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**OpenVAS - Vulnerability Assessment install on Kali Linux**

## OpenVAS - Vulnerability Assessment install on Kali Linux

This tutorial documents the process of installing OpenVAS 8.0 on Kali Linux rolling. OpenVAS is open source [vulnerability assessment](#) application that automates the process of performing network security audits and vulnerability assessments. Note, a vulnerability assessment also known as VA is not a penetration test, a penetration test goes a step further and validates the existence of a discovered vulnerability, see [what is penetration testing](#) for an overview of what pen testing consists of and the different types of security testing.

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### What is Kali Linux?

Kali Linux is a Linux penetration testing distribution. It's Debian based and comes pre-installed with many commonly used penetration testing tools such as Metasploit Framework and other command line tools typically used by penetration testers during a security assessment.

For most use cases Kali runs in a VM, you can grab the latest VMWare or Vbox image of Kali from here: <https://www.offensive-security.com/kali-linux-vmware-virtualbox-image-download/>

Download the full version not Kali light, unless you have a specific reason for wanting a smaller virtual machine footprint. After the download finishes you will need to extract the contents and open the vbox or VMWare .vmx file, when the machine boots the default credentials are root / toor. Change the root password to a secure password.

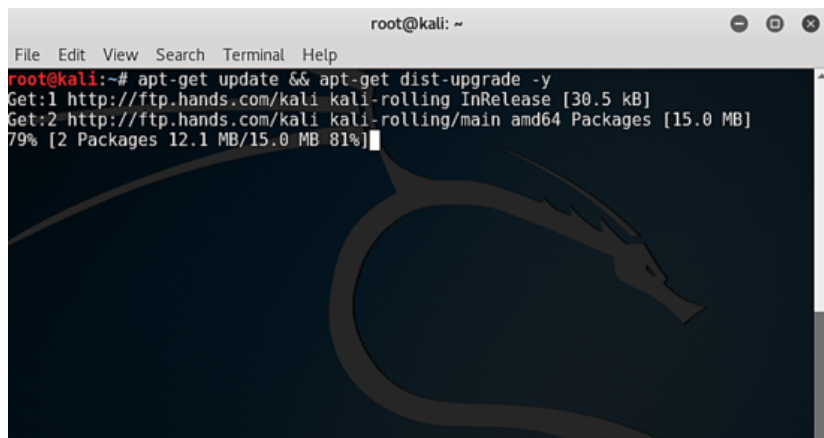
Alternatively, you can download the ISO version and perform an installation of Kali on the bare metal.

### Updating Kali Linux

After installation, perform a full update of Kali Linux.

Updating Kali:

```
apt-get update && apt-get dist-upgrade -y
```

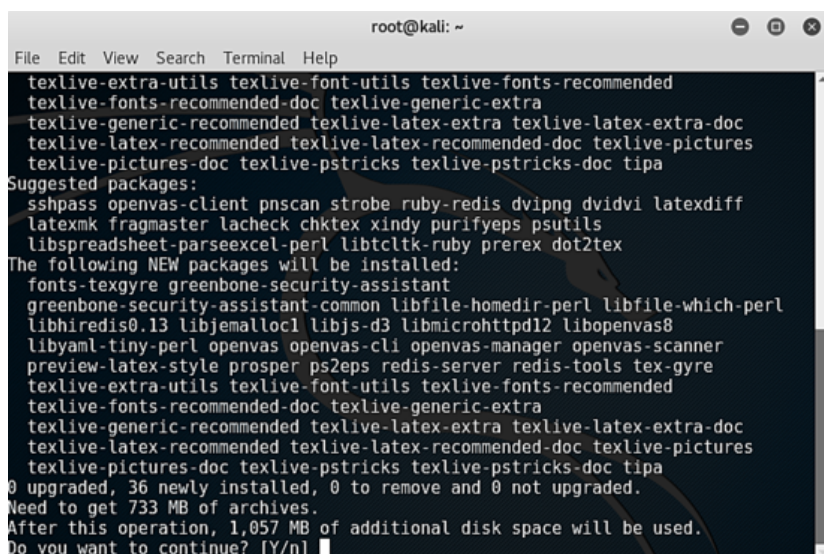
A terminal window titled 'root@kali: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command 'apt-get update && apt-get dist-upgrade -y' being executed. The output shows progress for two sources: 'http://ftp.hands.com/kali kali-rolling InRelease' and 'http://ftp.hands.com/kali kali-rolling/main amd64 Packages'. The progress bar for the second source is at 79% with 2 packages (12.1 MB/15.0 MB) at 81% completion. A large Kali Linux dragon logo is visible in the background.

```
root@kali:~# apt-get update && apt-get dist-upgrade -y
Get:1 http://ftp.hands.com/kali kali-rolling InRelease [30.5 kB]
Get:2 http://ftp.hands.com/kali kali-rolling/main amd64 Packages [15.0 MB]
79% [2 Packages 12.1 MB/15.0 MB 81%]
```

The update process might take some time to complete. Kali is now a rolling release meaning you can update to the current version from any version of Kali rolling. However, there are release numbers but these are point in time versions of Kali rolling for VMWare snapshots. You can update to the current stable release from any of the VMWare images.

After updating perform a reboot.

## Installing OpenVAS 8

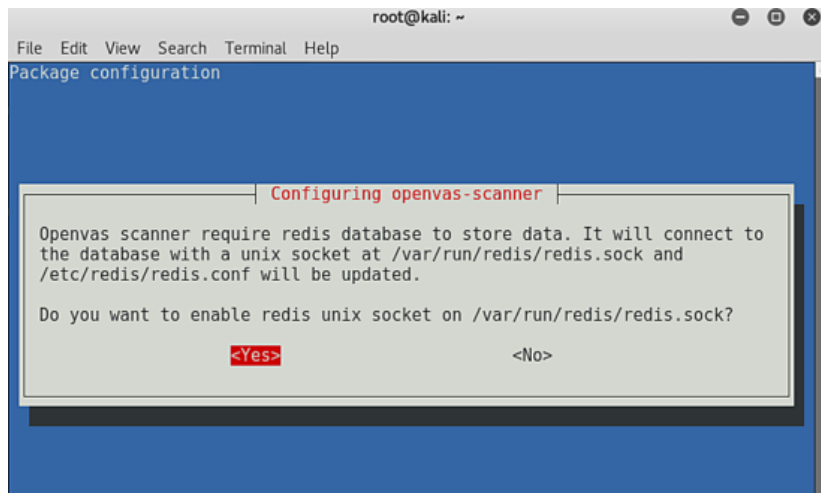
A terminal window titled 'root@kali: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the output of 'apt-get install openvas'. It lists several suggested packages, then lists the new packages to be installed, including 'libopenvas8'. It shows that 0 packages are upgraded, 36 are newly installed, and 0 are to be removed. It indicates that 733 MB of archives are needed and 1,057 MB of additional disk space will be used. The prompt 'Do you want to continue? [Y/n]' is shown with 'Y' entered.

```
root@kali:~# apt-get install openvas
Suggested packages:
  sshpass openvas-client pnsnscan strobe ruby-redis dvipng dvidvi latexdiff
  latexmk fragmaster lacheck chktext xindy purifyeps psutils
  libspreadsheet-parseexcel-perl libtcltk-ruby prerex dot2tex
The following NEW packages will be installed:
  fonts-texgyre greenbone-security-assistant
  greenbone-security-assistant-common libfile-homedir-perl libfile-which-perl
  libhiredis0.13 libjemalloc1 libjs-d3 libmicrohttpd12 libopenvas8
  libyaml-tiny-perl openvas openvas-cli openvas-manager openvas-scanner
  preview-latex-style prosper ps2eps redis-server redis-tools tex-gyre
  texlive-extra-utils texlive-font-utils texlive-fonts-recommended
  texlive-fonts-recommended-doc texlive-generic-extra
  texlive-generic-recommended texlive-latex-extra texlive-latex-extra-doc
  texlive-latex-recommended texlive-latex-recommended-doc texlive-pictures
  texlive-pictures-doc texlive-pstricks texlive-pstricks-doc tipa
0 upgraded, 36 newly installed, 0 to remove and 0 not upgraded.
Need to get 733 MB of archives.
After this operation, 1,057 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
```

```
apt-get install openvas
```

```
openvas-setup
```

During installation you'll be prompted about redis, select the default option to run as a UNIX socket.



Even on a fast connection openvas-setup takes a long time to download and update all the required CVE, SCAP definitions.

```
oval/5.10/org.mitre.oval/v/family/pixos.xml
 10,014 100% 15.75kB/s 0:00:00 (xfr#54, to-chk=5/69)
oval/5.10/org.mitre.oval/v/family/pixos.xml.asc
 181 100% 0.28kB/s 0:00:00 (xfr#55, to-chk=4/69)
oval/5.10/org.mitre.oval/v/family/unix.xml
31,372,831 100% 787.66kB/s 0:00:38 (xfr#56, to-chk=3/69)
oval/5.10/org.mitre.oval/v/family/unix.xml.asc
 181 100% 1.39kB/s 0:00:00 (xfr#57, to-chk=2/69)
oval/5.10/org.mitre.oval/v/family/windows.xml
51,773,463 100% 798.02kB/s 0:01:03 (xfr#58, to-chk=1/69)
oval/5.10/org.mitre.oval/v/family/windows.xml.asc
 181 100% 0.21kB/s 0:00:00 (xfr#59, to-chk=0/69)

sent 1,236 bytes received 749,847,112 bytes 818,165.14 bytes/sec
total size is 749,659,934 speedup is 1.00
[i] Initializing scap database
[i] Updating CPEs
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2002.xml
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2003.xml
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2004.xml
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2005.xml
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2006.xml
[i] Updating /var/lib/openvas/scap-data/nvdcve-2.0-2007.xml
```

Pay attention to the command output during openvas-setup, the password is generated during installation and printed to console near the end of the setup.

```
your server's hostname) []:Email Address []:Using configuration from /tmp/openv
as-mkcert-client.5738/stdC.cnf
Can't open /tmp/openvas-mkcert-client.5738/index.txt.attr for reading, No such f
ile or directory
140412854985856:error:02001002:system library:fopen:No such file or directory:cr
ypto/bio/bss_file.c:74:fopen('/tmp/openvas-mkcert-client.5738/index.txt.attr','r
')
140412854985856:error:20060080:BIIO routines:BIIO_new_file:no such file:crypto/bi
o/bss_file.c:81:
Check that the request matches the signature
Signature ok
The Subject's Distinguished Name is as follows
countryName      :PRINTABLE:'DE'
localityName     :ASN.1 12:'Berlin'
commonName       :ASN.1 12:'om'
Certificate is to be certified until Feb 1 12:05:42 2018 GMT (365 days)

Write out database with 1 new entries
Data Base Updated
md main: DEBUG:5823:2017-02-01 07h05.43 EST: sql_open: db open, max retry
sleep time is 0
Rebuilding NVT cache... done.
User created with password 'cb6c7bdd-c583-4614-8bd8-efd0b0882bf5'.
root@kali:~#
```

Verify openvas is running:

```
netstat -tulpn
```

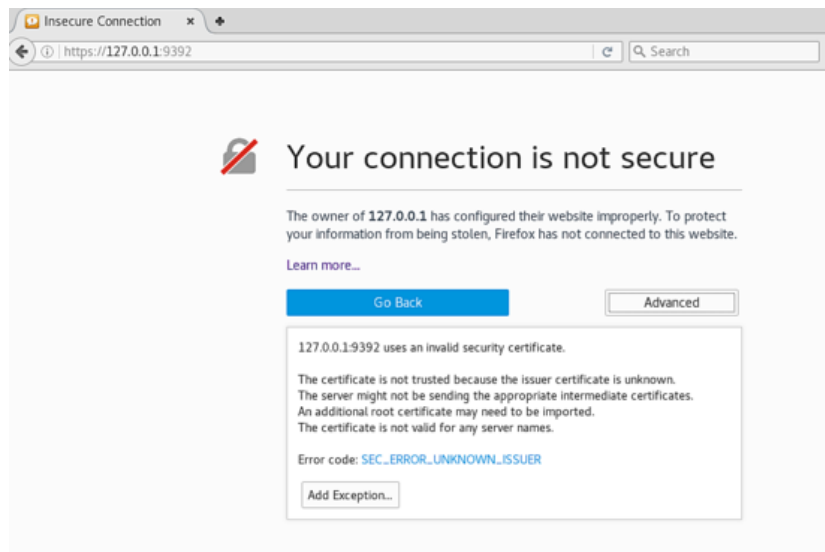
```
root@kali:~# netstat -tulnp
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:9390          0.0.0.0:*               LISTEN      5965/openvasmd
tcp        0      0 127.0.0.1:9391          0.0.0.0:*               LISTEN      5934/openvassd: Wai
tcp        0      0 127.0.0.1:80            0.0.0.0:*               LISTEN      5974/gsad
tcp        0      0 127.0.0.1:9392          0.0.0.0:*               LISTEN      5971/gsad
udp        0      0 0.0.0.0:68              0.0.0.0:*               *          676/dhclient
```

## Start OpenVAS on Kali

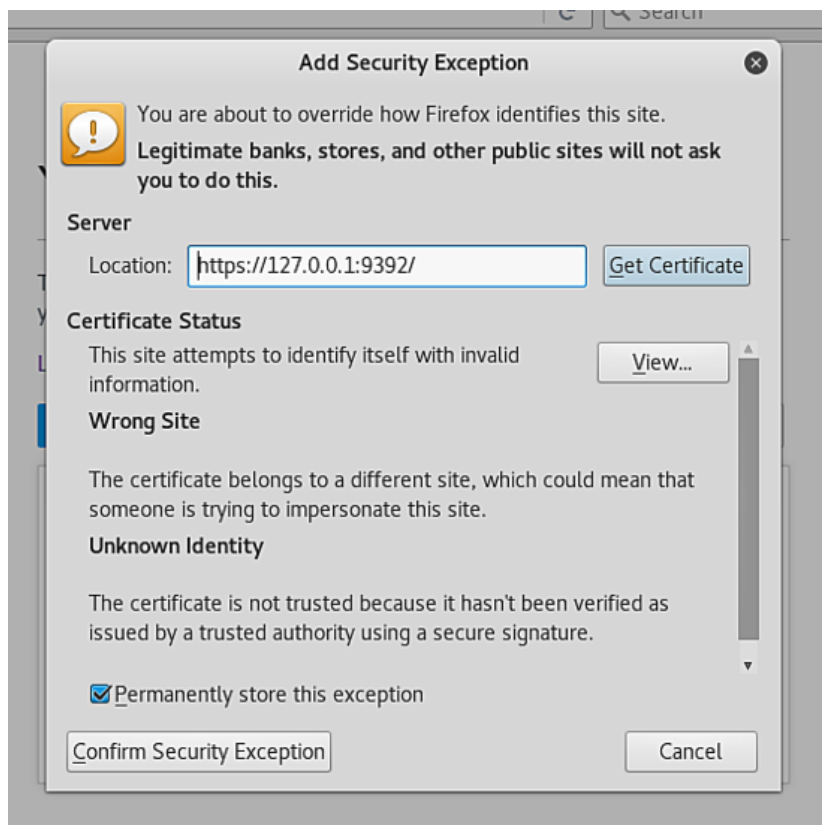
To start the OpenVAS service on Kali run:

```
openvas-start
```

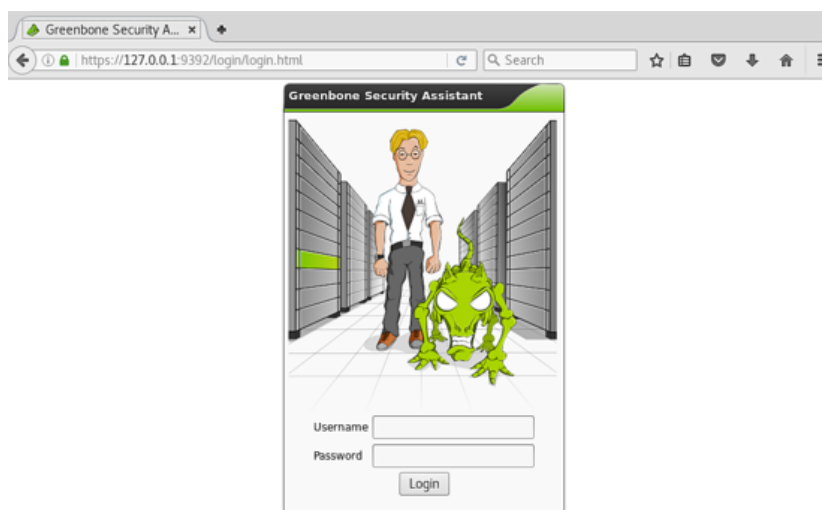
After installation, you should be able to access the OpenVAS web application at **https://127.0.0.1:9392**



Accept the self-signed certificate and login to the application using the credentials admin and the password displayed during openvas-setup.



After accepting the self-signed certificate, you should be presented with the login screen:



After logging in you should be presented with the following screen:



From this point you should be able to configure your own vulnerability scans using the wizard.

It's recommended to read the documentation. Be aware of what a vulnerability assessment conduction (depending on configuration OpenVAS could attempt exploitation) and the traffic it will generate on a network as well as the DOS effect it can have on services / servers and hosts / devices on a network.

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