>3</span> </div> <div style="width: 100%; height: 10px; background: linear-gradient(to right, red 33%, orange 33%, yellow 33%);"></div>

**Scan Details**

Name: web application audit  
 Status: Completed  
 Policy: Web Application audit  
 Scanner: Local Scanner  
 Start: Today at 3:23 AM  
 End: Today at 4:07 AM  
 Elapsed: 44 minutes

**Vulnerabilities**

● Critical  
● High  
● Medium  
● Low  
● Info

Nessus Scans Settings admin

web application audit Configure Audit-Trail Launch Export

Back to My Scans

Hosts: 1 Vulnerabilities: 64 History: 1

Filter Search Vulnerabilities 64 Vulnerabilities

Sev	Name	Family	Count
CRITICAL	Apache Tomcat Manager Common Administrative Credentials	Web Servers	1
HIGH	Apache PHP-CGI Remote Code Execution	CGI abuses	1
HIGH	CGI Generic Remote File Inclusion	CGI abuses	1
HIGH	PHP PHP-CGI Query String Parameter Injection Arbitrary Code Execution <b>Plugin ID: 30171</b>	CGI abuses	1
HIGH	phpMyAdmin Setup Script Configuration Parameters Arbitrary PHP Code Injection (PMAASA-2009-...)	CGI abuses	1
HIGH	Twigiki 'rev' Parameter Arbitrary Command Execution	CGI abuses	1
HIGH	Unsupported Web Server Detection	Web Servers	1
HIGH	Web Common Credentials (HTML form)	CGI abuses	1
MEDIUM	Web Application Potentially Vulnerable to Clickjacking	Web Servers	2
MEDIUM	Apache HTTP Server httpOnly Cookie Information Disclosure	Web Servers	1
MEDIUM	Apache Tomcat Default Files	Web Servers	1

**Scan Details**

Name: web application audit  
 Status: Completed  
 Policy: Web Application audit  
 Scanner: Local Scanner  
 Start: Today at 3:23 AM  
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 Elapsed: 44 minutes

**Vulnerabilities**

- Critical
- High
- Medium
- Low
- Info

Nessus Scans Settings admin

**Description**

Nessus was able to gain access to the Manager web application for the remote Tomcat server using a known set of credentials. A remote attacker can exploit this issue to install a malicious application on the affected server and run arbitrary code with Tomcat's privileges (usually SYSTEM on Windows, or the unprivileged 'tomcat' account on Unix). Note that worms are known to propagate this way.

**Solution**

Edit the associated 'tomcat-users.xml' file and change or remove the affected set of credentials.

**See Also**

- <http://markmail.org/thread/vfu4nff5chvkb6xp>
- <http://svn.apache.org/viewvc?view=revision&revision=834047>
- <http://www.nessus.org/u7e7339edb>
- <http://www.zerodayinitiative.com/advisories/ZDI-10-214/>
- <http://seclists.org/fulldisclosure/2010/Oct/259>

**Output**

```
It was possible to log into the Tomcat Manager web app using the following info :
URL      : http://192.168.75.128:8180/manager/html
Username : tomcat
Password : tomcat

URL      : http://192.168.75.128:8180/host-manager/html
Username : tomcat
Password : tomcat

URL      : http://192.168.75.128:8180/manager/status
Username : tomcat
Password : tomcat
```

**Severity:** Critical  
**ID:** 34970  
**Version:** 1.38  
**Type:** remote  
**Family:** Web Servers  
**Published:** November 26, 2008  
**Modified:** August 1, 2018

**Risk Information**

Risk Factor: Critical  
 CVSS Base Score: 10.0  
 CVSS Temporal Score: 8.3  
 CVSS Vector: CVSS2#AV:N/AC:L/Au:N/C:C/IC:A/C  
 CVSS Temporal Vector: CVSS2#E:F/RL:OF/RC:C

**Vulnerability Information**






CPE: cpe:/a/apache:tomcat  
 Exploit Available: true  
 Exploit Ease: Exploits are available  
 Patch Pub Date: November 9, 2009  
 Default Account: true  
 Exploited by Nessus: true

**Exploitable With**

---

## Chapter 6: Report Analysis and Confirmation

```
C:\Windows\system32\cmd.exe  
C:\Users\admin>nmap -sS -Pn 192.168.75.128 >> output.txt  
C:\Users\admin>_
```

 Zotero	14-05-2018 13:53	File folder	
 .gitconfig	01-05-2018 09:20	GITCONFIG File	1 KB
 _netrc	05-08-2018 12:09	File	1 KB
 HKCU_Software.reg	01-05-2018 10:41	Registration Entries	4,731 KB
 output.txt	22-09-2018 02:09	Text Document	1 KB

```
C:\Users\admin\output.txt - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
output.txt
1 Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 02:08 Arabian Standard Time
2 Nmap scan report for 192.168.75.128
3 Host is up (0.0049s latency).
4 Not shown: 977 closed ports
5 PORT      STATE SERVICE
6 21/tcp    open  ftp
7 22/tcp    open  ssh
8 23/tcp    open  telnet
9 25/tcp    open  smtp
10 53/tcp    open  domain
11 80/tcp    open  http
12 111/tcp   open  rpcbind
13 139/tcp   open  netbios-ssn
14 445/tcp   open  microsoft-ds
15 512/tcp   open  exec
16 513/tcp   open  login
17 514/tcp   open  shell
18 1099/tcp  open  rmiregistry
19 1524/tcp  open  ingreslock
20 2049/tcp  open  nfs
21 2121/tcp  open  cproxy-ftp
22 3306/tcp  open  mysql
23 5432/tcp  open  postgresql
24 5900/tcp  open  vnc
25 6000/tcp  open  X11
26 6667/tcp  open  irc
27 8009/tcp  open  ajp13
28 8180/tcp  open  unknown
29 MAC Address: 00:0C:29:74:1C:63 (VMware)
30
31 Nmap done: 1 IP address (1 host up) scanned in 29.49 seconds
```



```

C:\Windows\system32\cmd.exe

C:\Users\admin>nmap -v --packet-trace -sS -Pn 192.168.75.128
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 03:09 Arabian Standard Time
Initiating ARP Ping Scan at 03:09
Scanning 192.168.75.128 [1 port]
SENT (2.6350s) ARP who-has 192.168.75.128 tell 192.168.75.1
RCUD (2.6350s) ARP reply 192.168.75.128 is-at 00:0C:29:74:1C:63
Completed ARP Ping Scan at 03:09, 1.86s elapsed (1 total hosts)

```






```

C:\Windows\system32\cmd.exe

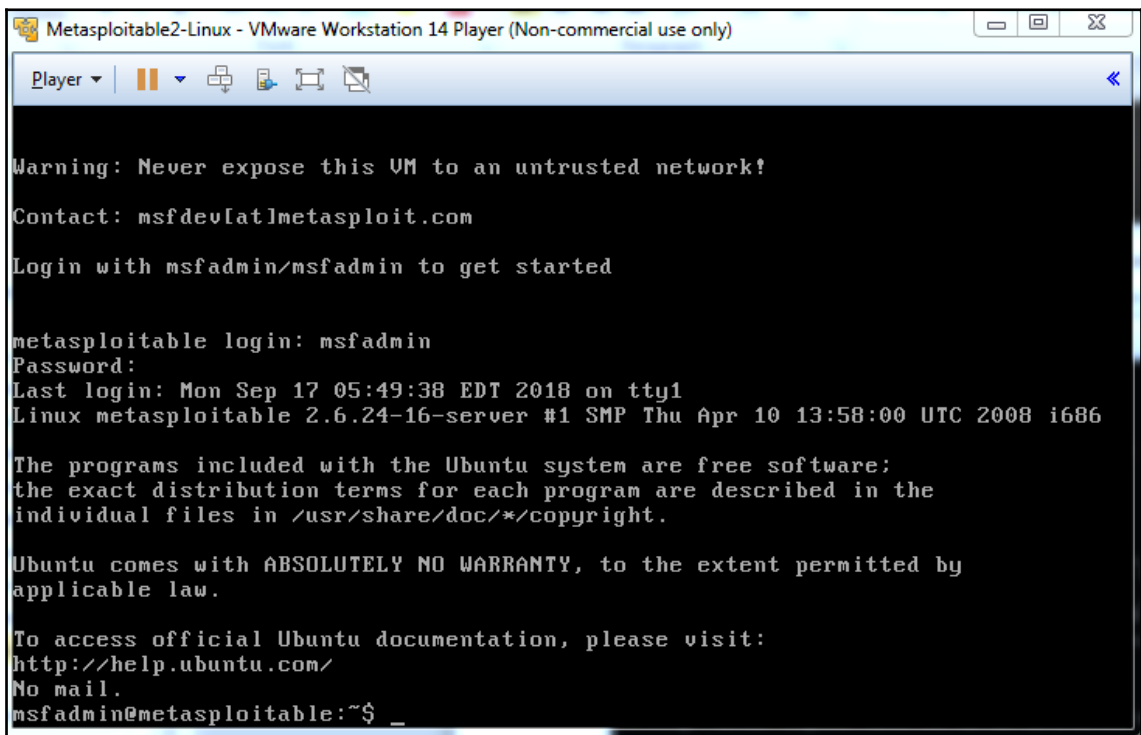
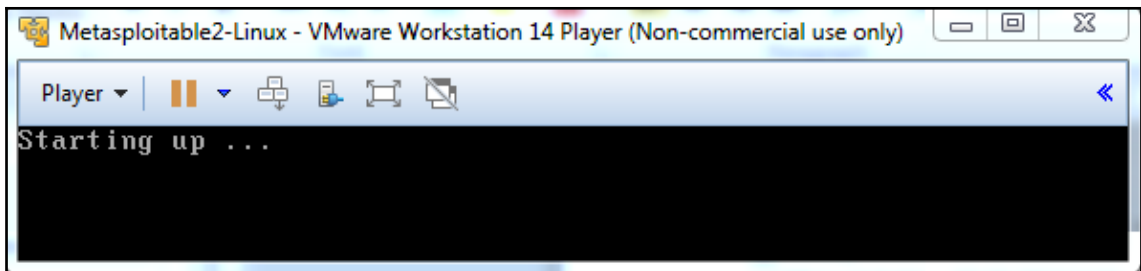
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap
Nmap 7.70 ( https://nmap.org )
Usage: nmap [Scan Type(s)] [Options] {target specification}
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2][,host3],...>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PU/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2],...>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
SCAN TECHNIQUES:
  -sS/sT/sA/sW/sM: TCP SYN/Connect()/ACK/Window/Maimon scans
  -sU: UDP Scan
  -sN/sF/sX: TCP Null, FIN, and Xmas scans
  --scanflags <flags>: Customize TCP scan flags

```

	Metasploitable.nvram	04-09-2018 16:53	NVRAM File	9 KB
	Metasploitable.vmdk	17-09-2018 13:48	VMware virtual dis...	18,81,024 KB
	Metasploitable.vmsd	07-05-2010 14:46	VMSD File	0 KB
	Metasploitable.vmx	17-09-2018 13:47	VMware virtual m...	3 KB
	Metasploitable.vmxr	07-05-2010 14:46	VMXF File	1 KB





```
C:\WINDOWS\system32\cmd.exe

C:\>nmap -sS -Pn 192.168.103.129
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 03:52 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.0027s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:02:9E:B0 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 7.81 seconds
```

C:\> Administrator: Command Prompt

```
C:\WINDOWS\system32>nmap -sS -Pn 192.168.103.129 -oN output
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 03:57 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.0024s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:02:9E:B0 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 5.95 seconds
```

```
C:\Windows\System32\output - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
output
1 # Nmap 7.70 scan initiated Sat Sep 22 03:57:23 2018 as: nmap -sS -Pn -oN output 192.168.103.129
2 Nmap scan report for 192.168.103.129
3 Host is up (0.0024s latency).
4 Not shown: 977 closed ports
5 PORT      STATE SERVICE
6 21/tcp    open  ftp
7 22/tcp    open  ssh
8 23/tcp    open  telnet
9 25/tcp    open  smtp
10 53/tcp    open  domain
11 80/tcp    open  http
12 111/tcp   open  rpcbind
13 139/tcp   open  netbios-ssn
14 445/tcp   open  microsoft-ds
15 512/tcp   open  exec
16 513/tcp   open  login
17 514/tcp   open  shell
18 1099/tcp  open  rmiregistry
19 1524/tcp  open  ingreslock
20 2049/tcp  open  nfs
21 2121/tcp  open  ccproxy-ftp
22 3306/tcp  open  mysql
23 5432/tcp  open  postgresql
24 5900/tcp  open  vnc
25 6000/tcp  open  X11
26 6667/tcp  open  irc
27 8009/tcp  open  ajp13
28 8180/tcp  open  unknown
29 MAC Address: 00:0C:29:02:9E:B0 (VMware)
30
31 # Nmap done at Sat Sep 22 03:57:28 2018 -- 1 IP address (1 host up) scanned in 5.95 seconds
32
```

```
C:\WINDOWS\system32>nmap -sS -Pn 192.168.103.129 -oX output
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 04:02 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.0033s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:02:9E:B0 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 5.49 seconds

C:\WINDOWS\system32>
```

```
C:\Windows\System32\output - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
output
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE nmaprun>
3 <?xml-stylesheet href="file:///C:/Program Files (x86)/Nmap/nmap.xsl" type="text/xsl"?>
4 <!-- Nmap 7.70 scan initiated Sat Sep 22 04:02:46 2018 as: nmap -sS -Fn -oX output.192.168.103.129 -->
5 <nmaprun scanner="nmap" args="nmap -sS -Fn -oX output.192.168.103.129" starttime="Sat Sep 22 04:02:46 2018" version="7.70" xmloutputversion="1.04">
6 <scaninfo type="syn" protocol="tcp" numservices="1000" services="1,3-4,6-7,9,13,17,19-26,30,32-33,37,42-43,49,53,70,79-85,88-90,99-100,106,109-111,113,119,125,135,139,143">
7 <verbose level="0"/>
8 <debugging level="0"/>
9 <host starttime="1537574566" endtime="1537574571"><state state="up" reason="arp-response" reason_ttl="0"/>
10 <address addr="192.168.103.129" addrtypes="ipv4"/>
11 <address addr="00:0C:29:02:9B:B0" addrtypes="mac" vendor="VMware"/>
12 <hostnames>
13 </hostnames>
14 <ports><extraports state="closed" count="977">
15 <extrareasons reason="resets" count="977"/>
16 </extraports>
17 <port protocol="tcp" portid="21"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="ftp" method="table" conf="3"/></port>
18 <port protocol="tcp" portid="22"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="ssh" method="table" conf="3"/></port>
19 <port protocol="tcp" portid="23"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="telnet" method="table" conf="3"/></port>
20 <port protocol="tcp" portid="25"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="smtp" method="table" conf="3"/></port>
21 <port protocol="tcp" portid="53"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="domain" method="table" conf="3"/></port>
22 <port protocol="tcp" portid="80"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="http" method="table" conf="3"/></port>
23 <port protocol="tcp" portid="111"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="rpcbind" method="table" conf="3"/></port>
24 <port protocol="tcp" portid="139"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="methios-smb" method="table" conf="3"/></port>
25 <port protocol="tcp" portid="445"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="microsoft-ds" method="table" conf="3"/></port>
26 <port protocol="tcp" portid="512"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="exec" method="table" conf="3"/></port>
27 <port protocol="tcp" portid="513"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="login" method="table" conf="3"/></port>
28 <port protocol="tcp" portid="514"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="shell" method="table" conf="3"/></port>
29 <port protocol="tcp" portid="1099"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="mitregistry" method="table" conf="3"/></port>
30 <port protocol="tcp" portid="1524"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="ingreslock" method="table" conf="3"/></port>
31 <port protocol="tcp" portid="2049"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="nfs" method="table" conf="3"/></port>
32 <port protocol="tcp" portid="2121"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="ccproxy-ftp" method="table" conf="3"/></port>
33 <port protocol="tcp" portid="3306"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="mysql" method="table" conf="3"/></port>
34 <port protocol="tcp" portid="5432"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="postgresql" method="table" conf="3"/></port>
35 <port protocol="tcp" portid="5900"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="vnc" method="table" conf="3"/></port>
36 <port protocol="tcp" portid="6000"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="X11" method="table" conf="3"/></port>
37 <port protocol="tcp" portid="6667"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="irc" method="table" conf="3"/></port>
38 <port protocol="tcp" portid="8009"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="ajp13" method="table" conf="3"/></port>
39 <port protocol="tcp" portid="8180"><state state="open" reason="syn-ack" reason_ttl="64"/><service name="unknown" method="table" conf="3"/></port>
40 </ports>
41 <times srtt="3340" rttvar="931" to="100000"/>
```

C:\> Administrator: Command Prompt

```
C:\WINDOWS\system32>nmap -sS -Pn 192.168.103.129 -oS output
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 04:06 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.0027s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    open  telnet
25/tcp    open  smtp
53/tcp    open  domain
80/tcp    open  http
111/tcp   open  rpcbind
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
512/tcp   open  exec
513/tcp   open  login
514/tcp   open  shell
1099/tcp  open  rmiregistry
1524/tcp  open  ingreslock
2049/tcp  open  nfs
2121/tcp  open  ccproxy-ftp
3306/tcp  open  mysql
5432/tcp  open  postgresql
5900/tcp  open  vnc
6000/tcp  open  X11
6667/tcp  open  irc
8009/tcp  open  ajp13
8180/tcp  open  unknown
MAC Address: 00:0C:29:02:9E:B0 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 4.71 seconds

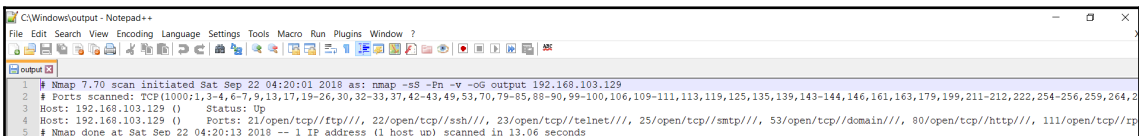
C:\WINDOWS\system32>
```

```
C:\Windows\System32\output - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
output x
1 staRtInG nmap 7.70 ( hTtpS://nmap.0rg ) aT 2018-09-22 04:06 ArabIan $tandard TimE
2 nmap scAn rEp0rt f0r 192.168.103.129
3 h0$T Iz up (0.0027z lat3ncy).
4 NOT sh0Wn: 977 c10s3d p0rts
5 PORt $T4T3 $3RVIC3
6 21/tcp Op3n ftP
7 22/tcp 0pen S$h
8 23/tcp 0PEn T3LN3t
9 25/tCp Op3n $mtp
10 53/tcp Open domaIn
11 80/Tcp op3n HttP
12 111/tcp oP3n rpcb1Nd
13 139/tcp 0p3n nEtBIoz-$sn
14 445/tcp op3n m1CR0S0FT-ds
15 512/tcp 0p3n 3Xec
16 513/tcp open L0gin
17 514/Tcp oPen Shell
18 1099/tCp open rM1R3g!stry
19 1524/tcp open InGr3$LOck
20 2049/tcp op3n nfs
21 2121/tcp op3n Ccpr0xy-fTp
22 3306/tcp 0pen mysql
23 5432/Tcp 0peN p0$tgr3$Ql
24 5900/tCp OpEn vnc
25 6000/tcp 0peN X11
26 6667/tcp op3n iRc
27 8009/tcP 0p3n ajP13
28 8180/Tcp open UNkNown
29 M4C 4Ddr3$S: 00:0C:29:02:93:b0 (VMwar3)
30
31 Nmap d0N3: 1 |P addRe$s (1 Ho$t UP) scanNed in 4.71 sEcONdz
32
```



C:\ Administrator: Command Prompt

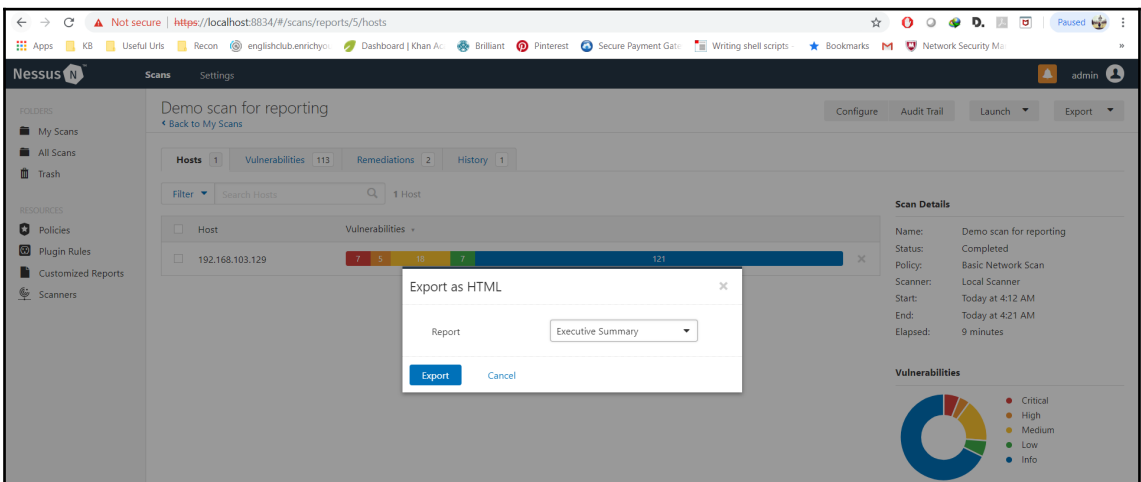
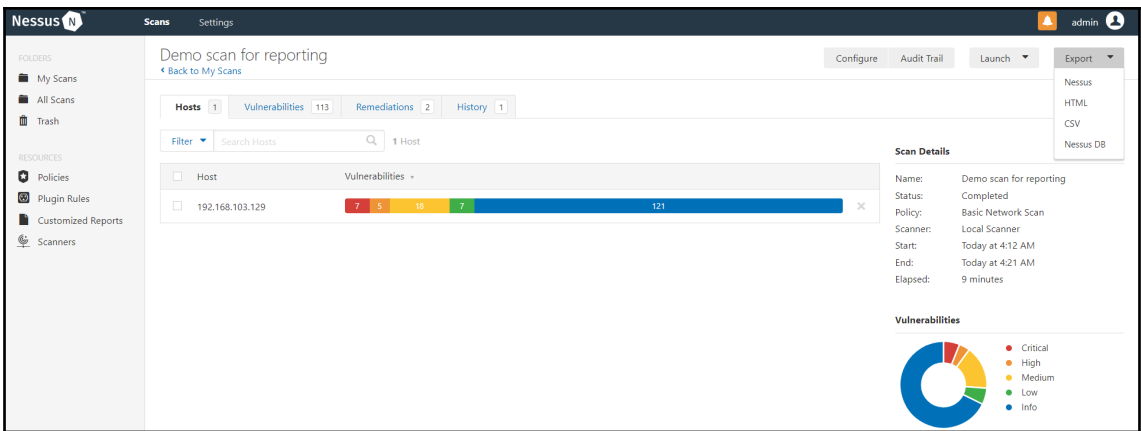
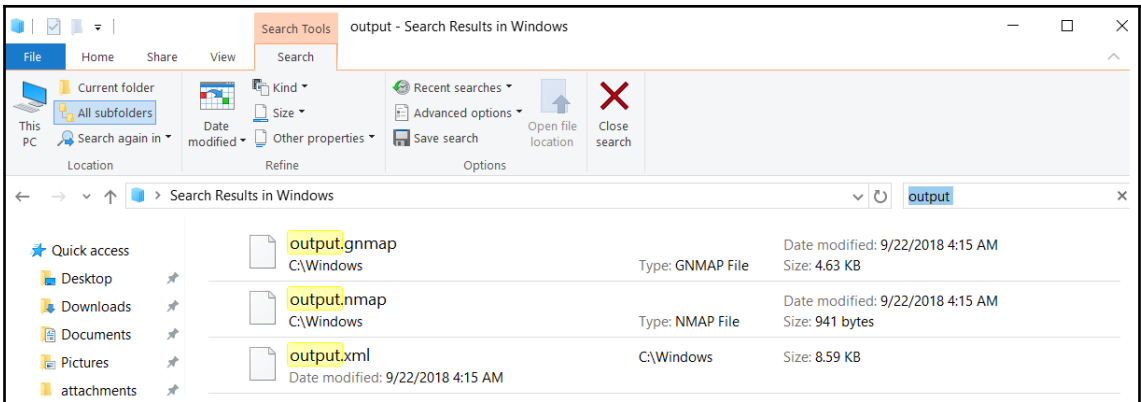
```
C:\Windows>nmap -sS -Pn -v 192.168.103.129 -oG output
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 04:20 Arabian Standard Time
Initiating ARP Ping Scan at 04:20
Scanning 192.168.103.129 [1 port]
Completed ARP Ping Scan at 04:20, 1.98s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 04:20
Completed Parallel DNS resolution of 1 host. at 04:20, 2.51s elapsed
Initiating SYN Stealth Scan at 04:20
Scanning 192.168.103.129 [1000 ports]
Discovered open port 139/tcp on 192.168.103.129
Discovered open port 53/tcp on 192.168.103.129
Discovered open port 25/tcp on 192.168.103.129
Discovered open port 5900/tcp on 192.168.103.129
Discovered open port 21/tcp on 192.168.103.129
Discovered open port 80/tcp on 192.168.103.129
Discovered open port 22/tcp on 192.168.103.129
Discovered open port 3306/tcp on 192.168.103.129
Discovered open port 111/tcp on 192.168.103.129
Discovered open port 23/tcp on 192.168.103.129
Discovered open port 445/tcp on 192.168.103.129
Discovered open port 8009/tcp on 192.168.103.129
Discovered open port 1099/tcp on 192.168.103.129
Discovered open port 512/tcp on 192.168.103.129
Discovered open port 6667/tcp on 192.168.103.129
Discovered open port 6000/tcp on 192.168.103.129
Discovered open port 1524/tcp on 192.168.103.129
Discovered open port 8180/tcp on 192.168.103.129
Discovered open port 5432/tcp on 192.168.103.129
Discovered open port 514/tcp on 192.168.103.129
Discovered open port 2121/tcp on 192.168.103.129
Discovered open port 2049/tcp on 192.168.103.129
Discovered open port 513/tcp on 192.168.103.129
Completed SYN Stealth Scan at 04:20, 0.36s elapsed (1000 total ports)
```



The screenshot shows a Notepad++ window titled "C:\Windows\output - Notepad++". The text content is as follows:

```
1 # Nmap 7.70 scan initiated Sat Sep 22 04:20:01 2018 as: nmap -sS -Pn -v -oG output 192.168.103.129
2 # Ports scanned: TCP(1000:1,3-4,6-7,9,13,17,19-26,30,32-33,37,42-43,49,53,70,79-85,88-90,99-100,106,109-111,113,119,125,135,139,143-144,146,161,163,179,199,211-212,222,254-256,259,264,2
3 Host: 192.168.103.129 () Status: Up
4 Host: 192.168.103.129 () Ports: 21/open/tcp//ftp///, 22/open/tcp//ssh///, 23/open/tcp//telnet///, 25/open/tcp//smtp///, 53/open/tcp//domain///, 80/open/tcp//http///, 111/open/tcp//r
5 # Nmap done at Sat Sep 22 04:20:13 2018 -- 1 IP address (1 host up) scanned in 13.06 seconds
```

```
C:\Windows>nmap -sS -Pn -v 192.168.103.129 -oA output
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 04:15 Arabian Standard Time
Initiating ARP Ping Scan at 04:15
Scanning 192.168.103.129 [1 port]
Completed ARP Ping Scan at 04:15, 0.98s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 04:15
Completed Parallel DNS resolution of 1 host. at 04:15, 0.01s elapsed
Initiating SYN Stealth Scan at 04:15
Scanning 192.168.103.129 [1000 ports]
Discovered open port 139/tcp on 192.168.103.129
Discovered open port 445/tcp on 192.168.103.129
Discovered open port 5900/tcp on 192.168.103.129
Discovered open port 22/tcp on 192.168.103.129
Discovered open port 21/tcp on 192.168.103.129
Discovered open port 3306/tcp on 192.168.103.129
Discovered open port 80/tcp on 192.168.103.129
Discovered open port 23/tcp on 192.168.103.129
Discovered open port 111/tcp on 192.168.103.129
Discovered open port 25/tcp on 192.168.103.129
Discovered open port 53/tcp on 192.168.103.129
Discovered open port 513/tcp on 192.168.103.129
Discovered open port 1099/tcp on 192.168.103.129
Discovered open port 1524/tcp on 192.168.103.129
Discovered open port 2121/tcp on 192.168.103.129
Discovered open port 6667/tcp on 192.168.103.129
Discovered open port 8180/tcp on 192.168.103.129
Discovered open port 512/tcp on 192.168.103.129
Discovered open port 2049/tcp on 192.168.103.129
Discovered open port 514/tcp on 192.168.103.129
Discovered open port 8009/tcp on 192.168.103.129
Discovered open port 5432/tcp on 192.168.103.129
Discovered open port 6000/tcp on 192.168.103.129
Completed SYN Stealth Scan at 04:15, 0.14s elapsed (1000 total ports)
Nmap scan report for 192.168.103.129
Host is up (0.0026s latency).
Not shown: 977 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
```



## Demo scan for reporting

Sat, 22 Sep 2018 04:12:17 Arabian Standard Time

### TABLE OF CONTENTS

#### Vulnerabilities by Host

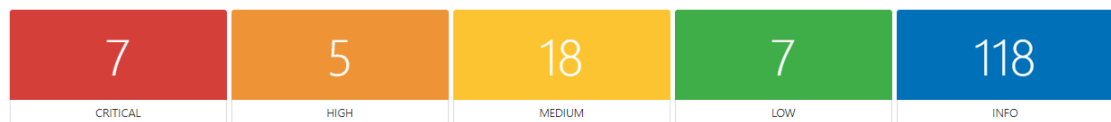
- 192.168.103.129

#### Remediations

- [Suggested Remediations](#)

#### Vulnerabilities by Host

##### 192.168.103.129



#### Scan Information

Start time: Sat Sep 22 04:12:17 2018  
End time: Sat Sep 22 04:21:16 2018

#### Host Information

Netbios Name: METASPLOITABLE  
IP: 192.168.103.129  
MAC Address: 00:0C:29:02:9E:B0  
OS: Linux Kernel 2.6 on Ubuntu 8.04 (hardy)

---

## Vulnerabilities

### 10114 - ICMP Timestamp Request Remote Date Disclosure

#### Synopsis

It is possible to determine the exact time set on the remote host.

#### Description

The remote host answers to an ICMP timestamp request. This allows an attacker to know the date that is set on the targeted machine, which may assist an unauthenticated, remote attacker in defeating time-based authentication protocols.

Timestamps returned from machines running Windows Vista / 7 / 2008 / 2008 R2 are deliberately incorrect, but usually within 1000 seconds of the actual system time.

#### Solution

Filter out the ICMP timestamp requests (13), and the outgoing ICMP timestamp replies (14).

#### Risk Factor

None

#### References

CVE [CVE-1999-0524](#)  
XREF [CWE:200](#)

#### Plugin Information:

Published: 1999/08/01, Modified: 2018/08/10

#### Plugin Output

icmp/0

```
The difference between the local and remote clocks is -2 seconds.
```

Demo\_scan\_for\_reporting\_a64qfp.csv - Excel

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

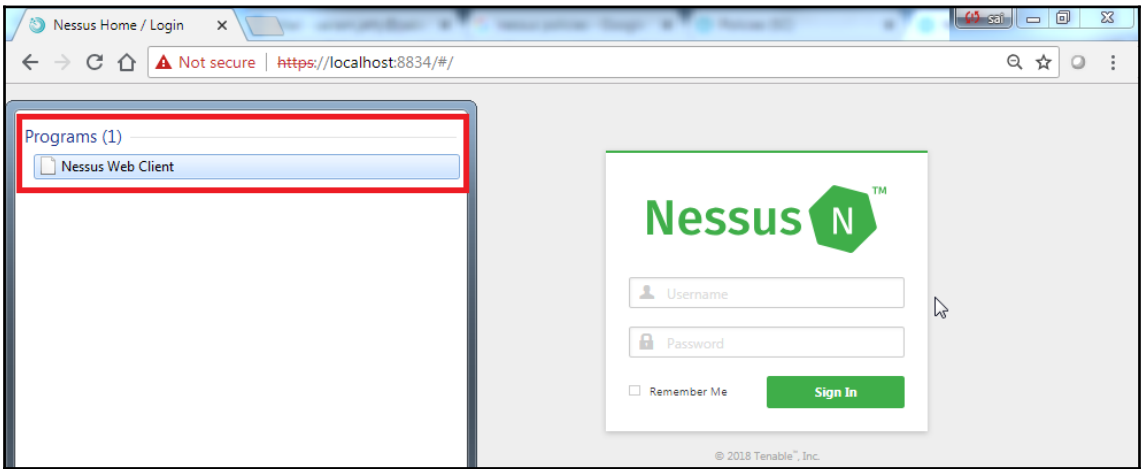
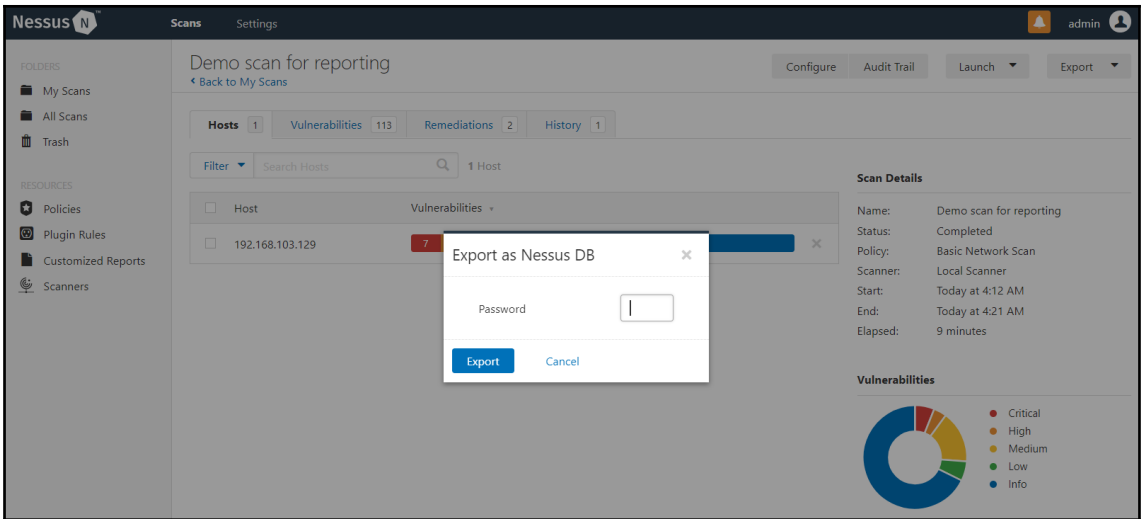
Clipboard Paste Cut Copy Format Painter Font Alignment Number Conditional Formatting Styles

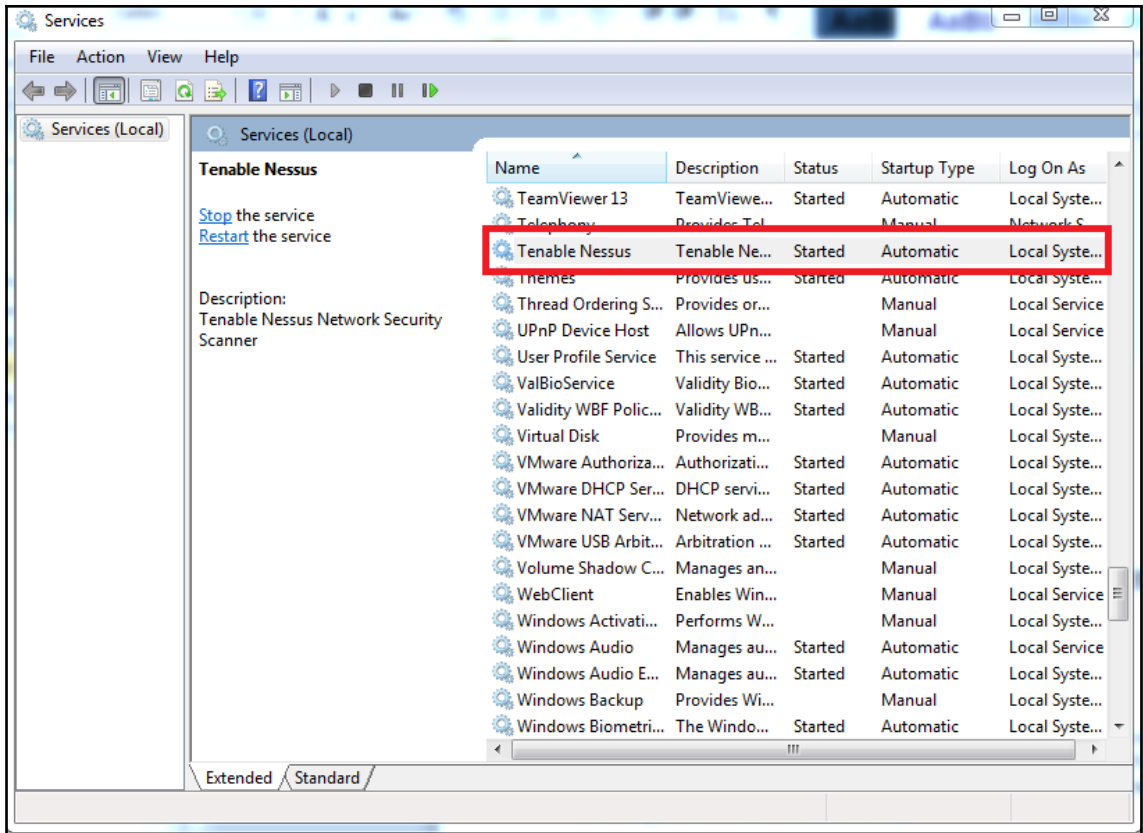
Calibri 11 A A Wrap Text General Normal Bad Neutral Calculation

Plugin ID

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Plugin ID	CVE	CVSS	Risk	Host	Protocol	Port	Name	Synopsis	Description	Solution	See Also	Plugin Output			
10028			None	192.168.1	udp		53	DNS Serve	It is possib	The	It is				
10092			None	192.168.1	tcp		21	FTP Server	An FTP ser	It is	n/a				
10107			None	192.168.1	tcp		80	HTTP Servi	A web serv	This	n/a	The			
10107			None	192.168.1	tcp		8180	HTTP Servi	A web serv	This	n/a	The			
10114	CVE-1999-0524		None	192.168.1	icmp		0	ICMP Time	It is possib	The	Filter out	The			
10150			None	192.168.1	tcp		137	Windows f	It was pos:	The	n/a	The			
10205	CVE-1999-	7.5	High	192.168.1	tcp		513	rlogin Serv	The rlogin	The rlogin	Comment				
10223	CVE-1999-0632		None	192.168.1	udp		111	RPC portm	An ONC Rf	The RPC	n/a				
10245	CVE-1999-	7.5	High	192.168.1	tcp		514	rsh Service	The rsh ser	The rsh	Comment				
10263			None	192.168.1	tcp		25	SMTP Serv	An SMTP s	The	Disable				
10267			None	192.168.1	tcp		22	SSH Server	An SSH ser	It is	n/a				
10281			None	192.168.1	tcp		23	Telnet Ser	A Telnet s	The	Disable this service if	Here is			
10287			None	192.168.1	udp		0	Traceroute	It was pos:	Makes a tr	n/a	For your			
10342			None	192.168.1	tcp		5900	VNC Softw	The remot	The	Make	<a href="https://en">https://en</a>			
10394			None	192.168.1	tcp		445	Microsoft	It was pos:	The	n/a	<a href="https://su">https://su</a>	#NAME?		
10397			None	192.168.1	tcp		445	Microsoft	It is possib	It was	n/a				
10407		2.6	Low	192.168.1	tcp		6000	X Server D	An X11 ser	The	Restrict				
10437	CVE-1999-0554		None	192.168.1	tcp		2049	NFS Share	The remot	This plugin	Ensure each	<a href="http://ww">http://ww</a>			
10719			None	192.168.1	tcp		3306	MySQL Ser	A databas	The remot	n/a				
10785			None	192.168.1	tcp		445	Microsoft	It was	Nessus	n/a	The			
10863			None	192.168.1	tcp		25	SSL Certifi	This plugin	This	n/a	Subject			
10881			None	192.168.1	tcp		22	SSH Proto	A SSH serv	This	n/a	The			
11002			None	192.168.1	udp		53	DNS Serve	A DNS serv	The	Disable	<a href="https://en.wikipedia.org/wiki/Domain_Name_System">https://en.wikipedia.org/wiki/Domain_Name_System</a>			
11002			None	192.168.1	tcp		53	DNS Serve	A DNS serv	The	Disable	<a href="https://en.wikipedia.org/wiki/Domain_Name_System">https://en.wikipedia.org/wiki/Domain_Name_System</a>			
11011			None	192.168.1	tcp		445	Microsoft	A file / pri	The	n/a				
11011			None	192.168.1	tcp		139	Microsoft	A file / pri	The	n/a				
11111			None	192.168.1	tcp		43708	RPC Servic	An ONC Rf	By	n/a				
11111			None	192.168.1	tcp		47133	RPC Servic	An ONC Rf	By	n/a				
11111			None	192.168.1	tcp		2049	RPC Servic	An ONC Rf	By	n/a				

Demo\_scan\_for\_reporting\_a64qfp







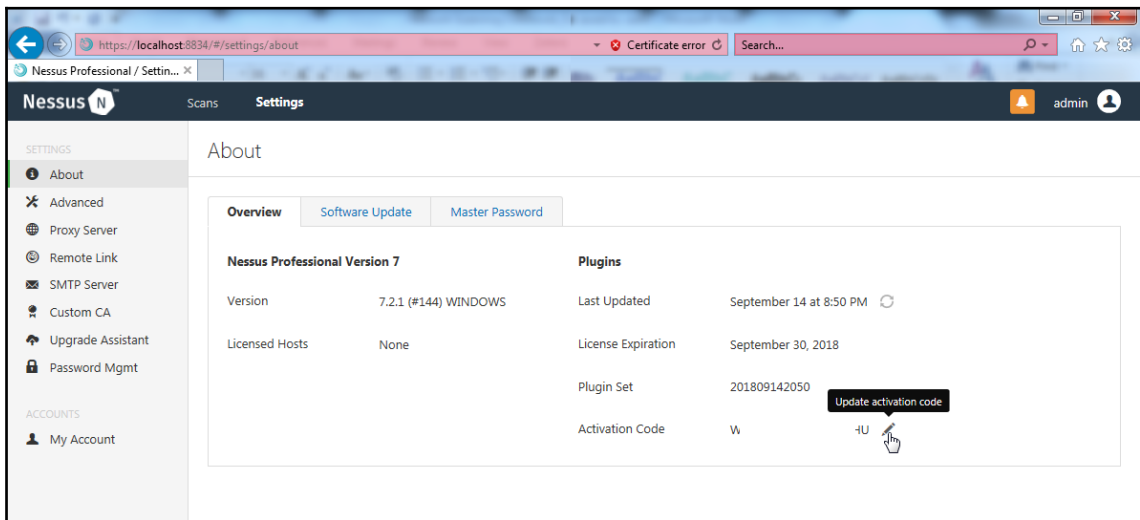
```
C:\Windows\system32\cmd.exe

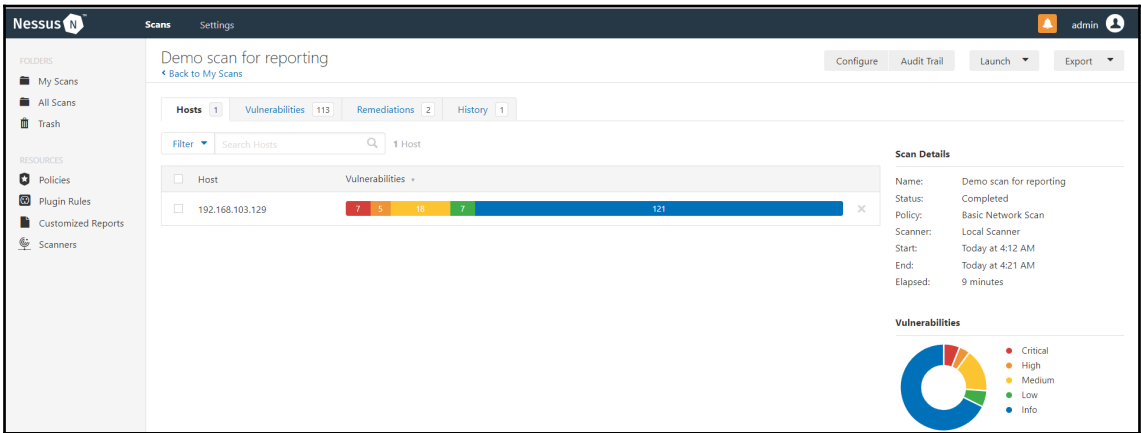
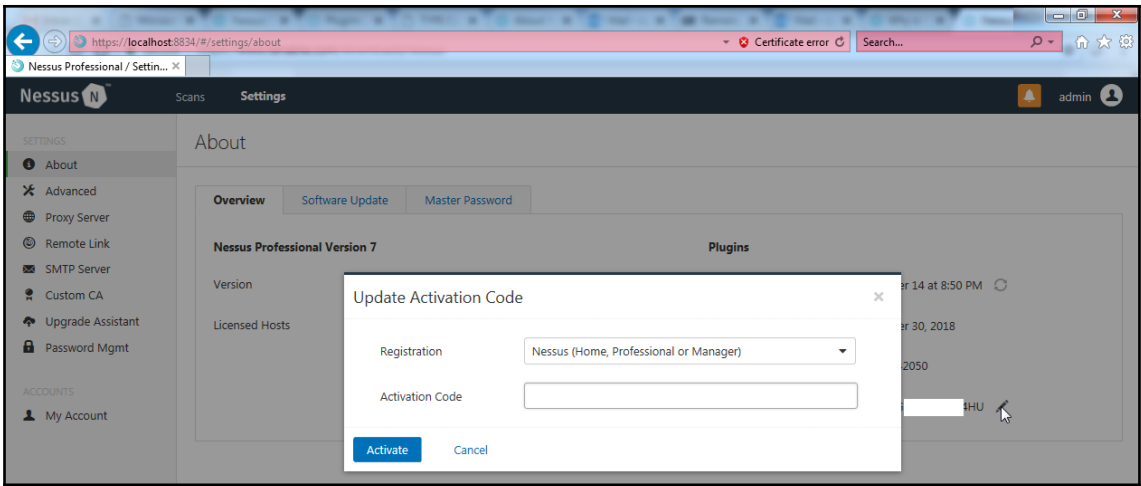
C:\>\cd "Program Files"
C:\Program Files>\cd Tenable
C:\Program Files\Tenable>\cd Nessus
C:\Program Files\Tenable\Nessus>\dir
Volume in drive C has no label.
Volume Serial Number is B234-0E80

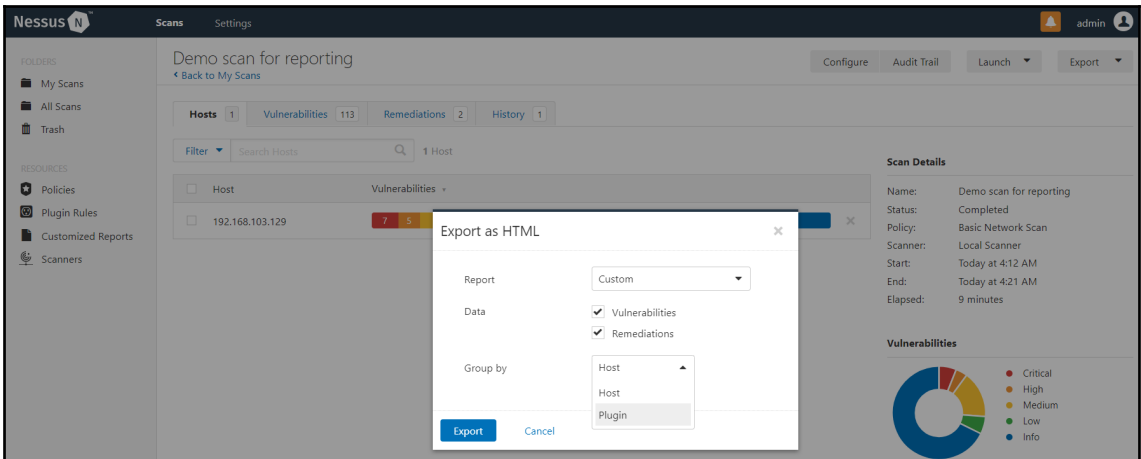
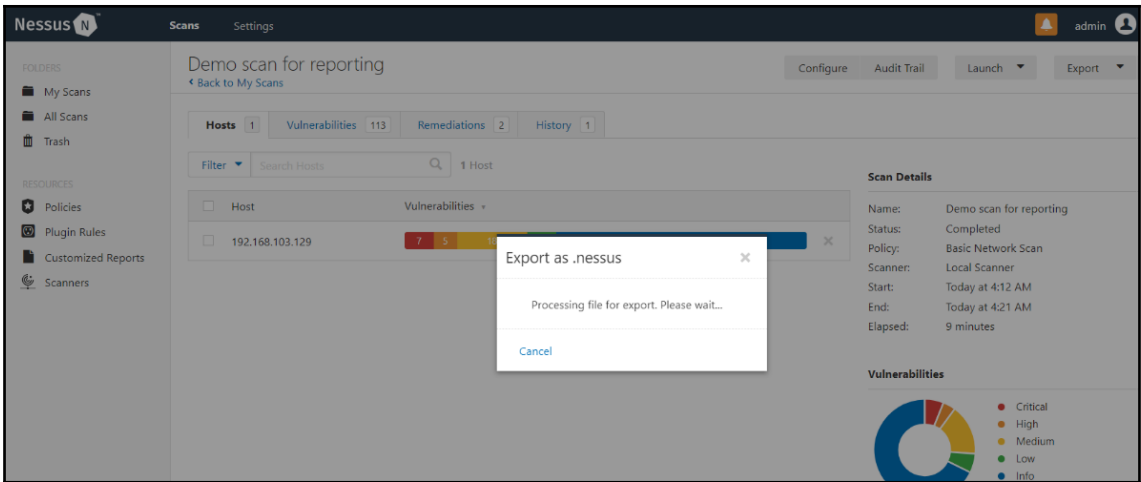
Directory of C:\Program Files\Tenable\Nessus

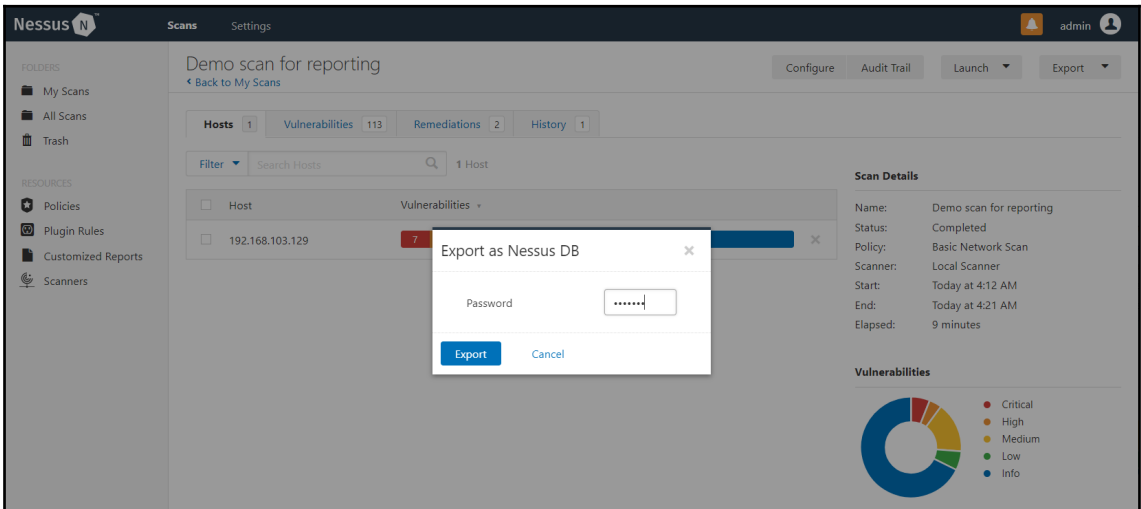
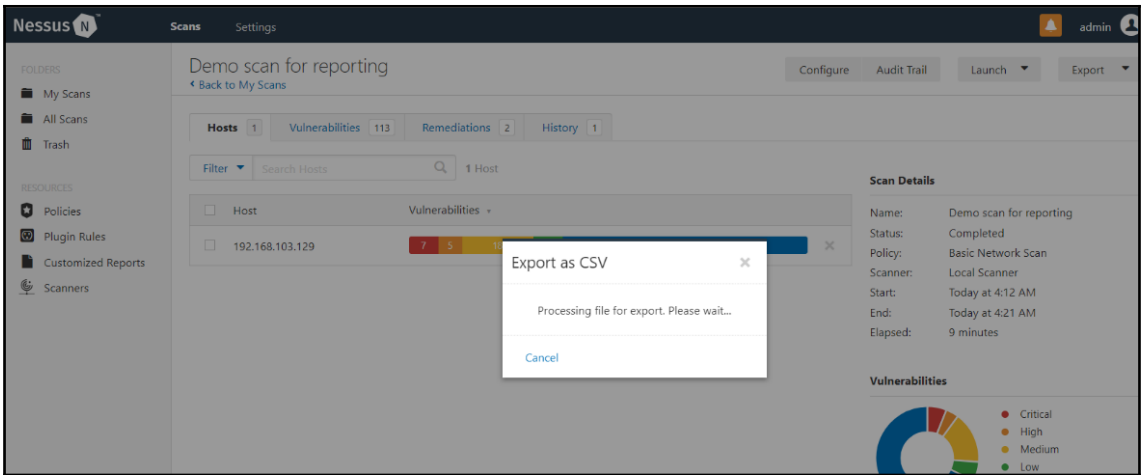
16-07-2018  11:45    <DIR>          .
16-07-2018  11:45    <DIR>          ..
16-07-2018  11:45                1  .winperms
19-06-2018  17:25           45,113  License.rtf
19-06-2018  19:25          6,459,904  nasl.exe
19-06-2018  19:25          46,592    ndbg.exe
19-06-2018  17:25           46  Nessus Web Client.url
19-06-2018  19:22          17,424    nessus-service.exe
19-06-2018  19:25          6,405,120  nessuscli.exe
19-06-2018  19:25          6,837,776  nessusd.exe
                8 File(s)      19,811,976 bytes
                2 Dir(s)      1,970,270,208 bytes free

C:\Program Files\Tenable\Nessus>
```









Demo scan for reporting / Plugin #51988

[Back to Vulnerabilities](#) Configure Audit Trail Launch Export

Vulnerabilities 113

**CRITICAL** Bind Shell Backdoor Detection

**Description**  
A shell is listening on the remote port without any authentication being required. An attacker may use it by connecting to the remote port and sending commands directly.

**Solution**  
Verify if the remote host has been compromised, and reinstall the system if necessary.

**Output**

```
Nessus was able to execute the command "id" using the
following request :

----- snip -----
This produced the following truncated output (limited to 10 lines) :
----- snip -----
root@metasploitable:/# uid=0(root) gid=0(root) groups=0(root)
root@metasploitable:/#
----- snip -----
```

**Port** | **Hosts**

1524 / tcp / wild_shell	192.168.103.129
-------------------------	-----------------

**Plugin Details**

Severity: Critical  
ID: 51988  
Version: 1.8  
Type: remote  
Family: Backdoors  
Published: February 15, 2011  
Modified: May 16, 2018

**Risk Information**

Risk Factor: Critical  
CVSS Base Score: 10.0  
CVSS Vector: CVSS2#AV:N/AC:L/Au:N/CC/I:C/A:C

Demo scan for reporting / Plugin #20007

[Back to Vulnerabilities](#) Configure Audit Trail Launch Export

Vulnerabilities 113

**HIGH** SSL Version 2 and 3 Protocol Detection

**Description**  
The remote service accepts connections encrypted using SSL 2.0 and/or SSL 3.0. These versions of SSL are affected by several cryptographic flaws, including:

- An insecure padding scheme with CBC ciphers.
- Insecure session renegotiation and resumption schemes.

An attacker can exploit these flaws to conduct man-in-the-middle attacks or to decrypt communications between the affected service and clients.

Although SSL/TLS has a secure means for choosing the highest supported version of the protocol (so that these versions will be used only if the client or server support nothing better), many web browsers implement this in an unsafe way that allows an attacker to downgrade a connection (such as in POODLE). Therefore, it is recommended that these protocols be disabled entirely.

NIST has determined that SSL 3.0 is no longer acceptable for secure communications. As of the date of enforcement found in PCI DSS v3.1, any version of SSL will not meet the PCI SSC's definition of 'strong cryptography'.

**Solution**  
Consult the application's documentation to disable SSL 2.0 and 3.0. Use TLS 1.1 (with approved cipher suites) or higher instead.

**See Also**  
<https://www.schneier.com/academic/paperfiles/paper-ssl.pdf>  
<http://www.nessus.org/u?0bb7b67d>

**Plugin Details**

Severity: High  
ID: 20007  
Version: 1.29  
Type: remote  
Family: Service detection  
Published: October 12, 2005  
Modified: June 29, 2018

**Risk Information**

Risk Factor: High

**Vulnerability Information**

In the news: true

```
C:\WINDOWS\system32\cmd.exe
C:\Users>telnet 192.168.103.129 1524
```

```
C:\ Telnet 192.168.103.129
root@metasploitable:/#
```

```
C:\ Telnet 192.168.103.129
root@metasploitable:/# id
uid=0(root) gid=0(root) groups=0(root)
root@metasploitable:/# root@metasploitable:/#
```

```
C:\Windows>nmap -sV -script ssl-poodle -p 25 192.168.103.129
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 07:27 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.00s latency).

PORT      STATE SERVICE VERSION
25/tcp    open  smtp    Postfix smtpd
MAC Address: 00:0C:29:02:9E:B0 (VMware)
Service Info: Host: metasploitable.localdomain

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 61.36 seconds
```

---

```
C:\Windows>nmap -script=ssl-enum-ciphers -p 25 192.168.103.129
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 07:33 Arabian Standard Time
Nmap scan report for 192.168.103.129
Host is up (0.00013s latency).

PORT      STATE SERVICE
25/tcp    open  smtp
MAC Address: 00:0C:29:02:9E:B0 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 50.98 seconds

C:\Windows>
```

```
C:\Windows>telnet 192.168.103.129
220 metasploitable.localdomain ESMTP Postfix (Ubuntu)
EHLO
502 5.5.2 Error: command not recognized
HELO
501 Syntax: HELO hostname
HELO example.com
250 metasploitable.localdomain
help
502 5.5.2 Error: command not recognized
```

## Output

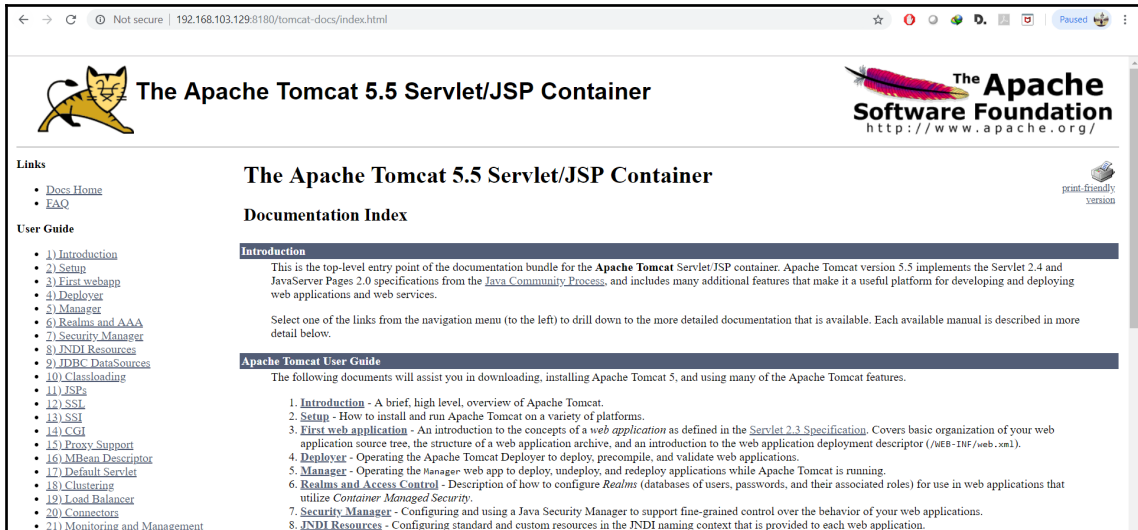
```
The following default files were found :  
  
/tomcat-docs/index.html  
/nessus-check/default-404-error-page.html
```

Port ▲

Hosts

8180 / tcp / www

192.168.103.129 



The screenshot shows a web browser displaying the Apache Tomcat 5.5 Servlet/JSP Container documentation page. The page features the Tomcat logo on the left and the Apache Software Foundation logo on the right. The main heading is "The Apache Tomcat 5.5 Servlet/JSP Container". Below the heading is a "Documentation Index" section with a sub-section for "Introduction". The introduction text states: "This is the top-level entry point of the documentation bundle for the Apache Tomcat Servlet/JSP container. Apache Tomcat version 5.5 implements the Servlet 2.4 and JavaServer Pages 2.0 specifications from the Java Community Process, and includes many additional features that make it a useful platform for developing and deploying web applications and web services." Below this, there is a list of links to various documentation sections, including "Introduction", "Setup", "First web application", "Deployer", "Manager", "Realms and Access Control", "Security Manager", and "JNDI Resources".



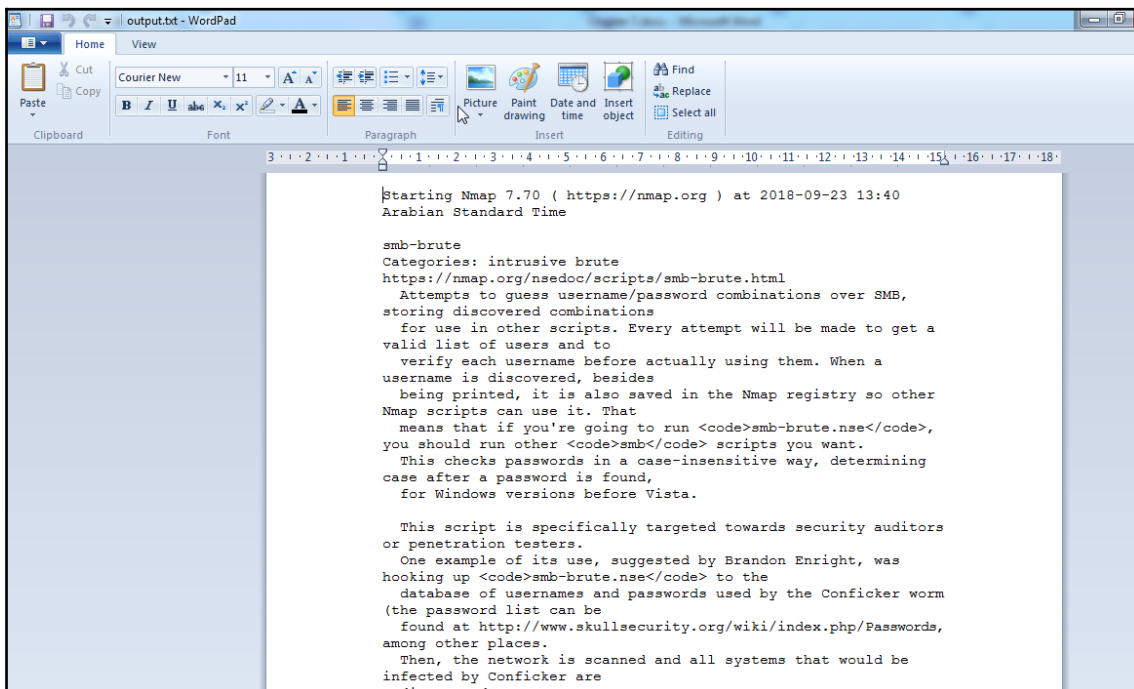
---

# Chapter 7: Understanding the Customization and Optimization of Nessus and Nmap

Name	Date modified	Type	Size
acarsd-info.nse	17-03-2018 06:40	NSE File	4 KB
address-info.nse	17-03-2018 06:40	NSE File	9 KB
afp-brute.nse	17-03-2018 06:40	NSE File	4 KB
afp-ls.nse	17-03-2018 06:40	NSE File	7 KB
afp-path-vuln.nse	17-03-2018 06:40	NSE File	7 KB
afp-serverinfo.nse	17-03-2018 06:40	NSE File	6 KB
afp-showmount.nse	17-03-2018 06:40	NSE File	3 KB
ajp-auth.nse	17-03-2018 06:40	NSE File	3 KB
ajp-brute.nse	17-03-2018 06:40	NSE File	3 KB
ajp-headers.nse	17-03-2018 06:40	NSE File	2 KB
ajp-methods.nse	17-03-2018 06:40	NSE File	3 KB
ajp-request.nse	17-03-2018 06:40	NSE File	3 KB
allseeingeye-info.nse	17-03-2018 06:40	NSE File	7 KB
amqp-info.nse	17-03-2018 06:40	NSE File	2 KB
asn-query.nse	17-03-2018 06:40	NSE File	15 KB
auth-owners.nse	17-03-2018 06:40	NSE File	3 KB
auth-spoof.nse	17-03-2018 06:40	NSE File	1 KB
backorifice-brute.nse	17-03-2018 06:40	NSE File	10 KB
backorifice-info.nse	17-03-2018 06:40	NSE File	10 KB
bacnet-info.nse	17-03-2018 06:40	NSE File	41 KB
banner.nse	17-03-2018 06:40	NSE File	6 KB
bitcoin-getaddr.nse	17-03-2018 06:40	NSE File	2 KB
bitcoin-info.nse	17-03-2018 06:40	NSE File	2 KB
bitcoinrpc-info.nse	17-03-2018 06:40	NSE File	5 KB
bittorrent-discovery.nse	17-03-2018 06:40	NSE File	4 KB
bjnp-discover.nse	17-03-2018 06:40	NSE File	2 KB

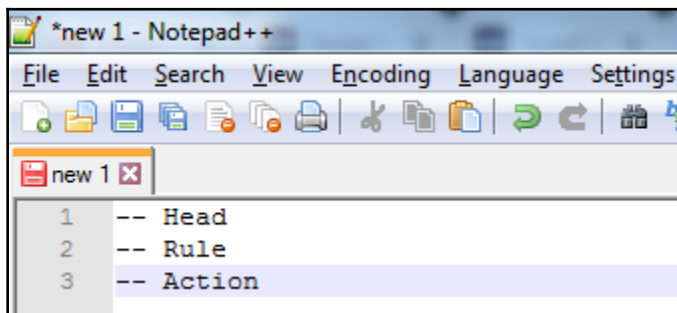
```
C:\Windows\system32\cmd.exe

C:\Users\admin>nmap --script-help smb* >> D:/output.txt
C:\Users\admin>_
```



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap
Nmap 7.70 < https://nmap.org >
Usage: nmap [Scan Type(s)] [Options] <target specification>
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2[,host3[,...]]>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PU/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2[,...]]>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
SCAN TECHNIQUES:
  -sS/sI/sA/sW/sM: TCP SYN/Connect()/ACK/Window/Maimon scans
  -sU: UDP Scan
  -sN/sF/sX: TCP Null, FIN, and Xmas scans
  --scanflags <flags>: Customize TCP scan flags
```



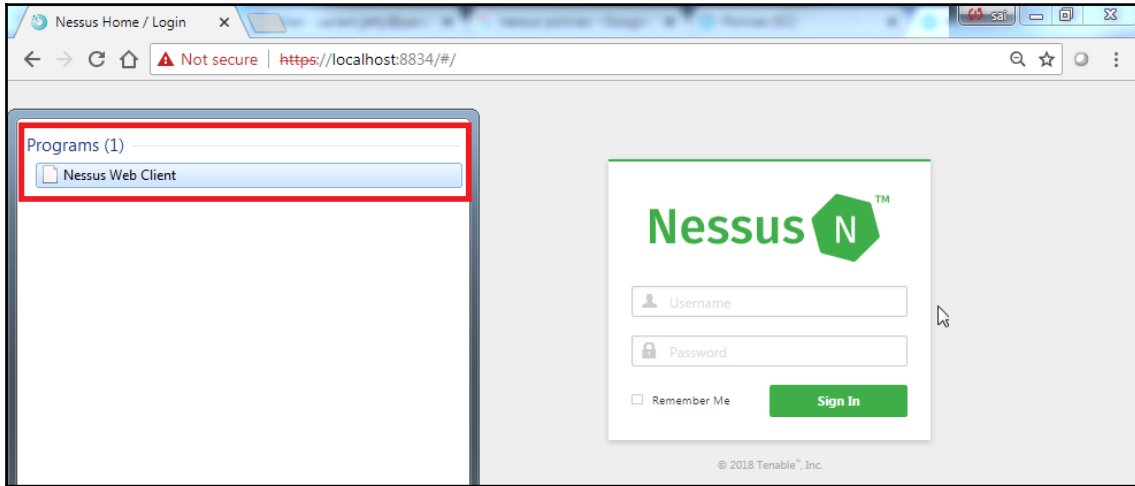
```
*new 1 - Notepad++
File Edit Search View Encoding Language Settings
new 1
1 -- Head
2 -- Rule
3 -- Action
```

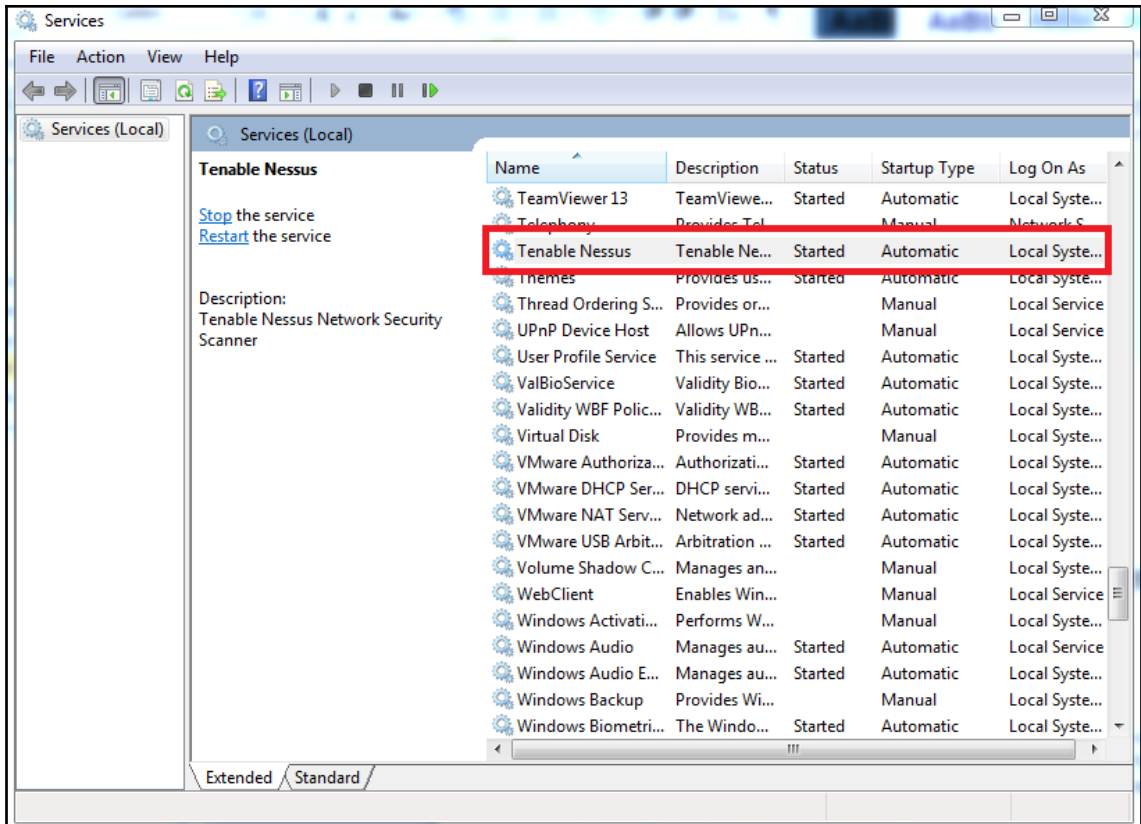


```
C:\Users\admin>nmap --script apache-default-files 192.168.75.128 -p8180 -v
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-23 16:07 Arabian Standard Time
NSE: Loaded 1 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 16:07
Completed NSE at 16:07, 0.00s elapsed
Initiating ARP Ping Scan at 16:07
Scanning 192.168.75.128 [1 port]
Completed ARP Ping Scan at 16:07, 1.77s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 16:07
Completed Parallel DNS resolution of 1 host. at 16:08, 16.50s elapsed
Initiating SYN Stealth Scan at 16:08
Scanning 192.168.75.128 [1 port]
Discovered open port 8180/tcp on 192.168.75.128
Completed SYN Stealth Scan at 16:08, 0.00s elapsed (1 total ports)
NSE: Script scanning 192.168.75.128.
Initiating NSE at 16:08
Completed NSE at 16:08, 0.01s elapsed
Nmap scan report for 192.168.75.128
Host is up (0.00088s latency).

PORT      STATE SERVICE
8180/tcp  open  unknown
!_apache-default-files: vulnerable
MAC Address: 00:0C:29:74:1C:63 (VMware)

NSE: Script Post-scanning.
Initiating NSE at 16:08
Completed NSE at 16:08, 0.00s elapsed
Read data files from: C:\Program Files (x86)\Nmap
Nmap done: 1 IP address (1 host up) scanned in 33.60 seconds
Raw packets sent: 2 (72B) | Rcvd: 2 (72B)
```





```
C:\Windows\system32\cmd.exe

C:\>cd "Program Files"

C:\Program Files>cd Tenable

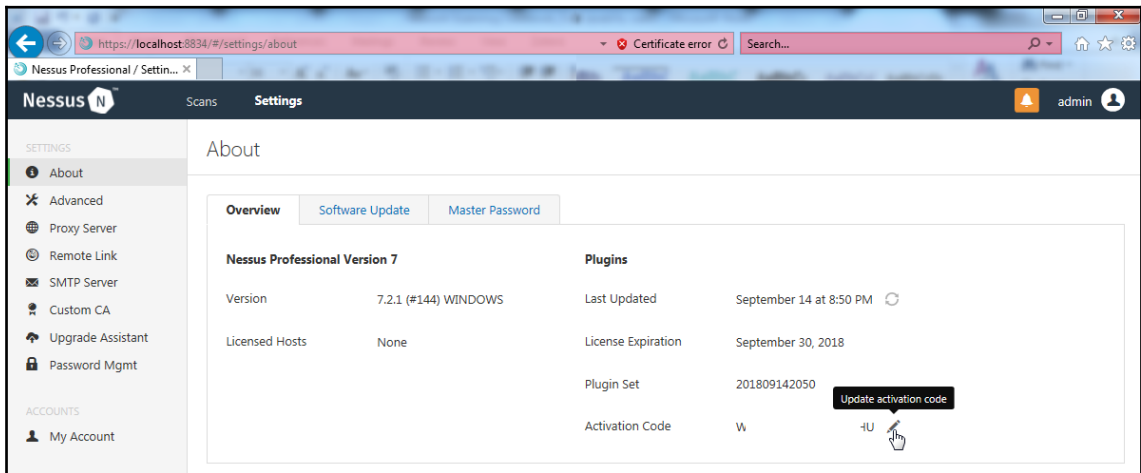
C:\Program Files\Tenable>cd Nessus

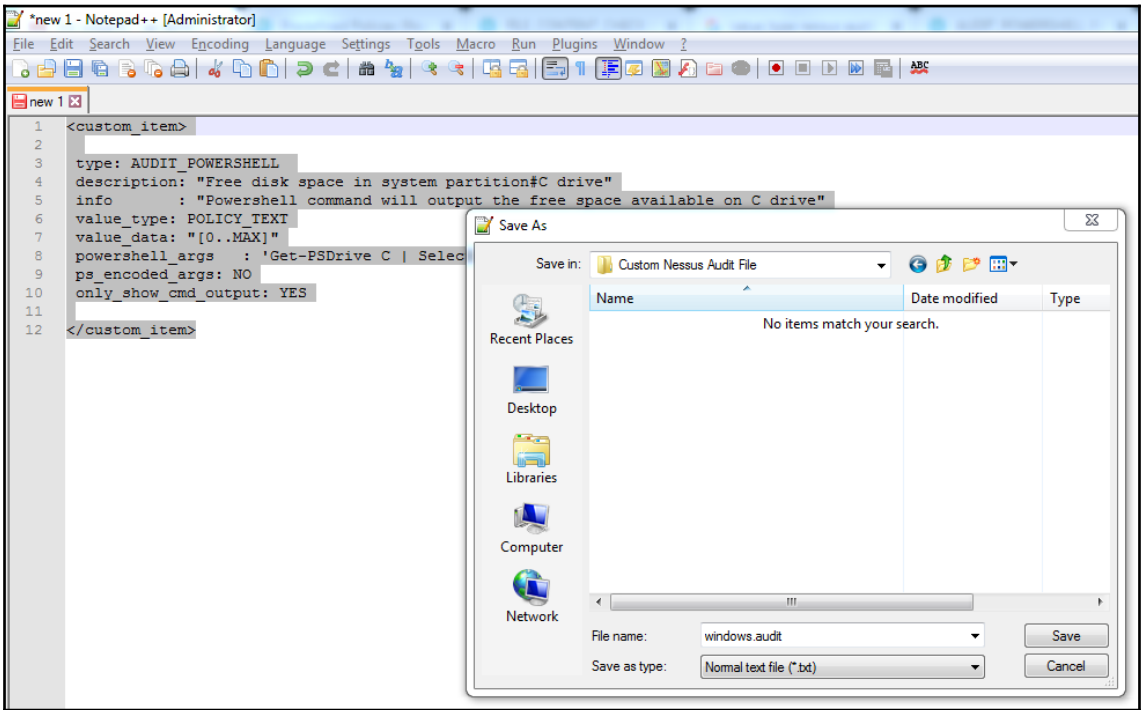
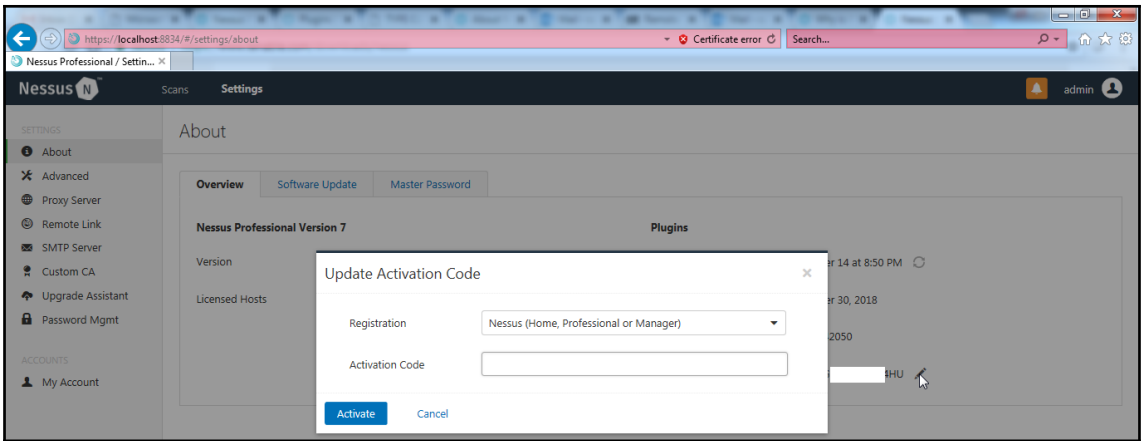
C:\Program Files\Tenable\Nessus>dir
Volume in drive C has no label.
Volume Serial Number is B234-0E80

Directory of C:\Program Files\Tenable\Nessus

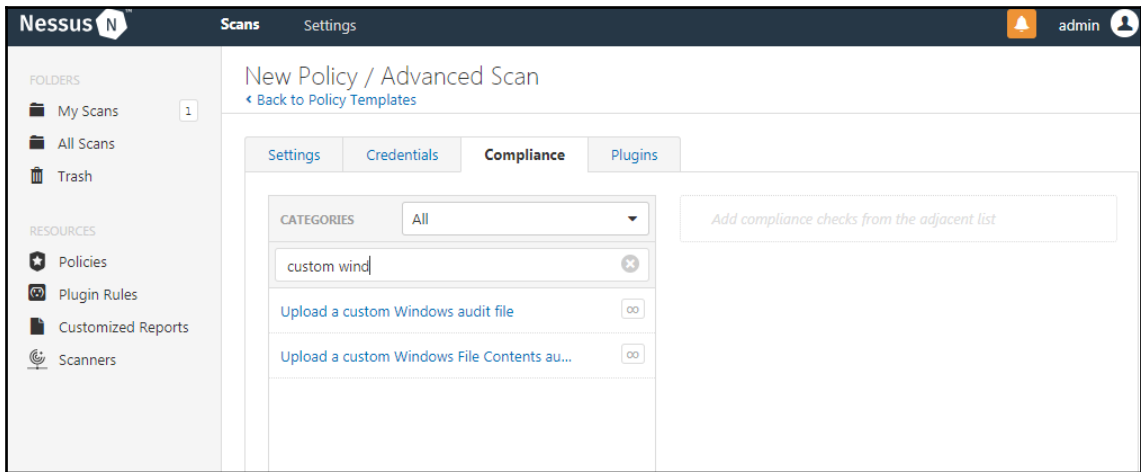
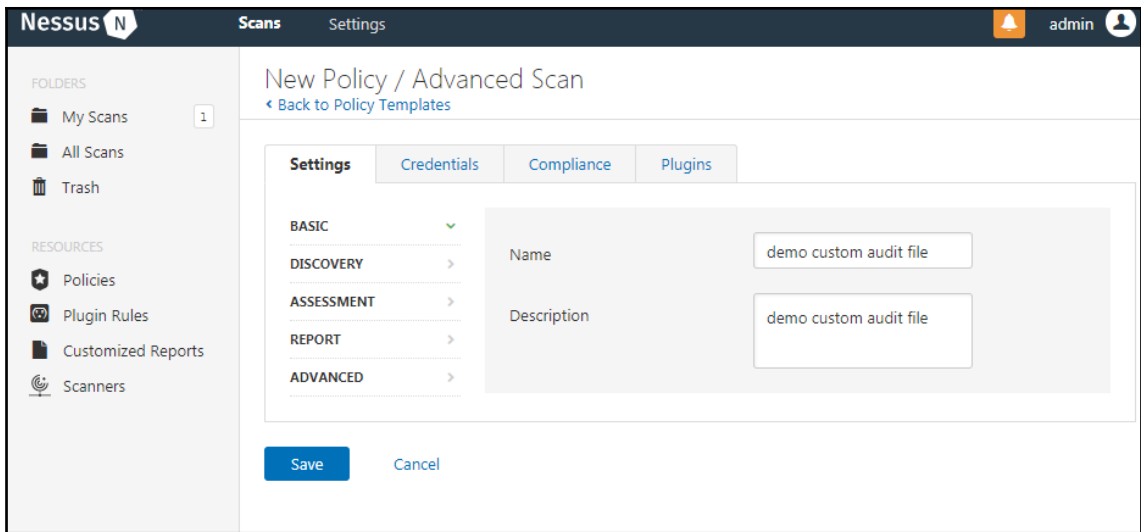
16-07-2018  11:45    <DIR>          .
16-07-2018  11:45    <DIR>          ..
16-07-2018  11:45                1  .winperms
19-06-2018  17:25           45,113  License.rtf
19-06-2018  19:25          6,459,904  nasl.exe
19-06-2018  19:25          46,592  ndbg.exe
19-06-2018  17:25                46  Nessus Web Client.url
19-06-2018  19:22          17,424  nessus-service.exe
19-06-2018  19:25          6,405,120  nessuscli.exe
19-06-2018  19:25          6,837,776  nessusd.exe
                8 File(s)          19,811,976 bytes
                2 Dir(s)          1,970,270,208 bytes free

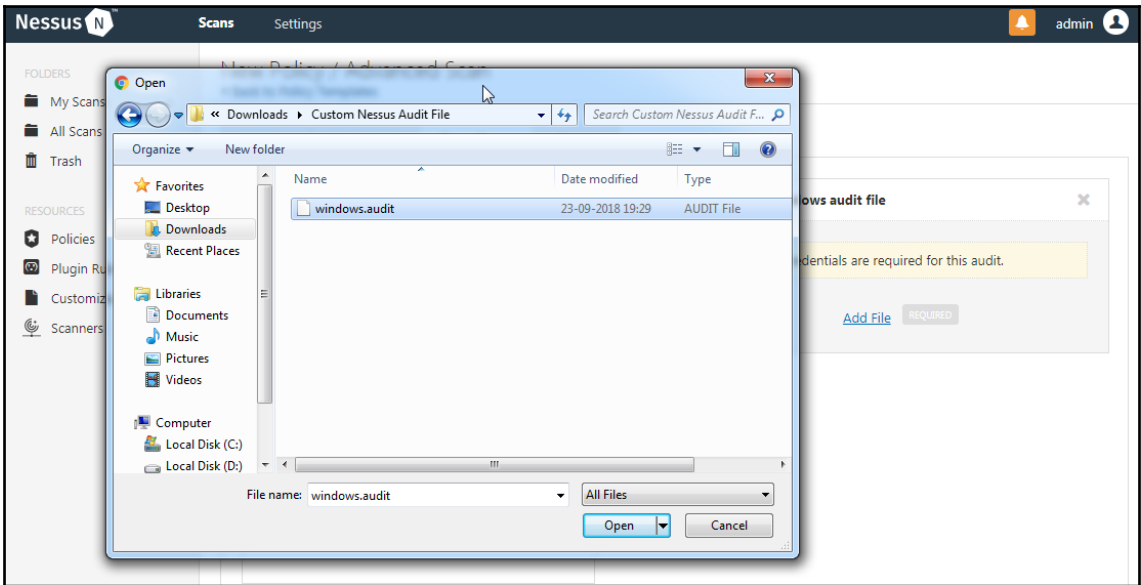
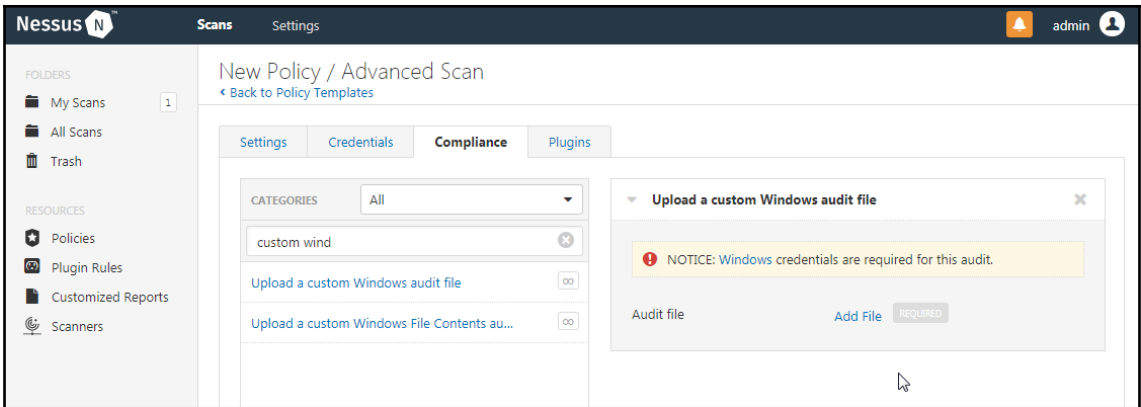
C:\Program Files\Tenable\Nessus>
```

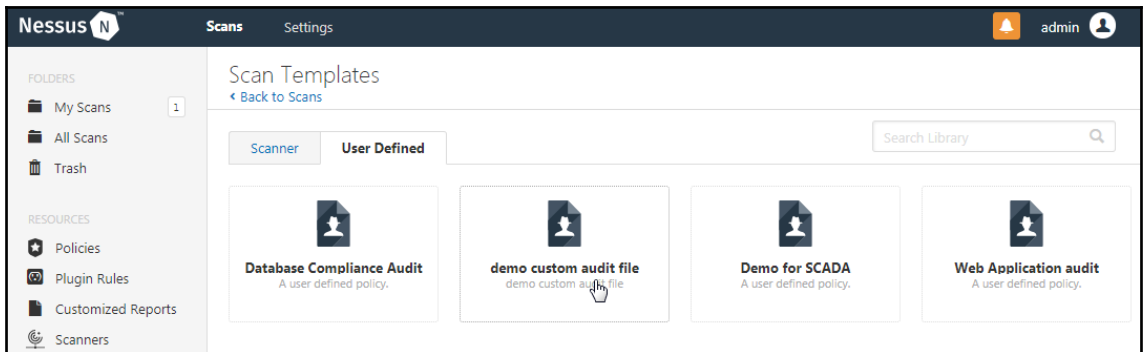
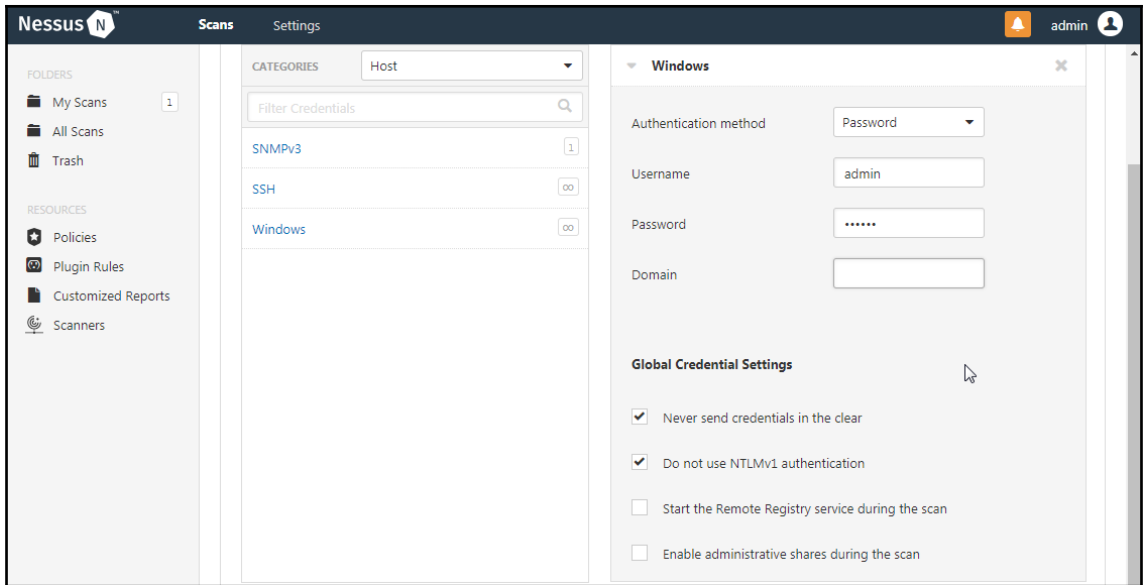


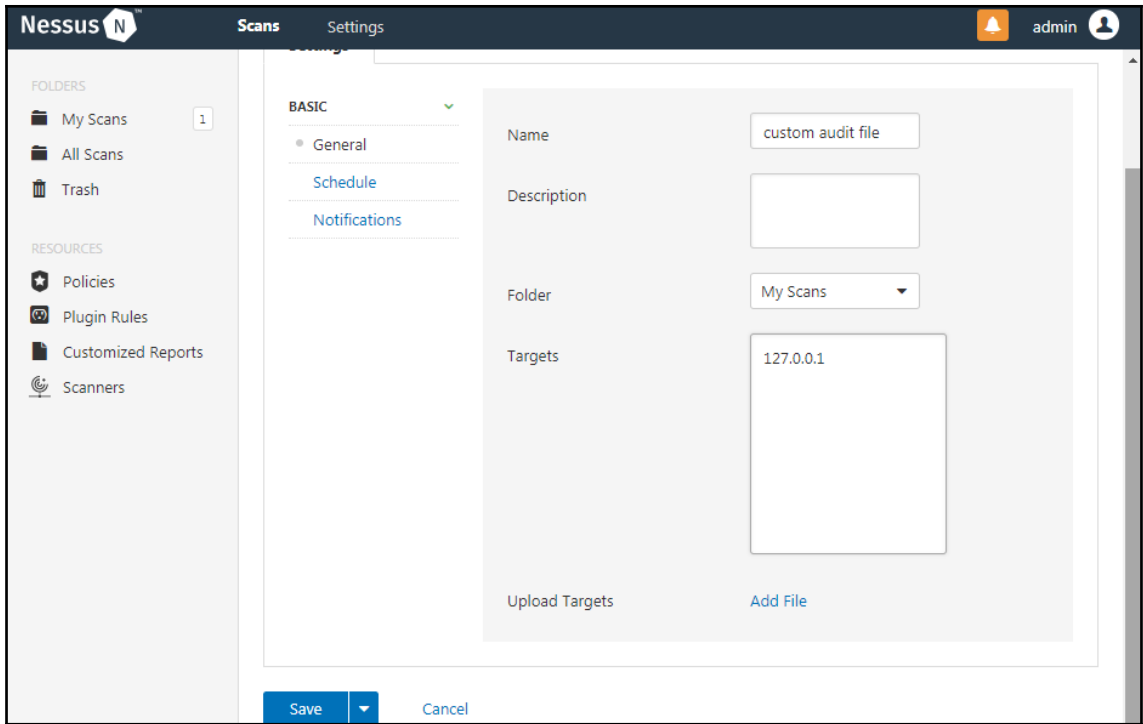






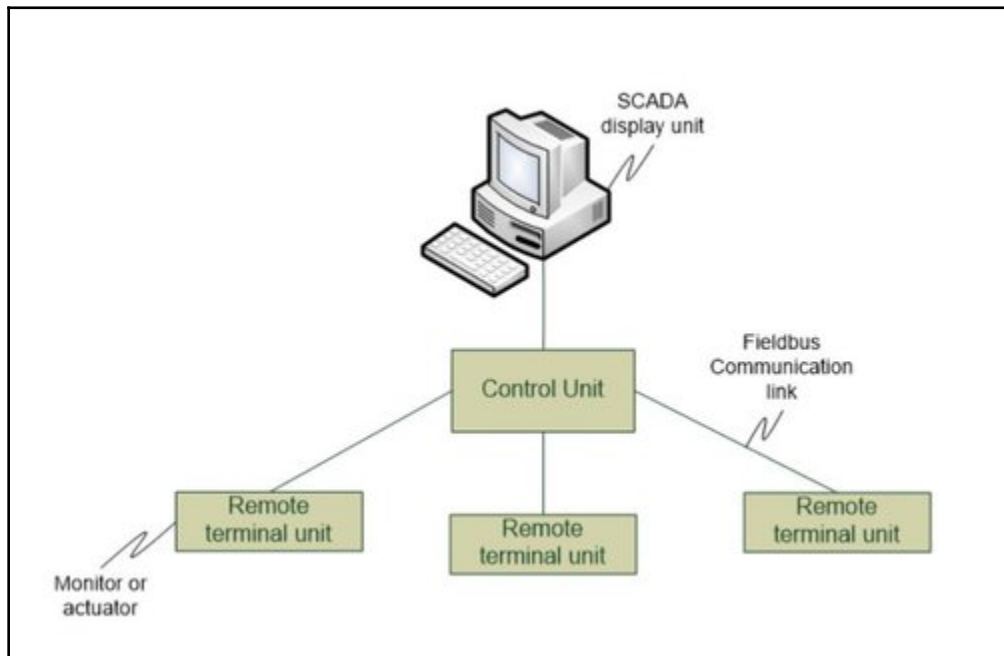
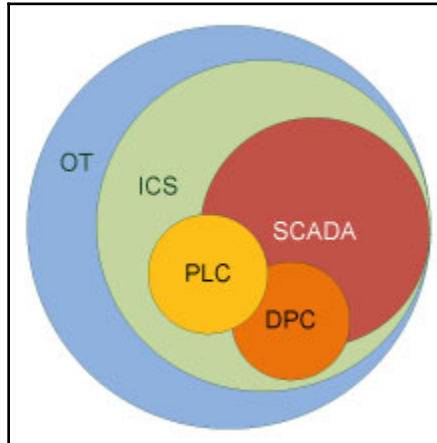






---


# Chapter 8: Network Scanning for IoT, SCADA/ICS



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\admin>nmap
Nmap 7.70 ( https://nmap.org )
Usage: nmap [Scan Type(s)] [Options] <target specification>
TARGET SPECIFICATION:
  Can pass hostnames, IP addresses, networks, etc.
  Ex: scanme.nmap.org, microsoft.com/24, 192.168.0.1; 10.0.0-255.1-254
  -iL <inputfilename>: Input from list of hosts/networks
  -iR <num hosts>: Choose random targets
  --exclude <host1[,host2][,host3],...>: Exclude hosts/networks
  --excludefile <exclude_file>: Exclude list from file
HOST DISCOVERY:
  -sL: List Scan - simply list targets to scan
  -sn: Ping Scan - disable port scan
  -Pn: Treat all hosts as online -- skip host discovery
  -PS/PA/PU/PY[portlist]: TCP SYN/ACK, UDP or SCTP discovery to given ports
  -PE/PP/PM: ICMP echo, timestamp, and netmask request discovery probes
  -PO[protocol list]: IP Protocol Ping
  -n/-R: Never do DNS resolution/Always resolve [default: sometimes]
  --dns-servers <serv1[,serv2],...>: Specify custom DNS servers
  --system-dns: Use OS's DNS resolver
  --traceroute: Trace hop path to each host
SCAN TECHNIQUES:
  -sS/sT/sA/sW/sM: TCP SYN/Connect()/ACK/Window/Maimon scans
  -sU: UDP Scan
  -sN/sF/sX: TCP Null, FIN, and Xmas scans
  --scanflags <flags>: Customize TCP scan flags
```

```
root@kali:~# sudo conpot --template default -f
WARNING:scapy.runtime.No route found for IPv6 destination :: (no default route?)



Version 0.5.1
MushMush Foundation

2018-09-22 05:12:09,062 --force option specified. Using testing configuration:
/usr/local/lib/python2.7/dist-packages/Conpot-0.5.1-py2.7.egg/conpot/testing.cfg
2018-09-22 05:12:09,113 Starting Conpot using template: /usr/local/lib/python2.7/dist-packages/Conpot-0.5.1-py2.7.egg/conpot/templates/default
2018-09-22 05:12:09,114 Starting Conpot using configuration found in: /usr/local/lib/python2.7/dist-packages/Conpot-0.5.1-py2.7.egg/conpot/testing.cfg
2018-09-22 05:12:09,636 Fetched 83.110.153.249 as external ip.
2018-09-22 05:12:09,682 Conpot modbus initialized
2018-09-22 05:12:09,682 Found and enabled ('modbus', <class 'conpot.protocols.modbus.modbus_server.ModbusServer'>) protocol.
2018-09-22 05:12:09,696 Conpot S7Comm initialized
2018-09-22 05:12:09,697 Found and enabled ('s7comm', <class 'conpot.protocols.s7comm.s7_server.S7Server'>) protocol.
2018-09-22 05:12:09,704 Found and enabled ('http', <class 'conpot.protocols.http.web_server.HTTPServer'>) protocol.
2018-09-22 05:12:09,712 Found and enabled ('snmp', <class 'conpot.protocols.snmp.snmp_server.SNMPServer'>) protocol.
2018-09-22 05:12:09,720 Conpot Bacnet initialized using the /usr/local/lib/python2.7/dist-packages/Conpot-0.5.1-py2.7.egg/conpot/templates/default/bacnet/bacnet.xml template.
2018-09-22 05:12:09,721 Found and enabled ('bacnet', <class 'conpot.protocols.bacnet.bacnet_server.BacnetServer'>) protocol.
2018-09-22 05:12:09,758 IPMI BMC initialized.
2018-09-22 05:12:09,758 Conpot IPMI initialized using /usr/local/lib/python2.7/dist-packages/Conpot-0.5.1-py2.7.egg/conpot/templates/default/ipmi/ipmi.xml template
2018-09-22 05:12:09,759 Found and enabled ('ipmi', <class 'conpot.protocols.ipmi.ipmi_server.IpmiServer'>) protocol.
2018-09-22 05:12:09,765 Class 22/0x0016, Instance 1, Attribute 1 <= [{ 'class': 22}, { 'instance': 1}, { 'attribute': 1}]
2018-09-22 05:12:09,766 Class 22/0x0016, Instance 1, Attribute 2 <= [{ 'class': 22}, { 'instance': 1}, { 'attribute': 2}]
```

```

C:\Users\admin>nmap --script s7-info.nse -p 102 192.168.75.133
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 13:15 Arabian Standard Time
Stats: 0:00:05 elapsed; 0 hosts completed (0 up), 1 undergoing ARP Ping Scan
ARP Ping Scan Timing: About 100.00% done; ETC: 13:15 (0:00:00 remaining)
Nmap scan report for 192.168.75.133
Host is up (0.00s latency).

PORT      STATE SERVICE
102/tcp   open  iso-tsap
| s7-info:
|   Version: 0.0
|   System Name: Technodrome
|   Module Type: Siemens, SIMATIC, S7-200
|   Serial Number: 88111222
|   Plant Identification: Mouser Factory
|_  Copyright: Original Siemens Equipment
MAC Address: 00:0C:29:74:28:93 (VMware)
Service Info: Device: specialized

Nmap done: 1 IP address (1 host up) scanned in 18.84 seconds
C:\Users\admin>

```







```

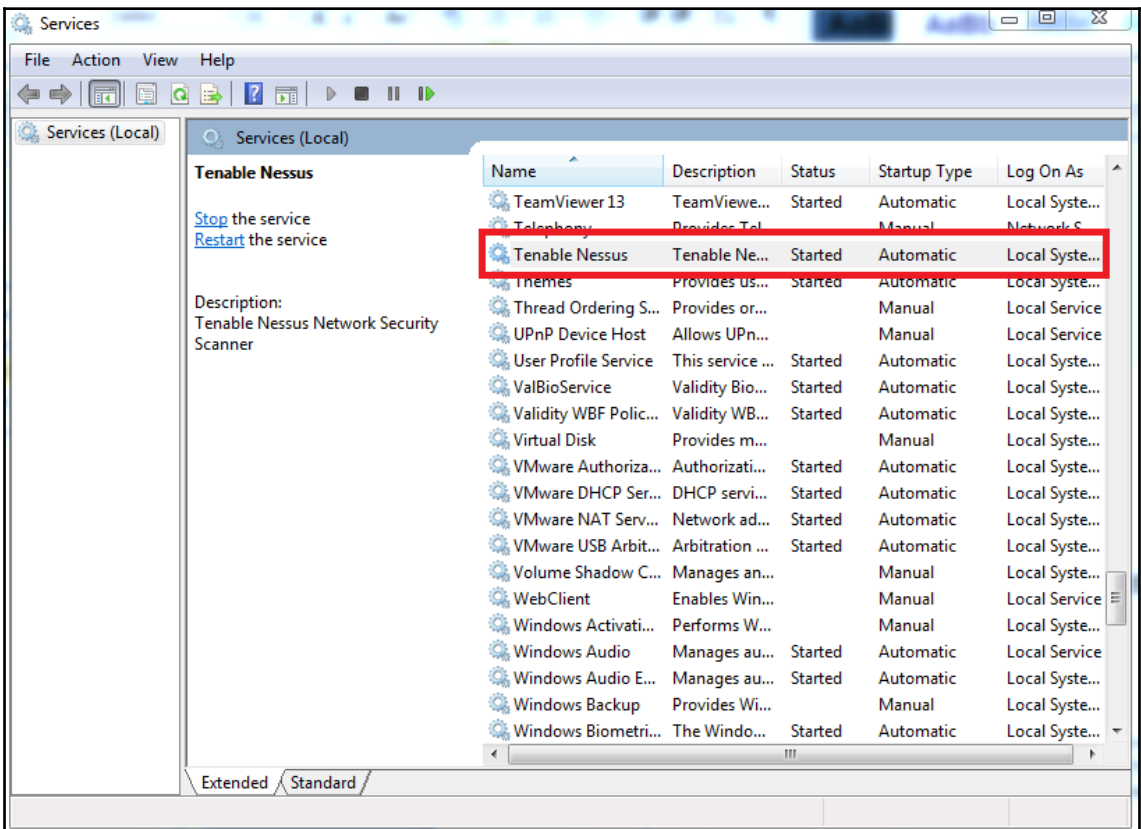
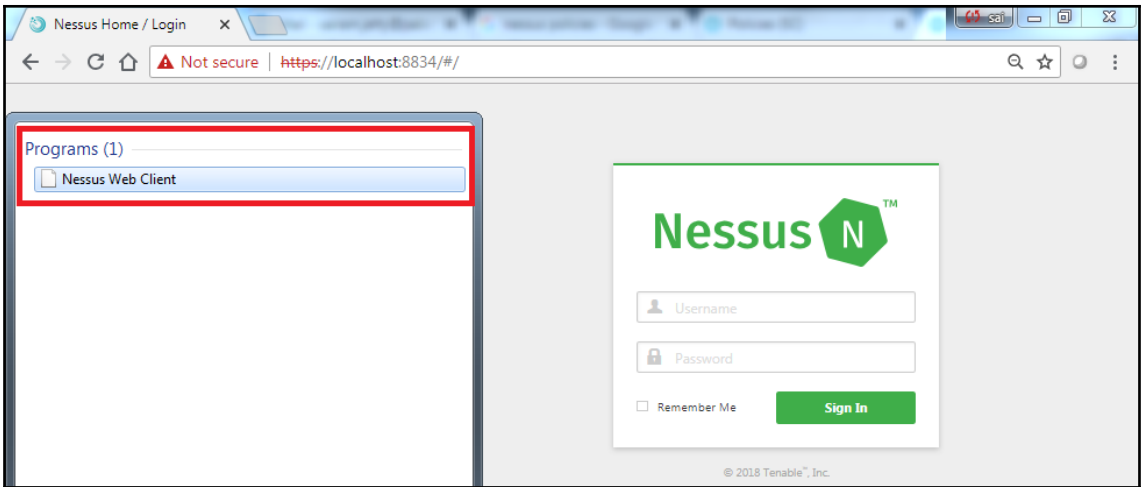
C:\Users\admin>nmap --script modbus-discover.nse --script-args='modbus-discover.aggressive=true' -p 502 192.168.75.133
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-22 13:17 Arabian Standard Time
Nmap scan report for 192.168.75.133
Host is up (0.00s latency).

PORT      STATE SERVICE
502/tcp   open  modbus
| modbus-discover:
|   sid 0x1:
|     Slave ID data: <unknown>
|_  Device identification: Siemens SIMATIC S7-200
MAC Address: 00:0C:29:74:28:93 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 17.66 seconds
C:\Users\admin>

```

 <a href="#">README.md</a>	Added more checks to CommunicationsProcessor
 <a href="#">Siemens-CommunicationsProcessor.nse</a>	Added support for more versions
 <a href="#">Siemens-HMI-miniweb.nse</a>	Added more checks to CommunicationsProcessor
 <a href="#">Siemens-SIMATIC-PLC-S7.nse</a>	Added support for SCALANCE XF Family
 <a href="#">Siemens-Scalance-module.nse</a>	Added Siemens SCALANCE network devices
 <a href="#">Siemens-WINCC.nse</a>	Siemens WINCC discovery support added





```
C:\Windows\system32\cmd.exe

C:\>cd "Program Files"

C:\Program Files>cd Tenable

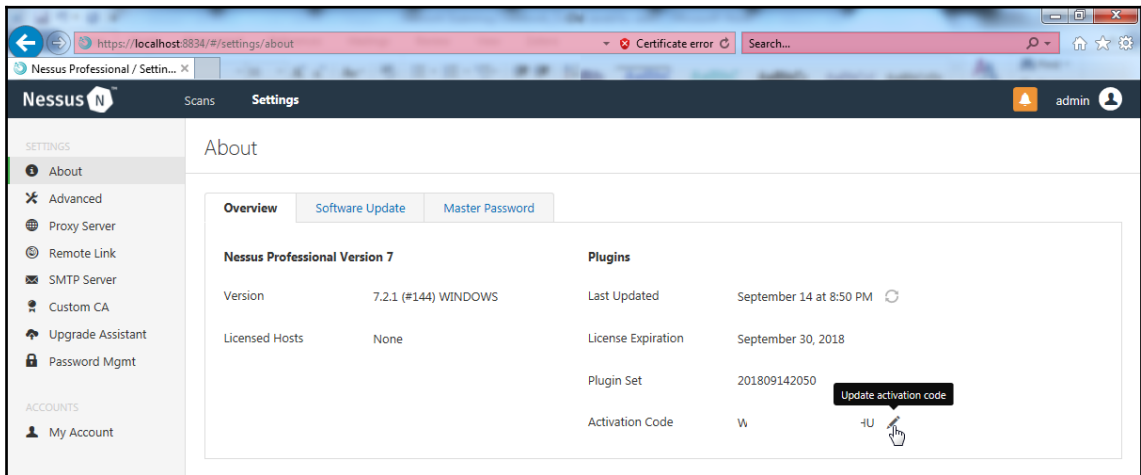
C:\Program Files\Tenable>cd Nessus

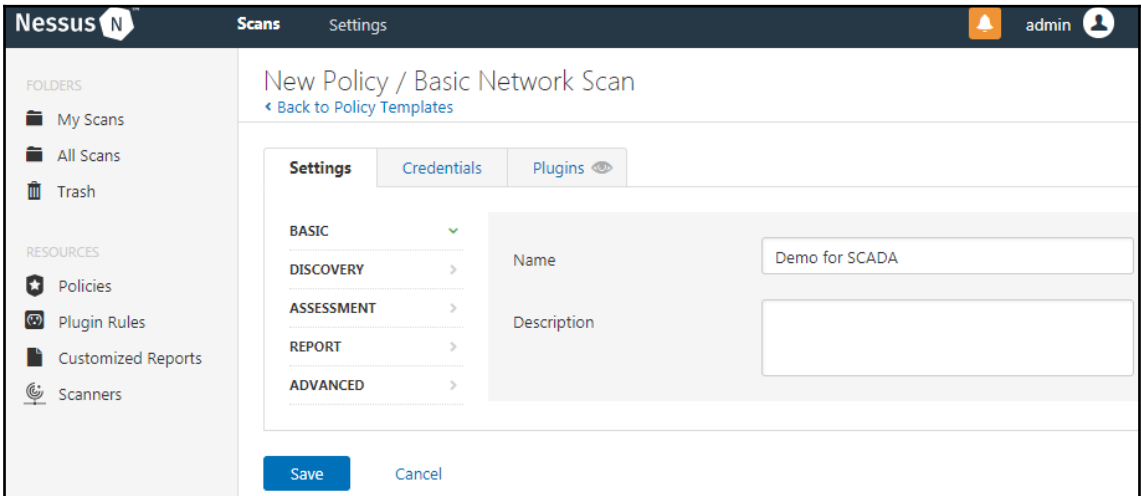
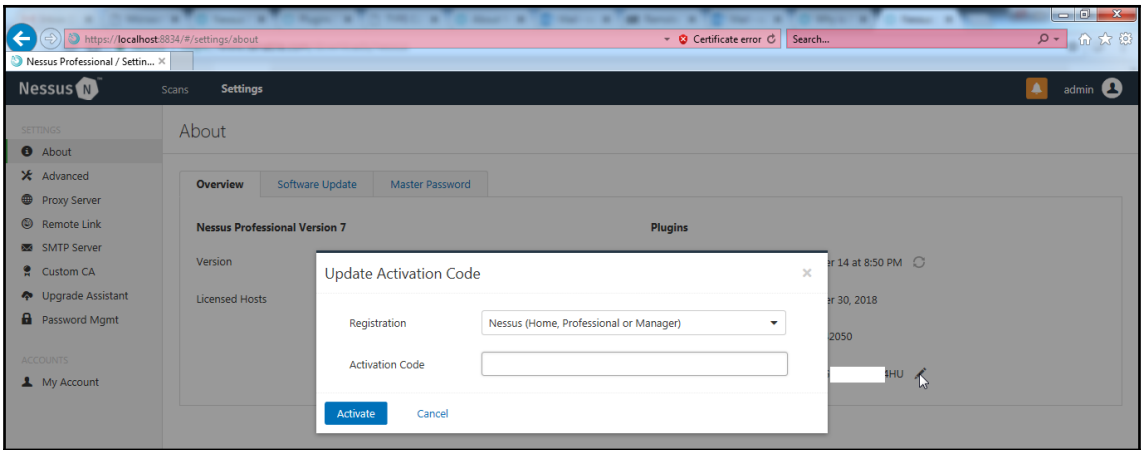
C:\Program Files\Tenable\Nessus>dir
Volume in drive C has no label.
Volume Serial Number is B234-0E80

Directory of C:\Program Files\Tenable\Nessus

16-07-2018  11:45    <DIR>          .
16-07-2018  11:45    <DIR>          ..
16-07-2018  11:45                1  .winperms
19-06-2018  17:25           45,113  License.rtf
19-06-2018  19:25          6,459,904  nasl.exe
19-06-2018  19:25          46,592  ndbg.exe
19-06-2018  17:25                46  Nessus Web Client.url
19-06-2018  19:22          17,424  nessus-service.exe
19-06-2018  19:25          6,405,120  nessuscli.exe
19-06-2018  19:25          6,837,776  nessusd.exe
                8 File(s)          19,811,976 bytes
                2 Dir(s)          1,970,270,208 bytes free

C:\Program Files\Tenable\Nessus>
```





Nessus Scans Settings admin

### New Policy / Basic Network Scan

[Back to Policy Templates](#)

**Settings** | Credentials | Plugins

- BASIC
- DISCOVERY **>**
  - Host Discovery
  - Port Scanning
  - Service Discovery
- ASSESSMENT
- REPORT
- ADVANCED

**Ports**

- Consider unscanned ports as closed
- Port scan range:

**Local Port Enumerators**

- SSH (netstat)
- WMI (netstat)
- SNMP
- Only run network port scanners if local port enumeration failed
- Verify open TCP ports found by local port enumerators

Nessus Scans Settings admin

### New Policy / Basic Network Scan

[Back to Policy Templates](#)

**Settings** | Credentials | Plugins

- BASIC
- DISCOVERY
- ASSESSMENT **>**
  - General
  - Brute Force
  - Web Applications
  - Windows
- REPORT
- ADVANCED

**Accuracy**

- Override normal accuracy
  - Avoid potential false alarms
  - Show potential false alarms
- Perform thorough tests (may disrupt your network or impact scan speed)

Nessus Scans Settings

FOLDERS

- My Scans
- All Scans
- Trash

RESOURCES

- Policies
- Plugin Rules
- Customized Reports
- Scanners

Settings

Credentials Plugins

BASIC >

DISCOVERY >

ASSESSMENT >

REPORT >

ADVANCED ▾

- General

**General Settings**

- Enable safe checks
- Stop scanning hosts that become unresponsive during the scan
- Scan IP addresses in a random order

**Performance Options**

- Slow down the scan when network congestion is detected

Network timeout (in seconds)

Max simultaneous checks per host

Max simultaneous hosts per scan

Max number of concurrent TCP sessions per host

Max number of concurrent TCP sessions per scan

Nessus Scans Settings

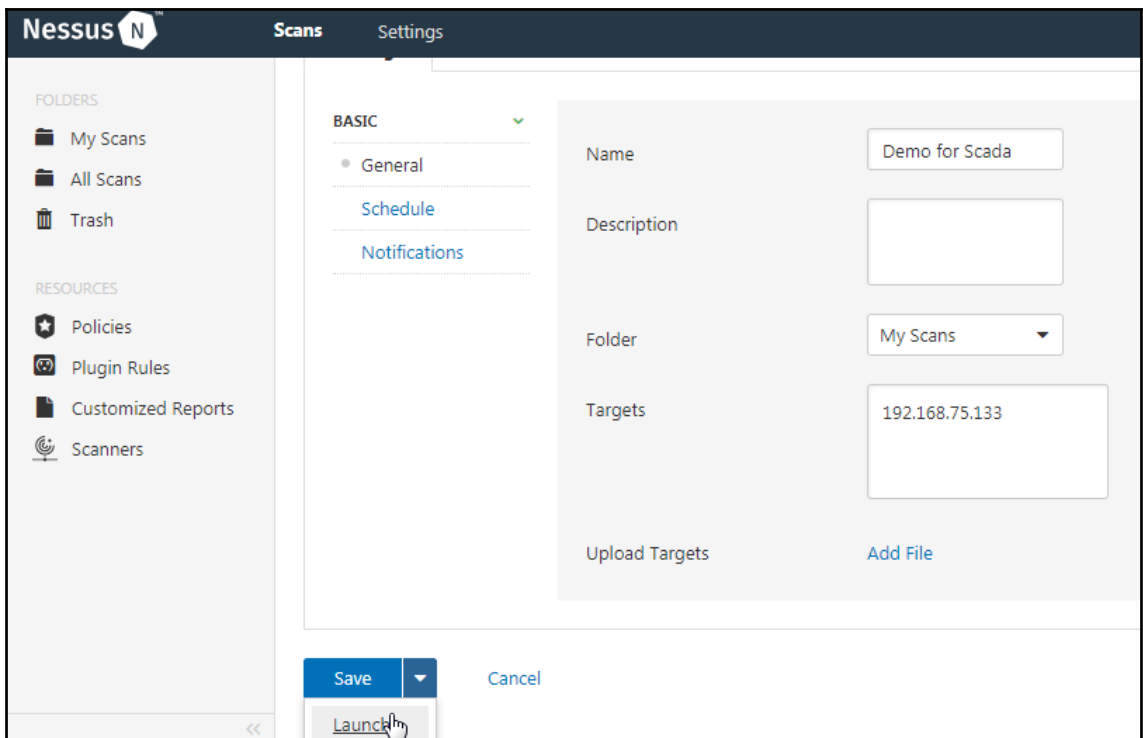
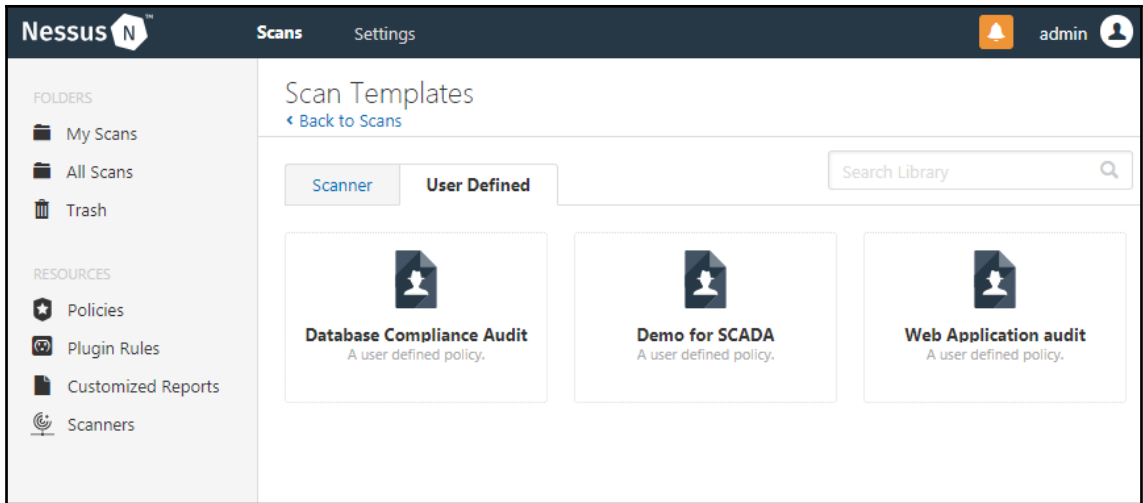
Filter Search Plugin Families admin

New Policy / Basic Network Scan

< Back to Policy Templates

Settings Credentials Plugins

		PLUGIN NAME	PLUGIN ID
Peer-To-Peer File Sharing	91		
PhotonOS Local Security Checks	173	3S CODESYS 2.x Development System Detection (credentialed check)	72556
Red Hat Local Security Checks	5080	3S CODESYS Runtime Toolkit < 2.4.7.48 PLCWinNT DoS	86573
RPC	38	3S CODESYS Runtime Toolkit < 2.4.7.48 PLCWinNT DoS (credentialed ch...	86572
SCADA	308	3S CoDeSys Runtime Toolkit NULL Pointer Dereference (credentialed ch...	72557
Scientific Linux Local Security Checks	2542	3S CoDeSys Runtime Toolkit NULL Pointer Dereference (uncredentialed ...	72558
Service detection	439	7-Technologies / Schneider-Electric IGSS Data Collector Detection	87208
Settings	90	7-Technologies / Schneider-Electric IGSS Detection	52961
Slackware Local Security Checks	1084	7-Technologies / Schneider-Electric IGSS ODBC Service Detection	89029
SMTP problems	140	7-Technologies / Schneider-Electric IGSS ODBC Version Identification	89032
SNMP	33	7-Technologies AQUIS Detection	58448



Nessus Scans Settings admin

**Demo for Scada** Configure Audit Trail Launch Export

Hosts 1 Vulnerabilities 8 History 1


Filter Search Vulnerabilities 8 Vulnerabilities

Sev	Name	Family	Count
MEDIUM	ICCP/COTP (ISO 8073) Protocol Detection	SCADA	1
MEDIUM	Modbus/TCP Coil Access	SCADA	1
INFO	Nessus SYN scanner	Port scanners	3
INFO	Do not scan operational technology devices	Settings	1
INFO	EtherNet/IP CIP List Identity Response	SCADA	1
INFO	Nessus Scan Information	Settings	1
INFO	SNMP Protocol Version Detection	SNMP	1

**Scan Details**

Name: Demo for Scada  
 Status: Completed  
 Policy: Demo for SCADA  
 Scanner: Local Scanner  
 Start: Today at 1:48 PM  
 End: Today at 1:50 PM  
 Elapsed: a minute

**Vulnerabilities**



- Critical
- High
- Medium
- Low
- Info

**MEDIUM** ICCP/COTP (ISO 8073) Protocol Detection

**Description**

The ICCP stack (and other protocols such as MMS and IEC 61850) include ISO 8073 (RFC 905) at the Transport Layer. ISO 8073 specifies the Connection Oriented Transport Protocol (COTP) that uses a pair of user configurable 16-bit numeric, or in some cases ASCII string values, to identify client endpoints called Transport Service Access Points (TSAPs).

Note that ICCP by itself does not offer protection against eavesdropping, spoofing, man-in-the-middle, and similar attacks.

**Solution**

Either limit traffic to this port to authorized hosts or upgrade to Secure ICCP, which protects the basic protocol with SSL / TLS encryption and digital certificates.

**See Also**

<http://wiki.wireshark.org/COTP>  
<http://www.nessus.org/u?672d06fe>

**Output**

```
All TSAP addresses accepted.
```

Port	Hosts
102 / tcp / iccp_cotp	192.168.75.133

**Plugin Details**

Severity: Medium  
 ID: 23811  
 Version: \$Revision: 1.37 \$  
 Type: remote  
 Family: SCADA  
 Published: December 11, 2006  
 Modified: September 14, 2018

**Risk Information**

Risk Factor: Medium  
 CVSS Base Score: 5.1  
 CVSS Vector: CVSS2#AV:N/AC:H/Au:N/C:P/EP:A/P



```
msf > search scada
[!] Module database cache not built yet, using slow search

Matching Modules
=====


| Name                                                     | Disclosure Date | Rank   | Description                                      |
|----------------------------------------------------------|-----------------|--------|--------------------------------------------------|
| auxiliary/admin/http/scadabr_credential_dump             | 2017-05-28      | normal | ScadaBR Credentials Dumper                       |
| auxiliary/admin/scada/advantech_webaccess_dbvisitor_sqli | 2014-04-08      | normal | Advantech WebAccess DBVisitor.dll ChartThemeConf |
| auxiliary/admin/scada/ge_proficy_substitute_traversal    | 2013-01-22      | normal | GE Proficy Cimplicity WebView substitute.bcl Dir |
| auxiliary/admin/scada/modicon_command                    | 2012-04-05      | normal | Schneider Modicon Remote START/STOP Command      |
| auxiliary/admin/scada/modicon_password_recovery          | 2012-01-19      | normal | Schneider Modicon Quantum Password Recovery      |
| auxiliary/admin/scada/modicon_stux_transfer              | 2012-04-05      | normal | Schneider Modicon Ladder Logic Upload/Download   |
| auxiliary/admin/scada/moxa_credentials_recovery          | 2015-07-28      | normal | Moxa Device Credential Retrieval                 |
| auxiliary/admin/scada/multi_cip_command                  | 2012-01-19      | normal | Allen-Bradley/Rockwell Automation EtherNet/IP CI |
| auxiliary/admin/scada/phenix_command                     | 2015-05-20      | normal | PhoenixContact PLC Remote START/STOP Command     |
| auxiliary/admin/scada/yokogawa_bkbcopyd_client           | 2014-08-09      | normal | Yokogawa BKBCopyD.exe Client                     |


```

```
msf > search modbus
[!] Module database cache not built yet, using slow search

Matching Modules
=====


| Name                                        | Disclosure Date | Rank   | Description                                    |
|---------------------------------------------|-----------------|--------|------------------------------------------------|
| auxiliary/admin/scada/modicon_command       | 2012-04-05      | normal | Schneider Modicon Remote START/STOP Command    |
| auxiliary/admin/scada/modicon_stux_transfer | 2012-04-05      | normal | Schneider Modicon Ladder Logic Upload/Download |
| auxiliary/scanner/scada/modbus_findunitid   | 2012-10-28      | normal | Modbus Unit ID and Station ID Enumerator       |
| auxiliary/scanner/scada/modbusclient        |                 | normal | Modbus Client Utility                          |
| auxiliary/scanner/scada/modbusdetect        | 2011-11-01      | normal | Modbus Version Scanner                         |


```

```
msf > use auxiliary/scanner/scada/modbusdetect
msf auxiliary(modbusdetect) > show options

Module options (auxiliary/scanner/scada/modbusdetect):



| Name    | Current Setting | Required | Description                                  |
|---------|-----------------|----------|----------------------------------------------|
| RHOSTS  |                 | yes      | The target address range or CIDR identifier  |
| RPORT   | 502             | yes      | The target port (TCP)                        |
| THREADS | 1               | yes      | The number of concurrent threads             |
| TIMEOUT | 10              | yes      | Timeout for the network probe                |
| UNIT_ID | 1               | yes      | ModBus Unit Identifier, 1..255, most often 1 |



msf auxiliary(modbusdetect) >
```

```
msf auxiliary(modbusdetect) > set RHOSTS 192.168.75.133
RHOSTS => 192.168.75.133
msf auxiliary(modbusdetect) > exploit

[+] 192.168.75.133:502 - 192.168.75.133:502 - MODBUS - received correct MODBUS/TCP header (unit-ID: 1)
[*] Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed
msf auxiliary(modbusdetect) >
```