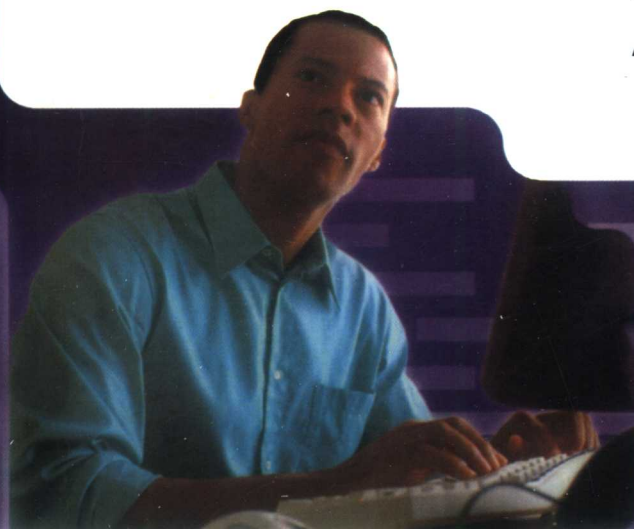**Microsoft** *Press*

MCSE Training Kit

Exam 70-224

Microsoft®
Exchange 2000 Server
实现与管理（影印版）

Microsoft Exchange 2000 Server Implementation and Administration

附 赠
Microsoft Exchange 2000 Server 和 Microsoft Outlook 2000
120 天试用版

[美] Microsoft 公司 著
Kay Unkroth

▶ MCP70-224 考试（Installing, Configuring, and Administering Microsoft Exchange 2000 Server）微软指定教材

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北京大学出版社

Microsoft Exchange 2000 Server 实现与管理

（影印版）

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内 容 简 介

Exchange 2000 Server 是一个功能强大的企业消息传递系统，集中应用 Internet 技术，为企业间协作和进行消息传递提供了很大便利。本书讲述了 Exchange 2000 Server 的实现和管理，主要内容包括 Exchange 2000 Server 的安装或升级、配置 Active Directory 服务、部署 Microsoft Outlook 和 Outlook Web Access 等客户程序、排除消息连接中的故障以及加强服务器安全等。同时，本书也是微软指定的 MCSE 教材，书中含有模块化的系列课程和技能培训练习，可以使考生获得安装、管理 Microsoft Exchange 2000 Server 及进行故障排除的实际经验。

本书由微软专家编写，集权威性与实用性为一体，是系统管理员和 MCP 考生的必备参考书。

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出 版 前 言

如果用一个成语来概括国内计算机图书市场的现状，当谓之"汗牛充栋"。然而，如果您是一位从事计算机应用系统开发或管理的中、高级专业人士，很可能发现这貌似种类齐全的计算机图书中，为您量身定做的并不多见。

依据多年从事计算机图书工作所积累的经验，以及与 IT 领域广泛而深入的接触所获取的信息，我们认识到，具有相当的专业深度和技术前沿性的图书，是计算机专业人员的迫切需要，当然，也是我们从事计算机图书工作、服务专业领域的一大着眼点。

基于这一点，2000 年元月，我们与微软出版社(Microsoft Press)达成合作协议，成立微软图书影印中心，独家代理微软出版社图书影印版在中国大陆的出版、发行，为 IT 业界提供及时的专业技术服务。选题和策划上的匠心独运，使得我们的影印书成为计算机图书中的标新立异者。这里，有四大特色值得读者朋友予以关注。

首先，这是微软出版社第一次授权在中国大陆影印、发行它的版权书。在选题上，可以说独辟蹊径。在内容上，立足技术广度和深度，系统推介微软产品。所有这些，都是目前国内一般计算机图书所无法比拟的。

其次，我们的理念是为国内计算机专业人员学习前沿性的微软技术提供服务。为此，我们不但与微软公司紧密协作与沟通，及时掌握微软最新技术动向，而且组织了精干的工作人员，倾力于微软影印书的出版和发行。

再者，微软影印书主要面向中、高级专业人员，印量有限。这类书的读者对象有较强的针对性，一般来说，包括 IT 决策人员，中、高级开发人员，以及中、高级系统管理人员。因而，我们将每套书的印数控制在 1000~2000 册之间。

最后，微软图书影印版几乎与原版书保持同步发行，最大限度地满足了国内读者跟踪微软最新技术的需求。软件升级越来越快，新软件令人目不暇接。作为技术载体之一的图书，只有迅速作出反应，把新软件介绍给读者，才能赢得他们的青睐。总之，兵贵神速，这是我们的目标。

正应验了前人的预言，21 世纪是一个信息时代。软件作为信息系统的神经，在我们生活的这个时代里发挥着举足轻重的作用，而微软公司和它推出的各种软件，更是令世人为之瞩目。我们将立足图书，继续并扩大与微软公司的合作，在中国信息产业的发展道路上留下自己的足迹。

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出版者

2000 年 10 月

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Acknowledgments

The current work is the successor to *Microsoft Exchange Server 5.5 Training Kit*, which was an extremely successful book project. It received the Excellence Award of the Society for Technical Communication (SCT) in 1998, and I would like to take the opportunity to mention that all of us that were involved in producing this book are very thankful and proud of this high recognition. Very positive feedback also came from numerous readers. Among other things, the depth of technical detail, the accuracy of information, and the practical exercises were generally recognized as outstanding positive features. Yet, there was critical feedback as well. Many readers found the outline of the old Training Kit, especially the repetition of concepts and facts, difficult to handle. This repetition of information was indeed intentional, but I had to learn that this was not an optimal approach to transfer knowledge. In other words, there was plenty of room for improvement. I hope that you will find the new Training Kit crisper, more to the point, less repetitive, and, therefore, easier to read.

The current Training Kit is written for computer specialists that want to gain a high level of professionalism in Microsoft Exchange 2000 Server. Knowledge of earlier versions of Exchange Server is not a prerequisite. This Training Kit is the right source for those who want to become Exchange 2000 Server experts, do their jobs better, go forward in their careers, and advance to new job opportunities. Our Training Kit allows you to thoroughly prepare for the Microsoft Certified Professional exam 70-224, "Installing, Configuring, and Administering Microsoft Exchange 2000 Server."

I love writing computer books, but I'm a very slow writer. My best score is seven pages per day; often I only get five pages done, and sometimes zero—those are the hard days, when nothing works. It took ages to get this manuscript to the publisher, but a manuscript is not a book. It takes a whole team of highly professional editors and artists and support from many sources to bring a book project to a successful completion. Please let me introduce to you all the people that had an important influence.

Before anybody else, I want to mention and thank Jeff Madden for his support and tremendous help. He was my Acquisition Editor at the time when we settled the project plan. Without him this book would not have come true. I also would like to thank Anne Hamilton, who helped to get the project on schedule during the early stages and who allowed me to have it 100% my way—yes! Later on, Thomas Pohlmann became my Acquisition Editor. That is a funny coincidence because Thomas and I had worked together on a few projects in Munich,

Germany, before. So here we were again, this time in Redmond, WA (it's only half-way around the world).

I also want to mention Stuart Stuple for his great support when I needed it the most. He brought me in touch with a brilliant support specialist for Exchange 2000 Server, Jeff Wilkes, who supported the early adopters for Microsoft since the initial stages of Platinum. Jeff gave me answers to many questions that nobody else could answer, and he referred me to Michael Lee, Microsoft's disaster recovery expert, who gave me very deep insights into the disaster recovery concepts of Exchange 2000 Server. I want to point out that Jeff and Michael helped me even though their own workload was enormous during the last weeks before the product shipped.

Now it's high time I introduced to you the actual editorial team working on this Exchange 2000 Server Training Kit. Michael Bolinger, the Project Editor, was my direct communication partner for the past nine months. Michael is a very experienced coordinator. He has been working in technical publishing for the past five years, spending much of his time working on MCSE Training Kits. His latest guess at the number of books he has contributed to constitutes some 60 titles. Michael, I really enjoyed working with you. I'm going to miss the large amounts of e-mail messages from you.

My Technical Editor, Tony Northrup, is likewise an old hand (MCSE and Compaq ASE). Tony has worked as a consultant at some of the largest corporations in the United States. He is the author of *Introducing Windows 2000 Server* and *NT Network Plumbing*, co-author of *Networking Essentials Unleashed*, and he is the Technical Editor for *Microsoft Windows 2000 TCIP/IP Protocol and Services Technical Reference* and *MCSE Training Kit—Microsoft Windows 2000 Network Infrastructure Administration*. It's obvious that his work is excellent. He caught me on many inaccuracies and fuzzy statements. It was very impressive to see how persistently Tony worked through 29 chapters with a constant level of highest precision.

The nontechnical editing of the manuscript was also in very good hands. Just give it a try—open this book somewhere in the middle, read a few sentences, and then look at the artwork. You must admit that our editing team did an excellent job. That is the work of Sarah Kimnach Hains, Project Manager, and her team of worker bees Theresa Horton, Copy Editor; Lucia Colella, Page Layout and Art; Mary Beth McDaniel, Page Layout and Art; Joanna Zito, Page Layout; Tara Lynn Murray, Art; Rebecca Merz, Proofchecker; Sarah Campbell, Proofreader. Sarah Kimnach Hains is responsible for managing publications and online projects at nSight, Inc., of Cambridge, MA. She is one of the "Resident Experts" at nSight concerning the production of Microsoft books, such as Pocket Consultants, Training Kits, and Technical References. She and her team enjoy the challenge of producing complicated books while maintaining the highest standard of quality.

Nobody can write a book without support from family, business partners, and friends. Perhaps this is the reason many authors dedicate their work to their wives, husbands, or other family members. The constant support of my wife, Jean (my wonderful Buggy-Darling), is one basis of my success in business. Jean, Scott, Kelly, I love you with all my heart. Another important person in my life is my business partner, Fergus Strachan. Book writing is a full-time job that does not leave much room to manage a company. Fergus understood, silently gave in, and managed our company in London, England, alone, for more than nine months while I followed my writing ambitions. In addition to that, he took an active part in compiling the Glossary for me. Thanks for everything, Ferg. I owe you more than a single malt. And there's one more person who I would like to mention—my colleague Carl John. He spent many extra hours setting up test environments for me so that I would not lose precious time from my writing.

It's the great help of so many people that make me feel very special. I can't mention all of them. Personal friends at IBM/Lotus, Novell, Microsoft, many self-employed colleagues, and even customers of ours were eager to assist. I hope that I was able to pass their help further on to you to help you master the challenges of Exchange 2000 Server.

London, 17th of October, 2000
Kay Unkroth
Director Corporate OnSite Ltd.

About This Book

Welcome to the MCSE Training Kit—Microsoft Exchange 2000 Server Implementation and Administration.

Note For more information on becoming a Microsoft Certified Systems Engineer, see the section titled "The Microsoft Certified Professional Program," later in this introduction.

Each chapter in this book is divided into lessons. Most lessons include hands-on procedures that allow you to practice or demonstrate a particular concept or skill. Each chapter ends with a short summary of all chapter lessons and a set of review questions to test your knowledge of the chapter material.

The "Getting Started" section of this introduction provides important setup instructions that describe the hardware and software requirements to complete the procedures in this course. It also provides information about the networking configuration necessary to complete some of the hands-on procedures. Read through this section thoroughly before you start the lessons.

Intended Audience

This book was developed for information technology (IT) professionals who need to design, plan, implement, and support Microsoft Exchange 2000 Server or who plan to take the related Microsoft Certified Professional exam 70-224, "Installing, Configuring, and Administering Microsoft Exchange 2000 Server."

Prerequisites

This course requires that students meet the following prerequisites:

- Have a general understanding of Microsoft Windows 2000 Server networking technologies and the TCP/IP protocol suite.
- Be familiar with the concepts and administration of the Active Directory directory service.

Reference Materials

You might find the following reference materials useful:

- Planning and Installation Guide from the Microsoft Exchange 2000 Server Online Documentation for detailed information about Exchange 2000 Server.

- *Microsoft Windows 2000 Server Online Documentation* for detailed information about Windows 2000 management utilities and their usage.

- *Microsoft Windows 2000 Resource Kit* for complete information regarding Windows 2000 components and technologies leveraged in Exchange 2000 Server.

- *Microsoft Platform Software Development Kit (SDK)* for a concise discussion about the architecture of Microsoft Management Console (MMC) snap-ins.

- *Microsoft Exchange Software Development Kit (EDK)* for details about the development of custom workgroup and workflow solutions.

- *Microsoft Exchange 2000 Server White Papers* published by Microsoft Product Support Services (PSS) on the Internet and also available on the Microsoft TechNet CD.

About the CD-ROM

The Supplemental Course Materials CD contains a variety of informational aids that may be used throughout this book. This includes multimedia demonstrations, sample utilities, and files used in hands-on exercises. For more information regarding the contents of this CD, see the section titled "Getting Started," later in this introduction.

A complete version of this book is also available online with a variety of viewing options available. For information about using the online book, see the section titled "The Online Book," later in this introduction. (The other CD contains a copy of the Microsoft Exchange 2000 Server, 120-day Evaluation Edition, software.)

Features of This Book

Each chapter opens with a "Before You Begin" section, which prepares you for completing the chapter.

▶   The chapters are then broken into lessons. Whenever possible, lessons contain practices that give you an opportunity to use the skills being presented or explore the part of the application being described. All practices offer step-by-step procedures that are identified with a bullet symbol like the one to the left of this paragraph.

The "Review" section at the end of the chapter allows you to test what you have learned in the chapter's lessons.

Appendix A, "Questions and Answers," contains all of the book's questions and corresponding answers.

Notes

Several types of Notes appear throughout the lessons.

- Notes marked **Tip** contain explanations of possible results or alternative methods.

- Notes marked **Important** contain information that is essential to completing a task.

- Notes marked **Note** contain supplemental information.

- Notes marked **Caution** contain warnings about possible loss of data.
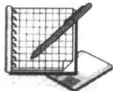
Conventions

The following conventions are used throughout this book.

Notational Conventions

- Characters or commands that you type appear in **bold lowercase** type.

- <Angle brackets> in syntax statements indicate placeholders for variable information.

- *Italic* is used for book titles and Web addresses.

- Names of files and folders appear in Title Caps, except when you are to type them directly. Unless otherwise indicated, you can use all lowercase letters when you type a file name in a dialog box or at a command prompt.

- File name extensions appear in all lowercase.

- Acronyms appear in all uppercase.

- Monospace type represents code samples, examples of screen text, or entries that you might type at a command prompt or in initialization files.

- Square brackets [ ] are used in syntax statements to enclose optional items. For example, [*filename*] in command syntax indicates that you can choose to type a file name with the command. Type only the information within the brackets, not the brackets themselves.

- Braces { } are used in syntax statements to enclose required items. Type only the information within the braces, not the braces themselves.

■ Icons represent specific sections in the book as follows:

Icon	Represents
	A file that can be found on the Supplemental Course Materials CD.
	A hands-on practice. You should perform the practice to give yourself an opportunity to use the skills being presented in the lesson.
	Chapter review questions. These questions at the end of each chapter allow you to test what you have learned in the lessons. You will find the answers to the review questions in Appendix A, "Questions and Answers," at the end of the book.

Keyboard Conventions

■ A plus sign (+) between two key names means that you must press those keys at the same time. For example, "Press ALT+TAB" means that you hold down ALT while you press TAB.

■ A comma (,) between two or more key names means that you must press each of the keys consecutively, not together. For example, "Press ALT, F, X" means that you press and release each key in sequence. "Press ALT+W, L" means that you first press ALT and W together, and then release them and press L.

■ You can choose menu commands with the keyboard. Press the ALT key to activate the menu bar, and then sequentially press the keys that correspond to the highlighted or underlined letter of the menu name and the command name. For some commands, you can also press a key combination listed in the menu.

■ You can select or clear check boxes or option buttons in dialog boxes with the keyboard. Press the ALT key, and then press the key that corresponds to the underlined letter of the option name. Or you can press TAB until the option is highlighted, and then press the spacebar to select or clear the check box or option button.

■ You can cancel the display of a dialog box by pressing the ESC key.

Chapter and Appendix Overview

This self-paced training course combines notes, hands-on procedures, multimedia presentations, and review questions to teach you Microsoft Exchange 2000 Server Implementation and Administration. It is designed to be completed from beginning to end, but you can choose a customized track and complete only the sections that interest you. (See the next section, "Finding the Best Starting Point for You," for more information.) If you choose the customized track option, see

the "Before You Begin" section in each chapter. Any hands-on procedures that require preliminary work from preceding chapters refer to the appropriate chapters.

The book is divided into the following chapters:

- The "About This Book" section contains a self-paced training overview and introduces the components of this training. Read this section thoroughly to get the greatest educational value from this self-paced training and to plan which lessons you will complete.

- Chapter 1, "Introduction to Microsoft Exchange 2000 Server," discusses basic messaging features and describes Microsoft's design goals for Exchange 2000 Server. It also briefly covers Exchange 2000 Server's support for industry messaging standards and interoperability issues.

- Chapter 2, "Integration with Microsoft Windows 2000," provides you with an overview of how Exchange 2000 Server is built into Windows 2000 and utilizes the Active Directory directory service. The chapter also examines important networking components Exchange 2000 Server relies on for its own communication.

- Chapter 3, "Microsoft Exchange 2000 Server Architecture," addresses the architecture of Exchange 2000 Server, the interaction of its components, and the server-to-server communication. You will find a concise description of the essential Exchange 2000 Server elements, the communication paths among the various server components, and the message flow as handled by Exchange 2000 Server.

- Chapter 4, "Planning the Microsoft Exchange 2000 Server Installation," explains the prerequisites and some of the most important considerations for a successful deployment of Exchange 2000 Server. You can read about various deployment options, necessary preparations of Windows 2000 Server and Active Directory, the hardware and software requirements, and security and maintenance.

- Chapter 5, "Installing Microsoft Exchange 2000 Server," deals with the Setup program of Exchange 2000 Server and various postinstallation considerations. This chapter covers, in detail, the installation types, available setup options, and issues you should consider after a setup procedure is completed successfully.

- Chapter 6, "Coexistence with Previous Microsoft Exchange Server Versions," covers, in detail, the important tasks you face when upgrading or migrating an existing Microsoft Exchange Server 5.5 organization to Exchange 2000 Server. It demonstrates how to integrate Exchange Server 5.5 with Active Directory, deals with the actual upgrade procedures, and concludes with a discussion of postupgrade tasks. This chapter contains five optional exercises that you may want to follow if you have an Exchange Server 5.5 CD available. You can run multimedia demonstrations that illustrate how to perform

the procedures from the \Exercise_Information\Chapter6 folder on the Supplemental Course Materials CD.

- Chapter 7, "Microsoft Exchange 2000 Server in Clustered Environments," focuses on the installation of Exchange 2000 Server in a clustered Windows 2000 environment. It covers important concepts, such as active/active clustering and failover procedures, with an eye on the actual installation of Exchange 2000 Server into server clusters that consist of up to four nodes. This chapter contains three optional exercises that you may want to follow if you have a server cluster available. You can run multimedia demonstrations that illustrate how to perform the procedures from the \Exercise_Information \Chapter7 folder on the Supplemental Course Materials CD.

- Chapter 8, "Microsoft Outlook 2000 Deployment," focuses on the installation and configuration of Outlook 2000 in an Exchange 2000 Server environment. This chapter covers the various installation types and valuable setup utilities, and examines Exchange-specific configuration settings.

- Chapter 9, "MAPI-Based Clients," introduces the client family of MAPI-based applications and then concentrates on the creation and configuration of messaging profiles and the most important MAPI information services. This chapter also discusses advanced configuration topics, such as configurations for roaming users and for remote users working disconnected from the network.

- Chapter 10, "MAPI-Based Clients in a Novell NetWare Environment," addresses the main aspects of combining Windows 2000 Server and NetWare and then covers the client-side requirements for establishing remote procedure call (RPC) connections to an Exchange 2000 server. This chapter also explains how to troubleshoot client connectivity problems.

- Chapter 11, "Internet-Based Client Access," deals with popular Internet messaging protocols and their implementation in Exchange 2000 Server. Among other things, this chapter explains how to configure virtual servers for access to mailboxes and public folders across the Internet.

- Chapter 12, "Management Tools for Microsoft Exchange 2000 Server," introduces various Windows 2000 and Exchange 2000 snap-ins that are important for managing Exchange 2000 resources. This chapter provides a general feature overview.

- Chapter 13, "Creating and Managing Recipients," concentrates on the management of recipient objects in Active Directory. Available recipient objects and their characteristics are introduced and resource management tasks are discussed.

- Chapter 14, "Managing the Server Configuration," focuses on the management of Exchange 2000 resources using Exchange System Manager. It covers important configuration issues at the server, administrative group, and organization levels.

- Chapter 15, "SMTP Transport Configuration," deals with the configuration of Simple Mail Transfer Protocol (SMTP) virtual servers and the customization

of the SMTP service. This chapter provides information about how to connect an Exchange 2000 server to the Internet without deploying an SMTP Connector.

- Chapter 16, "Message Routing Administration," discusses the design of routing topologies in Exchange 2000 organizations. This chapter explains how multiple routing groups are managed to optimize message transfer and covers how routing and link state information are propagated between servers.

- Chapter 17, "Public Folder Management," addresses the management of public folders that reside on a single Exchange 2000 server. This chapter discusses public folder concepts and the administration of public stores.

- Chapter 18, "Public Folder Replication," covers the various aspects of public folder replication, including advantages, granularity, and configuration. This chapter discusses the various methods of collecting and delivering public folder instances from and to other servers and the replication process in detail.

- Chapter 19, "Implementing Advanced Security," covers in detail how Exchange 2000 Server integrates into the Windows 2000 security architecture and then focuses on advanced security services based on the X.509 industry standard recommended by the Public Key Infrastructure (PKI) working group of the Internet Engineering Task Force (IETF).

- Chapter 20, "Microsoft Exchange 2000 Server Maintenance and Troubleshooting," focuses on important maintenance features that can ease the task of system management and addresses backing up and restoring Exchange 2000 Server. This chapter includes in-depth explanations of how to recover information store databases in various situations.

- Chapter 21, "Microsoft Outlook Forms Environment," covers the development, installation, and use of Outlook forms and related workgroup solutions at a basic level. This chapter also explains the management of electronic forms libraries.

- Chapter 22, "Microsoft Outlook Web Access," deals with Outlook Web Access (OWA) of Exchange 2000 Server. This chapter covers the OWA architecture and then approaches this client from a more practical point of view, discussing the various methods of resource access as well as backward compatibility issues.

- Chapter 23, "Microsoft Exchange 2000 Web Storage System," concentrates on an introduction to the Web Storage System. This chapter provides essential information for administrators and briefly discusses how to use the features of the Web Storage System to build customized enterprise applications.

- Chapter 24, "Workgroup and Workflow Technologies," concentrates on the new Collaboration Data Objects (CDO) technologies for Exchange 2000 Server and illustrates how to use them to implement messaging capabilities, manage an Exchange 2000 server, and design workflow processes.

- Chapter 25, "Real-Time Collaboration," addresses the features of Exchange 2000 Server for instant communication and real-time collaboration. This chapter covers the architecture and implementation of Instant Messaging and

Exchange 2000 Chat and introduces Microsoft Exchange 2000 Conferencing Server.

- Chapter 26, "Connecting to Microsoft Mail and Schedule+," covers the Microsoft Mail Connector, directory synchronization with MS Mail (Dirsync), and the Microsoft Schedule+ Free/Busy Connector.

- Chapter 27, "Connecting to Lotus cc:Mail," addresses the installation and configuration of the Connector for Lotus cc:Mail for e-mail message transfer and propagation of address information. This chapter focuses on environments with Lotus cc:Mail DB8.

- Chapter 28, "Connecting to Lotus Notes," focuses on the architecture and administration of the Connector for Lotus Notes. This chapter explains how to provide messaging connectivity and directory synchronization between Exchange 2000 Server and Lotus Domino/Notes R5.

- Chapter 29, "Connecting to Novell GroupWise," introduces the Connector for Novell GroupWise and explains how to use this connector for messaging connectivity and directory synchronization with Novell GroupWise 5.5.

- Appendix A, "Questions and Answers," lists all of the review questions from the book and the suggested answers.

- The Glossary contains the definitions of important terms used in this book.

Finding the Best Starting Point for You

Because this book is self-paced, you can skip some lessons and revisit them later. Note, however, that you must set up a test environment, as described later in this section, before you can perform procedures in any of the chapters. Use the following table to find the best starting point for you:

If You	Follow This Learning Path
Are preparing to take the Microsoft Certified Professional exam 70-224, "Installing, Configuring, and Administering Microsoft Exchange 2000 Server."	Read the "Getting Started" section. Then work through Chapters 1 through 5. Work through the remaining chapters in any order.
Want to review information about specific topics from the exam.	Use the "Where to Find Specific Skills in This Book" section that follows this table.

Where to Find Specific Skills in This Book

The following tables provide a list of the skills measured on certification exam 70-224, "Installing, Configuring, and Administering Microsoft Exchange 2000 Server." The table provides the skill and where in this book you will find the lesson relating to that skill.

Note   Exam skills are subject to change without prior notice and at the sole discretion of Microsoft.

Installing and Upgrading Exchange 2000 Server

Skill Being Measured	Location in Book
Install Exchange 2000 Server on a server computer	Chapters 4, 5, 6, and 7
Diagnose and resolve failed installations	Chapters 4, 5, and 6
Upgrade or migrate to Exchange 2000 Server from Exchange Server 5.5	Chapter 6
Diagnose and resolve problems involving the upgrade process	Chapter 6
Manage coexistence with Exchange Server 5.5	
■ Maintain common user lists	Chapter 6
■ Maintain existing connectors	Chapters 6 and 16
■ Move users from Exchange 5.5 to Exchange 2000	Chapter 6
■ Configure the Exchange 2000 Active Directory Connector to replicate directory information	Chapter 6
Diagnose and resolve Exchange 2000 Active Directory Connector problems	Chapters 3 and 6
Perform client deployments	
■ Microsoft Outlook 2000	Chapters 8, 9, and 10
■ Outlook Web Access, POP3, IMAP4	Chapters 11 and 22
■ Internet Relay Chat	Chapter 25
■ Configure Outlook Web Access	Chapter 22
■ Configure client access protocols	Chapter 11

Configuring Exchange 2000 Server

Skill Being Measured	Location In Book
Configure mailbox stores	Chapters 12, 14, and 20
Configure public folders	Chapters 12, 17, 18, and 20
Configure connectors and gateways	Chapters 12, 15, 16, 26, 27, 28, and 29
Configure virtual servers	Chapter 11
Configure Chat	Chapter 25
Configure Instant Messaging	Chapter 25

Configuring Exchange 2000 Server *(continued)*

Skill Being Measured	Location In Book
Configure server objects for messaging and collaboration to support the assigned server role	
■ Configure information store objects	Chapters 12, 14, and 20
■ Configure multiple storage groups for data partitioning	Chapter 20
■ Configure multiple databases within a single storage group	Chapter 20
■ Configure virtual servers to support Internet protocols	Chapters 11, 22, and 25
■ Configure Exchange 2000 Server information in Windows 2000 Active Directory	Chapters 2, 3, 4, 5, 13, 26, 27, 28, and 29
■ Configure Instant Messaging objects	Chapter 25
■ Configure Chat objects	Chapter 25
Create and manage administrative groups	Chapters 4, 5, 6, and 14
Configure separate Exchange 2000 Server resources for high-volume access. Configure stores, logs, and separate RAID arrays	Chapters 7 and 20
Diagnose and resolve Exchange 2000 availability and performance problems	
■ Diagnose and resolve server resource constraints (resources include processor, memory, and hard disk)	Chapters 12 and 20
■ Diagnose and resolve server-specific performance problems	Chapter 20
Configure Exchange 2000 Server for high security	
■ Configure Exchange 2000 Server to issue v.3 certificates	Chapter 19
■ Enable digest authentication for Instant Messaging	Chapter 25
■ Configure certificate trust lists	Chapter 19
■ Configure virtual servers to limit access through firewalls	Chapters 11 and 19
■ Configure Key Management server (KM server) to issue digital signatures	Chapter 19
Create, configure, and manage a public folder solution	
■ Configure the Active Directory object attributes of a public folder	Chapter 17
■ Configure the store attributes of a public folder	Chapter 17
■ Configure multiple public folder trees	Chapters 17 and 18
Configure and manage system folders	Chapters 17 and 18