NRP

NETWARE 4

Planning and Implementation

Sunil Padiyar

NETWARE 4 规划与实现

清华大学出版社 Prentice-Hall

NetWare 4: Planning and Implementation
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Sunil Padiyar
Michael Day
Michael Koontz
Dan Marshall

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Prentice-Hall International Inc.

(京)新登字 158 号

内 容 提 要

本书从应用和技术两方面来介绍 NetWare 4，堪称一本完善的指南。书中阐述了 NetWare 4.0 技术的基本概念，并讨论为什么选择 Novell 的 NetWare 来解决网络环境应用中的组合计算问题。本书主题是 NetWare 4.0 的规划与实现。主要内容为：1. NetWare 4.0 和组合计算，包括应用前景，NetWare 的进展，了解 NetWare；2. NetWare 4.0 的特征，包括 NetWare 4.0 产品特征，详细了解 NetWare 4.0 服务程序；3. 深入探讨 NetWare 4.0，包括 NetWare 目录服务程序，NetWare 保密性，文件系统和媒体管理，安全性审计，全局时间同步，通信服务程序；4. 低级版本升级到 NetWare 4.0，包括规划 NetWare 4.0 网络，安装和升级到 NetWare 4.0，管理 NetWare 4.0。

本书适用于计算机专业师生及软件开发等技术人员。

中国〔大陆〕版

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清华大学出版社
Prentice-Hall Inc. 出版
北京 清华园
清华大学印刷厂印刷
新华书店总店科技发行所发行

开本：787×1092 1/16 印张：23.5
1994 年 5 月第 1 版 1994 年 5 月第 1 次印刷
印数：0001—1000
ISBN 7-302-01505-8/TP・609
定价：52.00 元

About the Authors

Sunil Padiyar is Vice-President of Engineering at Artisoft, Inc., in Tucson, Arizona. He worked at Novell, Inc. (Provo, Utah) until March, 1993. As Director of Software Engineering, Padiyar oversaw the development of the NetWare 4.0 operating system and other state-of-the-art fault-tolerance technologies (such as SFT III). He has been involved with NetWare 4.0 from the very beginning, and has worked with Drew Major, Kyle Powell, and other engineers to define and manage several key technologies of NetWare 4.0.

Michael Day is a documentation engineer for the NetWare 386 development program at Novell, Inc. He works as a programmer and as a technical writer, specializing in network operating systems and network programming. Day has written books on NetWare workstation troubleshooting and LAN Manager troubleshooting, and has published more than 150 articles on networking subjects. He is the former chief technical editor for *LAN Times*.

Michael Koontz is a technical writer for Novell, Inc., specializing in documentation for NetWare 3.x and 4.x. For the past three years, he has been involved in documenting the use of NetWare core OS. Koontz also co-authored a book on NetWare Loadable Module (NLM) programming. He received B.A and M.A. degrees from Brigham Young University.

Daniel Marshall worked as a business applications programmer for five years before joining Novell, Inc. as a programming instructor. He developed and taught NetWare courses for six years before becoming a technical writer. Marshall has co-authored a book on NetWare Loadable Module (NLM) programming. He attended Brigham Young University and the University of Utah, and is a Certified NetWare Engineer (CNE) and a Certified NetWare Instructor (CNI).

Table of Contents

Introduction

Because NetWare met its customers' needs when it was introduced, it literally sold itself. As NetWare conquers new frontiers, however, there is a need for a book such as *NetWare 4: Planning and Implementation* to put NetWare in current perspective.

This book gives you, the reader, a basic understanding of the NetWare 4.0 technology. It also discusses reasons for choosing NetWare and Novell to solve the corporate computing problems of your business, large or small.

Who Should Read This Book?

The topics covered in *NetWare 4: Planning and Implementation* make it appropriate for corporate executives and MIS managers who are evaluating NetWare 4.0 as a platform for their computing needs.

This book answers questions both in terms of business and technology, and has sufficient technical depth for any reader who wants to gain an understanding of the NetWare 4.0 technology.

How This Book Is Organized

Netware 4: Planning and Implementation is divided into four parts. The following is an overview of the book's organization.

Part One: NetWare 4.0 and Corporate Computing

Chapter One, "The Business Perspective," begins the book by giving you a good business perspective on Novell and NetWare.

Chapter Two, "The Evolution of NetWare," is an overview and history of the topic.

Chapter Three, "Understanding NetWare," discusses NetWare, both as a product and as a computing environment.

Part Two: Features of NetWare 4.0

Chapter Four, "NetWare 4.0 Product Features," describes all the features of the NetWare 4.0 operating system. This chapter is a microscopic view of what is covered in this book.

Chapter Five, "Understanding NetWare 4.0 Services in Detail," discusses some key services offered by the NetWare 4.0 operating system, including print and backup services.

Part Three: NetWare 4.0 in Depth

Chapter Six, "NetWare Directory Services," gives an architectural overview of the NetWare 4.0 Directory (NDS) technology.

Chapter Seven, "NetWare 4.0 Security," explains all the security features provided by NetWare 4.0, and describes in particular the security features offered by NDS and those of the NetWare 4.0 file system.

Chapter Eight, "File Systems and Media Management," describes the NetWare 4.0 file system and many of the new features offered, including background file compression and block suballocation. Also discussed is the new media-management feature of NetWare 4.0.

Chapter Nine, "Security Auditing," explains the new auditing technology that is part of NetWare 4.0. The scope and depth of the auditing features are covered, and the chapter draws attention to global auditing that is enabled through NetWare Directory Services.

Chapter Ten, "Global Time Synchronization," discusses in depth the time-synchronization technology offered by NetWare 4.0 that keeps all clocks of all computers in a NetWare network close to the correct network time.

Chapter Eleven, "Communication Services," gives you a detailed overview of the communication technologies under NetWare 4.0, and covers IPX and SPX in detail.

Part Four: Upgrading to NetWare 4.0

Chapter Twelve, "Planning the NetWare 4.0 Network," is perhaps the most important chapter in this book. Planning a network under NetWare 4.0 requires thorough top-down planning, and this chapter gives you important guidelines and suggestions.

Chapter Thirteen, "Installing and Upgrading to NetWare 4.0," walks you through the installation process of NetWare 4.0, and gives concrete suggestions on upgrade considerations from all previous versions of NetWare.

Chapter Fourteen, "Managing NetWare 4.0 for NetWare Administrators," discusses the new utilities provided by NetWare 4.0 under DOS and Windows environments.

Conventions Used in This Book

As you work through this book, you will notice special typeface conventions that show you, at a glance, what actions to take.

- All NetWare commands, names of files and directories, and screen messages appear in this `special typeface`.
- Information that you type appears in this **`bold, special typeface`**.
- All variable elements appear in this *italic typeface*.

This book also uses special icons to help you identify certain parts of the text.

TIP

A **tip** gives you "extra" information that can boost productivity , or provides a shortcut for your tasks.

WARNING

A **warning** serves as a caution to help prevent you from losing data or work.

SOAPBOX

A **soapbox** is a story from the author. It gives you glimpses of the people who built NetWare and visions of the future of the network-computing industry.

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Please note, however, that the New Riders staff cannot serve as a technical resource for NetWare/NetWare-related questions, including hardware- or software-related problems. Refer to the Novell documentation for help with specific problems.

If you have a question or comment about any New Riders book, please write to NRP at the following address. We will respond to as many readers as we can. Your name, address, or phone number will never become part of a mailing list or be used for any other purpose than to help us continue to bring you the best books possible.

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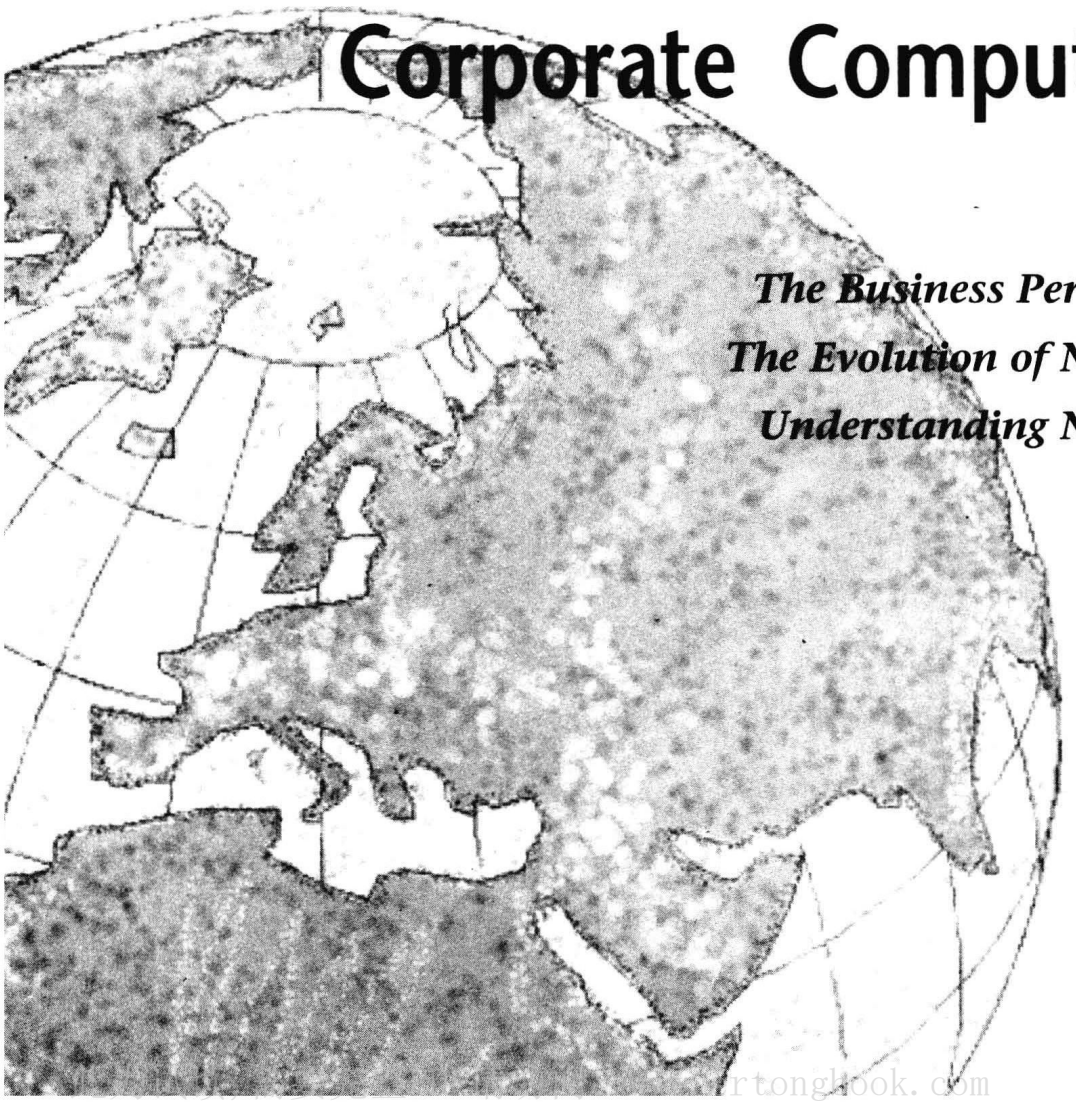
PART

1

NetWare 4.0 and Corporate Computing



The Business Perspective

The Evolution of NetWare

Understanding NetWare