

Chapter 1

Ubuntu and U

In This Chapter

- ▶ Discovering what *Ubuntu* means
 - ▶ Introducing Ubuntu Linux and its versions
 - ▶ Considering the source (and its philosophy)
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The Ubuntu Linux distribution is the fastest-growing Linux distribution on the planet. It's designed to provide powerful functionality, and yet it's easy to use, no matter where in the world you live.

One of the most difficult balancing acts in the Linux world is deciding how much stuff (applications such as the Firefox Web browser and the Openoffice.org office productivity suite) to provide users. Some Linux distributions provide too little, and most provide too much. Ubuntu, however, has learned how to balance both sides very well.

Ubuntu is well supported by its user community, as well as commercially. This is important because different people and organizations need different levels and types of support.

All these factors add up to its exploding popularity, which is based on its ease of use, usefulness, and support.

Ubuntu, say what?

Ubuntu (pronounced oo-BOON-too) is a Zulu word that translates to “humanness.”

Used as a verb, *Ubuntu* describes the practice of respecting one's family and neighbors — or more broadly, the community at large.

At its core, *Ubuntu* means that the members of a community take care of each other and the community itself. The creators of Ubuntu Linux took this philosophy of commitment to community to drive their creation. Ubuntu Linux (many people pronounce it *LIN-icks*) is designed for the community of Linux users — all of us.

Introducing Ubuntu Linux

Ubuntu is a Linux distribution. Linux distributions take the Linux *kernel* (the *kernel* is the software that orchestrates the interaction of programs and applications with computer hardware) and add an installation system, administration software, productivity applications, and other parts to make it possible for people to use their computers. Putting the parts together creates a sum that is greater than the pieces themselves.



I often use the word *Linux* as shorthand for *Linux distribution*. Depending on the context, Linux can mean just the software system that allocates resources on a computer; the Linux kernel is a computer operating system that humans use to interface with the bits and bytes that computers understand. But more frequently, Linux means the sum total of parts that we interact with. I also use the term *Ubuntu* to refer to *Ubuntu Linux*, which is the Linux distribution created by the Ubuntu organization.

Beyond the bits and pieces that make up your average Linux distribution, Ubuntu Linux is dedicated to the following principles and capabilities:

- ✓ **Free and open source:** Every application, utility, and program in Ubuntu is *open source*, which means it's designed and written to be freely used — and even modified if you want to modify it. Ubuntu collects the applications and adds additional value by combining them into a lean but usable package.
- ✓ **Extensive language and assistive technology support:** It's almost impossible to find a language or keyboard that Ubuntu doesn't support (work with). Ubuntu also specializes in providing software aids to assist all people to use Linux, regardless of physical ability.
- ✓ **Based on Debian Linux:** Debian is a very stable Linux distribution that is completely community based. (Debian developers design and test the changes and upgrades they make to the distribution so that it works well and doesn't cause unintended problems; this philosophy makes Debian stable and reliable.) Because no commercial entity owns any part of the distribution, the community can control and improve it as it desires.
- ✓ **Clean, usable interface:** Ubuntu uses the GNOME (pronounced *guh-NOME* or *nome*, whichever you prefer) desktop. They tweak the desktop so that it balances ever so well between providing all the applications and tools you like to use, but not so many that it becomes cluttered. Ubuntu is a lean, mean, fighting machine!

When free means free

Linux is a free operating system. It's licensed under the open source GNU (pronounced *guh-NEW*) General Public License, or GPL for short. (There are other open source licenses similar to GPL.) Any software published under an open source license, basically, can be used for any purpose the software's author desires.

GNU (which stands for GNU's not UNIX — seriously) is an acronym designed for and by

computer geeks. Geeks like myself spend all our time working and playing on computers. When we aren't fooling around with computers, we think up stuff, such as recursive acronyms. (Actually, I wish I was smart enough and clever enough to combine concepts like recursion and the need to come up with acronyms, but I'm glad someone else can.)



- ✓ **Live media:** By *live*, I mean that you can use Ubuntu directly from the disc. You can experiment with it without affecting or changing your computer — or someone else's — at all. No installation required.

Chapter 2 shows how to run live Ubuntu from the CD included with this book.

- ✓ **Predictable, regular releases:** Ubuntu releases an updated version every six months. This makes it easy to plan when, if at all, to upgrade your computer.
- ✓ **Commercial and community support:** You can purchase support anywhere in the world. You can also get community-based support from user groups, online documents, and so on.

This dedication to all the things that make Linux and the greater open source system of creating and distributing software makes Ubuntu an outstanding Linux distribution.

Choosing a Version of the Operating System

Ubuntu is lean. Many Linux distributions (other versions of Linux) try to fit everything — including the kitchen sink — into their editions. That requires at least three CD-ROMs for the installation files! Very few people ever need anything close to that much software.

To avoid distribution bloat, Ubuntu created two distribution versions. Here's the story.

Ubuntu Desktop

The Ubuntu Desktop distribution creates a very clean, usable, graphical desktop for you to use as your desktop computer. By *graphical*, I mean that you see pretty icons that you can click (like in Windows and Macintosh), not ugly code that you have to read through and talk back to (like in DOS and UNIX).



The Desktop distribution is on the CD that comes with this book. You get applications such as the OpenOffice.org word processor, spreadsheet, and multimedia. OpenOffice.org is like, and compatible with, Microsoft Office and includes the stuff we like to use on our home and work computers or workstations. I tell you a little bit about using those programs in Chapter 16.

The Desktop version can be called a *workstation* version.

Ubuntu Server

The Ubuntu Server distribution is oriented to, well, *servers*. It isn't people friendly. It throws all the fun stuff out the window and concentrates on adding software that's oriented toward getting the job done. Web servers, e-mail services, and all that good nerd software go into this distribution.



You can download the server version from www.ubuntu.com.

The Ubuntu philosophy

The Ubuntu Web site describes the Ubuntu philosophy as follows:

Ubuntu is a community driven project to create an operating system and a full set of applications using free and open source software. At the core of the Ubuntu Philosophy of Software Freedom are these core philosophical ideals:

1. **Every computer user should have the freedom to run, copy, distribute, study, share, change and improve their software for any purpose, without paying licensing fees.**
2. **Every computer user should be able to use their software in the language of their choice.**
3. **Every computer user should be given every opportunity to use software, even if they work under a disability.**

The Canonical Source

Canonical Ltd. is a company that develops, distributes, and promotes open source software. Ubuntu is one of the projects it sponsors. It doesn't — and won't ever — charge for Ubuntu Linux.

Canonical embraces the open source ethic and doesn't own the software it produces. It could — but doesn't — sell software, like Ubuntu. Rather, it sells support services to those who want the assurance that they can use Ubuntu professionally and always be able to get a level of service necessary to run a business.

You can find more information about Canonical at www.canonical.com, which outlines the company's products, goals, and philosophy.

The genesis of Ubuntu

Mark Richard Shuttleworth founded a company called thawte in 1995. thawte's business is providing the means that helps make Internet commerce secure. The company is a digital *certificate authority* (CA), which is responsible for creating a chain of trust that enables us to shop, bank, and send our sensitive personal information on the Internet.

Every Web browser — such as Mozilla Firefox, Internet Explorer, and the like — comes installed with certificates created by major CAs like thawte; the certificates are digitally signed (endorsed) by the CA. Web sites that deal with sensitive information, such as Internet commerce, create their own certificates and pay to have companies like thawte digitally sign them. So browsers have client certificates, and Web servers have server certificates.

Both sides — the browser clients and the Web servers — use their certificates to set up encrypted communication channels; the clients also use the certificates to verify that the server is who it's supposed to be — not someone pretending to be the server. The beauty of this system is that the client doesn't need to know anything about the server before striking up

communication. The handshake, or *dance* might be a better description, depends on the certificates and allows both sides to communicate securely. The protocol (handshake) is called the Secure Sockets Layer (SSL) and when in use, is designated by the `https://` in the browser's Location text box and padlock icon in the lower-left corner.

Mr. Shuttleworth sold thawte to another CA and security company, VeriSign, in 1999 and formed HBD Venture Capital, which helps startup companies get . . . well, started. thawte went on to become a very successful and prominent company.

Mark Shuttleworth has also been involved as a Debian Linux developer for several years. Debian is a completely noncommercial Linux distribution, and it's considered to be technically advanced. He took his commercial success and combined it with his interest in open source and formed the Shuttleworth Foundation in 2001, which funds educational projects in South Africa. In 2004, he funded the start of the Ubuntu Linux project through Canonical Ltd. In 2005, he founded the Ubuntu Foundation, which oversees Ubuntu Linux development.

Getting Started

Ubuntu Linux For Dummies guides you through all three ways you can use Ubuntu on a PC:

- ✓ Run live Ubuntu *directly from the CD* without permanently installing it on a computer.

Chapter 2 shows you the startup steps for live Ubuntu.

- ✓ Permanently install Ubuntu on a PC without keeping Windows.

Chapter 4 guides you through the Ubuntu installation.

- ✓ Teach Windows and Ubuntu to live in harmony on the same PC.

- Chapter 3 shows how to make room for Ubuntu on a Windows PC.

You'll also need to refer to Chapter 2 to start live Ubuntu so you can use some system tools that aren't included in Windows.

- Chapter 4 guides you through the Ubuntu installation.



Ubuntu provides all the features you need to use Linux as your everyday workstation. It's free, reliable, full of features and applications, and easy to use. Ubuntu literally works out of the box — or in software terms, on the disc — so you can use it before installing it. You get a wonderful combination of stuff.

Sound good? Let's get started!