

# Introduction

With the licensing of NetIQ's Operation Manager technology in 2000, Microsoft sent a message that it was serious about server monitoring and management. This message was well received; those production environments running Windows servers and using a Microsoft infrastructure require tools to help them be proactive in managing those servers and the applications and services within.

However, operations management is more than just looking at individual event logs from hundreds or even thousands of servers. It's about co-relating what may appear to be unrelated events across servers and determining what information is significant and what is not, what may portend a potential problem, and then taking available vendor and in-house knowledge and using that as a base of information in both preventing problems and solving them.

Operations management is not just a software application; successfully maintaining Service Level Agreements involves people, tools, and processes. Although Microsoft Operations Manager (MOM) is a tool, it is not a piece of software that you can simply install and have instantly working. A successful implementation of MOM involves planning, design, and an understanding of how to utilize its management packs. Operations management tools also have several target groups of users: computer operations, help desk personnel, and administrators of various areas, including operating systems, security, database, messaging, and web servers, to name a few.

This book intends to answer the perennial question: "Now that I've run Setup, how do I make this work?" Successfully implementing operations management takes planning and design. Successful administration and use of MOM requires managing the thousands of rules it can encompass, working with the various types of administrators, and keeping management informed of trends.

We do have a disclaimer: Resources and management packs related to MOM 2005 change rapidly. Sometimes it seemed that as soon as we completed a chapter, the information was already outdated. The information in this book is current as of the time it was written, and the authors have done their best to keep up with the constant barrage of changing management packs, MOM-related utilities, URLs, and knowledge base articles.

## **Part I: Operations Management Overview and Concepts**

Part I introduces the reader to MOM 2005, outlining its features and functionality and comparing and contrasting it to MOM 2000 and MOM 2005 Workgroup Edition. Chapter 1, "Operations Management Basics," discusses the concepts behind operations management and Microsoft's management approach, and introduces MOM and Microsoft's management suite of products. An overview of ITIL and MOF is included along with a

discussion of how the different MOF quadrants relate to MOM. In Chapter 2, “What’s New,” we cover the history of MOM and compare MOM 2005 with MOM 2000 and the 2005 Workgroup Edition. Chapter 3, “How Does It Work?,” appropriately gives an architectural overview and discusses the MOM components.

## **Part II: Planning and Installation**

Before diving into MOM’s setup program, it is best to take a step back to map out the requirements for your management environment and planning your server topology. Chapter 4, “Planning Your MOM Deployment,” discusses the steps required to successfully plan a MOM installation. Chapter 5, “Planning Complex Configurations,” addresses more advanced implementations including planning for redundancy and how to architect management groups. In Chapter 6, “Installing MOM 2005,” we discuss hardware and software requirements before going through the steps to install the various server components in a management group using a “simple” configuration. (We talk about more complex configurations in Part III.) Chapter 7, “Upgrading to MOM 2005,” discusses the required steps to upgrade from MOM 2000 or MOM 2005 Workgroup Edition. The complexity of your upgrade is related to the complexity of your MOM 2000 deployment.

## **Part III: Deploying MOM**

With MOM 2005 installed, how do you start using it? Chapter 8, “Post-Installation Tasks,” discusses what you need to know to get started with MOM. We discuss basic configuration and administration of MOM and MOM Reporting, include an overview of the MOM consoles, and drill down into the Administrator and Operator consoles. Chapter 9, “Installing and Configuring Agents,” goes through the details of computer discovery, implementing agents, and potential problems related to agent installation. Chapter 10, “Complex and High Performance Configurations,” discusses various management server and management group configurations, implementing redundant components, and architecting for high performance. In Chapter 11, “Securing MOM,” we discuss the different security groups MOM 2005 uses, user and service accounts MOM utilizes, firewall considerations, configuring MOM to monitor workgroups and nontrusted domains, and communications security.

## **Part IV: Administering MOM**

All applications require administration, and MOM is no exception. Chapter 12, “Backup and Recovery,” discusses the different components required in a complete backup and recovery plan, and how to design a disaster recovery plan. Chapter 13, “Administering Management Packs,” covers the components of a management pack; how to troubleshoot, deploy, and manage management packs; and the details of importing and exporting management packs and reports into your MOM environment. Chapter 14, “Monitoring with MOM,” discusses the different rule types in MOM and their components, and approaches for tuning rules.

## Part V: Managing with MOM

In this section of the book we get into what MOM is really about—using it to ease the pain of monitoring and managing your systems and applications. We discuss using MOM to manage different aspects of your environment: the operating system and Windows Server components (Chapter 15, “Managing the Operating System”); Active Directory (Chapter 16, “Managing Directory Services”); Exchange Server (Chapter 17, “Managing Microsoft Messaging”); and SQL Server (Chapter 18, “Database Management”). These chapters talk about the issues faced by administrators in each of these areas and how MOM 2005, with its management packs, can help you monitor operational issues and maintain stability and your SLAs (Service Level Agreements).

## Part VI: Moving Beyond MOM 2005

We now look at extending one’s use of MOM 2005 with connectors, third-party management packs and customization, and at Microsoft’s direction for operations management. In Chapter 19, “Interoperability,” we cover the role of product connectors in communicating with other management systems and third-party enterprise consoles. The chapter also focuses on using management packs to monitor hardware, other operating systems, and network components, and concludes with an introduction to Microsoft’s solution accelerators for MOM. Chapter 20, “Developing Management Packs,” Chapter 21, “Using and Developing Reports,” and Chapter 22, “Using and Developing Scripts,” discuss the process of customizing MOM with management packs—several of which we include for your own use, reports, and scripts. Chapter 23, “Touring Operations Manager 2007,” presents a high-level view of where Microsoft is going with the next version of the product, looking at System Center Operations Manager 2007 at the time of its Beta 2 test release.

## Appendixes

This book contains six appendixes:

- ▶ Appendix A, “MOM Internals,” contains information on MOM architecture including processing flow and the queue files.
- ▶ Appendix B, “Registry Settings,” discusses some of the more significant registry settings used by MOM 2005.
- ▶ Appendix C, “Performance Counters,” discusses the performance counters specific to MOM.
- ▶ Appendix D, “Database Views,” describes available views for the operations and reporting databases.
- ▶ Appendix E, “Reference URLs,” provides references for and descriptions of many URLs that are helpful for MOM administrators.
- ▶ Appendix F, “On the CD,” describes the content included with the CD, which includes the Reference URLs as live links and a number of management packs we developed and reference in the book.

## **About the CD-ROM**

This book includes a CD-ROM containing scripts, examples, and our own management packs referred to throughout the book. It also includes live links from Appendix E to save you the trouble of having to type in what sometimes are lengthy URLs. The MOM 2005 Resource Kit is also on the CD. Refer to Appendix F for more information.

## **Who Should Read This Book**

This book is targeted for the systems professional who wants to be proactive in managing the operational environment. This audience is cross-industry, ranging from a single system administrator in a smaller organization to larger businesses where multiple individuals are responsible for the operational health of the operating system and the subsystems running within it. By providing insight into MOM's capabilities and tools to help with a successful implementation, the book hopes to enable a more widespread understanding and use of Microsoft Operations Manager.