Microsoft[®] Official Course



Deploying and Managing Windows Server 2012



•Windows Server 2012 Overview Overview of Windows Server 2012 Management Installing Windows Server 2012 Post-Installation Configuration of Windows Server 2012 Introduction to Windows PowerShell On-Premises Servers
What Is Cloud Computing?
Windows Server 2012 Editions
What Is Server Core?
Windows Server 2012 Roles
What Are the Windows Server 2012 Features?

On-Premises Servers



Servers

Resources provided to clients

Clients

What Is Cloud Computing?

Types of cloud services:

- laaS
- PaaS
- SaaS



Public clouds have multiple tenants

Private clouds have a single tenant, which:

- Is usually on-premises
- Is highly automated
- Uses System Center 2012 to provide automation and self-service
- Requires minimal direct configuration once set up

Windows Server 2012 editions:

- Windows Server 2012 Standard operating system
- Windows Server 2012 Datacenter operating system
- Windows Server 2012 Foundation operating system
- Windows Server 2012 Essentials operating system
- Microsoft Hyper-V Server 2012
- Windows Storage Server 2012 Workgroup operating system
- Windows Storage Server 2012 Standard operating system
- Windows MultiPoint Server 2012 Standard operating system
- Windows MultiPoint Server 2012 Premium operating system

What Is Server Core?

Server Core

- Is a more secure, less resource-intensive installation option
- Can be converted to the full version of Windows Server 2012
- Is the default installation option for Windows Server 2012
- Is managed locally using sconfig.cmd
- If you enable remote management, you will rarely need to log on locally

Windows Server 2012 Roles

Functions

- Web Server
- Domain Controller
- Certificate Server

Roles

- Are made up of role services components that provide additional functionality associated with the role
- In Server Manager 2012, console servers with a similar role are grouped together
- Role deployment also includes the configuration of dependencies

Features:

Are components that support the server such as Windows Server Backup or Failover clustering
Usually do not provide a service directly to clients on the network

Keep in mind the following points:

- •Roles can have features as dependencies
- Features on Demand are features that need to be installed using a mounted image as a source

Lesson 2: Overview of Windows Server 2012 Management

•What Is Server Manager? Administrative Tools and Remote Server Administration Tools Demonstration: Using Server Manager Configuring Services Configuring Windows Remote Management

What Is Server Manager?

You can use Server Manager to:

- Manage multiple servers on a network from one console
- Add roles and features



- Launch Windows PowerShell sessions
- View events





Perform server configuration tasks

Administrative Tools and Remote Server Administration Tools

Administrative tools:

- Active Directory Administrative Center
- Active Directory Users and Computers
- DNS console
- Event Viewer
- Group Policy Management Console
- IIS Manager
- Performance Monitor
- Resource Monitor
- Task Scheduler

Demonstration: Using Server Manager

In this demonstration, you will see how to:

- Sign in to Windows Server 2012 and view the Windows Server 2012 desktop
- Add a feature by Using the Add Roles and Features
 Wizard
- View role-related events
- Run the Best Practice Analyzer for a role
- List the tools available from Server Manager
- Restart Windows Server 2012

When deciding to use Remote Management, consider the following:

- You are more likely to manage a server remotely than by locally logging on
- With WinRM, you can use consoles, command-line utilities, or Windows PowerShell to perform remote management tasks
- With Remote Desktop, you can log on to a server locally or from across the network

Lesson 3: Installing Windows Server 2012

Installation Methods
 Installation Types
 Hardware Requirements for Windows Server 2012
 Installing Windows Server 2012

Installation Methods

Windows Server 2012 deployment method options include:



Installation Types

🔏 Windows Setup

Which type of installation do you want?

<u>Upgrade: Install Windows and keep files, settings, and applications</u> The files, settings, and applications are moved to Windows with this option. This option is only available when a supported version of Windows is already running on the computer. x

Custom: Install Windows only (advanced)

The files, settings, and applications aren't moved to Windows with this option. If you want to make changes to partitions and drives, start the computer using the installation disc. We recommend backing up your files before you continue.

Help me decide

Windows Server 2012 has the following minimum hardware requirements:

- Processor architecture x86–64
- Processor speed
 1.4 GHz
- Memory (RAM) 512 MB
- Hard disk drive space 32 GB
 - More hard disk drive space is needed if the server has more than 16 GB of RAM

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	3	

Installing Windows Server 2012

Windows Setup	
Windows Server 20)12
anguage to install: English (United States)	.
Time and currency format: English (United States)	-
Keyboard or input method: US	•
Enter your language and other preferences and click "Next" to continue.	
© 2012 Microsoft Corporation. All rights reserved.	Next

How to Join a Domain

Information necessary for a domain join:

- Domain name
- Account with permission to join computer to domain

Comp	uter name:	
Wag	gaWagga	
Mer	mber of	More
۲	Domain:	
	Adatum.com	
	Wedgemun	

man /Damain

Configuring a Server Core Installation

C:4.	Administrator: C:\Windows\sys	tem32\cmd.exe - sconfig 📃 🗖 🗙		
	Server Configuration			
1) 2) 3) 4)	Domain/Workgroup: Computer Name: Add Local Administrator Configure Remote Management	Workgroup: WORKGROUP WIN-FVI4J6187ER Failure		
5) 6) 7)	Windows Update Settings: Download and Install Updates Remote Desktop:	Manual Disabled		
8) 9) 10) 11) 12)	8) Network Settings 9) Date and Time 10) Help improve the product with CEIP Participating 11) Windows Activation 12) Restore Graphical User Interface (GUI)			
13) 14) 15) 16) Ent	Log Off User Restart Server Shut Down Server Exit to Command Line er number to select an option:			

•What Is Windows PowerShell? Windows PowerShell Cmdlet Syntax Common Cmdlets for Server Administration What Is Windows PowerShell ISE? Demonstration: Using Windows PowerShell Demonstration: Using Windows PowerShell ISE

What Is Windows PowerShell?

Administrator: Windows PowerShell

Name	ModuleName
 Set-BCAuthentication	BranchCache
Set-BCCache	BranchCache
Set-BCDataCacheEntrvMaxAge	BranchCache
Set-BCMinSMBLatency	BranchCache
Set-BCSecretKey	BranchCache
Set-ClusteredScheduledTask	ScheduledTasks
Set-DAClientExperienceConfiguration	DirectAccessClientComponents
Set-DAEntryPointTableItem	DirectAccessClientComponents
Set-Disk	Storage
Set-DnsClient	DnsClient
Set-DnsClientGlobalSetting	DnsClient
Set-DnsClientNrptGlobal	DnsClient
Set-DnsClientNrptRule	DnsClient
Set-DnsClientServerAddress	DnsClient
Set-DtcAdvancedHostSetting	MsDtc
Set-DtcAdvancedSetting	MsDtc
Set-DtcClusterDefault	MsDtc
Set-DtcClusterTMMapping	MsDtc
Set-DtcDefault	MsDtc
Set-DtcLog	MsDtc
Set-DtcNetworkSetting	MsDtc
Set-DtcTransaction	MsDtc
Set-DtcTransactionsTraceSession	MsDtc
Set-DtcTransactionsTraceSetting	MsDtc
Set-InitiatorPort	Storage
Set-iSCSIChapSecret	iSCSI
Set-LogProperties	PSDiagnostics
Set-MMAgent	MMAgent
Set-NCSIPolicyConfiguration	NetworkConnectivityStatus
Set-Net6to4Configuration	NetworkTransition
Set-NetAdapter	NetAdapter
Set-NetAdapterAdvancedProperty	NetAdapter
Set-NetAdapterBinding	NetAdapter
Set-NetAdapterChecksumOffload	NetAdapter

Windows PowerShell Cmdlet Syntax:

- Get-Help -Noun
 NounName
- Get-Help -Verb
 VerbName
- Help *CmdltName*
- Get-Command

apability	Name
тм	Set_BCAuthentication
TM	Set_BCCache
TM	Set_BCDataCacheEntryMaxAge
10 TM	Set PCMin SMPL stongy
1M	Set-BCMINSMBLatency
ΤM	Set-BCSecretKey
.IM	Set-ClusteredScheduledTask
IM	Set-DAClientExperienceConfiguration
IM	Set-DAEntryPointTableItem
IM	Set-Disk
IM	Set-DnsClient
IM	Set-DnsClientGlobalSetting
IM	Set-DnsClientNrptGlobal
TM	Set-DnsClientNrptRule
TM	Set-DnsClientServerAddress
TM	Set-DtcAdvancedHostSetting
TM	Set_DtcAdvancedSetting
TM	Set DtcClustorDefault
. 1 M	Set-DiccrusterDeraute
1M	Set-Dtccluster immapping
TW.	Set-DtcDefault
IM	Set-DtcLog

Service Cmdlets

- Use the Service noun
- Event Log Cmdlets
 - Use the Eventlog noun
- Process Cmdlets
 - Use the Process noun
- •ServerManager module
 - Allows the WindowsFeature noun

What Is Windows PowerShell ISE?

Administrator: Windows PowerShell ISE	_ D X
File Edit View Tools Debug Add-ons Help	
Untitled1.ps1 X 1 ^ S C:\Users\Administrator>	Commands × × Modules: All Refresh Name: A:
	Add-BCDataCacheextension Add-BitsFile Add-ClusteriSCSITargetServerRole Add-Computer \checkmark < III $>$ Run Insert Copy
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Demonstration: Using Windows PowerShell

 In this demonstration, you will see how to use Windows PowerShell to display the running services and processes on a server

Demonstration: Using Windows PowerShell ISE

In this demonstration, you will see how to:

- Use Windows PowerShell ISE to import the ServerManager module
- View the cmdlets made available in the ServerManager module
- Use the Get-WindowsFeature cmdlet from Windows PowerShell ISE

Lab: Deploying and Managing Windows Server 2012

Exercise 1: Deploying Windows Server 2012
 Exercise 2: Configuring Windows Server 2012
 Server Core
 Exercise 3: Managing Servers
 Exercise 4: Using Windows PowerShell to Manage
 Servers

Logon Information Virtual machines NAME :DC1

User name Password Administrator Yemen2017