Your fast and easy guide to installing and using Windows Server 2003

Windows® Server 2003 FOR DUMMIES®

Get a handle on user management, network design, and security

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Ed Tittel

James Michael Stewart

Coauthors of Windows 2000 Networking For Dummies

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Windows Server 2003 For Dummies

by Ed Tittel with James Michael Stewart

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Ed Tittel is a grizzled veteran of the publishing game, with several hundred magazine articles and more than 100 books to his credit. Ed has worked on numerous *For Dummies* books, including *HTML 4 For Dummies,* 3rd Edition (with Natanya Pitts and Chelsea Valentine) and *XML For Dummies*, 3rd Edition, (with Frank Boumphrey), as well as books on many other topics. Ed presides over a small, Austin, Texas-based company called LANWrights that specializes in network-oriented training, writing, and consulting. When Ed's not busy writing, he likes to shoot pool, cook, and hang out with his Labrador retriever, Blackie. You can reach Ed by email at `etittel@lanw.com` or through his Web page at www.lanw.com/staff/etbio.htm.

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— ET

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— JMS

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Introduction

W elcome to *Windows Server 2003 For Dummies,* the book that helps anyone who's unfamiliar with Windows Server 2003 (or networks in general) find his or her way around a Windows Server 2003-based network. In a wired world, networks provide the links that tie all users together. Even if you're not using a network already, you probably will use one someday! This book tells you what's going on, in basic, straightforward terms.

Although a few fortunate individuals may be acquainted with Windows Server 2003 and networks already, a lot more of us are not only unfamiliar with networking but also downright scared of it. To those who may be worried about the prospect of facing new and difficult technologies, we say, "Don't worry. Be happy." Using a network is not beyond anyone's wits or abilities — it's mostly a matter of using a language that ordinary people can understand.

Ordinary folks are why this book talks about using Windows Server 2003 and networks in simple — and deliberately irreverent — terms. Nothing is too highfalutin to be mocked, nor too arcane to state in plain English. And when we do have to get technical, we'll warn you and make sure to define our terms to boot.

This books aims to help you meet your needs. You'll find everything you need to know about Windows Server

2003 and networking in here, so you'll be able to find your way around — without having to learn lots of jargon or obtain an advanced degree in computer science along the way. We want you to *enjoy* yourself. If networking really is a big deal, it's important that you be able to get the most out of it. We really want to help!

About This Book

This book is designed so you can pick it up and start reading at any point — like you might read a reference book. In Parts I and II, networking basics are covered: concepts and terminology in Part I, and the design and deployment of network hardware in Part II. In Parts III through V, you'll find ample coverage of Windows Server 2003 and related networking topics. Part III covers installation and configuration of Windows Server 2003, whereas Part IV covers its maintenance and management. Part V completes this picture with chapters on a variety of troubleshooting topics.

Each chapter is divided into freestanding sections in which each one relates to the chapter's major theme. For example, the chapter on installing network interface cards, or NICs, contains the following collection of information:

- A description of a NIC and how it works
- The various PC buses for which NICs are available

- How to begin the installation process by documenting your current configuration
- How to insert a NIC into a PC
- How to configure a NIC after it's installed in your PC
- What to do when Plug and Play fails to live up to its promises
- Troubleshooting techniques to try when NIC installation doesn't work on the first (or second) try

You don't have to memorize the contents of this book. Each section supplies just the facts you need to make networking with Windows Server 2003 easy to use. On some occasions, however, you may want to work directly from the book to make sure you keep things straight.

How to Use This Book

This book works like a reference, so start with a topic that interests you. You can use the table of contents to identify general areas of interest or broad topics. The index, however, is your best tool for identifying detailed concepts, related topics, or particular Windows 2003 capabilities, tools, or controls.

After you find what you need, you can close the book and tackle whatever task you've set for yourself — without having to grapple with unrelated details.

If you've never worked on a network before, it's a good idea to read Parts I and II in their entirety. Likewise, if you're new to Windows Server 2003, you might want to read all of Parts III and IV. Otherwise, dig in wherever your fancy moves you!

When you need to type something at the keyboard, you'll see text that looks like this: **TYPE THIS**. You're expected to enter this text at the keyboard, and then press the Enter key. Because typing stuff can sometimes be confusing, we always try to describe what it is you're typing and why you need to type it.

This book occasionally suggests that you consult the Windows Server 2003 online help, printed manuals, and Resource Kit and even Microsoft's TechNet CD for additional information. In most cases, though, you find everything you need to know about a particular topic right here — except for some of the bizarre details that abound in Windows Server 2003.

If there's a topic we don't cover in this book that you need to know more about, we suggest you look for a book on that subject in the *For Dummies* series, published by Wiley Publishing, Inc. In addition, a whole world of Web information about Windows Server 2003 is available on the Internet, and the Microsoft Web site at www.microsoft.com/windowsserver2003/default.mspx is not a bad place to start looking for such information.

Foolish Assumptions

We’re going to climb out on a limb and make some potentially foolish assumptions about you, our gentle reader. You have or are thinking about getting a computer, a network, and at least one copy of Windows Server 2003. You know what you want to do with these things. You might even be able to handle all these things yourself, if somebody could only show you how. Our goal with this book is to decrease your need for such a somebody, but we don’t recommend telling him or her that out loud — at least, not until you’ve finished this book!

How This Book Is Organized

The book is divided into six major parts, each of which consists of two to seven chapters. Each chapter covers a major topic and is divided into sections, which discuss some particular issue or concern related to that topic. That’s how things in this book are organized, but how you read it is up to you. Choose a topic, a section, a chapter, or a part — whatever strikes your fancy or suits your needs — and start reading.

Part I: Laying the Network Foundation

Part I covers networking concepts and terminology, including the basics of networked communications and what makes networks work — usually, some magical combination of hardware and software. Look here for discussions about networking terms and concepts, such as client, server, protocol, and topology. If you’re not familiar with networks, this part should come in handy. If you’re already a seasoned networker, you can skip this part (and Part II).

Part II: Hooking Up the Hardware

Part II covers everything you need to know to build or extend a network or simply to understand what’s really happening on an existing network. It starts with coverage of network design and layout principles, and continues with a discussion of how to install and configure NICs in a PC. After that, it examines the wiring that links network devices and talks about how multiple networks can interconnect. Part II concludes with a review of all the software components you’re likely to encounter on a Windows 2003-based network and why you need them.

Part III: Servers, Start Your Engines!

Part III tackles Windows Server 2003 head on, starting with its installation and configuration. It covers the issues involved in installing and configuring network hardware specifically for Windows Server 2003. It also covers how to install and manage print servers and services on a Windows 2003-based network, how to handle Transmission Control Protocol/Internet Protocol (TCP/IP) addresses, and how to set up and manage directory services, domains, and trust relationships in a Windows 2003-based environment. Part III is where you figure out how to put the basic pieces of a network together using Windows Server 2003.