

# Installation and Planning Guide

## Microsoft Internet Information Server

**Version 1.0**

**Windows NT Server 3.51**

Information in this document is subject to change without notice. Companies, names, and data used in examples herein are fictitious unless otherwise noted. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Microsoft Corporation.

Microsoft Corporation may have patents or pending patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. The furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property rights except as expressly provided in any written license agreement from Microsoft Corporation.

© 1995 Microsoft Corporation. All rights reserved.

**Microsoft  
Corporation**

Microsoft, MS, Windows, and Visual C++ are registered trademarks and Windows NT is a trademark of Microsoft Corporation in the USA and other countries.

Alpha AXP is a trademark of Digital Equipment Corporation.

IBM is a registered trademark and PowerPC is a trademark of International Business Machines Corporation.

Intel and Pentium are registered trademarks of Intel Corporation.

Macintosh is a registered trademark of Apple Computer, Inc.

MIPS is a registered trademark of MIPS computer Systems, Inc.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company, Ltd.

Document No.

68540

# Contents

## **Before You Begin ix**

About the Installation and Planning Guide	x
About Online Help	x
About the Online Examples	xi
What You Should Know	xi
Finding Further Information	xii
Accessibility for People with Disabilities	xiii
Microsoft Services for People Who Are Deaf or Hard-of-Hearing	xiii
Access Pack for Microsoft Windows	xiv
Keyboard Layouts for Single-Handed Users	xv
Microsoft Documentation on Audio Cassettes and Floppy Disks	xv
Products for People Who Are Blind or Have Low Vision	xvi
Customizing Windows	xvi
Getting More Information	xvii

## **Chapter 1 Installing Internet Information Server 1**

Installation Overview	1
Installation Requirements	2
Windows NT Configuration and Security Checklists	3
Windows NT Configuration Checklist	3
Windows NT Security Checklist	4
Contents of the Compact Disc	4
How to Install Internet Information Server	5
How to Install Internet Explorer or Internet Service Manager	9
Unattended Setup When Installing from a Network Directory	9
The IUSR_computername Account	10
How to Publish Information	10
How to Test Your Internet Information Server Installation	11

---

## **Chapter 2 Understanding the Internet and Internet Information Server 13**

What is the Internet?	13
What is an Intranet?	14
What is Internet Explorer?	14
What is Internet Information Server?	14
What Can I Do with Internet Information Server?	15
How Does Internet Information Server Work?	15
Browser Requests	15
URL Syntax	15
Request Syntax	16
Information Server Response	16
Static Pages	16
Dynamic Pages	17
Directory Listings	18
How Do I Use Internet Information Server?	19
Intranet Scenarios	19
Internet Scenarios	20

## **Chapter 3 Configuring and Managing Your Internet Information Server 23**

Microsoft Internet Service Manager	23
Report View	23
Servers View	25
Services View	25
Property Sheets	26
The Service Property Sheet	26
The Directories Property Sheet	27
The Logging Property Sheet	29
The Advanced Property Sheet	30
Using Other Windows NT Tools	31
Configuring Server Options with Control Panel	31
The Network Applet	31
The Services Applet	33
The ODBC Applet	33
Setting File Access with File Manager	34
Setting User Access with User Manager for Domains	34
Tracking Problems with Event Viewer	34
Monitoring Your Server with Performance Monitor	34

**Chapter 4 Networking for the Internet or an Intranet 37**

General Networking Issues	37
Routers and Security Devices	37
Typical Network Configurations	38
Internet Sites	38
Intranet Sites	40
Integrating Your Intranet with the Internet	40
Administering Servers with Internet Service Manager	41
Finding Other Computers on Your Network or Subnet	41
Publishing on the Internet	41
How to Choose the Right Internet Connection	42
Internet Connection Types	42
IP Addresses and DNS	43
Other Internet Client Services	43
Publishing on an Intranet	44
Internet Explorer	44
What are the Differences Between Versions?	44
How Do I Distribute Internet Explorer to Users?	45
Name Resolution Systems	45
Using Computer Names with WINS Servers	46
Using Computer Names and LMHOSTS	46
Using Domain Names with DNS Servers	46
Using Domain Names and HOSTS	46
Using DHCP in Your Intranet	46
Using URLs and Creating HTML Links for Intranets	47
SNMP Monitoring	47

**Chapter 5 Securing Your Site Against Intruders 49**

Securely Configuring Windows NT Server	49
Preventing Intrusion by Setting Up User Accounts	50
Allowing Anonymous Access with the IUSR_computername Account	50
Requiring a Username and Password	50
Choose Difficult Passwords	51
Maintain Strict Account Policies	51
Limit the Membership of the Administrator Group	51

---

NTFS File Security	52
Enable Auditing	53
Running Other Network Services	53
Run Only the Services that You Need	53
Unbind Unnecessary Services from Your Internet Adapter Cards	53
Check Permissions on Network Shares	53
How Internet Information Server Security Works	54
IP Address Security	55
Username Authentication	55
Internet Server Permissions	55
NTFS Permissions	56
Securely Configuring the WWW Service	56
Controlling Access by Username	57
Controlling Access by IP Address	57
Disable Directory Browsing	58
Securing Data Transmissions with Secure Sockets Layer (SSL)	58
How to Acquire an SSL Digital Certificate	59
Suggestions for SSL Configuration and Operation	63
Setkey.exe Notes	63

## **Chapter 6 Planning Your Content Directories and Virtual Servers**

### **65**

Configuring a Single Content Directory	65
Setting the Default Document and Directory Browsing	66
Creating Virtual Servers	67
Specifying Directories with Virtual Servers	69
Directory	70
Configuring Content Directories	70
Home Directory	71
Virtual Directory	71
Specifying Directories with Virtual Servers	73
Account Information	73
Access Check Boxes	73

---

**Chapter 7 Logging Server Activity 75**

- Configuring Logging 75
  - Logging Limits 76
  - Enable Logging 76
  - Log to File 76
    - Automatically open new log 76
    - Log file directory 76
    - Filename 76
  - Log to SQL/ODBC Database 77
- How to Read Log Files 77
- Viewing Logs in Databases 77
- Converting Log File Formats 78

**Chapter 8 Publishing Information and Applications 79**

- Preparing Information for Publishing 79
  - Authoring HTML Files 79
  - Publishing HTML and Other File Formats 80
  - MIME Type Configuration 80
  - Including Other Files with the Include Statement 81
- Publishing Dynamic Applications 81
  - Creating the Applications or Scripts 81
    - Internet Server API 82
    - Common Gateway Interface 84
  - Installing Your Application on Internet Information Server 84
  - Running Your Application 85
    - Associating Interpreters with Applications 85
    - Security Implications 85
- Publishing Information and Using a Database 86
  - How the Internet Database Connector Works 86
  - Installing ODBC and Creating System Data Sources 87
  - Authoring Web Pages with Database Access 91

**Chapter 9 Using the FTP and Gopher Services 93**

What is the FTP Service? 93

When Should I Use the FTP Service? 94

How Does the FTP Service Work? 94

Configuring Session Activity 94

Configuring FTP Logon 94

Configuring FTP Directories 95

Setting the Home Directory 95

Setting Listing Style 95

Setting Read and Write Permission 95

Creating Annotation Files 95

Special Directories in the Home Directory 96

FTP Clients 96

What is the Gopher Service? 96

Configuring the Gopher Server 97

Tag Files 97

**Index 101**