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About the Author

John Mueller is a freelance author and technical editor. He has writing in his blood, having produced 81 books and over 300 articles to date. The topics range from networking to artificial intelligence and from database management to heads-down programming. Some of his current books include a Windows power optimization book, books on both Windows Server 2008 GUI and Windows Server 2008 Server Core, and a programmer's guide that discusses the new Office Fluent User Interface (RibbonX). His technical editing skills have helped more than 58 authors refine the content of their manuscripts. John has provided technical editing services to both *Data Based Advisor* and *Coast Compute* magazines. He's also contributed articles to the following magazines: *CIO.com*, *DevSource*, *InformIT*, *Informant*, *DevX*, *SQL Server Professional*, *Visual C++ Developer*, *Hard Core Visual Basic*, *asp.netPRO*, *Software Test and Performance*, and *Visual Basic Developer*.

When John isn't working at the computer, he enjoys spending time in his workshop crafting wood projects or making candles. On any given afternoon, you can find him working at a lathe or putting the finishing touches on a bookcase. He also likes making glycerin soap, which comes in handy for gift baskets. You can reach John on the Internet at JMueLLer@mwt.net. John is also setting up a Web site and blog at <http://www.johnmuellerbooks.com/>; feel free to look and make suggestions on how he can improve it.

Dedication

This book is dedicated to my nephew Jason, who is at childhood's end and reminds me so much of myself at his age. He gives me hope for the future. Happy 16th birthday!

Author's Acknowledgments

Thanks to my wife, Rebecca, for working with me to complete this book. I don't know what I would have done without her help in researching and compiling some of the information that appears in this book. She also did a fine job of proofreading my rough draft.

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Introduction

Exchange Server is an e-mail server. Some people may stop there. After all, e-mail is a necessary, yet boring, requirement for any organization today. However, Exchange Server is far more than a simple e-mail server, and that's what *Microsoft Exchange Server 2007 For Dummies* is all about. In this book, you discover the amazing capabilities of Exchange Server 2007 SP1 and what it can do for your organization besides serve up e-mail.

About This Book

You may be amazed to know that Exchange Server can help every member of your organization schedule appointments. In addition, it can help them coordinate their appointments so that meetings become easy, rather than too inconvenient to schedule properly. Of course, meetings involve more than people — they also involve resources. Exchange Server helps you create and schedule every resource required for your meeting, and *Microsoft Exchange Server 2007 For Dummies* helps you perform this necessary task.

Exchange Server also provides considerable resources to keep your e-mail experience safe. Microsoft's focus is on using the advanced features of Exchange Server to perform this task. *Microsoft Exchange Server 2007 For Dummies* helps you accomplish this job without investing in multiple servers — a boon for small organizations. Of course, this book also considers the needs of the medium- and large-sized organization as well.

One of the focal points of this book is the Service Pack 1 (SP1) release. Most Exchange Server 2007 books on the market today came out before SP1 was a reality. *Microsoft Exchange Server 2007 For Dummies* provides full SP1 coverage, so you know you're getting the best information possible about Exchange Server 2007.

A second focus of *Microsoft Exchange Server 2007 For Dummies* is performance and the three elements that define it: security, reliability, and speed. Using the techniques in this book will ensure that you obtain maximum Exchange Server performance. In short, rather than simply tell you how Exchange Server works or how to use it, this book goes further and helps you obtain the most out of Exchange Server. Consequently, *Microsoft Exchange Server 2007 For Dummies* is the best book available to get started with your Exchange Server 2007 SP1 experience.

Conventions Used in This Book

I always try to show you the fastest way to accomplish any task. In many cases, this means using a menu command such as File⇨New⇨Project. When working with Exchange Server, I'll tell you which dialog box tab to access first, and then which feature to use on that tab.

This book also uses special type to emphasize some information. For example, entries that you need to type appear in **bold**. All code, Web site URLs, and on-screen messages appear in `monospace` type. When I define a new word, you'll see that word in *italics*.

Because you use multiple applications when you're working with Exchange Server, I always point out when to move from one application to the next. When a chapter begins, I introduce the main application for that chapter. All the commands in that chapter are for the main application until I specifically tell you to move to another application. I also tell you when it's time to move back to the main application.

What You Should Read

If you haven't worked with Exchange Server before, you should begin with Chapter 1 because this initial chapter contains a lot of information you can use to help define your Exchange Server setup. Planning your Exchange Server configuration is important and this chapter provides the information you need. Anyone, no matter what level of expertise they possess, should read the "Understanding the Service Pack 1 (SP1) Differences" section of Chapter 1. This section of the chapter helps you understand the benefits of installing Exchange Server 2007 SP1 on your server.

Everyone should read Chapters 5 through 8 at some point because these chapters emphasize the SP1 configuration procedures. However, when you read these chapters depends on when you install SP1. If you perform the installation described in this book, you should move on to Chapter 5 immediately after completing the installation. On the other hand, if you install SP1 as an update to your existing Exchange Server installation, you don't need to start reading Chapters 5 through 8 until you complete the upgrade.

Chapters 9 through 13 are essential management chapters. Someone who has never worked with Exchange Server before will probably want to read them from start to finish. After you gain some Exchange Server experience, you use these chapters for reference — picking and choosing just the sections needed to manage your system.

What You Don't Have to Read

Most of the chapters contain some advanced material that will interest only some readers. When you see one of these specialized topics (such as using S/MIME and PGP/MIME encryption in Chapter 1), feel free to skip it. Most of this advanced material appears in sidebars and some of it applies only when you use a specific Exchange Server component. The sidebar title will always indicate the special nature of the advanced material.

You can also skip any material marked with a Technical Stuff icon. This material is helpful, but you don't have to know it to work with Exchange Server. I include this material because I find it helpful in my administration efforts and hope that you will, too.

Foolish Assumptions

You might find it difficult to believe that I've assumed anything about you — after all, I haven't even met you yet! Although most assumptions are indeed foolish, I made these assumptions to provide a starting point for the book.

I'm assuming that you've worked with Windows long enough to know how the keyboard and mouse work. You should also know how to use menus and other basic Windows features.

In all the chapters, I assume you have administrator rights to the machine you use to work with Exchange Server. In addition, this book relies on Windows Server 2008 as the base operating system and Windows XP as the client operating system. You can use any combination of operating systems that Exchange Server and the client application you want to work with support, but the screenshots may differ from those shown in the book. You must know how to work with the advanced features of whatever versions of Windows you choose to use.

Some portions of the book work with Web pages and others use XML; you need to know at least a little about these technologies to use those sections. You don't have to be an expert in these areas, but more knowledge is better. This book doesn't require that you have any developer knowledge of either Web page or XML technology.

I do make an essential assumption in this book in the level of coverage. This book doesn't discuss Edge Transport server, the outside-the-firewall Exchange Server component, in any detail. I did this for an important reason. Many of you will begin using Exchange Server in your organization and will not want to invest a lot of money in multiple servers at the outset. This is the book to get you started. After you acquire the basics found in this book, you can move on to one of those heavy tomes on the market to increase the size of your Exchange Server configuration.

How This Book Is Organized

This book contains several parts. Each part demonstrates a particular Exchange Server concept. In each chapter, I discuss a particular topic and describe how to perform tasks associated with that topic using procedural steps. In some cases, I make recommendations but can't provide a precise procedure because the steps you take vary by organization. This book doesn't require that you download anything unless you plan to use one of the third-party products mentioned in a particular topic. In this case, I provide the URL you use to perform the download.

Part I: An Overview of Exchange Server 2007

The first part of the book is all about discovering (Chapter 1), planning and installing (Chapter 2), considering basic management of (Chapter 3), and configuring (Chapter 4) Exchange Server. These four chapters help you to get to the point of being able to access Exchange Server and perform more advanced management tasks. You'll probably use this part of the book once — during the initial configuration of your server. Of course, you can always return to Part I every time you add another server to your configuration.

Part II: Customizing Exchange Server

Exchange Server requires a lot of configuration before you can use it for anything practical. Just because you can access Exchange Server and send yourself an e-mail doesn't make it useful. Part II describes how to configure mailboxes (Chapter 5), security (Chapter 6), clients (Chapter 7), and forms (Chapter 8). Most of you will follow these chapters in order during the initial configuration of your server, but you'll use this part of the book as a configuration reference as your organization needs change.

Part III: Advanced Techniques

Part III contains a number of advanced techniques that you may not use very often. For example, Chapter 9 tells you how to troubleshoot configuration problems, and I hope you won't need to perform that task every day. The mail recovery techniques in Chapter 10 see the light of day only when something catastrophic happens to your server. The one chapter in this part that you should read end-to-end and use regularly is Chapter 11, which contains maintenance procedures. If you use Chapter 11 regularly, you may find that you need Chapters 9 and 10 seldom or not at all.

Chapters 12 and 13 are special. They show you how to work at the command line using Windows PowerShell (Chapter 12) and the familiar command prompt (Chapter 13). Using the techniques in this chapter can help you perform tasks faster, add automation to your administration tasks, and perform a few tasks that the GUI doesn't support very well.

Part IV: The Part of Tens

Everyone likes helpful tips and resources. The two chapters in Part IV contain descriptions of helpful third-party utilities (Chapter 14) and a list of places where you can obtain additional information (Chapter 15). Although these two chapters don't contain required reading, you'll miss out on an important part of the book if you don't at least scan these two chapters. The tidbits of information you receive may help you work with Exchange Server with considerably less effort. Of course, these are the utilities and online resources that I use. If you find some utilities or online resources that you want to share with me, be sure to write me at JMueLLer@mwt.net.

Icons Used in This Book

As you read this book, you'll see icons in the margins that indicate material of interest (or not, as the case may be). This section briefly describes each icon in this book.



Tips are nice because they help you save time or perform some task without a lot of extra work. The tips in this book are timesaving techniques or pointers to resources that you should try to get the maximum benefit from Exchange Server.



I don't want to sound like an angry parent or some kind of maniac, but you should avoid doing anything marked with a Warning icon. Otherwise, you could find that Exchange Server melts down and takes your data with it.



Whenever you see this icon, think *advanced* tip or technique. You might find these tidbits of useful information just too boring for words, or they could contain the solution you need to solve an Exchange Server issue. Skip this information whenever you like.



If you don't get anything else out of a particular chapter or section, remember the material marked by this icon. This text usually contains an essential process or bit of information that you must know to use Exchange Server successfully.

Where to Go from Here

It's time to start your Exchange Server adventure! I recommend that anyone who has never worked with Exchange Server go right to Chapter 1. This chapter contains essential, get-started information that you need for getting Exchange Server installed on your system. More importantly, this chapter tells you what you can expect from the SP1 update to Exchange Server.

If you already have Exchange Server installed, but haven't configured it yet, move on to Chapter 4 (for initial configuration) or Chapter 5 (for detailed configuration). Before you can use Exchange Server, you must configure it for use. This means configuring Exchange Server at the organization and server levels, adding mailboxes, setting security, and performing basic tests to ensure you have everything installed correctly.

Those who already have some Exchange Server experience and want to use this book as a reference may want to move directly to Chapter 9 and then review Chapters 5 through 8 as needed for updates. Chapter 9 begins an exciting section of the book where you discover techniques for locating problems on your system and methods you can use to test Exchange Server. In addition, some areas of Part III tell you how to improve Exchange Server reliability, speed, and security — the three cornerstones of good Exchange Server performance.

Part I

An Overview of Exchange Server 2007

The 5th Wave

By Rich Tennant



"One of the first things you want to do before installing Exchange Server is fog the users to keep them calm during the procedure."

In this part . . .

What can Exchange Server 2007 SP1 do for you? You may have found some essential tasks that Exchange Server can accomplish, but you may not realize just how powerful this application is and its importance for your organization. Chapter 1 helps you consider all the special features that Exchange Server 2007 SP1 provides, especially those found in SP1 (the features that Microsoft covers least well in their documentation).

The remaining chapters in this part help you install Exchange Server 2007 SP1 for the first time. Chapter 2 helps with the installation process. In Chapter 3, you discover how to work with Exchange Management Console, which is the essential tool for most configuration tasks. By the time you finish with Chapter 4, you have a basic configuration in place that you can test and use to send yourself e-mail.

Chapter 1

Getting to Know Exchange Server 2007

In This Chapter

- ▶ Understanding the new Exchange Server 2007 feature set
 - ▶ Considering what makes Service Pack 1 (SP1) different
 - ▶ Determining which edition you need
 - ▶ Obtaining a trial version of Exchange Server 2007
 - ▶ Using hosted services instead of your own copy
-

Most people know that Microsoft Exchange Server is an application that distributes e-mail and maintains a calendar. It doesn't sound very exciting at the outset. However, Exchange Server 2007 is more than just a simple mail program and calendar organizer. This chapter helps you get to know Exchange Server 2007 a bit better and understand how it can help your organization work more efficiently. A special section on SP1 helps you understand why the SP1 update is so important for your Exchange Server 2007 setup.

Exchange Server 2007 comes in several different editions, and you need to obtain the correct edition to ensure that you get the most out of the product to meet your organization's needs. This chapter also provides you with information on the various Exchange Server 2007 editions and helps you make an informed choice about which edition to get. You'll need to spend time assessing your organization's needs as part of this process. Company size doesn't necessarily dictate the edition you get because different organizations have differing needs.

In some cases, you may not want to buy Exchange Server 2007 today. After all, it's a large investment and you may not know precisely what you want out of Exchange Server 2007 immediately. Fortunately, you have two alternatives to spending big money immediately. First, you can obtain the trial version of Exchange Server 2007 and install it on your own system. Second, you can rely on a hosted version of Exchange Server 2007 loaded on someone else's machine. This chapter examines both options. In either case, you can use the contents of the rest of the book to help make your evaluation more thorough so you can make a better buying decision later.

Considering the Exchange Server 2007 Features

Exchange Server started as a simple mail and calendar program, but over the years it's evolved in a number of ways. First, Exchange Server has become more scalable. You can support more people from a single server, making multiple server setups less necessary. However, when you need to use multiple servers, you can do so with less effort.

Second, as with all Microsoft products, Exchange Server 2007 has more features than previous versions. Microsoft is constantly improving their products by adding features that sound interesting or that their customers request. To some extent, the extra features also increase product complexity, so it's important to choose the right Exchange Server edition and install only the features you need.



Third, as part of an overall effort by Microsoft, you find Exchange Server 2007 features designed to improve reliability, speed, or security. These features may not even be visible and you probably wouldn't know about them unless Microsoft told you they were there. These features are actually the best additions to Exchange because they make everyone more productive and less worried about their data. Table 1-1 provides a description of all three of these feature classes.

Table 1-1 New or Updated Features in Exchange Server 2007

<i>Feature</i>	<i>Category</i>	<i>Type</i>	<i>Chapter in Book</i>	<i>Description</i>
Edge Transport Server Role	Scalability	Antispam and antivirus	4	Helps you support installations at the perimeter (edge) of your network. This server supports Simple Mail Transport Protocol (SMTP) routing. It also provides both antispam and antivirus network for users outside the normal network environment. Unlike most parts of Exchange Server, the Edge Transport server doesn't have direct Active Directory access, but it does support Active Directory access through the Active Directory Application Mode (ADAM). All communication between the Edge Transport server and the rest of the network is encrypted by default.

<i>Feature</i>	<i>Category</i>	<i>Type</i>	<i>Chapter in Book</i>	<i>Description</i>
Connection Filtering	Reliability, speed, or security	Antispam and antivirus	4	Blocks or allows an outside connection based on the IP address of the caller. The server stores the IP addresses of blocked callers based on reputation. The server downloads this list as updates become available. An administrator can also enter additional IP addresses as needed.
Sender and Recipient Filtering	Reliability, speed, or security	Antispam and antivirus	4	Blocks or allows a sender or recipient based on a combination of the Sender ID and the IP address of the SMTP server used to transmit the message. The Edge Transport server can also block a message based on analysis it performs on message transmission trends.
Safe Sender List Aggregation	Reliability, speed, or security	Antispam and antivirus	7	Provides a means for Outlook 2003 and Outlook 2007 users to send their safe senders lists to the server. The server respects these lists when determining whether to accept or reject messages.
Sender ID	Reliability, speed, or security	Antispam and antivirus	6	Supports the industry standard method of verifying users by embedding an identifier within the message. The server can use a combination of the identifier and the IP address of the SMTP server used to transmit the message. This feature reduces the risk of domain spoofing and other message problems.

(continued)

Table 1-1 (continued)

<i>Feature</i>	<i>Category</i>	<i>Type</i>	<i>Chapter in Book</i>	<i>Description</i>
Content Filtering	Reliability, speed, or security	Antispam and antivirus	6	Analyzes the content of messages using the Intelligent Message Filter (IMF), which is based on Microsoft's SmartScreen content filtering technology. The technology reviews the content of the message and rejects content from fraudulent links and spoofed domains. The technology also provides a certain level of anti-phishing protection.
Outlook E-Mail Postmark	Reliability, speed, or security	Antispam and antivirus	6	Verifies the e-mail postmark attached to a message. Using the postmark feature can help reduce false positives for senders who have little or no reputation on the local system.
Spam Assessment	Reliability, speed, or security	Antispam and antivirus	6	Combines the results of the content, connection, sender/recipient, sender reputation, sender ID verification, and Outlook e-mail postmark validation to create an overall spam assessment. The result of this check determines the action Exchange Server takes on the message. The administrator can configure various actions based on any of these criteria.
Service Resilience	Scalability	Antispam and antivirus	4	Controls the rate at which Exchange Server sends and receives messages. The use of message throttling for incoming messages helps prevent Distributed Denial of Service (DDoS) attacks. Checking for message sending patterns helps reduce the probability of a directory harvesting attack.