

# Microsoft® Windows® 2000 Network and Operating System Essentials

## Delivery Guide

Course Number: 2151A

Trainer Materials  
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## About This Course

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

### Description

Course 2151A, *Microsoft Windows 2000 Network and Operating System Essentials*, introduces students to the Microsoft Windows 2000 operating system and the networking technologies it supports. Students will be able to describe the principal features of Windows 2000 and the basics of networking with Windows 2000; describe the types of user accounts and the principal security features of a Windows 2000 network; identify the tools used to perform various administrative tasks; describe the features of the common protocols used in a Windows 2000 network; describe the fundamentals of TCP/IP, including name resolution, routing, and IP addressing—classful versus Classless Inter-Domain Routing (CIDR); describe the network communication models used in a Windows 2000 network; differentiate between the various types of network architectures; describe the common physical components used for network communication; describe the concepts and protocols for remote access communication; and describe the client and server technologies used in accessing Web services.

### Audience

This three-day course is intended for a broad range of computer professionals who are new to network computing environments and whose goal is to administer or support Windows 2000 networks. This is an introductory course designed to provide an overview of networking concepts, and how they are implemented in Windows 2000. The course provides students with the prerequisite knowledge and skills required for Course 2152A, *Supporting Microsoft Windows 2000 Professional and Server*.

### Student Prerequisites

This course requires that students meet the following prerequisites:

- Proficiency using the Windows interface to locate, create, and manipulate folders and files and to configure the desktop environment
- General knowledge of computer hardware components, including memory, hard disks, and CPUs
- General knowledge of networking concepts, including network operating system, server-client relationship, and local area network (LAN)

## Course Objectives

Upon successful completion of *Microsoft Windows 2000 Network and Operating System Essentials*, the student will be familiar with networking and operating system concepts and the common tasks required to administer and support the Windows 2000 operating system in a network environment. The student will be able to:

- Describe the principal features of the Windows 2000 operating system and the basics of networking using Windows 2000.
- Identify the tools used to perform common administrative tasks.
- Describe the types of user accounts and the principal security features of Windows 2000.
- Describe the features of the common network protocols used in Windows 2000.
- Describe the fundamentals of TCP/IP.
- Describe the communication process in a Windows 2000 network.
- Differentiate between the various types of network architectures.
- Describe the common hardware components used in network communication.
- Describe the requirements for Internet access and Web security.

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## Course Timing

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

### Day 1

Start	End	Module
9:00	9:30	Introduction
9:30	10:15	Module 1: Introduction to Windows 2000 and Networking
10:15	10:30	Lab A: Identifying Computer Networks
		Break
10:45	11:15	Module 1: Introduction to Windows 2000 and Networking ( <i>continued</i> )
11:15	11:30	Lab B: Identifying Features of a Windows 2000 Network
11:30	11:45	Lab C: Logging On to Windows 2000
		Lunch
12:45	1:15	Module 2: Administration of a Windows 2000 Network
1:15	1:30	Lab A: Using Windows 2000 Help
1:30	2:30	Module 2: Administration of a Windows 2000 Network ( <i>continued</i> )
2:30	2:45	Lab B: Identifying Administrative Tools
		Break
3:00	3:15	Module 3: Securing a Windows 2000 Network
3:15	3:30	Lab A: Examining Users and Groups
3:30	3:45	Module 3: Securing a Windows 2000 Network ( <i>continued</i> )
3:45	4:00	Lab B: Examining User Rights
4:00	4:30	Module 3: Securing a Windows 2000 Network ( <i>continued</i> )
4:30	4:45	Lab C: Examining File and Folder Permissions

**Day 2**

Start	End	Module
9:00	9:30	Day 1 review
9:30	10:30	Module 4: Examining the Network
		Break
10:45	11:45	Module 4: Examining the Network ( <i>continued</i> )
11:45	12:15	Lab A: Examining the Network Architecture
		Lunch
1:15	2:00	Module 5: Examining Network Protocols
2:00	2:15	Lab A: Identifying Protocol Capabilities
2:15	3:15	Module 6: Examining TCP/IP
		Break
3:30	3:45	Lab A: Using TCP/IP Utilities
3:45	4:30	Module 6: Examining TCP/IP ( <i>continued</i> )
4:30	4:45	Lab B: Identifying Processes and Protocols in TCP/IP

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**Day 3**

Start	End	Module
9:00	9:15	Day 2 review
9:15	9:45	Module 7: Examining IP Addressing
9:45	10:00	Lab A: Determining Class Addresses and Subnet Masks
10:00	10:15	Module 7: Examining IP Addressing ( <i>continued</i> )
		Break
10:30	11:00	Lab B: Identifying Valid IP Addresses
11:00	11:15	Module 7: Examining IP Addressing ( <i>continued</i> )
11:15	11:30	Lab C: Examining the Configuration of TCP/IP
		Lunch
12:30	1:30	Module 8: Optimizing IP Address Allocation
1:30	1:45	Lab A: Using Windows Calculator to Convert Decimal and Binary Numbers
1:45	2:15	Module 8: Optimizing IP Address Allocation ( <i>continued</i> )
2:15	2:45	Lab B: Determining Local and Remote Destinations
		Break
3:00	3:30	Module 8: Optimizing IP Address Allocation ( <i>continued</i> )
3:30	3:45	Lab C: Allocating IP Addresses
3:45	4:15	Module 9: Examining Web Services
4:15	4:30	Lab A: Accessing an FTP Site by Using Internet Explorer
4:30	4:45	Module 9: Examining Web Services
4:45	5:00	Lab B: Identifying Web Concepts

## 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).
- *2151a\_sg.doc*. This file is the Classroom Setup Guide. It contains a description of classroom requirements, classroom configuration, and classroom setup instructions.
- *Errorlog*. This folder contains a template that is used to record any errors that you find in the course and additions or corrections you want to make.
- *Fonts*. This folder contains fonts that are required to view the Microsoft PowerPoint® presentation and Web-based materials.
- *Mplayer*. This folder contains files that are required to install Microsoft Windows Media Player.
- *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.
- *Studentcd*. 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 and presentation tips and caveats. To open the presentation, on the Trainer Materials Web page, click **Trainer Preparation Presentation**.

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## 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.
- *Media*. This folder contains files that are used in multimedia presentations for this course. If this course does not include any multimedia presentations, this folder does not appear.
- *Mplayer*. This folder contains files that are required to install Microsoft Windows Media Player.
- *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.
<b>bold</b>	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.
<i>italic</i>	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, <i>[filename]</i> 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.
.	
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