How to Use This Guide

This guide is divided into several sections, each of which covers a different aspect of Linux. To make things easier, we've included cross-references throughout the guide so you can quickly find related information.

If you're just getting started with Linux, we recommend reading through the guide from start to finish. But if you're already familiar with the basics and you're looking for specific information, feel free to jump around to the sections that interest you.

Finally, keep in mind that this guide is just meant to be a starting point. There's a lot more to learn about Linux, and we'll be periodically updating this guide with new information. So be sure to check back often!

Section 1: Introduction to Linux

In this section, we'll give you a brief introduction to Linux, including what it is, how it works, and why it's such a popular choice for operating systems.

What is Linux?

Linux is a free and open-source operating system that was first developed by Linus Torvalds in 1991. Unlike other operating systems, which are typically developed by large companies, Linux is developed by a community of volunteers.

As a result, Linux is available on a wide variety of devices, from smartphones to servers, and it can be customized to fit your specific needs. Additionally, since the source code is available freely, anyone can study it, modify it, and distribute their own versions of the operating system.

How does Linux work?

Linux is based on the Unix operating system, which was developed in the 1970s. Unix was designed to be a powerful and versatile operating system that could be used on many different types of computers.

To accomplish this, Unix used a modular design, which allowed different parts of the operating system to be replaced or upgraded without affecting the rest of the system. This modular design is one of the key features that makes Linux so versatile.

Why Choose Linux?

There are many reasons why people choose Linux over other operating systems. Some people choose Linux because it's free and open-source, while others appreciate the large number of customization options.

Additionally, Linux is known for being stable and reliable, and it's often used for server applications where uptime is critical. And since Linux can be run on many different types of hardware, from Raspberry Pi computers to supercomputers, it's a good choice for a wide range of purposes.

Section 2: Getting Started with Linux

In this section, we'll walk you through the process of installing Linux on your computer. We'll also show you how to get started using some of the most common Linux commands.

Installing Linux

Before you can start using Linux, you need to install it on your computer. While this may sound daunting, the process is actually fairly simple.

There are many different ways to install Linux, but we'll focus on two of the most common methods: using a live CD or USB drive, and installingLinux alongside another operating system (known as dual-booting).

InstallingLinux from a Live CD or USB Drive

If you want to try out Linux without actually installing it on your computer, you can use a live CD or USB drive. A live CD is a CD or USB drive that contains a complete Linux operating system that can be run from your computer's CD or DVD drive, or from a USB port.

To use a live CD or USB drive, simply insert the CD or USB drive into your computer and restart. Most computers will boot from the CD or USB drive automatically, but if yours doesn't, you may need to change your boot order in the BIOS settings.

Once your computer boots from the live CD or USB drive, you'll be able to use Linux without actually installing it on your hard drive. This is a great way to try out Linux without making any permanent changes to your computer.

InstallingLinux Alongside Another Operating System (Dual-Booting)

Another option is to install Linux alongside another operating system, such as Windows or macOS. This is known as dual-booting, and it allows you to choose which operating system you want to use when you start your computer.

If you want to dual-boot Linux and another operating system, the first thing you need to do is create a partition on your hard drive for Linux. This can be done using the Disk Management tool in Windows or the Disk Utility app in macOS.

Once you've created a partition for Linux, you can install the operating system just like any other software. Most Linux distributions will include an installer that will walk you through the process.

Once the installation is complete, you'll be able to choose which operating system you want to use when you start your computer. Most computers will default to the last operating system installed, so if you want to use Linux by default, make sure it's installed last.

Using Common Linux Commands

Once you've installed Linux, you'll need to know how to use the command line interface (CLI). The CLI is a text-based interface that allows you to enter commands to control your computer. It may seem intimidating at first, but with a little practice, it's actually quite easy to use.

To get started using the CLI, open a terminal window. In most cases, you can do this by pressing Ctrl+Alt+T on your keyboard. Once the terminal window is open, you can type in any command and press Enter to execute it.

Some of the most common Linux commands include:

cd: Used to change the current directory. For example, if you're in the /home/user directory and you want to change to the /home/user/Documents directory, you would type cd Documents and press Enter.
ls: Used to list the contents of a directory. For example, if you want to list the contents of the /home/user directory, you would type ls and press Enter.
mkdir: Used to create a new directory. For example, if you want to create a new directory called test in the /home/user directory, you would type mkdir test and press Enter.
rmdir: Used to delete an empty directory. For example, if you want to delete the test directory we created in the previous example, you would type rmdir test and press Enter.

These are just a few of the most common Linux commands. To learn more about using the command line interface, check out our beginner's guide to the Linux command line.

Section 3: Customizing Your System

One of the great things about Linux is that it's highly customizable. You can change almost anything about the way your system looks and feels, from the desktop environment to the applications you use. In this section, we'll show you how to customize some of the most common aspects of your system.

Changing Your Desktop Environment

The desktop environment is the graphical interface that you interact with when using your computer. It includes the screen resolution, wallpaper, icons, menus, and other elements of the interface.

Linux comes with several different desktop environments to choose from, including GNOME, KDE Plasma, Xfce, and LXDE. In most cases, you can choose which desktop environment you want to use when you first install Linux. But if you want to change it later, most distributions make it easy to do so.

For example, Ubuntu provides a graphical tool that allows you to install and remove different desktop environments with just a few clicks. To install a new desktop environment in Ubuntu, open the Software & Updates application from the dash and go to the Other Software tab. From here, you can select which desktop environments you want to install and deselect any that you don't want. Once you've made your selections, click OK and then Close to apply your changes.

Your distribution may provide a similar tool for installing and removing desktop environments. Or, in some cases, you may need to use the command line interface. For more information on how to do this, consult your distribution's documentation.

Installing New Applications

Another way to customize your system is to install new applications. Most Linux distributions come with a wide selection of applications pre-installed, but there are many more available for download. And since Linux is open-source, many applications are available completely free of charge.

To install new applications in Ubuntu, open the Ubuntu Software Center from the dash. From here, you can browse through popular applications or search for specific ones. Once you've found an application you want to install, simply click the Install button and enter your password when prompted. The application will be downloaded and installed automatically.

Your distribution may provide a similar application for installing new software. Or, in some cases, you may need to use the command line interface. For more information on how to do this, consult your distribution's documentation.