# What is Linux and is it the right choice for me?

Lenovo is now offering Linux on many of it's platforms. These have been certified to run with Linux and are supported by Lenovo. This means you can buy the hardware confident that it will work well but if you're new to Linux what are the things to consider before switching? This guide gives you a brief overview of what Linux is, and makes some suggestions to help you with that decision

Linux is an operating system, much like Windows; the big difference is that it's "open source". That means anybody can go and read the code, and you can go and make changes yourself. This also means it has some big differences over closed source systems.

There are multiple different flavours of Linux available (usually called distributions). Lenovo works primarily with Ubuntu and Fedora and offer these as preloads.

## Why use Linux?

**Cost:** Linux costs less than Windows and there are many free open-source applications available. **Security:** Linux has been designed with security in mind and is arguably the easiest way to avoid malware and viruses. Because all the code is readable by anybody it means it has been well reviewed and the quality of code is high.

**Privacy**: There is no user data collection or tracking by default. The open source community believes strongly in privacy. It's nice to know that your personal data is completely yours.

**Flexibility**. There is an enormous choice of versions of Linux available with a plethora of different user experiences. If you really want to change something there's always the ability to make the changes yourself! Lenovo's Linux program works to get all support for our platforms added to the "upstream" public code repositories so that any Linux distribution will benefit from the work we and our partners do.

**High Stability:** Linux is very stable and stays running fast without regular reboots being needed. There's a reason most of the worlds servers are running Linux

**Open-Source:** This is the reason you get all the above - a single company doesn't get to define how the operating system works or get to change it to maximize their revenue. It's been developed by a community for the community which means it's focused on what the end user wants and needs. That's powerful!

# But there are some downsides to consider that may be important depending on your use case

**Applications:** This is often the biggest blocker to switching to Linux. Consider carefully what applications you currently use and be prepared to do some research as to whether there are Linux options available. If you primarily use the browser and browser based applications then the transition is easy. For standalone applications there are 1000's of powerful open source alternatives for many Windows applications - but not all. If for instance you use a lot of Adobe software then Linux may not be the right choice for you.

**HW support:** Normally this is one of the hardest questions for Linux enthusiasts when choosing a platform but fortunately the Lenovo Linux certification program helps make this much simpler. However, there are still some devices that have no, or less support, available compared with Windows. At time of writing (Jan 2022):

- *HPD radar* : Support for this is not available yet on Linux.
- *IR camera* : Support for this is limited and not covered by our certification.
- *NFC reader* : Similar to IR camera. This can be made to work but support is limited
- *WWAN*: We are still working on offering WWAN support for our platforms. We've made good progress but there are some legal and logistical issues for enabling it. If WWAN support is critical to you then Windows is a safer option
- Dolby audio: Support for this is not available yet on Linux

**Effort/Technical skill:** Linux both enables and benefits from an inquisitive nature but can be daunting for first time users. Be prepared to need to spend more time getting to know the new system and all of it's capabilities. Learning a new OS can be challenging and a lot of experimentation is normal for first time users. The Linux community is generally very friendly and helpful and the Lenovo Linux community is here to help, but if your comfort level with new technology is low than Linux may not be the right option.

**Accessories:** Check that any accessories you use will work with Linux. Support is increasing, but not everything will work with Linux.

If you're still unsure about using Linux please see the FAQ below on how to try Linux (without any modifications) on your current system.

Below are some Frequently Asked Questions that may also help, but feel free to pop over the Lenovo Linux forums (<a href="https://forums.lenovo.com/linux">https://forums.lenovo.com/linux</a>) and if you can't find what you're looking for let us know

### **FAQ:**

- Which Systems are supported with Linux

A great starting point is www.lenovo.com/linux which lists our supported platforms.

- Does Lenovo provide anything extra in their preload images? Not really.

For platforms with Nvidia drivers the Ubuntu images include the Nvidia closed source driver by default. Our Fedora images use the open source nouveau driver.

Our preload images from Ubuntu use their 'OEM' kernel which has early support for new HW included – but all these changes get rolled into their mainstream kernel after a month or two.

Both Ubuntu and Fedora images have Lenovo documentation added but no extra software.

- Will Lenovo Support help me with my Linux issues?

If you brought a system with a Linux preload, then Lenovo support will help. Do note that Lenovo primarily supports HW related issues - we can't always help with issues that are purely software related.

Also be aware that, due to the open-source process, it can take longer to roll out fixes to the Linux community - the process of getting changes reviewed and accepted by the open-source community takes time.

- *Is Ideapad/Legion/etc supported*Only our Linux certified platforms are supported. See <a href="https://www.lenovo.com/linux">www.lenovo.com/linux</a>

- *Is the <insert name here> distribution supported* 

We certify all our platforms with Ubuntu, a large number of them with Red Hat Enterprise Linux (RHEL) and do extensive testing with Fedora on a subset of platforms.

Our Linux program aims to ensure that all support for our platforms is public and part of the open source community so any distribution can benefit from it. For new hardware some distribution's take longer to pull in the latest fixes so may not work well initially.

- How can I try Linux on my old PC before I buy a new one?

This is a great way to see if Linux will work for you. We recommend using a USB stick and a live boot version of one of the Linux distro's. This lets you try Linux without in anyway changing your system (it leaves your hard drive untouched).

A guide on how to do this is available < link to Live Linux USB steps>

- Why isn't Linux available in <insert country>?

Up until last year (2021) there were a number of process and logistical reasons that were preventing us delivering platforms in many geographies. Those issues are all now solved and the only blocking issue is to get web sales teams to list systems. If you are not seeing platforms in your geography the best thing is to let the sales teams know that they're wanted! We are working on extending our offerings and locations.

#### Other resources

For additional information about Linux, see the following links:

- <u>Introduction to the GNOME desktop Linux</u>
- How to install Applications Linux
- How to configure networking Linux
- How to reinstall the operating system Linux
- How to do software updates Linux
- How to collect debug information Linux