

By Jack Wallen

I can't begin to tell you how many people over the years I have consulted with about choosing a Linux distribution. And even with my own personal loyalties to one distribution or another, it always amazes me how certain distributions are better suited to various users and needs. So when I set out to write a 10 Things article, it only made sense that my first one be related to choosing a Linux distribution.

Of course, times and opinions change. For nearly 10 years I road the Red Hat/Fedora wagon. And then, after considerable thought, I jumped over to Ubuntu. Why? Because it fit my evolving needs. Many will argue that one Linux distribution is just like another -- and I agree, on fundamentals. But when it comes down to everyday use, each distribution is different from the next. So why would you want to use Debian vs. Fedora or Ubuntu vs. Mandriva? Let's dive into this and find out.

1 100 % open or not?

Many people don't seem to know this question even exists. Average users may think that all Linux distributions are created equal, since they are released under the GPL. They are not. Some distributions are being released with proprietary drivers. In some instances, these are necessary. For example, for many laptops, getting wireless to work often requires the use of a proprietary driver. Because of this, some Linux distributions are opting to make the inclusion of proprietary drivers the user's choice. And many of these

If you champion 100% free software, you'll want to look at the following:

- gNewSense (<http://www.gnewsense.org/>)
- Ututo (<https://www.ututo.org/www/>)
- Dynebolic (<http://dynebolic.org/>)
- Musix (<https://www.musix.org.ar/wiki/index.php/Documentation>)
- Blag (<http://www.blagblagblag.org/>)

Those are the only distributions that don't offer any releases with non-free software. You can also get versions of distributions like Mandriva Free (<http://www.mandriva.com/en/download/free>), which are bereft of non-free applications. This choice will be dictated by two things: the "politics" of Linux and the need for proprietary drivers.

2 Package management

This is one of those areas where people begin to leap up on their soapboxes. RPM vs. Apt vs. dpkg vs. urpmi. Some would say that they are all fundamentally the same: Each has a command-line tool as well as a GUI front end, and each has a configurable repository system that can be edited by hand (via text editor) or through the GUI front end. I will argue (not that I have become a Ubuntu convert) that the Apt system is much better as a package management system. I say this because RPM has a tendency to be unable to resolve dependencies, as well as to muck up a system over time. But for the average user, the biggest (and probably most crucial) difference lies in the GUI front ends. Between managers like Synaptic and GnoRPM, there is no comparison. Even after nearly 10 years of working with Linux, I have never found a stable front end for RPM. Apt front ends, on the other hand, have enjoyed stability for a long time.

So if you prefer one package management system over another, your choice will already be narrowed down. Of course, it can get a little murky with crossovers, like apt-rpm. But if you want Apt, you will be using a Debian-based system. If you want RPM, you will be using a Red Hat/Fedora-based distribution (or, in the case of urpmi, Mandriva.)

3 Directory hierarchy

This is one of those issues that has always befuddled me. There should be a standard that all distributions stick to. But as it stands, there is not. Take the init system (the initialization system). In Fedora-based systems, you will find this in `/etc/rc.d/init.d`. In Debian-based systems, you will find this in `/etc/init.d`. Even the Linux Standards Base does not define where the initialization system should lie. But you will still have your own personal standard. When moving from Fedora to Ubuntu, it took me a while to keep from typing `/etc/rc.d/init.d/mysql start` and typing `/etc/init.d/mysql start`. If you're used to one, either stick with it or anticipate a few "command not found" errors.

4 Desktop environment

Although you can install your desktop of choice, some users just want to install the OS and go. In that case, you will want to make sure you choose a distribution that focuses on the desktop environment you like. If you want GNOME, go with Fedora. You can check out this listing of distributions shipping with GNOME as the default (<http://www.gnome.org/~davyd/footware.shtml>). If you want KDE, check out this listing of distributions shipping KDE as the default (<http://www.kde.org/download/distributions.php>). Of course, you are not limited to either GNOME or KDE. My preference is for Enlightenment (<http://www.enlightenment.org>). Some distributions ship with Enlightenment as the default, such as Elive (<http://www.elivecd.org/>) and gOS (<http://www.thinkgos.com/>).

Even though it's possible to install the desktop of your choice, it's not always as simple as it might seem. If you don't want to spend time resolving dependencies or figuring out what repository to add to install KDE4, go with a distribution that ships your preferred desktop by default.

5 Security

Linux is a much more secure OS than most, although not all distributions are equally secure. In fact, there are distributions aimed primarily at security, such as Trustix (<http://linux.trustix.com>), which claims to be the most secure of all Linux distributions. But truth be told, the most secure Linux distribution is the one that is properly configured. But if you want security "out of the box," the short list of distributions would include Trustix, Engarde Linux (<http://www.engardelinux.org>), and Bastille Linux (<http://www.bastille-linux.org/>).

6 Intended use

Let's face it: We don't all use our computers for the same thing. Some need multimedia. Some need servers. Some need development. Some need a simple workstation to write and surf the Web. And there are Linux distributions for every need. Need a headless server? Give Ubuntu Server Edition (<http://www.ubuntu.com/products/whatisubuntu/serveredition>) a try. Is multimedia your game? If so, take a look at SmartCom Multimedia Edition (<http://www.startcom.org/>). If you're an average user (office suite, e-mail, Web), you can go with any of the distributions.

7 Hardware

This one is tricky. As I said earlier, your hardware will sometimes dictate what drivers you will use. But it goes beyond that. There are distributions that are known for their hardware friendliness. For instance, PCLinuxOS (<http://www.pclinuxos.com>) is one of the best choices for overall hardware detection and setup (as well as being one of the simplest to install). For wireless, your best choices are Ubuntu (<http://www.ubuntu.com>), Mepis (<http://www.mepis.org>), and SuSE (<http://www.suse.com>).

8 Laptop use

Another tricky spot. On top of having to deal with wireless and graphics (see #7), you also have to hope that your laptop will support hibernation. This is one of the rougher spots for modern Linux. Getting a laptop to suspend or hibernate is a matter of hoping your particular laptop will play well with your distribution. Your best bet is to simply Google your make and model of laptop along with "linux suspend" to find out which distribution is best suited for your machine.

Wireless on your laptop will be an interesting journey. But here's a good tip to help you out: Forget tools like Exalt and go directly to WICD (<http://wicd.sourceforge.net/>). This tool is much better at handling various forms of wireless authentication.

9 Installation

If you are really considering Linux, you know you have two choices: Find a vendor that will sell you a machine with a pre-installed distribution or install a distribution yourself. If you have never installed an operating system, don't fret; it's not hard. It will take some time, but rest assured that all modern Linux distributions (with the rare exception) are point-and-click GUI installations. And Linux one-ups its competition by giving you the Live CD. You can pop it into the machine, boot from it, and give Linux a try without having to install anything. A Live CD instance of Linux will run considerably slower than the installed version (and that will depend upon how much RAM your machine has), but you can get a good idea how well it is going to react to your hardware (and how you are going to react to the OS).

I would like to say that one distribution's installation routine is better than another (to help you weed out possible hurdles in your adoption of Linux). But that is not so much the case now. Personally, I prefer the installations of Ubuntu (in its many incarnations) and Fedora to any other. I find their installations to be far more intuitive and user friendly.

If installation isn't your game, just find a vendor that sells Linux pre-installed. You can go to online dealers like Hewlett Packard (<http://h71028.www7.hp.com/enterprise/cache/321116-0-0-121.html>), Dell (<http://www.dell.com/content/topics/global.aspx/alliances/en/linux?c=us&cs=555&l=en&s=biz>), Zonbu (<http://www.zonbu.com>), Everex (<http://www.everex.com>), and many others. This will keep you from having to dance around distributions to figure out which will support your hardware.

10 Community

This aspect is a bit esoteric, but it should be addressed. Linux is more than an operating system. Linux, akin to Apple, is a community. Linux is about freedom and its communities embrace that -- some more than others. So if community (feeling like you belong to something special) is important to you, Ubuntu is the distribution for you. If not, you could go with the more enterprise-level Red Hat, where you'll enjoy a more traditional model of both customer service and support.

Which brings up a related issue: Support. Along with Linux comes many forms of support. Each distribution has its own mailing list, where you can enjoy hundreds (or thousands) of users who range from every level of experience. If you're a DIY kind of person, this type of support will be right up your alley. And it's free! If you're not the DIY type, you should stick with SuSE (which benefits from Novell's backing) or Red Hat, where you can buy a solid support package for your installations. If you do opt for the more community-drive distribution, you'll be in good hands. On many occasions I have enjoyed speaking directly to the developer(s) of the application in question. Finding such a communication line with, say, a Microsoft or an Apple wouldn't be so easy. With Linux -- you never know. You might wind up chatting up the Linux kernel with Linux creator Linus Torvalds himself. I have a few times.

So there you have it. Ten things to consider when choosing a Linux distribution. But ultimately, it all boils down to choice. And that's where Linux really shines. With Linux, you can choose on nearly every level. You aren't locked down to any one thing.

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