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Networking

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Networking

ALL-IN-ONE

9th Edition

by Doug Lowe

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Networking All-in-One For Dummies®, 9th Edition

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Introduction

Welcome to the ninth edition of *Networking All-in-One For Dummies*, the one networking book that's designed to replace an entire shelf full of the dull and tedious networking books you'd otherwise have to buy. This book contains all the basic and not-so-basic information you need to know to get a network up and running and to stay on top of the network as it grows, develops problems, and encounters trouble.

If you're just getting started as a network administrator, this book is ideal. As a network administrator, you have to know about a lot of different topics: installing and configuring network hardware and software, planning a network, working with TCP/IP, securing your network, working with mobile devices, virtualizing your servers, backing up your data, managing cloud services, and many others.

You can, and probably eventually will, buy separate books on each of these topics. It won't take long before your bookshelf is bulging with 10,000 or more pages of detailed information about every imaginable nuance of networking. But before you're ready to tackle each of those topics in depth, you need to get a bird's-eye picture. This book is the ideal way to do that.

And if you already own 10,000 pages or more of network information, you may be overwhelmed by the amount of detail and wonder, "Do I really need to read 1,000 pages about BIND to set up a simple DNS server?" or "Do I really need a six-pound book to show me how to install Linux?" Truth is, most 1,000-page networking books have about 100 or so pages of really useful information — the kind you use every day — and about 900 pages of excruciating details that apply mostly to networks at places like NASA and the CIA.

The basic idea of this book is that I've tried to wring out the 100 or so most useful pages of information on nine different networking topics: network basics, building a network, network administration and security, troubleshooting and disaster planning, working with TCP/IP, home networking, wireless networking, Windows server operating systems, and Linux.

So whether you've just been put in charge of your first network or you're a seasoned pro, you've found the right book.

About This Book

Networking All-in-One For Dummies, 9th Edition, is intended to be a reference for all the great things (and maybe a few not-so-great things) that you may need to know when you're setting up and managing a network. You can, of course, buy a huge 1,000-page book on each of the networking topics covered in this book. But then, who would you get to carry them home from the bookstore for you? And where would you find the shelf space to store them? In this book, you get the information you need all conveniently packaged for you in between one set of covers.

This book doesn't pretend to be a comprehensive reference for every detail of these topics. Instead, this book shows you how to get up and running fast so that you have more time to do the things you really want to do. Designed using the easy-to-follow *For Dummies* format, this book helps you get the information you need without laboring to find it.

Networking All-in-One For Dummies, 9th Edition, is a big book made up of ten smaller books — minibooks, if you will. Each of these minibooks covers the basics of one key element of network management, such as setting up network hardware, installing a network operating system, or troubleshooting network problems. Whenever one big thing is made up of several smaller things, confusion is always a possibility. That's why *Networking All-in-One For Dummies*, 9th Edition, is designed to have multiple access points (I hear an acronym coming on — MAP!) to help you find what you want. At the beginning of the book is a detailed table of contents that covers the entire book. Then each minibook begins with a table of contents that shows you at a glance what chapters are included in that minibook. Useful running heads appear at the top of each page to point out the topic discussed on that page. And handy thumb tabs run down the side of the pages to help you find each minibook quickly. Finally, a comprehensive index lets you find information anywhere in the entire book.

This isn't the kind of book you pick up and read from start to finish, as though it were a cheap novel. (If I ever see you reading it at the beach, I'll kick sand in your face.) This book is more like a reference — the kind of book you can pick up, turn to just about any page, and start reading. You don't have to memorize anything in this book. It's a need-to-know book: You pick it up when you need to know something. Need to know how to set up a DHCP server in Windows? Pick up the book. Need to know how to create a user account in Linux? Pick up the book. Otherwise, put it down, and get on with your life.

Within this book, you may note that some web addresses break across two lines of text. If you're reading this book in print and want to visit one of these web pages, simply key in the web address exactly as it's noted in the text, pretending

as though the line break doesn't exist. If you're reading this as an e-book, you've got it easy — just click the web address to be taken directly to the web page.

Foolish Assumptions

As I was writing this book, I made a few assumptions about you, the reader:

- » **You are responsible for or would like to be responsible for a computer network.** The network we speak of may be small — just a few computers, or large — consisting of dozens or even hundreds of computers. The network may already exist, or it may be a network you would like to build. But one way or another, I assume that managing the network is, at least in part, your responsibility.
- » **You are an experienced computer user.** You don't need to be an expert, but this book assumes a modest level of experience with computers.
- » **You are familiar with Windows.** This book touches on Mac and Linux networks, but the primary focus is on creating and managing networks of Windows computers.

Icons Used in This Book

Like any *For Dummies* book, this book is chock-full of helpful icons that draw your attention to items of particular importance. You find the following icons throughout this book:



TECHNICAL
STUFF

Hold it — technical stuff is just around the corner. Read on only if you have your pocket protector.



TIP

Pay special attention to this icon; it lets you know that some particularly useful tidbit is at hand.



REMEMBER

Did I tell you about the memory course I took?



WARNING

Danger, Will Robinson! This icon highlights information that may help you avert disaster.

Beyond the Book

In addition to what you're reading right now, this product also comes with a free access-anywhere Cheat Sheet that includes tables where you can record key network and internet connection information, the RJ-45 pin connections, private IP address ranges, and useful websites for networking information. To get this Cheat Sheet, simply go to www.dummies.com and type **Networking All-in-One For Dummies Cheat Sheet** in the search box.

To download a directory of useful websites and a glossary of terms used in this book, head to www.dummies.com/go/networkingaiofd9e.

Where to Go from Here

Yes, you can get there from here. With this book in hand, you're ready to plow right through the rugged networking terrain. Browse the table of contents, and decide where you want to start. Be bold! Be courageous! Be adventurous! And above all, have fun!