

LINUX ON YOUR LAPTOP

For many people, myself included, a notebook computer is an indispensable part of their professional and personal lives. The portability and flexibility of a good laptop makes work or play a lot easier and a lot more fun.

Maybe you're a Linux user, or someone who wants to make the jump to Linux. But whenever you're out, you see people working away on their Windows laptops or their MacBooks. And you might think to yourself "I wish I could take Linux mobile like that!"

Well, you can. Whether you install Linux yourself or buy a laptop with the operating system already installed, you can take the power and flexibility of Linux with you wherever you go. This TechTip looks at how to do just that.

Doing it Yourself

Whether you're a hardcore geek or someone looking for a pre-configured system, it's easy to get a Linux-powered laptop that meets your needs.

If you have a laptop or notebook computer of recent vintage lying around, it may be a good candidate for installing Linux. Even if you have a slight older, creakier machine you can get Linux running on it.

There are two keys to getting Linux running on a laptop. The first is choosing the right Linux distribution. Some of the better distributions for laptops include Vector Linux, SUSE, Xandros, and Mandriva. However, a number of other distributions work well -- I know some people who have gotten Debian and Slackware to run on their laptops.

My own favorite distribution for laptops is Ubuntu. I've installed Ubuntu and a couple of its variants on several laptops and had no troubles. It detected all of my hardware, including the wireless and sound cards -- two areas in which some Linux distributions have trouble.

The second key is choosing the right laptop. I've been running Linux on laptops for about five years, and I've found that some laptops work better than others. For me, the best laptops for Linux have been IBM (now Lenovo) ThinkPads. I bought my two online, and the Linux distributions I've installed on them have always worked without a hitch. A lot of that can be attributed to the fact that ThinkPads use very common hardware, which is supported by many modern Linux distributions.

For the most part, though, you'll run into a few hardware problems. Some will be severe, others just annoyances. Most of these problems will center on the wireless card, the sound card, the video adapter, and the modem. Not all of these devices have free or Open Source drivers available, nor have the various intrepid Linux developers been able to create drivers for these devices. In most cases, you'll be able to find at least a decent workaround for your wireless, sound, and video cards. But the modem could be a problem.

Why? Most computers come installed with what are called *winmodems*, also known as softmodems. Winmodems use a computer's resources to carry out a number of the operations that traditionally were undertaken by hardware-only modems. On top of that, there aren't Linux drivers available for many winmodems, although the folks at linmodems.org are working to change that. Chances are, however, that your laptop's modem won't work. Unless you need to send faxes, that's not a huge loss.

Note : A future TechTip will look at Linux drivers, the problems you might face with them, and how to install them.

Is your hardware supported?

Two good sources of information on whether or not a Linux distribution supports the various bits of hardware on your laptop are the Compatibility Database Web site and the Hardware Compatibility List. If you're looking for information, tips, and tricks for installing Linux on a laptop, check

out TuxMobil and Linux on Laptops. If you plan to install Linux on a ThinkPad, then you'll find ThinkWiki to be an invaluable resource.

Taking a test drive

How can you make sure that the Linux distribution you choose will play well with your hardware? That's where a LiveCD comes in. A LiveCD starts Linux directly from a CD and runs the operating system from memory. There is no need to install the operating system on a hard drive. A Live CD is a great way to test out Linux without worrying about what it may do to your computer.

Read this TechTip for more information on test driving Linux using a LiveCD.

What's on the Market?

That's all well and good, but what if installing and configuring Linux on a laptop is just a bit much for you? You're in luck a number of vendors sell laptops and notebooks with Linux pre-installed. On the whole, their wares aren't too shabby at all. And you're not getting a device with Linux shoehorned into a laptop that was made for Windows.

Here are a few vendors that sell some solid laptops and notebooks that run Linux.

The biggest name to offer notebooks with Linux (in this case, Ubuntu) pre-installed is Dell. The company only offers one Linux-powered notebook -- the Inspiron 1420 N. The base price of this model is \$754



(USD), and for that you get a 1.66 GHz Intel Core 2 Duoprocessor, an 80

GB hard drive, and 1 GB of memory. But, like other of Dell's offerings, you can customize this machine.

System 76 is a smaller vendor, but the company offers a line of four Ubuntu-powered laptops. These laptops range in price from \$699 (USD) to \$1,099 (USD) and have specifications that are comparable to the model from Dell. They even have a little more, like support for Bluetooth and built-in webcams. And,

like Dell, you can customize the System 76 laptop that you want.

Emperor Linux sells "professional grade Linux laptops". Their wares are aimed at government, academic, and scientific users. But if you want a powerful laptop running Linux, then Emperor Linux is the place to go. The company sells a series of systems, including tablet PCs, manufactured by such companies as Dell, Panasonic, Lenovo, and Sony. You can even choose the Linux distribution that you want installed on a laptop. Of course, all of this comes at a price. Emperor Linux laptops sell for between \$1,400 and \$5,400 (USD).



If your needs are more modest, or you need a small notebook to carry while you're running around town, then you might want to check out the Asus Eee PC. A big hit during the 2007 Christmas season -- around 400,000 were sold -- this little notebook packs a lot of power. It weighs under two pounds, has a 7 inch screen, 512 MB of memory (expandable

to 2 MB), and a webcam. The hard drive is small, 4 MB, but it's a solid-state flash drive and not a traditional hard drive. It packs a decent amount of software. The Linux distribution is Xandros, and the Eee PC also comes with Firefox, OpenOffice.org, and Skype. There are also links to a number of Web-based applications like Google Docs and various Web-based mail services. it's a bit pricey, at \$399.99 (USD). I bought one for myself and found that it's worth every penny.

Conclusion

Whether you're a hardcore geek or someone looking for a pre-configured system, it's easy to get a Linux-powered laptop that meets your needs. The next time you're at your favorite coffee shop, you can set your laptop up, look at the person sitting across from you and say "What? You're using a Mac?"

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