William Panek Microsoft MVP

Mindows[®] 10 STUDY GUIDE

EXAM 70-698

Covers 100% of Installing and Configuring Windows 10 exam objectives, including implementing Windows, configuring and supporting core services, managing and maintaining Windows, and much more...

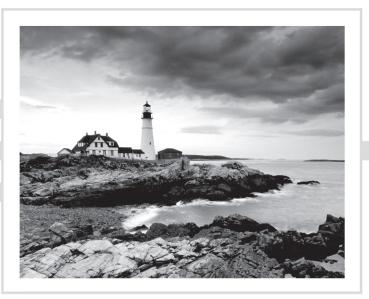
Includes online interactive learning environment with:

- + 2 custom practice exams
- + More than 100 electronic flashcards
- + Searchable key term glossary
- + Videos for the chapter exercises



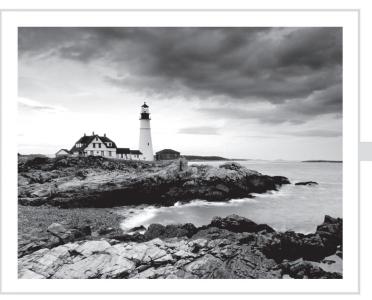
MCSA Windows® 10

Study Guide Exam 70-698



MCSA Windows® 10

Study Guide Exam 70-698



William Panek



Senior Acquisitions Editor: Kenyon Brown Development Editor: David Clark Technical Editors: Rodney R. Fournier and Doug Bassett Production Editor: Dassi Zeidel Copy Editor: Judy Flynn Editorial Manager: Mary Beth Wakefield Production Manager: Kathleen Wisor Executive Editor: Jim Minatel Book Designers: Judy Fung and Bill Gibson Proofreader: Rebecca Rider Indexer: Jack Lewis Project Coordinator, Cover: Brent Savage Cover Designer: Wiley Cover Image: ©Jeremy Woodhouse/Getty Images, Inc. Copyright © 2017 by John Wiley & Sons, Inc., Indianapolis, Indiana

Published simultaneously in Canada

ISBN: 978-1-119-32759-2

ISBN: 978-1-119-32761-5 (ebk.)

ISBN: 978-1-119-32760-8 (ebk.)

Manufactured in the United States of America

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at http://www.wiley.com/go/permissions.

Limit of Liability/Disclaimer of Warranty: The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the author shall be liable for damages arising herefrom. The fact that an organization or Web site is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or Web site may provide or recommendations it may make. Further, readers should be aware that Internet Web sites listed in this work may have changed or disappeared between when this work was written and when it is read.

For general information on our other products and services or to obtain technical support, please contact our Customer Care Department within the U.S. at (877) 762-2974, outside the U.S. at (317) 572-3993 or fax (317) 572-4002.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at http://booksupport.wiley.com. For more information about Wiley products, visit www.wiley.com.

Library of Congress Control Number: 2016956725

TRADEMARKS: Wiley, the Wiley logo, and the Sybex logo are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates, in the United States and other countries, and may not be used without written permission. Windows is a registered trademark of Microsoft Corporation. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

10 9 8 7 6 5 4 3 2 1

This book is dedicated to the three ladies of my life: Crystal, Alexandria, and Paige.

Acknowledgments

I would like to thank my wife and best friend, Crystal. She is always the light at the end of my tunnel. I want to thank my two daughters, Alexandria and Paige, for all of their love and support during the writing of all my books. The three of them are my support system and I couldn't do any of this without them.

I want to thank my family, and especially my brothers, Rick, Gary, and Rob. They have always been there for me. I want to thank my father, Richard, who helped me become the man I am today, and my mother, Maggie, for all of her love and support.

I would like to thank all of my friends and co-workers at StormWind Studios. I want to especially thank the team I work with on a daily basis, and that includes Tom W, Dan Y, Corey F, Ronda, Dan J, Jessica, Dave, Tiffany, Tara, Ashley, Brittany, Doug, Mike, Vince, Desiree, Ryan, Ralph, Dan G, Tyler, Jeff B, Shayne, Patrick, Noemi, Michelle, Zachary, Colin, and the man who makes it all possible, Tom Graunke. Thanks to all of you for everything that you do. I would not have been able to complete this book without all of your help and support.

I want to thank everyone on my Sybex team, especially my development editor David Clark, who helped me make this the best book possible, and Rodney R. Fournier, who is the technical editor of many of my books. It's always good to have the very best technical guy backing you up. I want to thank Dassi Zeidel, who was my production editor, and Judy Flynn for being the copyeditor.

I want to also thank Doug Bassett, who is my technical proofreader. Special thanks to my acquisitions editor, Kenyon Brown, who was the lead for the entire book. Finally, I want to thank everyone else behind the scenes that helped make this book possible. It's truly an amazing thing to have so many people work on my books to help make them the very best. I can't thank you all enough for your hard work.

About the Author



William Panek holds the following certifications: MCP, MCP+I, MCSA, MCSA+ Security and Messaging, MCSE-NT (3.51 and 4.0), MCSE (2000, 2003, 2012/2012 R2), MCSE+Security and Messaging, MCDBA, MCT, MCTS, MCITP, CCNA, CCDA, and CHFI. Will is also a four-time and current Microsoft MVP winner.

After many successful years in the computer industry, Will decided that he could better use his talents and his personality as an instructor.

He began teaching for schools such as Boston University and the University of Maryland, just to name a few. He has done consulting and training for some of the biggest government and corporate companies in the world, including the United States Secret Service, Cisco, United States Air Force, and United States Army.

In 2015, Will became a Sr. Microsoft Instructor for StormWind Studios (www .stormwindstudios.com). He currently lives in New Hampshire with his wife and two daughters. Will was also a Representative in the New Hampshire House of Representatives from 2010 to 2012. In his spare time, he likes to do blacksmithing, shooting (trap and skeet), snowmobiling, playing racquetball, and riding his Harley. Will is also a commercially rated helicopter pilot.

Contents at a Glance

Introducti	ion		xxv
Assessmen	nt Test		xxxvi
Chapter	1	Windows 10 Installation	1
Chapter	2	Installing in an Enterprise Environment	47
Chapter	3	Configuring Devices and Drivers	79
Chapter	4	Configuring Storage	117
Chapter	5	Configuring the Windows 10 Environment	173
Chapter	6	Configuring Data Security	235
Chapter	7	Windows 10 Networking	269
Chapter	8	Installing Applications	331
Chapter	9	Managing Authorization and Authentication	373
Chapter	10	Configuring Monitoring and Recovery	455
Appendia	κA	Answers to Review Questions	501
Appendix	к В	Windows 10 PowerShell Commands	511
Index			519

Contents

Introduction			xxv
Assessmen	t Test		xxxvi
Chapter	1	Windows 10 Installation	1
		Understanding the Basics	2
		Windows 10 Features	6
		Windows Feature Deprecation	8
		Windows 10 Architecture	8
		Preparing to Install Windows 10	9
		Windows 10 Home	10
		Windows 10 Professional	10
		Windows 10 Enterprise	11
		New Install or Upgrade?	15
		Disk Partitioning	18
		Language and Locale	19
		Installing Windows 10	20
		Performing a Clean Install of Windows 10	20
		Performing an Upgrade to Windows 10	28
		Troubleshooting Installation Problems	33
		Supporting Multiple-Boot Options	35
		Using Windows Activation	36
		Windows Update	37
		The Update Process	37
		Using Windows Update	39
		Installing Windows Service Packs	40
		Installing Windows Store Updates	41
		Summary	42
		Video Resources	42
		Exam Essentials	42
		Review Questions	44

Chapter	oter 2 Installing in an Enterprise Environment	Installing in an Enterprise Environment	47	
		Understanding Imaging	48	
		An Overview of the System Preparation Tool		
		and Disk Imaging	48	

and Disk Imaging	48
Overview of the Windows Assessment	
and Deployment Kit	53
Using the Deployment Image Servicing and	
Management Tool	56

		Understanding Hyper-V	58
		What Is Virtualization?	58
		Installing the Hyper-V Role	59
		Configuring Virtual Machines	64
		Activating Machines in the Enterprise	73
		Networking Basics	74
		Active Directory-Based Activation	74
		Summary	75
		Video Resources	76
		Exam Essentials	76
		Review Questions	77
Chapter	3	Configuring Devices and Drivers	79
		Configuring Hardware	80
		Understanding Device Stage	80
		Using Device Manager	82
		Installing and Updating Device Drivers	86
		Driver Signing	95
		Managing I/O Devices	96
		Configuring Removable Storage Devices	96
		Managing Printers	99
		Summary	112
		Video Resources	113
		Exam Essentials	113
		Review Questions	114
Chapter	4	Configuring Storage	117
		Understanding File Systems	118
		File System Selection	119
		File System Conversion	121
		Configuring NTFS	122
		Configuring Disk Storage	125
		Basic Storage	125
		Dynamic Storage	126
		GUID Partition Table	128
		Cloud-Based Storage	129
		Using the Disk Management Utility	133
		Using the Microsoft Management Console	134
		Understanding the Disk Management Utility	138
		Managing Storage	153
		Managing Dynamic Storage	153
		Troubleshooting Disk Management	156
		Understanding Disk Management Status Codes	156
		Troubleshooting Disks That Fail to Initialize	157

		Managing Data Compression	157
		Using the Compact Command-Line Utility	159
		Using Compressed (Zipped) Folders	159
		Understanding RAID	160
		RAID Levels	160
		Storage Spaces	161
		Using Disk-Maintenance Tools	163
		Using the Disk Optimization Utility	164
		Using the Disk Cleanup Utility	164
		Using the Check Disk Utility	166
		PowerShell Disk Commands	167
		Summary	169
		Video Resources	169
		Exam Essentials	170
		Review Questions	171
Chapter	5	Configuring the Windows 10 Environment	173
		Managing Windows	174
		Manipulating the Desktop Environment	175
		Configuring Personalization	184
		Using Control Panel	189
		Using the Microsoft Management Console	200
		Using the System Icon	201
		Understanding the Settings Window	204
		Using PowerShell	205
		Configuring Mobility Options	207
		Configuring Offline Files and Synchronization	207
		Configuring Power Policies	209
		Configuring Windows To Go	215
		Managing Windows 10 Services	217
		Configuring Internet Browsers	220
		Cortana	220
		Browser Controls	221
		Pinning Sites to the Taskbar	221
		Searchable Address Bar	222
		Security and Privacy Enhancements	222
		Using the Browser's Compatibility View	223
		Using Protected Mode for IE11	224
		Using InPrivate Browsing and InPrivate Filtering	225
		Configuring Windows Internet Explorer 11 Options	226
		Summary	230
		Video Resources	230
		Exam Essentials	231
		Review Questions	232

Chapter	6	Configuring Data Security	235
		Configuring Network Resources	236
		Configuring HomeGroups in Windows 10	237
		Configuring Folders	242
		Understanding Dynamic Access Control	247
		Securing Access to Files and Folders	247
		Determining and Viewing Effective Permissions for NTFS	252
		Determining NTFS Permissions for Copied	
		or Moved Files	254
		Managing Network Access	254
		Creating and Managing Shared Folders	255
		Configuring Share Permissions	256
		NTFS vs. Share Permissions	258
		Configuring OneDrive	258
		Summary	263
		Video Resources	263
		Exam Essentials	263
		Review Questions	264
Chapter	7	Windows 10 Networking	269
		Understanding the Basics	270
		Peer-to-Peer Networks	270
		Onsite Active Directory Networks	272
		Cloud-Based Azure Active Directory	274
		Other Microsoft Networking Terms and Roles	275
		Configuring NIC Devices	277
		Configuring a Network Adapter	278
		Troubleshooting a Network Adapter	284
		Configuring Wireless NIC Devices	285
		Configuring Wi-Fi Direct	293
		Understanding TCP/IP	295
		Benefits and Features of TCP/IP	296
		Basics of IP Addressing and Configuration	298
		Using IPv6 Addresses	302
		Configuring TCP/IP on Windows 10	313
		Testing Your IP Configuration	315
		Configuring Windows 10 on a Network	317
		Configuring Windows Firewall	322
		Understanding the Windows Firewall Basics Windows Firewall with Advanced Security	322
		Windows Firewall with Advanced Security	322
		Summary Video Resources	327 328
		Exam Essentials	328 328
		Review Questions	328 329
		Neview Questions	529

Chapter	8	Installing Applications	331
		Understanding Deployment Options	332
		Understanding System Center	332
		Using the Windows 10 Application Deployment Tool	334
		Deploying Software with the Windows Assessment	
		and Deployment Kit (ADK)	335
		Understanding GPO Deployments	339
		Installing Applications	340
		Using the Upgrade Analytics Tool	341
		Windows Features	343
		Configuring Startup Options	343
		Using Hyper-V for Desktop Applications	343
		Configuring User Experience Virtualization (UE-V)	348
		Understanding AppLocker	350
		Understanding Azure	351
		Using Azure RemoteApp	355
		Understanding App-V	360
		Supporting the Windows Store	361
		Installing and Managing Software by Using Microsoft	
		Office 365 and Windows Store Apps	362
		Sideloading Apps into Online and Offline Images	364
		Integrating Microsoft Accounts Including	
		Personalization Settings	365
		Summary	367
		Video Resources	368
		Exam Essentials	368
		Review Questions	369
Chapter	9	Managing Authorization and Authentication	373
		Understanding User Accounts	374
		Account Types	375
		Built-In Accounts	376
		Local and Domain User Accounts	377
		Working with User Accounts	378
		Using the Local Users and Groups Utility	378
		Using the User Accounts Option in Control Panel	381
		Creating New Users	381
		Disabling User Accounts	386
		Deleting User Accounts	387
		Renaming User Accounts	389
		Changing a User's Password	390
		Using a Microsoft Passport, Pictures, and Biometrics	390
		Using Device Guard	391
		Understanding Credential Guard	394
		Configuring Device Health Attestation	395

		Managing User Properties	396
		Managing User Group Membership	397
		Setting Up User Profiles, Logon Scripts,	
		and Home Folders	399
		Troubleshooting User Account Authentication	404
		Managing and Creating Groups	405
		Using Built-In Groups	406
		Creating Groups	410
		Managing Group Membership	411
		Deleting Groups	413
		Managing Security Using GPOs and LGPOs	413
		Understanding the GPO and LGPO Basics	413
		Using the Group Policy Result Tool	415
		Managing and Applying LGPOs	416
		Configuring Local Security Policies	418
		Using Account Policies	419
		Using Local Policies	425
		Configuring User Account Control	433
		Privilege Elevation	433
		Registry and File Virtualization	435
		Understanding Smart Cards	435
		Configuring Remote Management	437
		Remote Assistance	438
		Remote Desktop	442
		Configuring a VPN Connection	445
		Transparent Caching	447
		Broadband Tethering	447
		Summary	449
		Video Resources	
		video Resources	450
		Exam Essentials	450 450
Chapter	10	Exam Essentials	450
Chapter	10	Exam Essentials Review Questions	450 451
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery	450 451 455
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery	450 451 455 457
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options	450 451 455 457 458
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode	450 451 455 457 458 459
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode Enabling Boot Logging	450 451 455 457 458 459 462
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode Enabling Boot Logging Using Other Startup Setting Options Understanding System Restore Using the System Image Recovery	450 451 455 457 458 459 462 463
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode Enabling Boot Logging Using Other Startup Setting Options Understanding System Restore	450 451 455 457 458 459 462 463 464
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode Enabling Boot Logging Using Other Startup Setting Options Understanding System Restore Using the System Image Recovery	450 451 455 457 458 459 462 463 464 465
Chapter	10	Exam Essentials Review Questions Configuring Monitoring and Recovery Understanding Recovery Knowing the Advanced Boot Options Starting in Safe Mode Enabling Boot Logging Using Other Startup Setting Options Understanding System Restore Using the System Image Recovery Using the Startup Repair Tool	450 451 455 457 458 459 462 463 464 465 467

		Recovering Files from OneDrive	470
		Using the Wbadmin Command Utility	471
		Using Advanced Backup Options	472
		Using System Protection	474
		Creating Restore Points	474
		Restoring Restore Points	475
		Cleaning Up Old Restore Points	476
		Using the Recycle Bin	476
		Monitoring Windows	477
		Introducing Performance Monitor	477
		Using Other Performance-Monitoring Tools	486
		Summary	496
		Video Resources	496
		Exam Essentials	496
		Review Questions	498
Appendix	Α	Answers to Review Questions	501
Appendix	Α	Answers to Review Questions Chapter 1: Windows 10 Installation	501 502
Appendix	Α		
Appendix	Α	Chapter 1: Windows 10 Installation	502
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment	502 503
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers	502 503 504
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage	502 503 504 505
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage Chapter 5: Configuring the Windows 10 Environment Chapter 6: Configuring Data Security	502 503 504 505 505
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage Chapter 5: Configuring the Windows 10 Environment	502 503 504 505 505 506
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage Chapter 5: Configuring the Windows 10 Environment Chapter 6: Configuring Data Security Chapter 7: Windows 10 Networking	502 503 504 505 505 506 506 507
Appendix	Α	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage Chapter 5: Configuring the Windows 10 Environment Chapter 6: Configuring Data Security Chapter 7: Windows 10 Networking Chapter 8: Installing Applications	502 503 504 505 505 506 507 508 509
	В	Chapter 1: Windows 10 Installation Chapter 2: Installing in an Enterprise Environment Chapter 3: Configuring Devices and Drivers Chapter 4: Configuring Storage Chapter 5: Configuring the Windows 10 Environment Chapter 6: Configuring Data Security Chapter 7: Windows 10 Networking Chapter 8: Installing Applications Chapter 9: Managing Authorization and Authentication	502 503 504 505 505 506 507 508

Table of Exercises

Exercise	1.1	Performing a Clean Install of Windows 1021
Exercise	1.2	Upgrading Windows 8.1 to Windows 10
Exercise	1.3	Configuring Locales
Exercise	1.4	Troubleshooting Failed Installations with Setup Logs
Exercise	2.1	Prepare a System for Imaging by Using the System Preparation Tool52
Exercise	2.2	Installing Windows 10 from a Disk Image56
Exercise	2.3	Installing Hyper-V in Windows Server 2012 R259
Exercise	2.4	Installing Hyper-V on Windows 1060
Exercise	2.5	Creating a New Virtual Machine65
Exercise	2.6	Installing Hyper-V Integration Components
Exercise	2.7	Creating a Checkpoint of a Virtual Machine67
Exercise	2.8	Applying a Checkpoint
Exercise	3.1	Opening Devices And Printers to View Device Stage–Supported
		Devices
Exercise	3.2	Viewing Device Manager83
Exercise	3.3	Configuring Network Adapter Advanced Properties
Exercise	3.4	Viewing Driver Details
Exercise	3.5	Updating a Driver
Exercise	3.6	Rolling Back a Driver
Exercise	3.7	Disabling and Enabling a Device in Device Manager
Exercise	3.8	Uninstalling and Reinstalling a Device Driver
Exercise	3.9	Verifying Signed Drivers96
Exercise	3.10	Configuring an Input/Output Device97
Exercise	3.11	Installing a Printer
Exercise	3.12	Installing a Shared Network Print Device
Exercise	3.13	Managing Documents in the Local Queue
Exercise	3.14	Removing a Printer from Devices And Printers
Exercise	3.15	Using the Print Management Tools
Exercise	4.1	Converting a FAT32 Partition to NTFS 122
Exercise	4.2	Configuring Disk Quotas 125
Exercise	4.3	Configuring OneDrive
Exercise	4.4	Adding an MMC Snap-In
Exercise	4.5	Creating a New Volume

Exercise	4.6	Converting a Basic Disk to a GPT Disk
Exercise	4.7	Converting a Basic Disk to a Dynamic Disk
Exercise	4.8	Editing a Drive Letter
Exercise	4.9	Deleting a Partition
Exercise	4.10	Creating an Extended Volume154
Exercise	4.11	Compressing and Uncompressing Folders
Exercise	4.12	Running the Disk Cleanup Utility
Exercise	4.13	Using the Check Disk Utility166
Exercise	5.1	Configuring Windows 10 Desktop Options
Exercise	5.2	Installing New Features
Exercise	5.3	Changing the Computer Name
Exercise	5.4	Changing the System's Virtual Memory203
Exercise	5.5	Configuring a Power Plan
Exercise	5.6	Configuring the Power Button to Allow the System to Go into the
_ .		Hibernate Mode
Exercise	5.7	Configuring Services
Exercise	6.1	Managing NTFS Permissions
Exercise	6.2	Logging into OneDrive
Exercise	7.1	Viewing the Network Connection Details
Exercise	7.2	Viewing Wireless Network Connection Properties
Exercise	7.3	Accessing the Windows 10 Wireless Properties
Exercise	7.4	Configuring a Static TCP/IP Address
Exercise	7.5	Using DHCP
Exercise	7.6	Connecting a Windows 10 Machine to the Domain
Exercise	7.7	Adding Windows 10 to the Domain via Active Directory
Exercise	7.8	Creating a New Inbound Rule
Exercise	8.1	Installing Hyper-V
Exercise	8.2	Creating a Collection
Exercise	8.3	Sharing the Collection
Exercise	8.4	Setting the Microsoft Account
Exercise	9.1	Adding the Local Users and Groups Snap-in
Exercise	9.2	Accessing Local Users and Groups via the Computer Management Utility
Exercise	9.3	Creating New Users via the MMC
Exercise	9.4	Disabling User Accounts

Exercise	9.5	Deleting a User Account
Exercise	9.6	Renaming a User Account
Exercise	9.7	Changing a User's Password
Exercise	9.8	Adding a User to an Existing Group
Exercise	9.9	Setting Up User Profiles
Exercise	9.10	Assigning Home Folders
Exercise	9.11	Creating Local Groups
Exercise	9.12	Adding Accounts to Groups
Exercise	9.13	Adding the Local Computer Policy Snap-in
Exercise	9.14	Accessing an LGPO
Exercise	9.15	Configuring Password Policy422
Exercise	9.16	Configuring Account-Lockout Policies424
Exercise	9.17	Configuring Audit Policies
Exercise	9.18	Applying a User-Rights Policy432
Exercise	9.19	Seeing How UAC Affects Accounts434
Exercise	9.20	Enabling Remote Desktop
Exercise	9.21	Setting Up a VPN Connection
Exercise	10.1	Booting Your Computer to Safe Mode
Exercise	10.2	Using Boot Logging462
Exercise	10.3	Backing Up Files
Exercise	10.4	Restoring Files
Exercise	10.5	Configuring OneDrive
Exercise	10.6	Creating a System Image472
Exercise	10.7	Creating a Restore Point
Exercise	10.8	Restoring a Restore Point
Exercise	10.9	Using the Recycle Bin477

Introduction

This book was written from over 25 years of IT experience. We have taken that experience and translated it into a Windows 10 book that will help you not only prepare for the MCSA: Windows 10 Solutions Associate exams but also to develop a clear understanding of how to install and configure Windows 10 while avoiding all the possible configuration pitfalls.

Many Microsoft books just explain the Windows operating system, but with MCSA Windows 10 Study Guide: Exam 70-698, I go a step further, providing many in-depth, step-by-step procedures to support my explanations of how the operating system performs at its best.

Microsoft Windows 10 is the newest version of Microsoft's client operating system software. Microsoft has taken the best of Windows 7 and Windows 8 and combined them into the latest creation, Windows 10.

Windows 10 eliminates many of the problems that plagued the previous versions of Windows clients and it includes a much faster boot time and shutdown. It is also easier to install and configure, and it barely stops to ask the user any questions during installation. In this book, I will show you what features are installed during the automated installation and where you can make changes if you need to be more in charge of your operating system and its features.

This book takes you through all the ins and outs of Windows 10, including installation, configuration, online Microsoft subscriptions, auditing, backups, and so much more.

Windows 10 has improved on Microsoft's desktop environment, made networking easier, enhanced search ability, improved performance—and that's only scratching the surface.

When all is said and done, this is a technical book for IT professionals who want to take Windows 10 to the next step and get certified. With this book, you will not only learn Windows 10 and hopefully pass the exams, you will also become a Windows 10 expert.

The Microsoft Certification Program

Since the inception of its certification program, Microsoft has certified more than two million people. As the computer network industry continues to increase in both size and complexity, this number is sure to grow—and the need for proven ability will also increase. Certifications can help companies verify the skills of prospective employees and contractors.

The Microsoft certification tracks for Windows 10 include the following certifications:

MCSA: Windows 10 The MCSA is now the highest-level certification you can achieve with Microsoft in relation to Windows 10. It requires passing exams 70-697 and 70-698. This book assists in your preparation for exam 70-698.

Microsoft Certified Technology Associate (MTA) This is Microsoft's newest certification program. This certification targets those new to the IT field and tests candidates on the core competencies necessary to become an IT professional.

Microsoft Certified Technology Specialist (MCTS) The MCTS certification program targets specific technologies instead of specific job roles. You must take and pass one to three exams.

MCSE: Server Infrastructure or MCSE: Desktop Infrastructure The MCSE certifications, in relation to Windows Server 2012 R2, require that you become a Windows Server MCSA first and then pass two additional exams. The additional exams will vary depending on which of the two MCSE tracks you choose. For more information, visit Microsoft's website at www.microsoft.com/learning.

How Do You Become Certified on Windows 10?

Attaining Microsoft certification has always been a challenge. In the past, students have been able to acquire detailed exam information—even most of the exam questions—from online "brain dumps" and third-party "cram" books or software products. For the new generation of exams, this is simply not the case.

Microsoft has taken strong steps to protect the security and integrity of its new certification tracks. Now prospective candidates must complete a course of study that develops detailed knowledge about a wide range of topics. It supplies them with the true skills needed, derived from working with the technology being tested.

The new generations of Microsoft certification programs are heavily weighted toward hands-on skills and experience. It is recommended that candidates have troubleshooting skills acquired through hands-on experience and working knowledge.

Fortunately, if you are willing to dedicate the time and effort to learn Windows 10, you can prepare yourself well for the exam by using the proper tools. By working through this book, you can successfully meet the requirements to pass the Windows 10 exams.

MCSA Exam Requirements

Candidates for MCSA certification on Windows 10 must pass two Windows 10 MCSA tests:

- 70-698: Installing and Configuring Windows 10
- 70-697: Configuring Windows Devices



Microsoft released the two required exams out of order, which is the reason they're listed with Exam 70-698 first and Exam 70-697 second. Ideally, you should take 70-698 before you take 70-697.

Microsoft provides exam objectives to give you a general overview of possible areas of coverage on the Microsoft exams. Keep in mind, however, that exam objectives are subject to change at any time without prior notice and at Microsoft's sole discretion. Please visit the Microsoft Learning website (www.microsoft.com/learning) for the most current listing of exam objectives. The published objectives and how they map to this book are listed later in this introduction.



For a more detailed description of the Microsoft certification programs, including a list of all the exams, visit the Microsoft Learning website at www.microsoft.com/learning.

Types of Exam Questions

In an effort to both refine the testing process and protect the quality of its certifications, Microsoft has focused its latest certification exams on real experience and hands-on proficiency. There is a greater emphasis on your past working environments and responsibilities and less emphasis on how well you can memorize. In fact, Microsoft says that certification candidates should have hands-on experience before attempting to pass any certification exams.



Microsoft will accomplish its goal of protecting the exams' integrity by regularly adding and removing exam questions, limiting the number of questions that any individual sees in a beta exam, limiting the number of questions delivered to an individual by using adaptive testing, and adding new exam elements.

Exam questions may be in a variety of formats: Depending on which exam you take, you'll see multiple-choice questions as well as select-and-place and prioritize-a-list questions. Simulations and case study-based formats are included as well. Let's take a look at the types of exam questions, so you'll be prepared for all of the possibilities.

Multiple-Choice Questions

Multiple-choice questions come in two main forms. One is a straightforward question followed by several possible answers, of which one or more is correct. The other type of multiple-choice question is more complex and based on a specific scenario. The scenario may focus on several areas or objectives.

Select-and-Place Questions

Select-and-place exam questions involve graphical elements that you must manipulate to successfully answer the question. For example, you might see a diagram of a computer network. A typical diagram will show computers and other components next to boxes that contain the text "Place here." The labels for the boxes represent various computer roles on a network, such as a print server and a file server. Based on information given for each computer, you are asked to select each label and place it in the correct box. You need to place *all* of the labels correctly. No credit is given for the question if you correctly label only some of the boxes.

In another select-and-place problem, you might be asked to put a series of steps in order by dragging items from boxes on the left to boxes on the right and placing them in the correct order. One other type requires that you drag an item from the left and place it under an item in a column on the right.



For more information on the various exam question types, go to www .microsoft.com/learning/mcpexams/policies/innovations.asp.

Simulations

Simulations are the kinds of questions that most closely represent actual situations and test the skills you use while working with Microsoft software interfaces. These exam questions include a mock interface on which you are asked to perform certain actions according to a given scenario. The simulated interfaces look nearly identical to what you see in the actual product.

Because of the number of possible errors that can be made on simulations, be sure to consider the following recommendations from Microsoft:

- Do not change any simulation settings that don't pertain to the solution directly.
- When related information has not been provided, assume that the default settings are used.
- Make sure that your entries are spelled correctly.
- Close all the simulation application windows after completing the set of tasks in the simulation.

The best way to prepare for simulation questions is to spend time working with the graphical interface of the product on which you will be tested.

Case Study–Based Questions

Case study-based questions first appeared in the MCSD program. These questions present a scenario with a range of requirements. Based on the information provided, you answer a series of multiple-choice and select-and-place questions. The interface for case study-based questions has a number of tabs, each of which contains information about the scenario. At present, this type of question appears only in most of the Design exams.

Tips for Taking the Windows 10 Exams

Here are some general tips for achieving success on your certification exam:

- Arrive early at the exam center so that you can relax and review your study materials. During this final review, you can look over tables and lists of exam-related information.
- Read the questions carefully. Do not be tempted to jump to an early conclusion. Make sure that you know *exactly* what the question is asking.
- Answer all questions. If you are unsure about a question, mark it for review and come back to it at a later time.
- On simulations, do not change settings that are not directly related to the question. Also, assume default settings if the question does not specify or imply which settings are used.
- For questions that you're not sure about, use a process of elimination to get rid of the obviously incorrect answers first. This improves your odds of selecting the correct answer when you need to make an educated guess.