PC-ADDICTS.COM

Setup Active Directory on Windows Server 2016

JANUARY 18, 2016 BY CHRISADMIN

How to setup Active Directory in Windows Server 2016 as a new domain controller.

Here we are going to tackle the first part of setting up a domain; promoting our brand new server as a domain controller.

This is considered tutorial number three in a video series titled: **Server Basics 2016**. <u>Tutorial number 1</u> was about downloading Server 2016 and a brief overview. <u>Tutorial number 2</u> was on installing Server 2016.

It's a fairly simple process these days since the system walks you through the entire thing. Join me within the video, or in the text instructions below.

Remember, we are only setting up a test environment here in a virtual test lab. I am using VirtualBox for my VM foundation since it's free and super easy to use.

Downloading Windows Server 2016 - Server Basics

Windows Server 2016

How to Configure AD DS (Domain Controller)

Steps to setup Active Directory

• From the Server Manager Dashboard, click on Add roles and features.





• Select Role-based or feature-based installation and click Next.



• Select the server by highlighting the row and select **Next**.

Server Ma	inager	Server 2012	(TP4) (New Install - Post Updates) [R	unning]		- 0	>
	Add Roles and Features Wiz	ard			Tools	View	Help
🔛 Da:	Select destination	on server		DESTINATION SERVER adserver			
	Before You Begin	Select a server or a virtual h	ard disk on which to install roles and featu	ires.			
File	Installation Type	Select a server from the Select a virtual hard dial	server pool				
	Server Selection	Sonver Pool	·				
	Features						
	Confirmation	Filter:					
	Results	Name	IP Address Operating System				
		adserver	10.0.2.15 Microsoft Windows S	erver 2016 Technical Preview 4			
		1 Computer(s) found This page shows servers the and that have been added newly-added servers from v	at are running Windows Server 2012 or a n by using the Add Servers command in Serv vhich data collection is still incomplete are	ewer release of Windows Server, /er Manager. Offline servers and : not shown.		Hide	
			< Previous Next >	Install Cancel			
		Performance	1 Services		_		
		BPA results	Performance				
			BPA results				
							4-09 P



1/10/2010

• Select Active Directory Domain Services and then select Next.

Server Manager	Server 2012 (TP4) (New Install - Post Updat	es) [Running]	- 0)
Add Roles and Features Wizard Add Roles and Features Wizard Add Roles and Features Wizard Select server roles File File File	Select one or more roles to install on the selected server. Roles Active Directory Certificate Services Active Directory Pederation Services Active Directory Federation Services Active Directory Rights Management Services Active Directory Rights Management Services Active Directory Rights Management Services DHCP Server DNS Server Fax Server File and Storage Services (1 of 12 installed) Host Guardian Service Hyper-V MultiPoint Services Network Controller Network Controller Remote Access	Control Control Control Control	Tools View Help
	Volume Activation Services Web Server (IIS) Windows Deployment Services	> Install Cancel	

				E	PA result	ts		Performance								
								BPA results								
																~
م	[_]]	e	-	Ð	L				1/16/2016 4:02 DM				بە 1] d ₈ 📮	4:09 PM 1/16/2010	6
										<u>S</u>	0] 🤌 🗀	📃 🗗 🤅	Ū 🔇 🗉	Right ೫	11,

• Click Add Features.



	✓ Include management tools (if applicable)
	Add Features Cancel
	< Previous Next > Install Cancel
	BPA results
🔳 🔎 🗇 🧧 🗮 🛱	· · · · · · · · · · · · · · · · · · ·
	2 💿 🛃 🌽 🛄 🔇 🖲 Right #

• You shouldn't have to select anything at the Select features, so just select **Next**.

		Server 2012 (TP4) (New Install - Post Updates) [Run	ning]	
Server Manager				σ×
🗲 🕘 🔹 Se	rver Manager ۱	Dashboard	🕶 🗭 🚩 Manage Tools	View Help
🔠 Dashboard 🖻 Ac	dd Roles and Features Wizard		- 🗆 X	
All Servers Servers	elect features		DESTINATION SERVER adserver	
	Before You Begin Installation Type Server Selection Server Roles Features AD DS Confirmation	Select one or more features to install on the selected server. Features Image: NET Framework 3.5 Features Image: NET Framework 3.6 Features Image: NET Framework 4.6 Features <th>Description .NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide</th> <th>Hide</th>	Description .NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide	Hide

	 Data Center Bridging Direct Play Enhanced Storage Failover Clustering Ø Group Policy Management Host Guardian Hyper-V Support IIS Hostable Web Core Internet Printing Client IP Address Management (IPAM) Server iSNS Server service 	ß
	< Previous Next > Install Cancel	_
	BPA results	
	1/16/2016 4:12 DM	~
م 🖿		1 4:12 PM
		Sight ¥

• Click Next in the AD DS section.



AD DS Confirmation Results	 To help ensure that users can still log on to the network in the case of a server outage, install a minimum of two domain controllers for a domain. AD DS requires a DNS server to be installed on the network. If you do not have a DNS server installed, you will be prompted to install the DNS Server role on this machine. Installing AD DS will also install the DFS Namespaces, DFS Replication, and File Replication services which are required by AD DS. 	Hide
	Azure Active Directory, a separate online service, can provide simplified identity and access management, security reporting, single sign-on to cloud and on-premises web apps. Learn more about Azure Active Directory Configure Office 365 with Azure Active Directory Connect	
	< Previous Next > Install Cancel	
	BPA results 1/16/2016 4:22 DM P T S © P 2 = P (4:37 PM 1/16/2016 \$\\$ \$\\$ ■ Right #

• On the confirmation window, review everything and then click Install.



	Betore You Begin	to instan the following foles, fore services, or reatines on selected server, electrostan	
	Installation Type	Restart the destination server automatically if required	
	Server Selection	Optional features (such as administration tools) might be displayed on this page because they have	
	Server Roles	been selected automatically. If you do not want to install these optional features, click Previous to clear	
	Features	their check boxes.	
		Active Directory Domain Services	
	Confirmation	Group Policy Management	
	Results	Remote Server Administration Tools Role Administration Tools AD DS and AD LDS Tools Active Directory module for Windows PowerShell AD DS Tools Active Directory Administrative Center AD DS Snap-Ins and Command-Line Tools	Hide
		Export configuration settings Specify an alternate source path	
		BPA results	~
، م 🖿	🗆 🧲 📮 🛱		4:39 PM ↓ <mark>∞</mark> ♥ 1/16/2016
			🕽 🔇 🖲 Right 🛱 🏑

- The installation will begin.
- When the installation is complete, you need to now promote the server to a domain controller.
- Click **Promote this server to a domain controller** (small hyperlink in the results window)





• Or, if you are like me and you clicked Close, **click** on the **yellow exclamation mark** in the upper-right section of the Server Manager Dashboard.





• Select Add a new forest, type in a domain name that you want to use (pro-tip: use something like <something>.internal), then click Next.



	Services	Performance	
	Performance	BPA results	
	BPA results		
			~
🕂 🔎 🗔 🤤 🧮	a		94:50 PM 🗐 🖓 🗐 1/16/2016
			💈 💿 🗐 🌶 🗀 🚍 🖃 🛄 🔇 🖲 Right 🕷 🍃

• Type in a password you want to use for DSRM, then click Next.

	Server 2012 (TP4) (New Install - Post Updates) [Runni	ng]				
🖕 Server Manager						- 0	×
🔁 📥 Active Directory Domain Sen	vices Configuration Wizard		– 🗆 X	Manage	Tools	View	Heln
Domain Control	ler Options		TARGET SERVER adserver	manage		view -	ncip
Deployment Configuratio	n Select functional level of the new fore	est and root domain					
Domain Controller Option	Forest functional level:	Windows Server Technical Previe 👻					
Additional Options	Domain functional level:	Windows Server Technical Previe 👻					
Paths	Specify domain controller capabilities	i					
Review Options	Domain Name System (DNS) serv	er					
Prerequisites Check	Global Catalog (GC)						
Installation	Read only domain controller (ROI	DC)					
Results	Type the Directory Services Restore N	lode (DSRM) password					
	Password:	•••••					
	Confirm password:	•••••				Hide	

	T		
		< Previous Next > Install Can	cel
	Events	Events	
	Services	Performance	
	Performance	BPA results	
	BPA results		
			~
P 🗆 🤁	📄 🖨 🔚		भ⊒ 🖫 ⊄ <mark>⊗</mark> 📮 4:52 PM 1/16/2016
			💈 💿 🗐 🄌 🚞 💻 🔚 🛄 🔇 🖲 Right 🛱 🍃

• Click Next on the NDS Options page.



		More about DNS delegation				2
		< Pi Events	evious	Next > Install C Events	ancel	
		Services		Performance		
		Performance		BPA results		
		BPA results				
						~
=	A 🖸 🤤 📮				1	管 🖫 ी <mark>⊗</mark> 📮 4:54 PM 1/16/2016
					0 🖸) 🏈 🚍 🚍 📳 🕲 🔇 🖲 Right 🕱 🍃

• Click Next in the Additional Options page.



Installation Results	More about additional options		Hide
	Events Services Performance	ious Next > Install Ca Events Performance BPA results	ancel
・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	BPA results		 ₩ ₩ 1/2 4:56 PM 1/16/2016 2 2 2 2 2 3 3 4:56 PM 1/16/2016 3 8 3 8 4:56 PM 1/16/2016 8 8 8 8 8 9 8 9 8 9 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 11 12 12 13 14 14 15 16 16 16 17 18 18 18 17 18 18 18 18 18 18

• Click Next on the Paths sections.



Additional Options Paths Review Options Prerequisites Check Installation Results	Log files folder: SYSVOL folder:	C:\Win C:\Win	ndows\NTDS ndows\SYSVOL					2
	More about Active Directory path	ns < Previous	Next >	Install	Cancel		Hide	
	Events Services Performance BPA results		Events Performar BPA result	nce Is			4.57	~ •
ァ 🗅 🤶 🖡					0	ہ 🖵 🖷 🗐 🖉 (4:5/ 1/16/	2016 光

• Click Next on the Review Options screen, then click Install on the Prerequisites Check page.





- The installation (promotion process) will begin. The server will reboot during this process.
- When the installation is complete, log back in (this time you will be logging into the server with domain credentials).

- Let's verify Active Directory is setup and our server is classified as a DC (domain controller).
- From within Server Manager, click Tools then Active Directory Users and Computers.





• Expand the domain root (in my case, it's TESTDOMAIN.internal), then click on Domain Controllers.

Server Manag	er	Server 2	012 (TP4) (Ne	w Install - Post Uj	odates) [Running]			_	- 0	×
	Server Manager	 Dashbo 	oard		·	3 I 🕈	Manage	Tools	View	Help
Dashboa Local Ser All Serve AD DS	Active Directory Users and Com File Action View Help	puters	〒 🐍 🚴 🎦 Type	🍸 🗾 🐍 DC Type	Site	- C				
DNS	 TESTDOMAIN.internal Builtin Computers Domain Controllers ForeignSecurityPrincipal: Managed Service Accour Users 	ADSERVER	Computer	60	Default-First-Si	·			Hide	D
	<	<		Service	es		>			

	Performance	Performance	
	BPA results	BPA results	
🖪 🔎 🗆 🧎 🧮	ê 📥 🛷		管 1/16/2016
			👂 💿 🚅 🌽 🚍 🔛 🛄 🔇 🖲 Right #

- You should see your new server being displayed.
- One las thing I want to do at this point is enable RDP (Remote Desktop Protocol).
- From Server Manager Dashboard, click Local Server then click Disabled next to Remote Desktop.

	Server 201	2 (TP4) (New Install - Post Updates) [Running]		
🛓 Server Manager			— d	J X
🗲 🗸 Server Ma	anager • Local Se	rver - 🤅	🕑 🚩 Manage Tools View	Help
Dashboard	PROPERTIES For adserver		TASKS	•
Local Server All Servers AD DS DNS	Computer name Domain	adserver TESTDOMAIN.internal	Last installed updates Windows Update Last checked for updates	
■ File and Storage Services ▷	Windows Firewall Remote management Remote Desktop NIC Teaming Ethernet	Private: On Enabled Disabled Disabled IPv4 address assigned by DHCP, IPv6 enabled	Windows Defender Windows Error Reporting Customer Experience Improvement Program IE Enhanced Security Configuration Time zone Product ID	
	Operating system version Hardware information	Microsoft Windows Server 2016 Technical Preview 4 innotek GmbH VirtualBox	Processors Installed memory (RAM)	

	EVENTS All events 33 total					TASK	s 🔻
	Filter			● (■) ▼ (■) ▼			\odot
	Server Name	ID	Severity	Source	Log	Date and Time	
	ADSERVER	10016	Error	Microsoft-Windows-DistributedCOM	System	1/16/2016 5:21:54 PM	^
	ADSERVER	1129	Error	Microsoft-Windows-GroupPolicy	System	1/16/2016 5:07:27 PM	
	ADSERVER	6006	Warning	Microsoft-Windows-Winlogon	Application	1/16/2016 5:07:27 PM	
# 2 □ €						🖮 🌄 🕼 📮	8:12 PM 1/16/2016
					2 💿 📮 🗸	» 🗆 💻 🖝 🛄 🔇 🗉] Right ₩

- Select Allow remote connections to this computer
- Uncheck the option Allow connections only from computers running Remote Desktop with Network Level Authentication, then click OK.



 Allow remote connections to the Allow connections only from Desktop with Network Letter 	this computer om computers running Remo evel Authentication (recomme	ote ended)	address assigned by DHCP, IPv6 enabled Tir Pro	ennanced Secu me zone oduct ID	inty conliguration	
Help me choose	Sel OK Cancel	ect Users Apply	osoft Windows Server 2016 Technical Preview 4 Protection Protection Protection Institution Protection Protecti	ocessors stalled memory	r (RAM)	
	EVENTS All events 46 total				TASK	KS 💌
	Filter		▼ (ii) ▼ (ii) Q			۲
	Filter Server Name	ID Severity	P III ▼ III ▼	Log	Date and Time	۲
	Filter Server Name ADSERVER	ID Severity 5973 Error	P (iii) ▼ (iii) ▼ Y Source Microsoft-Windows-Apps	Log Application	Date and Time 1/17/2016 4:49:34 AM	•
	Filter Server Name ADSERVER ADSERVER	ID Severity 5973 Error 12 Warning	Source Microsoft-Windows-Apps Microsoft-Windows-Time-Service	Log Application System	Date and Time 1/17/2016 4:49:34 AM 1/17/2016 4:45:00 AM	•
	Filter Server Name ADSERVER ADSERVER ADSERVER	ID Severity 5973 Error 12 Warning 10154 Warning	Cource Microsoft-Windows-Apps Microsoft-Windows-Time-Service Microsoft-Windows-Windows Remote Management	Log Application System nt System	Date and Time 1/17/2016 4:49:34 AM 1/17/2016 4:45:00 AM 1/17/2016 4:44:45 AM	 ^
Р 🗆 🤶 [Filter Server Name ADSERVER ADSERVER ADSERVER	ID Severity 5973 Error 12 Warning 10154 Warning	 P III ▼ III ▼ ✓ ✓	Log Application System nt System	Date and Time 1/17/2016 4:49:34 AM 1/17/2016 4:45:00 AM 1/17/2016 4:44:45 AM ^ @ ™ № ↓ ↓ <	 4:50 1/17/

We are done with the basic Active Directory setup!

Next up: Configuring Active Directory OU (Organizational Unit) structure.

Server Basics 2016 Series Navigation

- Tutorial #1: Downloading Windows Server 2016
- Tutorial #2: Installing Windows Server 2016
- Tutorial #3: Setup Active Directory on Windows Server 2016 (this article)

- Tutorial #4: <u>OU Structure on Server 2016</u>
- Tutorial #5: Create AD Users and Groups
- Tutorial #6: Setup DHCP Role on Server 2016
- Tutorial #7: Join Windows 10 to Domain Server 2016
- Tutorial #8: (coming soon)

FILED UNDER: UNCATEGORIZED

 $\label{eq:copyright} Copyright @ 2020 \ PC-Addicts \ by \ Chris \ Davis \ \cdot \ Log \ in \\ Copyright @ 2020 \ \cdot \ Metro \ Pro \ Theme \ on \ Genesis \ Framework \ \cdot \ WordPress \ \cdot \ Log \ in \\ \end{array}$