



ABC IT Education

WE'LL TAKE YOU FROM ZERO TO HERO IN A SNAP



Linux Systems Administration

Linux Distributions

- In this lesson you're going to learn what a Linux distribution is, what the most common Linux distributions are, and how to choose the right one for you.
- Generally when someone uses the term Linux, they're referring to the Linux operating system as a whole.
- An Operating System is a collection of software that manages hardware resources and provides an environment where applications run.
- The Operating System allows applications to store information, send documents to a printer, and interact with users, for example.
- A Linux distribution is simply a collection of software and applications bundled together and distributed as a single operating system.

Linux Distributions

- For example, one Linux distribution might come with one particular web browser installed while another Linux distribution will come with another web browser installed by default.
- You'll be able to browse the web on either distribution, but the specific piece of software used to do that might be different.
- It's important to point out here that the software that comes installed by default can be changed. If you don't like the web browser that shipped with the Linux distribution you're using, you can install another one and use that.

Linux Distributions

- You can think of a Linux distribution as a curated collection of software that works well together, but you're more than free to use the software and applications that you like best.
- Before we continue, I'd like to point out that you'll often hear the term Distribution shortened to distro. Also, some people refer to the various distributions as flavors.
- What every Linux distribution has in common, though, is the Linux kernel. Again, typically when the term Linux is used it refers to the Linux Operating System as a whole.
- However, it can refer to just the Linux Kernel as well.

Linux Distributions

- The Linux kernel is the core or the heart of the Operating System. It's the layer that sits between the hardware and applications. Said another way, it's the intermediary between software and hardware.
- However, to have a useful operating system you need other components in addition to the kernel. These components can include system libraries, graphical user interfaces, email utilities, web browsers, and other programs.
- To summarize a Linux distribution is the Linux kernel and a collection of software that, together, create an operating system.

Linux Distributions

- By far, the two most popular Linux distributions used in information technology departments and by Linux professionals are RedHat Enterprise Linux and Ubuntu. So, since we plan to use Linux in our future career as a Linux system administrator, Linux system engineer, or even a database administrator or software developer, we will be focusing on these two Linux distributions.
- We'll forget about the hundreds and hundreds of Linux distributions out there and choose between RedHat Enterprise Linux and Ubuntu.
- Since traditional organizations like financial institutions, transportation companies, telecommunication corporations, large retailers, and healthcare organizations prefer RedHat, we will primarily be learning RedHat.

Linux Distributions

- By the way, to run RedHat you need to pay for a license. However, there is really no need to pay for a license if you're going to be running Linux at home or want something to practice on, so we will be using CentOS which is a RedHat Enterprise Linux derivative that's completely free.
- It's really RedHat with the branding and logos replaced with CentOS branding.
- For startups or smaller, more nimble web-based companies like Software-As-A-Service type businesses, social networking sites, smaller ecommerce stores, or practically any company that relies heavily on cloud computing, then Ubuntu is the distribution for you.

Linux Distributions

- To run Linux strictly for fun, for personal projects, or just want to see what other distributions have to offer, feel free to try out some other popular distros like: Linux Mint, Debian, Mageia, Fedora, openSuse - (open-su-za), Arch Linux & Slackware.
- When choosing a Linux distro for personal use it mainly comes down to personal preference and if you like most of the software that comes installed by default.
- Of course, don't forget CentOS and Ubuntu. They make great distros for personal use as well.
- Ultimately, Linux is Linux at the core. No matter which choice you make, the Linux concepts are going to be the same.

Linux Distributions

- ▶ Sure, each distribution is going to be a little different, but if you can do something on one distribution you'll most likely be able to figure out how to do it on another.
- ▶ What this really means is that you can't make a "wrong" decision. Know that by simply choosing a Linux distribution -- any distribution -- you've already made the right choice.
- ▶ We have made the right choice by choosing to become Linux System Administrators.
- ▶ To recap, a Linux distribution is the Linux kernel and a collection of software that, together, create an operating system.
- ▶ The two most popular Linux distributions used in the industry today are RedHat Enterprise Linux and Ubuntu.