Dual boot android windows 7



















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When it comes to dual boot, the general idea is that you have a system preinstalled with Windows and then you install Linux alongside Windows. On the boot, you select whether you want to install Windows alongside with Windows and then you install Linux alongside Windows. Linux in dual boot mode? In this tutorial, I'll show you exactly how you can install Windows on an existing Ubuntu Linux system I tested this tutorial on an Ubuntu system with UEFI and GPT partitioning scheme. In theory, the same steps should be applicable to most Linux distributions, if not all Requirements Here's all the stuff you need to carry out the procedure safely and easily: A bootable Windows 10 USB stick (USB key, Pen Drive) of at least 4 GB in sizeA computer with UEFI boot and only Ubuntu Linux installed on itInternet connection is needed for creating the bootable Windows and live Linux diskA way to back up your important data on an external disk (optional yet recommended) You may also manage this tutorial with just one USB key as a bootable Windows USB. I highly recommend that you read the entire tutorial first before you start following the steps. Step 0: Make a backup of important data Here's the thing. You mess it up, you'll lose the data. Having a back up on an external disk will give you a safety net. In the worst case, if things go wrong, you can install either of Windows or Linux and copy the data back on your system. How do you make a backup? The simplest method is to have an external USB or SSD disk and copy files from Documents, Music, Pictures and other folders where you have kept your files. Step 1: Create a bootable Windows USB If you have access to a Windows system, you can follow the instructions on the Microsoft website to create a bootable Windows media. If you only have a Linux system, creating a bootable Windows USB could be tricky. Thankfully, a handy open source tool called Ventoy helps a lot in this case. I have written in detailed about creating bootable Windows 10 USB on Linux. Please refer to the guide for detailed instructions. I'll mention the crucial parts here. Plug in your USB with at least 8 GB of size and format it. Now, download the ISO of Microsoft Windows. Next, download the ISO of Microsof It will open a web page with Ventoy running in it. Go for UEFI installation and hit the install button. Once installed, you'll see two partitions on the USB disk: VTOYEFI and Ventoy. You need to copy the download Windows ISO image to Ventoy partition. Once the copying finishes, DO NOT RUSH to plug out the USB just yet. Click on the unmount option from the file manager. Okay. So now that you have a bootable Windows USB, it will be a good idea to test it out and see if works. How do you do that? Plug in the Windows USB, reboot your system. When the system is turning on again and showing the logo of your system's manufacturer, press F2/F10/F12 keys to access the BIOS settings. When you are in the BIOS, choose to boot from the USB. In some cases, you may have to disable secure boot from the BIOS settings. If the bootable Windows USB creation was a success, you should see Ventoy screen and select to boot into Win10. After this, you'll see some screen about Windows installation. Don't go with the installation part yet. Close it and power down your system and then boot into Linux again. This check was necessary because you need to have a working bootable Windows USB. Without that, there will be no point in following the rest of the tutorial. Remove the bootable Windows USB. Without that, there will be no point in following the rest of the tutorial. Remove the bootable Windows USB at this stage. Step 2: Create a live Ubuntu Linux USB You may wonder why you need a live Ubuntu USB here when you already have Linux installed properly. The reason is that you need to modify it and create a new partition in it. This is why you need a live Linux USB. You boot from the live USB and make the necessary partition on the disk from the live uses on with creating live Ubuntu USB. First, download the ISO image of Ubuntu from its website. Any version of Ubuntu will work. Now, plug in the USB with at least 4 GB in size. On Ubuntu, you can find the Startup Disk Creator tool. You may also use Etcher on Linux. The choice is yours. Here, I'll use Startup Disk Creator. The process is really simple. Your plugged in USB should be recognized. It should also automatically find the Ubuntu ISO. If not, you can always browse to it. With that set, just hit the "Make Startup Disk" button. It should take a few minutes to create the live Ubuntu USB. You can hit the Quit button below. Step 3: Boot from the live Linux USB. Restart the system. When it is powering on and displaying the manufacturer's logo, press F2/F10/F12 keys to access the BIOS settings. In here, go to the boot order and boot from the Linux USB. When you see this screen, go for Try Ubuntu. Now that you are in the Disks application, carefully select the main hard disk/SSD of your computer. This is where you have Linux installed. As you can see in the picture below, I have ESP partition (for UEFI boot settings) and a single Linux partition. This is the partition that needs to be resized to make free space for Windows. If you have a root, swap and home partition. In the resizing, it will show a minimal size. You cannot shrink the disk below this point. You'll be leaving some extra space for Linux usage, of course. Note that the "partition size" is for Linux partition. In the picture below, I reduced the Linux partition. When you hit the resize button, it could take up to a couple of minutes to complete the resizing process. As you can see in the picture below, now I have three partitions on my system. One is 500 MB of ESP partition (for UEFI boot), 120 GB of free space where you are going to put Windows. Shut down your system now. Step 4: Boot from Windows USB and start installing Windows Plug in your bootable Windows UBS. Once again, restart your system, access the BIOS settings and boot from the USB. By now, you know how to do this. You should see the Windows USB. You should see the Windows USB. logo. After a few seconds, you'll see the option to choose the language, time and keyboard. The next screen will give you the option to start the installation. Hit "Install Now". In the next few screens, it will ask for the Windows license key. If you don't have it, skip it. You can activate Windows later as well. You'll be asked to choose a Windows version and accept the end user license. Enter license key or skip itChoose Windows versionAccept terms and agreement In the next screen, go with the Custom install option. Now you'll come to the partition screen. Select the free space (unallocated space) you had created in the step 3 and hit the Next button. It will take a couple of minutes in copying the files and install Windows. After that, your system will restart automatically and this is super annoying but super easy to follow. I am not going in detail for this part because I know you can handle the configuration part, which is waiting and hitting next button most of the time. I am sharing a few screenshots just for the reference, though. Once you have installed Windows by default. You need to get the Grub dual boot screen back. Step 5: Get the Grub bootloader back Once again, restart your system and when it is powering on, go to BIOS settings. From the boot order, move Ubuntu up the order, You may have to use arrow keys or F5 or F6 and the screen may look different for different system. Save and exit and this time you should be booting into Ubuntu. The battle is not over yet. The grub bootloader might not be aware of the presence of Windows. This is why it is a good idea to update grub in Ubuntu. All you have to do is to open a terminal and use the following command: sudo update-grub Restart your system once again. You should be greeted with the familiar grub boot screen that gives you the option to choose between booting into Ubuntu and Windows. And that brings us to the end of this long journey. It takes some time and effort, but if you want to install Windows after installing Ubuntu, this can surely be done. If you still have questions, please let me know in the comment section and I'll try to answer you. coexistence. Important information Windows UEFI vs BIOS limitations on which firmware boot mode and partitioning style can be supported by the Windows used: Note: The following points only list configurations supported by the Windows used: Note: The following points only list configurations on which firmware boot mode and partitioning style can be supported by the Windows used: Note: The following points only list configurations supported by the Windows used: Note: The following points only list configurations supported by the Windows used: Note: The following points only list configurations on which firmware boot mode and partitioning style can be supported by the Windows used: Note: The following points only list configurations supported by the Windows used: Note: The following points only list configurations on the version of Windows used: Note: The following points only list configurations which firmware boot mode and partitioning style can be supported by the Windows used: Note: The following points only list configurations which firmware boot mode and partition of Windows used: Note: The following points only list configurations which firmware boot mode and partitions which firmwar unsupported configurations. A good example of this is Windows 11 which still works on a BIOS/MBR configuration once the Windows Setup check is bypassed. Windows XP both x86 32-bit and x86 64 (also called x64) (RTM and all Service Packs) versions do not support booting in UEFI mode (IA32 or x86 64) from any disk (MBR or GPT) OR in BIOS mode from GPT disk. They support only BIOS boot and only from MBR disk. Windows Vista or 7 x86 32-bit (RTM and all Service Packs) versions support booting in BIOS mode from MBR disks. They do not support x86_64 UEFI or IA32 (x86 32-bit) UEFI boot. They support only BIOS boot and only from MBR disk. Windows Vista or 7 x86 32-bit (RTM and all Service Packs) versions support booting in BIOS mode from MBR disks. They do not support x86_64 UEFI or IA32 (x86 32-bit) UEFI boot. They support only BIOS boot and only from MBR disk. Windows Vista or 7 x86 32-bit (RTM and all Service Packs) versions support booting in BIOS mode from MBR disks. Vista RTM x86 64 (only RTM) version support booting in BIOS mode from MBR disks only, not from GPT disks. It does not support x86 64 UEFI or IA32 (x86 32-bit) UEFI boot. It supports only BIOS boot and only from MBR disk. Windows Vista (SP1 and above, not RTM) and Windows 7 x86 64 UEFI or IA32 (x86 32-bit) UEFI boot. It supports only BIOS boot and only from MBR disk. disk only, OR in BIOS mode from MBR disk only. They do not support IA32 (x86 32-bit) UEFI boot from GPT/MBR disk, or BIOS boot from MBR disk, or BIOS boot from GPT/MBR disk, or BIOS boot from GPT disk. Windows 8/8.1 and 10 x86 32-bit support booting in IA32 UEFI mode from GPT disk only. OR in BIOS mode from MBR disk only. They do not support x86_64 UEFI boot from GPT/MBR disk, x86 64 UEFI boot from MBR disk, or BIOS boot from GPT disk. On market, the only systems known to ship with IA32 (U)EFI are some old Intel Atom System-on-Chip (Clover trail and Bay Trail) Windows Tablets, which boot ONLY in IA32 UEFI mode and ONLY from GPT disk. Windows 8/8.1 and 10 x86 64 versions support booting in x86 64 UEFI mode from GPT disk only, OR in BIOS mode from GPT disk only, OR in BIOS boot from GPT disk. Windows 11 only supports x86 64 and a boot in UEFI mode from GPT disk. In case of pre-installed Systems: All systems pre-installed with Windows XP, Vista or 7 32-bit, irrespective of Service Pack level, bitness, edition (SKU), boot in BIOS/MBR mode by default. Very few recent systems pre-installed with Windows 7 are known to boot in x86 64 UEFI/GPT mode by default. ALL systems pre-installed with Windows, ie. x86 64 Windows, ie. x86 64 Windows boot in x86 64 UEFI mode. The best way to detect the boot mode of Windows is to do the following[1]: Boot into Windows Press Win+R keys to start the Run dialog type msinfo32.exe and press Enter In the System Summary on the left and check the value of BIOS mode item on the right If the value is UEFI, Windows boots in UEFI/GPT mode. If the value is Legacy, Windows boots in BIOS/MBR mode. In general, Windows forces type of partitioning depending on the firmware mode used, i.e. if Windows is booted in UEFI mode, it can be installed only to a GPT disk. If Windows is booted in Legacy BIOS mode, it can be installed only to an MBR disk. This is a limitation enforced by Windows Setup, and as of April 2014 there is no officially (Microsoft) supported way of installing Windows in UEFI/MBR or BIOS/MBR configuration. Tip: Windows 10 version 1703 and newer supports converting from BIOS/MBR to UEFI/GPT using MBR2GPT.EXE. Such a limitation is not enforced by the Linux kernel, but can depend on which boot loader is used and/or how the boot loader is configured. The Windows and Linux from the same disk, since installation procedure of boot loader is configured. configuration. In case where Windows and Linux dual boot from the same disk, it is advisable to follow the method used by Windows, ie. either go for UEFI/GPT boot or BIOS/MBR boot. See for more information. Install media limitations Intel Atom System-on-Chip Tablets (Clover trail and Bay Trail) provide only IA32 UEFI firmware without Legacy BIOS (CSM) support (unlike most of the x86 64 UEFI systems), due to Microsoft Connected Standby Guidelines for OEMs. Due to lack of 32-bit UEFI boot in Arch Official Install ISO (FS#53182), the official install media cannot boot on these systems. See Unified Extensible Firmware Interface#UEFI firmware bitness for more information and available workarounds. Most of the linux bootloaders installed in UEFI/MBR mode in another disk, the UEFI bootloader used by Arch cannot chainload the BIOS installed Windows in the other disk. Similarly if Arch is installed in UEFI/GPT in another disk , the BIOS bootloader used by Arch cannot chainload UEFI installed Windows in the other disk. The only exceptions to this are GRUB in Apple Macs in which GRUB in UEFI mode can boot BIOS installed OS via appleloader command (does not always work in non-Apple UEFI systems), and rEFInd which technically supports booting legacy BIOS OS from UEFI systems), and rEFInd which technically supports booting legacy BIOS installed in BIOS/GPT in one disk and Windows is installed in BIOS/MBR mode in another disk, then the BIOS boot loader used by Arch CAN boot the Windows on same disk, Arch should follow the same firmware boot mode and partitioning combination used by the Windows installation. Windows Setup creates a 100 MiB EFI system partition (except for Advanced Format 4K native drives where it creates a 300 MiB ESP), so multiple kernel usage is limited. Workarounds include: Mount ESP to /efi and use a boot loader that has file system drivers and is capable of launching kernels that reside on other partitions. Expand the EFI system partition, typically either by decreasing the Recovery partition size or moving the Windows partition (UUIDs will change). Backup and delete unneeded fonts in esp/EFI/Microsoft/Boot/ (e.g. to only keep en-US). UEFI Secure Boot All pre-installed Windows 8/8.1, 10 and 11 systems by default boot in UEFI/GPT mode and have UEFI Secure Boot enabled by default. This is mandated by Microsoft for all OEM pre-installed systems. Arch Linux install media does not support Secure Boot yet. See Secure Boot yet. See Secure Boot yet. Boot in the firmware setup manually before attempting to boot Arch Linux. Windows 8/8.1, 10 and 11 SHOULD continue to boot fine even if Secure Boot support is that it requires physical access to the system to disable secure boot option in the firmware setup, as Microsoft has explicitly forbidden presence of any method to remotely or programmatically (from within OS) disable secure boot in all Windows used Bitlocker recovery screen This is not permanent however, and you can easily boot Windows 11, disabling Secure Boot. On Windows 11, disabling Secure Boot prevents Windows 11, disabling Secure Boot prevents Windows 11, disabling Secure Boot. and boot Linux (or another OS), or you can hibernate both OSs. Warning: Data loss can occur if Windows hibernates and you dual boot into another OS and make changes to files on a filesystem (such as NTFS) that can be read and written to by Windows and Linux, and that has been mounted by Windows [3]. Fast Startup enabled) Windows and then start Linux, or hibernate Linux and then start Windows. ntfs-3g added a safe-guard to prevent read-write mounting of hibernated NTFS filesystems, but the NTFS driver within the Linux kernel has no such safeguard. Windows cannot read filesystems, but the NTFS filesystems, but the NTFS filesystems, but the NTFS driver within the Linux kernel has no such safeguard. These filesystems do not have to be considered, unless you install a Windows driver for them. Windows settings Fast Startup and hibernation that are covered in the next sections. disable Fast Startup and enable hibernation disable Fast Startup and enable hibernation and enable hibernation disable a setting, make sure to disable the settin and then shut down Windows, before installing Linux; note that rebooting is not sufficient. Disable Fast Startup and disable hibernation This is the safest option, and recommended if you are unsure about the issue, as it requires the least amount of user awareness when rebooting from one OS into the other. You may share the same EFI System Partition between Windows and Linux. Disable Fast Startup and enable hibernation This option requires user awareness when rebooting from one OS into the other. If you want to start Linux while Windows is hibernated, which is a common use case, then you must use a separate EFI System Partition (ESP) for Windows and Linux, and ensure that Windows does not mount the ESP used for Linux. As there can only be one ESP per drive, the ESP used for Linux must be located on a separate drive than the ESP used for Linux root partition. you can not read-write mount any filesystem in Linux, that is mounted by Windows while Windows fully, rather than hibernating, then you can read-write mount the filesystem. Note: You can avoid this issue for a drive by mounting a drive as an external drive in Windows and ejecting the drive in Windows before hibernation, but since Windows can not be shut down fully, only hibernated, you can never read-write mount any filesystem that was mounted by Windows is hibernated. Note: Windows is hibernated. Note: Windows is hibernated to filepaths being shorter than 260 characters. Windows also puts certain characters off limits in filenames for reasons that run all the way back to DOS: < (less than) > (greater than): (colon) " (double quote) / (forward slash) \ (backslash) | (vertical bar or pipe)? (question mark) * (asterisk) These are limitations of Windows and not NTFS: any other OS using the NTFS partition will be fine. Windows will fail to detect these files and running chkdsk will most likely cause them to be deleted. This can lead to potential data-loss. NTFS-3G applies Windows restrictions to new file names through the windows names option: ntfs-3g(8) § Windows filename Compatibility (see fstab). Installation The recommended way to setup a Linux/Windows dual booting system is to first install Windows, only using part of the disk for its partitions. When you have finished the Windows setup, boot into the Linux install environment where you can create and resize partitions for Linux while leaving the existing Windows partitions will create the EFI system partitions will create the EFI system partitions will create the EFI system partitions which can be used by your Linux boot loader. Windows partitions will create the EFI system partitions will create the EFI system partitions which can be used by your Linux boot loader. supporting BIOS boot loader. This section explains how to : install a linux bootloader on a partition instead of the MBR ; copy this bootloader to start said copy of the linux bootloader to a partition being loaded by the Windows boot loader must be a primary partition but usage of an extended partition has been documented as working. Make a copy of the VBR: dd if=/dev/disk is the path of the partition on which your bootloader is installed and /path/to/ is the mounted filesystem on which you want the copy to be readable by the Windows bootloader. On Windows, the linux.bin file should now be accessible. Run cmd with administrator privileges (navigate to Start > All Programs > Accessories, right-click on Command Prompt and select Run as administrator): bcdedit /create /d "Linux" /application BOOTSECTOR BCDEdit will return a UUID for this entry. This will be refered to as UUID in the remaining steps. bcdedit /set UUID device partition=c: (or the drive letter on which linux.bin is kept) bcdedit /set UUID path \path\to\linux.bin bcdedit /set UUID path \path \path set UUID path is used to start another OS with a second power button (e.g. Dell Precision M4500). For more details, see UEFI systems If you already have created some partitions on a GPT-formatted disk: a Windows (i.e. the equivalent of Linux's /boot), an EFI system partitions with a FAT32 filesystem, a Microsoft Reserved Partition with a NTFS filesystem, which corresponds to C:, potentially system recovery and backup partitions and/or secondary data partitions (corresponding often to D: and above). Using the Disk Management utility in Windows, check how the partitions are labelled and which type gets reported. This will help you understand which partitions are essential to Windows, and which type gets reported. This will help you understand which partitions are essential to Windows (NTFS) partitions to free up disk space for additional partitions for Linux. Warning: The first 4 partitions in the above list are essential, do not delete them. You can then proceed with partitioning, depending on your needs. Mind that an additional EFI system partition should not be created, as it may prevent Windows from booting. Simply mount the existing partition. Note: It only appears when Linux is installed on the second hard disk and a new EFI system partition is created on the second hard disk. The boot loader needs to support chainloading other EFI applications to do dual boot Windows / Linux. Computers that come with newer versions of Windows often have Secure Boot enabled. You will need to take extra steps to either disable Secure Boot or to make your installation media compatible with secure boot (see above and in the linked page). Linux, you will have to set aside a partition for Windows, say 40GB or larger, in advance. Or have some unpartitioned disk space, or create and resize partitions for Windows from within the Linux installation. UEFI firmware Windows from within the Linux installation. UEFI firmware Windows from within the Linux installation. single partition for Windows, without the Windows Recovery Environment and without Microsoft Reserved Partition, will not do. Follows an outline, assuming Secure Boot is disabled in the firmware. Boot into windows installation. Follow the #Fast Startup and hibernation section. Fix the ability to load Linux at start up, perhaps by following #Cannot boot Linux after installing Windows. It was already mentioned in #UEFI systems that some Linux boot managers will autodetect Windows. It was already mentioned in #UEFI systems that some Linux after installing Windows. It was already mentioned in #UEFI systems that some Linux boot managers will autodetect Windows. which you can boot into Linux, it is advised to have other means to boot into Linux, such as an arch installation media or a live CD. Windows 10 with GRUB is used as a boot loader (although the process is likely similar for other boot loaders) and that Windows 10 will be installed on a GPT block device with an existing EFI system partition (see the "System partition" section in the Microsoft documentation for more information). Create with program gdisk on the block device the following three new partitions. See [5] for more precise partition sizes. Min size Code Name File system 16 MB 0C01 Microsoft reserved N/A ~40 GB 0700 Microsoft basic data NTFS 300 MB 2700 Windows RE NTFS Create NTFS file systems on the new Microsoft basic data and Windows RE (recovery) partitions using the mkntfs program from package ntfs-3g. Reboot the system into a Windows 10 installation media. When prompted to install select the custom install option and install Windows on the Microsoft basic data partition created earlier. This should also install Microsoft EFI files in the EFI partition. After installation (set up of and logging into Windows boot manager to be available in the GRUB menu on next boot. Troubleshooting Couldn't create a new partition or locate an existing one See #Windows UEFI vs BIOS limitations. Cannot boot Linux after installing Windows See Unified Extensible Firmware Interface#Windows is usually installed on the first partition and installs its partition table and reference to its bootloader to the first sector of that partition. If you accidentally install a bootloader like GRUB to the Windows partition or damage the boot record in some other way, you will need to use a utility FIXBOOT and an MBR fix utility FIXBOOT and an MBR fix utility FIXBOOT and an MBR fix utility for the windows partition or damage the boot record in some other way, you will need to use a utility for the windows partition or damage the boot record in some other way. method, you can fix the reference on the boot sector of the first partition, respectively. After doing this you will have to reinstall GRUB to the MBR as was originally intended (that is, the GRUB bootloader can be assigned to chainload the Windows bootloader). If you wish to revert back to using Windows, you can use the FIXBOOT command which chains from the MBR to the boot sector of the first partition to restore normal, automatic loading of the Windows operating system. Of note, there is a Linux utility called ms-sys (package ms-sysAUR in AUR) that can install MBR's. However, this utility is only currently capable of writing new MBRs (all OS's and file systems supported) and boot sectors (a.k.a. boot record; equivalent to using FIXBOOT) for FAT file systems. Most LiveCDs do not have this utility by default, so it will need to be installed first, or you can look at a rescue CD that does have it, such as Parted Magic. First, write the partition info (table) again by: # ms-sys --partition /dev/sda1 Next, write a Windows 2000/XP/2003 MBR: # ms-sys --mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr /dev/sda # Read options for different versions Then, write the new boot sector (boot record): # ms-sys -.mbr partition created by Windows Setup is too small Windows Setup creates a 300 MiB ESP). This is generally too small to fit everything you need. You can try different tools to resize this partition, but there are usually other partitions in the way, making it, at the very least, difficult. One option is to use the Arch install media to create a single EFI system partition you made instead of creating its own. Time standard Recommended: Set both Arch Linux and Windows to use UTC, following System time#UTC in Microsoft Windows. Some versions of Windows revert the hardware clock back to localtime if they are set to synchronize the time online. This issue appears to be fixed in Windows take care of hardware clock corrections and you will need to remember to boot into Windows at least two times a year (in Spring and Autumn) when DST kicks in. So please do not ask on the forums why the clock is one hour behind or ahead if you usually go for days or weeks without booting into Windows. Bluetooth devices with both the Linux and Windows installation, both systems have the same MAC address, but will use different link keys generated during the pairing process. This results in the device to connect to either installation, after it has been paired with the other. To allow a device to connect to either installation, after it has been paired with the other. boot pairing. See also

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