

Forum:[Hack Forums](#)

Thread: [\[KALI LINUX\] Dual Boot off Windows Partition/ KALI USB LIVE INSTALL \[Detailed\]](#)

SIM-4581439 - April 2, 2020, 7:01 am

What is dual booting? Dual booting is when a user boots into one of two operating systems, both locally installed on a hard drive or solid state disk. The term Dual Booting is a more narrow term compared to the original Multi-Booting when more than two operating systems are installed. This particular thread will teach how to properly dual-boot by downloading a Kali Linux disk image, writing it to a USB, and installing it on your HDD/SSD.

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When dual-booting any operating system you need to create an unused partition on your disk to install the OS; in this case, Kali. To do this, you locate your primary partition and "shrink" it in size. Essentially you take memory space from the first partition and allot it elsewhere. To do this, open up Disk Management. It can be found by searching for it in your start menu or running it from the executable: diskmgmt.msc

Once Disk Management is open, locate your 'primary partition' which should be labeled as so. If for whatever reason you're unable to locate it, chances are it will be the biggest partition on your drive. Right click the primary partition and hit Shrink Volume. A smaller window should appear saying 'Querying volume for available shrink space, please wait...' Give this window a few seconds. When it closes, a third window will appear asking you how much in Megabytes you want to shrink the partition. Again, the new partition for Kali will be as big as the amount you shrink your primary partition. The amount to shrink is entirely up to you. I personally recommend over 25GB. All-in-all, your process should look like this:

When Disk Management successfully shrinks your partition, it should decrease in size by the amount you chose and a secondary partition should appear.:

Until data is written to the partition, it will remain as 'Unallocated.' Note: do not setup a file system or alter the partition in any way. You can correct this and format the partition if need be during Kali's setup process but it will save you time if you keep it untouched.

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Now that you've created your secondary partition, you'll need to actually install Kali Linux. However, you'll need a few things first. One, to install Kali you will have to 'Live Boot' it from a USB. Your USB will need to be 4 gigabytes or more. Second, you'll also need the Kali Linux ISO/disk image file. You can find it at <http://www.kali.org/downloads>

Be sure to download the 'Live' version rather than then Installer. It is also important to choose the Live version that matches your system architecture; x64 or x86 bit. If you don't know your system architecture you can open 'Command Prompt' (cmd.exe) and type in: systeminfo | Find "System Type"

When you have acquired both a USB and the image file you will need a program capable of writing the Kali disk image to your USB. There are many popular options to choose from. YUMI, Rufus, UUI, etc. In this scenario I used Win32 Disk Imager, found [here](#).

Once you have downloaded your disk-imager, you will need to select both the drive letter of your USB and the image itself. When using Win32 Disk Imager, you need to select the all-file option in the file filter. Your image may look something like this:

When this is completed, click Write.

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To recap you should have downloaded the Kali Linux image file, as well as a disk-image writing software, written the image to a USB, and now you're ready for the final step: the installation. To begin this process it is recommended that you either read the rest of this tutorial and commit it to memory, or you open it on another device. You will need to power down your machine fully. Once its off, power it back on again. Immediately spam the key on your machine designated for your boot menu. Every machine is different. The most common key is F12 (especially), F11, or F10. If none of these work you will have to search online. This information is generally present on the manufacturer's website. When you have done this successfully a boot menu should appear. Mine looks like this, however yours may be different:

The name of your USB should be listed. Select it, and it should boot into Kali Linux's main install/boot menu.

Select the Start Installer option:

You will then be presented with three options. The country you live in, the preferred language, and the keyboard type. Choose these as best suited for you. Once this is done, your computer will attempt to connect to your network via DHCP (Dynamic Host Control Protocol). This is essentially where Kali tries to receive network information from your router, such as internal and physical IP addresses, etc. If you are not installing Kali with the use of an Ethernet cable (which should immediately receive network information via DHCP) this step will most likely fail. From there you will be asked to manually configure your network information. It should look like this:

When manually configuring you will need to know standard network information about your machine like IPv4 Address, Subnet, and Default Gateway. If you don't know this information you have three options. You can exit the install, return to windows, and find it using the IPCONFIG command in the command prompt. You can also log into the maintenance panel of your WiFi router if you have the proper access (preferably with an alternate device opposed to exiting the install) and find the information there. Or...you could choose the 'Do not configure the network at this time' option. Regardless if you choose to configure or not, it won't negatively effect the setup. If you do choose to configure you will see these fields:

Next you will be asked to enter in a host and domain name. Unless you know what you're doing, it is recommended that you keep both of these identical. These are necessary names so your Kali machine will be able to interact and communicate with other devices on the network. Following that you will also be asked to setup a user account on your Kali machine as well as a password. As of late, Kali Linux development team decided they would remove the default Root user from their distro, so pay attention to your credentials and don't lose them!

Next you will be ushered to a screen that looks like this:

In personal experiences using any of the 'guided' options just ends up causing more aggravation. As long as you're comfortable, go ahead and select the 'Manual' option. Your screen will change and you will see a list of all partitions on your disk, including your USB. Make sure you don't attempt to install Kali Linux to your USB partition by mistake. You will want to locate the partition you made/shrunk earlier. It should be labeled as "FREE SPACE" by don't always count on the label. It should also be listed by size. It may however be off by a few bytes so don't be paranoid. If you shrunk up to a 60GB partition, it may come out to 59.8GB or even 61.0GB. Once you've located it, select the partition. There you should see a list of options to edit your partition structure. You will see a "Name" option. This will be the name of the partition label. Choose whatever you deem fit. Next you will see a "Use As" option. This will determine the file system installed to the partition. Unless you have a specific preference, use EXT4 Journaling File System. Last you will want to set the "Mount Point" to "/" (root). The rest of the options can remain static unless you know what you're doing, then change them. It should look something like this:

When ready, select Done setting up the partition.

Return to the main partition screen, and you should see an option towards that bottom labeled Finish partitioning and write changes to disk. Select this option. Unless you have done so, Kali may recommend that you setup a "swap" space. Swap's purpose is to store temporary virtual memory when all of the RAM is currently full. Its not mandatory, but recommended. When done, you will then confirm that you want to write Kali to the selected partitions. It may look something like this:

Select YES and continue. At this point you should see the system installing.

When your Kali system begins to install, it's a waiting game. When completed you will be asked if you want to install a 'Grub boot loader' which is up to you. It is essentially a menu that comes up when you power on your machine and it allows you to select whether you want to boot into either Kali or your primary partition, in this case, Windows 10 OS. If you choose not to install the boot loader you will manually have to boot into the Kali partition via the boot menu. Note: if you have a BIOS password setup or disk encryption it may cause the boot loader to not start properly.

Congratulations! You are ready to go ? As soon as Kali Linux has installed a restart will happen. You are clear to remove your USB and boot directly into your system. If you have any comments, questions, concerns, or overall critiques please be sure to post below <3

SIM-2263652 - April 4, 2020, 9:33 am

Good work on the guide. Detailed and easy to understand for beginners.

SIM-4581439 - April 4, 2020, 11:14 am

(Apr 4, 2020 09:33 AM)matrixx Wrote: [\[CITE\]](#) Good work on the guide. Detailed and easy to understand for beginners.

I appreciate the feedback. Thanks ?

If you think of something I could have elaborated on more, lmk.

olsenf53 - April 4, 2020, 11:22 am

Can I participate on this program?

SIM-4581439 - April 4, 2020, 11:38 am

(Apr 4, 2020 11:22 AM)olsenf53 Wrote: [\[CITE\]](#) Can I participate on this program? Participate? How do you mean?

Fr1end5990 - April 6, 2020, 9:58 am

why is dividing partition necessary for this tutorial? I've never read or heard about partitons, and am also a newbie, could you explain this for me?
and also, i have a 128GB sandisk usb. is is good to go?

SIM-4581439 - April 6, 2020, 10:04 am

(Apr 6, 2020 09:58 AM)Fr1end5990 Wrote: [\[CITE\]](#) why is dividing partition necessary for this tutorial? I've never read or heard about partitons, and am also a newbie, could you explain this for me?
and also, i have a 128GB sandisk usb. is is good to go?

You can boot Kali Linux many ways including via a Live USB or Virtual Machine. However, Dual/Multi-booting is another way. If you have an operating system installed on the main partition and you want a second one, you have to split it. That's what this tutorial covered. It allows you to still maintain your original Windows OS and boot Kali at the same time. Technically speaking you could always overwrite any existing operating system and install Kali as the full-time OS.

Pronouncer - April 6, 2020, 10:15 am

Pretty sure dual booting kali is really stupid as its really designed to be a live OS rather than a main os. its similar to attempting to dual boot tails just something you shouldn't do and is bad practise

SIM-4581439 - April 6, 2020, 9:12 pm

(Apr 6, 2020 10:15 AM)Pronouncer Wrote: [\[CITE\]](#) Pretty sure dual booting kali is really stupid as its really designed to be a live OS rather than a main os. its similar to attempting to dual boot tails just something you shouldn't do and is bad practise

I agree and disagree. Since USB booting Kali is in a 'Live' state its going to be placing data in the RAM. You shutdown or restart and all your data is lost. Having a solid partition to boot from allows you to save your work. So for example, you're cracking an SSH server. You're blowing through many dictionaries. They're big in size. You need a place to download and store them, etc. Or you're dumping a database, updating your system to get the newest exploits, or whatever the case may be. This can still be done in a Live boot session but (imo) less comfortably. If feel like overall your day to day tasks would determine how you should be booting Kali.

olsenf53 - April 8, 2020, 6:19 pm

(Apr 4, 2020 11:38 AM)I?wife Wrote: [\[CITE\]](#) Participate? How do you mean?

Thank you for reply. pls I really need your help, I just downloaded gammadyne mailer 58.0 but I did not have the license key to activate it, pls do you have the license key? and I need domain SMTP specifically office365

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Malthemar - April 8, 2020, 6:21 pm

Nice work, OP.

Nice to see genuine effort going into useful guides again.