Kali Linux Installation

Downloading a Kali ISO Image

- Where to Download The only official source of Kali Linux ISO images is the Downloads section of the Kali website. Due to its popularity, numerous sites offer Kali images for download, but they should not be considered trustworthy and indeed may be infected with malware or otherwise cause irreparable damage to your system.
- https://www.kali.org/downloads/

Downloading kali Image

| Image Name | Download | Size | Version | sha256sum | | | | |
|-------------------|--------------------|------|---------|--|--|--|--|--|
| Kali 64 bit | ISO Torrent | 2.6G | 2017.1 | 49blc5769b909220060dc4c0ellae09d97a270a80d259e05773101df62elle9d | | | | |
| Kali 32 bit | ISO Torrent | 2.7G | 2017.1 | 501b3747e5ac7c698217392fe49ec21dacee277404500fc49d4a0ee82625aabe | | | | |
| Kali 64 bit Light | ISO Torrent | 0.8G | 2017.1 | 5c0f6300bf9842b724df92cb20e4637f4561ffc03029cdcb21af3902442ae9b0 | | | | |
| Kali 32 bit Light | ISO Torrent | 0.8G | 2017.1 | 6c83101ecf8702c7d93d32562e822b639d5c577314b448e3b8330995e0f07e0f | | | | |
| Kali 64 bit e17 | ISO Torrent | 2.4G | 2017.1 | ae293cf679f38a4f17d090a272ccb13d7619e66d4502374154186c12891fb99c | | | | |
| Kali 64 bit KDE | ISO Torrent | 2.7G | 2017.1 | 839741fec378114ff068df3ec2dbed9d8e4fae613e690d50b25ce9cc1468104b | | | | |
| Kali 64 bit Mate | ISO Torrent | 2.6G | 2017.1 | 3ea748aa8c5f50d80f020acdbca5f0398ee90242bb4413c12985e1865186ca9e | | | | |
| Kali 64 bit Xfce | ISO Torrent | 2.5G | 2017.1 | 8a17c2f54850585760b9d32a22e26df9a28f395b401753fa0a9b298aef4c4593 | | | | |
| Kali 64 bit LXDE | ISO Torrent | 2.9G | 2017.1 | 35eae65aaaabba8188dfd963e45b7b4d76e0684e7721c7d232cf18320b7cae3b | | | | |
| Kali armhf | Image Torrent | 0.5G | 2017.1 | a75199aa8a3d7b64561bc03fcd6e3ff8b94743c8769eecfaa4b719f04f7cbb63 | | | | |
| Kali armel | image Torrent | 0.4G | 2017.1 | 180414422196f0797clea5f3c18682bc4b3ced871cb3e874e90de52dd4af877c | | | | |

Figure 2.1 List of Images Offered for Download





Figure 2.6 VirtualBox's Start Screen

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Create Virtual Machine

Name and operating system

Please choose a descriptive name for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

| Name: | Kali Linux | |
|----------|-------------------------|--|
| Type: | Linux - 64 | |
| lersion: | Debian (64-bit) | |
| | | |
| | | |
| | | |
| | | |
| | Expert Mode Next Cancel | |

| Create Virtual Machine | | | | | | | | | |
|--|-------------|--|--|--|--|--|--|--|--|
| Memory size | | | | | | | | | |
| Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine. | | | | | | | | | |
| The recommended memory size is 768 MB. | | | | | | | | | |
| | 1500 🖨 MB | | | | | | | | |
| 4 MB | 4096 MB | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | Next Cancel | | | | | | | | |

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Create Virtual Machine

Hard disk

If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.

If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.

The recommended size of the hard disk is 8.00 GB.

- O Do not add a virtual hard disk
- Create a virtual hard disk now
- O Use an existing virtual hard disk file

| Empty | | |
|-------|--------|--------|
| | Create | Cancel |

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Create Virtual Hard Disk

Storage on physical hard disk

Please choose whether the new virtual hard disk file should grow as it is used (dynamically allocated) or if it should be created at its maximum size (fixed size).

A **dynamically allocated** hard disk file will only use space on your physical hard disk as it fills up (up to a maximum **fixed size**), although it will not shrink again automatically when space on it is freed.

A fixed size hard disk file may take longer to create on some systems but is often faster to use.

Next

Cancel

Opnamically allocated

Fixed size

? X

Create Virtual Hard Disk

File location and size

Please type the name of the new virtual hard disk file into the box below or click on the folder icon to select a different folder to create the file in.

| Kali Linux | (| | | | | | | | | | | | | | | | | | | $\overline{\mathbf{A}}$ |
|-----------------------|---------------|--------------|---------------|-------------|---------------|------------|------------|------------|-------------|-------------|--------------|-----------|--------------|--------------|--------------|----------------|---------------|-----------------|------------------|-------------------------|
| Select th amount o | e si of fi | ze (le d | of ti lata | ne v tha | virtı at a | ual vir | har tua | d d I m | lisk ach | in m ine | negi will | aby be | tes. able | . Th e to | is si sto | ize i ore (| is th on t | ne lii the l | mit or hard (| n the disk. |
| 1 1 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | | | - | | | 1 | 1 | 1 | | | 20,0 | 00 GB |
| 4.00 MB | | | | | | | | | | | | | | | 2. | 00 | тв | | | |
| | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | Cre | ate | 2 | | | Canc | el |





Figure 2.14 Storage Settings

Figure 2.13 The New Virtual Machine Appears in the List





Figure 2.16 System Settings: Processor



"the quieter you become, the more you are able to hear"





Select a language

Choose the language to be used for the installation process. The selected language will also be the default language for the installed system.

Language:

| Chinese (Simplified) | - | 中文(简体) | - |
|-----------------------|-----|------------|---|
| Chinese (Traditional) | - | 中文(繁體) | |
| Croatian | - | Hrvatski | |
| Czech | - | Čeština | |
| Danish | - | Dansk | |
| Dutch | - | Nederlands | |
| Dzongkha | - 1 | že ul | |
| English | - | English | I |
| Esperanto | - | Esperanto | |
| Estonian | - | Eesti | |
| Finnish | - | Suomi | |
| French | - | Français | |
| Galician | - | Galego | |
| Georgian | - ; | ქართული | |
| German | - | Deutsch | |
| Greek | _ | Ellouká | 1 |

Screenshot

Selecting the Keyboard Layout

| Configure the keyboard | Configure the network |
|-----------------------------|------------------------------------|
| Keymap to usei | |
| American English | |
| Albanian | Attempting IPv6 aut econfiguration |
| Arabic | |
| Asturian | |
| Bangladesh | |
| Belarusian | |
| Bengali | |
| Beigian | |
| Bosnian | |
| Brazilian | |
| British English | |
| Bulgarian (BDS layout) | |
| Bulgarian (phonetic layout) | |
| Burmese | |
| Canadian French | |
| Canadian Multilingual | |
| Catalan | |
| | |
| Screenshot Go Back Continue | Cancel |
| | |

Root Password

the installer prompts for a password (Figure 4.6, "Root Password" [page 72]) since it automatically creates a super-user root account. The installer also asks for a confirmation of the password to prevent any input error which would later be difficult to adjust.

| | KALI BY OFFENSIVE SECURITY |
|---|---|
| | Set up users and passwords |
| | You need to set a password for 'root', the system administrative account. A malicious or unqualified user with root access can have disastrous results, so you should take care to choose a root password that is not easy to guess. It should not be a word found in dictionaries, or a word that could be easily associated with you. |
| | A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals. |
| | The root user should not have an empty password. If you leave this empty, the root account will be disabled and the system's initial user account will be given the power to become root using the 'sudo' command. |
| / | Note that you will not be able to see the password as you type it. Root password: |
| | |
| | Show Password in Clear |
| | Please enter the same root password again to verify that you have typed it correctly. Re-enter password to verify: |
| | |
| | Show Password in Clear |
| | Screenshot Go Back Continue |

Configuring the Clock

If the network is available, the system's internal clock will be updated from a network time protocol(NTP) server. This is beneficial because it ensures timestamps on logs will be correct from the first boot.

If your country spans multiple time zones, you will be asked to select the timezone that you want to use, "Timezone Selection"

| KALI BY OFFENSIVE SECURITY |
|--|
| Configure the clock |
| If the desired time zone is not listed, then please go back to the step "Choose language" and select a country that uses the desired time zone (the country where you live or are located). Select your time zone: |
| Eastern |
| Central |
| Mountain |
| Pacific |
| Alaska |
| Hawaii |
| Arizona |
| East Indiana |
| Samoa |
| |
| |
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| Screenshot Go Back Continue |

Partitioning

Partitioning is an indispensable step in installation, which consists of dividing the available space on the hard drives into discrete sections (partitions) according to the intended function of the computer and those partitions. Partitioning also involves choosing the file systems to be used. All of these decisions will have an influence on performance, data security, and server administration.

The partitioning step is traditionally difficult for new users. However, the Linux file systems and partitions, including virtual memory (or swap partitions) must be defined as they form the foundation of the system. This task can become complicated if you have already installed another operating system on the machine and you want the two to coexist. In this case, you must make sure not to alter its partitions, or if need be, resize them without causing damage.

To accommodate more common (and simpler) partition schemes, most users will prefer the Guided mode that recommends partition configurations and provides suggestions each step of the way. More advanced users will appreciate the Manual mode, which allows for more advanced configurations. Each mode shares certain capabilities.



Partition disks

The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results.

If you choose guided partitioning for an entire disk, you will next be asked which disk should be used. Partitioning method:

Guided - use entire disk

Guided - use entire disk and set up LVM

Guided - use entire disk and set up encrypted LVM

Manual

Screenshot

Partitioning

Guided Partitioning The first screen in the partitioning tool "Choice of Partitioning Mode" presents entry points for the guided and manual partitioning modes. "Guided -use entire disk" is the simplest and most common partition scheme, which will allocate an entire disk to Kali Linux.

The next two selections use Logical Volume Manager (LVM) to set up logical (instead of physical), optionally encrypted, partitions. We will discuss LVM and encryption later in this chapter. Finally, the last choice initiates manual partitioning, which allows for more advanced partitioning schemes, such as installing Kali Linux alongside other operating systems.

The next screen ("Disk to Use for Guided Partitioning") allows you to choose the disk where Kali will be installed by selecting the corresponding entry (for example, "Virtual disk 1 (vda) -32/2 GB Virtio Block Device"). Once selected, guided partitioning will continue. This option will erase all of the data of this disk, so choose wisely.



Partition disks

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.

Select disk to partition:

Virtual disk 1 (vda) - 32.2 GB Virtio Block Device

Screenshot

Go Back Continue

Next, the guided partitioning tool offers three partitioning methods, which correspond to different usages,



Partition disks

Selected for partitioning:

Virtual disk 1 (vda) - Virtio Block Device: 32.2 GB

The disk can be partitioned using one of several different schemes. If you are unsure, choose the first one.

Partitioning scheme:

All files in one partition (recommended for new users)

Separate /home partition

Separate /home, /var, and /tmp partitions

Screenshot

| Go Back | | |
|---------|--|--|
|---------|--|--|

Continue



Partition disks

This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.

Guided partitioning

- Configure software RAID
- Configure the Logical Volume Manager
- Configure encrypted volumes
- Configure iSCSI volumes

▽ Virtual disk 1 (vda) - 32.2 GB Virtio Block Device

- > #1 primary 30.1 GB f ext4 /
- > #5 logical 2.1 GB f swap swap

Undo changes to partitions

Finish partitioning and write changes to disk

Help



| Go Back | Continue |
|---------|----------|
|---------|----------|



Install the system



Installing the system...

Copying data to disk...

Configuring the Package Manager (apt)

In order to be able to install additional software, APT needs to be configured and told where to find Debian packages. In Kali, this step is mostly non-interactive as we force the mirror to be http.kali.org. You just have to confirm whether you want to use this mirror ("Use a Network Mirror). If you don't use it, you won't be able to install supplementary packages with apt unless you configure a package repository later

| | KALI BY OFFENSIVE SECURITY | |
|---|--|----------------------------------|
| Configure the package manager | | |
| A network mirror can be used to make newer versions of softwar | supplement the software that is inclu re available. | ded on the CD-ROM. This may also |
| Use a network mirror? | | |
| ○ No | | |
| • Yes | | |
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| Screenshot | | Go Back Continue |





Install the GRUB boot loader on a hard disk

You need to make the newly installed system bootable, by installing the GRUB boot loader on a bootable device. The usual way to do this is to install GRUB on the master boot record of your first hard drive. If you prefer, you can install GRUB elsewhere on the drive, or to another drive, or even to a floppy.

Device for boot loader installation:

Enter device manually

/dev/vda



0

Installation complete

Installation is complete, so it is time to boot into your new system. Make sure to remove the installation media, so that you boot into the new system rather than restarting the installation.

KAL

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Screenshot

Go Back Continue

Screenshot

Go Back Continue