微软认证高级技术培训中心（CTEC）标准教材系列英文丛书（8）（影印版）

微软培训与认证指定教材

Microsoft .net 丛书

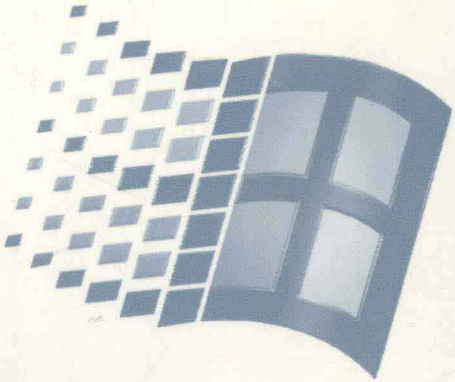
Microsoft Windows 2000

（课程号：2150A）

Designing a Secure Microsoft Windows 2000 Network

Microsoft Windows 2000 网络安全设计

本光盘内容包括：
在课堂中学生使用的练习文件



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内 容 简 介

本盘书是微软认证高级技术培训中心（CTEC）标准教材系列之一，课程号是 2150A。

本盘书详细讨论了 Microsoft Windows 2000 及其安全性设计的基本知识，并通过具体实验培养读者的动手能力。全书由 15 个单元和 3 个附录组成，分别为：评估安全性风险、介绍 Windows 2000 安全性、规划系统管理访问、规划用户帐号、基于 Windows 2000 的计算机安全性、文件和打印资源安全性、通信通道安全性、为非微软客户机提供安全访问、为远程用户提供安全访问、为远程办公提供安全访问、为 Internet 用户提供安全网络访问、为网络用户提供安全 Internet 访问、将网络延伸向伙伴组织、设计公共密钥的基础结构、开发安全规划等。在每个单元中，都给出了考察读者对本单元内容掌握情况的练习题，有助于读者自我评价课程掌握情况。

本盘书内容新颖，全面涵盖了 Microsoft Windows 2000 安全设计的基础知识，是 Microsoft Windows 2000 认证考试的权威教材。它是参加微软认证考试的各类读者的必备读物，也是需要掌握 Microsoft Windows 2000 安全设计基础知识的从业人员的不可缺少的自学读物和社会相关领域培训班教材。

本光盘内容包括：在课堂中使用的所有练习文件。

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系　列　书：微软认证高级技术培训中心（CTEC）标准教材系列英文丛书（8）（影印版）
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前　言

微软认证专家（Microsoft Certified Professionals：MCP）是全球公认的计算机软件高级人才认证。MCP 认证考试是微软推出的高级计算机技术人员认证考试，由比尔·盖茨签发的 MCP 证书在全球九十个国家均可获得承认，MCP 证书代表着企业及个人技术实力，MCP 证书的拥有者在全球各地均可享受高就业机会、高薪、相关学校免学分的待遇，甚至在北美的一些国家可以作为外来移民的技术评估标准。目前国内的 MCP 认证有：微软认证产品专家（MCP）、微软认证系统工程师（MCSE）、微软认证软件开发专家（MCSD）、微软认证数据库管理员（MCDBA）及微软认证网站构建专家（MCP+SiteBuilding）等五种。

北京希望电子出版社与微软公司紧密合作，近期推出最新的微软认证系列影印版教材，共 12 种：

CX 号	书名	课程号	定价
3288	Microsoft Windows 2000 Network and Operating System Essential	2151A	60 元
3303	Implementing Microsoft Windows 2000 Professional and Server	2152A	99 元
3293	Implementing a Microsoft Windows 2000 Network Infrastructure	2153A	99 元
3304	Implementing and Administering Microsoft Windows 2000 Directory Services	2154A	99 元
3271	Querying Microsoft SQL Server 2000 with Transact-SQL	2071A	60 元
	Administering a Microsoft SQL Server 2000 Database	2072A	
3284	Programming a Microsoft SQL Server 2000 Database	2073A	99 元
	Updating Support Skills from Microsoft Windows NT 4.0 to Microsoft Windows 2000	1560B	
	Designing a Microsoft Windows 2000 Directory Services Infrastructure	1561B	
	Designing a Microsoft Windows 2000 Networking Services Infrastructure	1562B	
3300	Designing a Secure Microsoft Windows 2000 Network	2150A	99 元
	Designing a Microsoft Windows 2000 Migration Strategy	2010A	

如果需要，用户也可以选用下列微软认证系列中文版教材：

CX 号	书名	课程号	定价
83205	Microsoft Windows 2000 网络与操作系统基础	2151A	42 元
83203	实现 Microsoft Windows 2000 Professional 和 Server	2152A	62 元
83215	Microsoft Windows 2000 网络基础结构	2153A	66 元
83219	Microsoft Windows 2000 目录服务基础结构设计和管理	2154A	58 元
82893	Microsoft Windows NT 到 Microsoft Windows 2000 升级支持技术	1560A	58 元

82892	Microsoft Windows 2000 目录服务基础结构设计	1561A	46 元
83213	Microsoft Windows NT 到 Microsoft Windows 2000 升级支持技术	1560B	55 元
83181	Microsoft Windows 2000 目录服务基础结构设计	1561B	30 元
83297	Microsoft Windows 2000 网络服务基础结构设计	1562B	55 元
	Microsoft Windows 2000 网络安全设计	2150A	
	Microsoft Windows 2000 迁移方案设计	2010A	
	Microsoft SQL Server 2000：用 Transact-SQL 进行数据库查询	2071A	
	Microsoft SQL Server 2000：数据库系统管理	2072A	
	Microsoft SQL Server 2000：数据库程序设计	2073A	

本系列丛书不仅是微软 CTEC 培训中心的认证指定教材，也是高校相关专业师生的教学、自学参考书，同时也特别适合 IT 从业人员作为技术参考书使用。

北京希望电子出版社

2001 年 2 月

MICROSOFT
TRAINING
AND CERTIFICATION

Microsoft Official
Curriculum

Designing a Secure Microsoft® Windows® 2000 Network

Delivery Guide

Course Number: 2150A

Part Number: X05-39496
Released: 6/2000

Microsoft®

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Course Number: 2150A
Part Number: X05-39496
Released: 6/2000

About This Course

This section provides you with a brief description of the course, audience, suggested prerequisites, and course objectives.

Description

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft® Windows® 2000 technologies.

Audience

This course is intended for senior support professionals, designers, planners, architects, and consultants responsible for developing a network security plan based on their security needs.

Student Prerequisites

This course requires that students meet the following prerequisites:

- Working knowledge of Windows 2000 Directory Services
- Completion of course 1560B, *Updating Support Skills from Microsoft Windows NT® 4.0 to Microsoft Windows 2000*, or
- Completion of course 2154A, *Implementing and Administering Microsoft Windows 2000 Directory Services*, or
- Equivalent knowledge

Course Objectives

At the end of this course, students will be able to:

- Identify the security risks associated with managing resource access and data flow on a Windows network.
- Describe how key technologies within Windows 2000 are used to secure a network and its resources.
- Plan a Windows 2000 administrative structure so that permissions are granted only to appropriate users.
- Plan an Active Directory™ directory service structure that facilitates secure and verifiable user account creation and administration.
- Define minimum security requirements for Windows 2000–based domain controllers, application servers, file and print servers, and workstations.
- Design a strategy for securing local storage of data and secure network access to file and print resources.

- Design end-to-end security for the transmission of data between hosts on the network.
- Design a strategy for securing access for non-Microsoft clients to a Windows 2000 network.
- Provide secure connections to remote users.
- Design a strategy to secure connections between two remote networks.
- Protect private network resources from public network users.
- Design a strategy for securing private network user access to public networks.
- Design a strategy for allowing trusted partners to access data on a private network.
- Design a strategy for using certificate-based authentication to secure access to a private network.
- Use a structured methodology for designing a secure Windows 2000 network.

Course Timing

The following schedule is an estimate of the course timing. Your timings may vary.

Day 1

Start	End	Module
9:00	9:30	Introduction
9:30	10:00	Module 0: Introduction
10:00	10:15	Break
10:15	11:15	Module 1: Assessing Security Risks
11:15	12:30	Module 2: Introducing Windows 2000 Security
12:30	1:30	Lunch
1:30	2:30	Module 3: Planning Administrative Access
2:30	2:45	Break
2:45	4:00	Lab A: Planning Secure Administrative Access

Day 2

Start	End	Module
9:00	9:30	Day 1 review
9:30	10:15	Module 4: Planning User Accounts
10:15	10:30	Break
10:30	11:30	Lab A: Planning a Security-based OU Structure
11:30	12:30	Lunch

12:30	1:00	Module 5: Securing Windows 2000–based Computers
1:00	1:30	Lab A: Analyzing a Security Template
1:30	2:00	Module 5 *continued*
2:00	2:45	Lab B: Designing Customized Security Templates
2:45	3:00	Break
3:00	3:30	Module 6: Securing File and Print Resources
3:30	4:00	Lab A: Managing EFS Recovery Keys
4:00	4:15	Break
4:15	4:30	Module 6 *continued*
4:30	5:30	Lab B: Planning Data Security

Day 3

Start	End	Module
9:00	9:30	Day 2 review
9:30	10:30	Module 7: Securing Communication Channels
10:30	10:45	Break
10:45	11:45	Lab A: Planning Transmission Security
11:45	12:45	Lunch
12:45	2:00	Module 8: Providing Secure Access to Non-Microsoft Clients
2:00	2:15	Break
2:15	3:15	Lab A: Securing Telnet Transmissions
3:15	4:30	Module 9: Providing Secure Access to Remote Users

Day 4

Start	End	Module
9:00	9:30	Day 3 review
9:30	10:30	Lab A: Using RADIUS Authentication
10:30	10:45	Break
10:45	11:30	Module 10: Providing Secure Access to Remote Offices
11:30	12:30	Lunch
12:30	1:30	Lab A: Planning Secure Connections for Remote Offices
1:30	2:30	Module 11: Providing Secure Network Access to Internet Users
2:30	3:30	Lab A: Designing a Screened Subnet
3:30	3:45	Break

3:45	4:45	Module 12: Providing Secure Internet Access to Network Users
4:45	5:30	Lab A: Securing the Internal Network When Accessing the Internet

Day 5

Start	End	Module
9:00	9:30	Day 4 review
9:30	10:30	Module 13: Extending the Network to Partner Organizations
10:30	10:45	Break
10:45	11:45	Lab A: Planning Partner Connectivity
11:45	12:45	Lunch
12:45	1:45	Module 14: Designing a Public Key Infrastructure
1:45	2:45	Lab A: Using Certificate-based Authentication
2:45	3:00	Break
3:00	3:45	Module 15: Developing a Security Plan
3:45	5:00	Lab A: Developing a Security Plan

Trainer Materials Compact Disc Contents

The Trainer Materials compact disc contains the following files and folders:

- *Default.htm*. This file opens the Trainer Materials Web page.
- *Readme.txt*. This file contains a description of the compact disc contents and setup instructions in ASCII format (non–Microsoft Word document).
- *2150A_sg.doc*. This file is the automated Classroom Setup Guide. It contains a description of classroom requirements, the classroom configuration, and classroom setup instructions.
- *2150A_ms.doc*. This file is the manual Classroom Setup Guide. It contains a description of classroom requirements, the classroom configuration, and classroom setup instructions.
- *Errorlog*. This folder contains a template that is used to record any errors and corrections that you find in the course.
- *Fonts*. This folder contains fonts that are required to view the Microsoft PowerPoint® presentation and Web-based materials.
- *Powerpnt*. This folder contains the PowerPoint slides that are used in this course.
- *Pptview*. This folder contains the PowerPoint Viewer, which is used to display the PowerPoint slides.

- *Studntcd.* This folder contains the Web page that provides students with links to resources pertaining to this course, including additional reading, review and lab answers, lab files, multimedia presentations, and course-related Web sites.
- *Tprep.* This folder contains the Trainer Preparation Presentation, a narrated slide show that explains the instructional strategy for the course, presentation tips, and caveats. To open the presentation, on the Trainer Materials Web page, click **Trainer Preparation Presentation**.

Student Materials Compact Disc Contents

The Student Materials compact disc contains the following files and folders:

- *Default.htm.* This file opens the Student Materials Web page. It provides students with resources pertaining to this course, including additional reading, review and lab answers, lab files, multimedia presentations, and course-related Web sites.
- *Readme.txt.* This file contains a description of the compact disc contents and setup instructions in ASCII format (non–Microsoft Word document).
- *AddRead.* This folder contains additional reading pertaining to this course. If there are no additional reading files, this folder does not appear.
- *Answers.* This folder contains answers to the module review questions and hands-on labs.
- *Appendix.* This folder contains appendix files for this course. If there are no appendix files, this folder does not appear.
- *Fonts.* This folder contains fonts that are required to view the PowerPoint presentation and Web-based materials.
- *Labfiles.* This folder contains files that are used in the hands-on labs. These files may be used to prepare the student computers for the hands-on labs.
- *Pptview.* This folder contains the PowerPoint Viewer, which is used to display the PowerPoint presentations that accompany the additional reading. If there are no PowerPoint presentations, this folder does not appear.
- *Webfiles.* This folder contains the files that are required to view the course Web page. To open the Web page, open Windows Explorer, and in the root directory of the compact disc, double-click **Default.htm**.
- *Wordview.* This folder contains the Word Viewer that is used to view any Word document (.doc) files that are included on the compact disc. If no Word documents are included, this folder does not appear.

Document Conventions

The following conventions are used in course materials to distinguish elements of the text.

Convention	Use
◆	Indicates an introductory page. This symbol appears next to a slide title when additional information on the topic is covered on the page or pages that follow it.
bold	Represents commands, command options, and portions of syntax that must be typed exactly as shown. It also indicates commands on menus and buttons, icons, dialog box titles and options, and icon and menu names.
italic	In syntax statements, indicates placeholders for variable information. Italic is also used for introducing new terms, for book titles, and for emphasis in the text.
Title Capitals	Indicate domain names, user names, computer names, directory names, folders, and file names, except when specifically referring to case-sensitive names. Unless otherwise indicated, you can use lowercase letters when you type a directory name or file name in a dialog box or at a command prompt.
ALL CAPITALS	Indicate the names of keys, key sequences, and key combinations—for example, ALT+SPACEBAR.
`monospace`	Represents code samples, examples of screen text, or entries that you type at a command prompt or in initialization files.
[ ]	In syntax statements, 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.
{ }	In syntax statements, enclose required items. Type only the information within the braces, not the braces themselves.
|	In syntax statements, separates an either/or choice.
☐	Indicates a procedure with sequential steps.
...	In syntax statements, specifies that the preceding item may be repeated.
. . .	Represents an omitted portion of a code sample.

Contents