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# How to Install and Configure Windows Server 2008 DHCP Server

By Huzaifah Ahmad | Published 12/22/2009 | Windows 2008 | Unrated

#### How to Install and Configure Windows Server 2008 DHCP Server

Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a computer from a defined range of numbers (i.e., a scope) configured for a given network.

When a computer uses a static IP address, it means that the computer is manually configured to use a specific IP address. One problem with static assignment, which can result from user error or inattention to detail, occurs when two computers are configured with the same IP address. This creates a conflict that results in loss of service. Using DHCP to dynamically assign IP addresses minimizes these conflicts.

To start the DHCP installation process, you can click Add Roles from the Initial Configuration Tasks window or from Server Manager Roles > Add Roles.

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re You Begin er Roles Server etwork Connection Bindings etwork Connection Bindings (v4 WINS Settings +CP Scopes +CPv6 Stateless Mode +CP Server Authorization irmation ress Its	This wizard helps you install roles on this server. You determine which role want this server to perform, such as sharing documents or hosting a Web Before you continue, verify that: • The Administrator account has a strong password • Network settings, such as static IP addresses, are configured • The latest security updates from Windows Update are installed If you have to complete any of the preceding steps, cancel the wizard, co wizard again. To continue, click Next.
	Skip this page by default

When the Add Roles Wizard comes up, you can click Next on that screen.

Next, select that you want to add the DHCP Server Role, and click Next.

V	Active Directory Certificate Services Active Directory Domain Services (Installed) Active Directory Federation Services Active Directory Lightweight Directory Services	Dyna (DHC centr provi relate	mic H P) Se ally c de te ed inf
	Active Directory Rights Management Services Application Server DHCP Server DNS Server (Installed) Fax Server File Services Hyper-V Network Policy and Access Services Print and Document Services Remote Desktop Services Web Server (IIS) Windows Deployment Services Windows Server Update Services	comp	uter

Introduction to DHCP Server
The Dynamic Host Configuration Protocol allows servers to assign, or lease, IP addresses to conter devices that are enabled as DHCP clients. Deploying a DHCP server on the network provand other TCP/IP-based network devices with valid IP addresses and the additional configurat these devices need, called DHCP options. This allows computers and devices to connect to other resources, such as DNS servers, WINS servers, and routers.
Things to Note
You should configure at least one static IP address on this computer.
Before you install DHCP Server, you should plan your subnets, scopes, and exclusions. Ma the plan in a safe place for later reference.
Additional Information
DHCP Server Overview
Defining DHCP Scopes
Integrating DHCP with DNS

Click Next >

One or more network connection be used to service DHCP clients	ns having a static IP address were detected. Each on a separate subnet.
Select the network connections	that this DHCP server will use for servicing clients.
Network Connections: IP Address	Type
192.168.1.200	IPv4
Details Name:	Local Area Connection
Details Name: Network Adapter:	Local Area Connection Local Area Connection

I have taken this opportunity to configure some basic IP settings and configure my first DHCP Scope.

Click Next >

²v4 Di	NS Server Settings	
	When clients obtain an IP address from the DHCF addresses of DNS servers and the parent domain using IPv4.	e server, they can be given ( name. The settings you pro
ngs	Specify the name of the parent domain that client scopes you create on this DHCP server.	ts will use for name resolutio
	Parent domain:	
	pilot.local	
'n	Preferred DNS server IPv4 address:	Validate
	127,001	
	Alternate DNS server IPv4 address:	
		Validate
	More about DNS server settings	

Next, enter Primary & Secondary **DNS Servers** (as you see above)

Note: I have not entered any ip is the alternate dns simply because I only have a single DC right
currently.

Click Next >

изніў такат.	
Specify the name of the parent d scopes you create on this DHCP s	omain that clients will use for name resolution. server.
Parent domain:	
pilot.local	
Specify the IP addresses of the D used for all scopes you create on Preferred DNS server IPv4 addre	INS servers that clients will use for name resoluthis DHCP server.
127.0.0.1	Validate
🥑 Valid	V3'
Alternate DNS server IPv4 addre:	ss:
	Validate
More about DNS server settings	

Vhen clients obtain an IP address from the DHCP server, they can be given DHCP Iddresses of WINS servers. The settings you provide here will be applied to client:
WINS is not required for applications on this network
WINS is required for applications on this network
Specify the IP addresses of the WINS servers that clients will use for name res will be used for all scopes you create on this DHCP server.
Preferred WINS server IP address:
Alternate WINS server IP address:
J
Iore about withs server sectings
< Previous Next > N

I dont use WINS on my network and I clicked  $\ensuremath{\textbf{Next}}$ 

	A scope is the range of p	ossible IP addresses for a network. The DHCP server cannot	distribute IP
dings	A scope is a range of possibl cannot distribute IP address Configuration settings for I Scope name: Starting IP address: Ending IP address: Subnet type:	e IP addresses for a network. The DHCP server es to clients until a scope is created. DHCP Server Pilot LAN 192.168.1.51 192.168.1.99 Wired (lease duration will be 8 days)	Add
	Configuration settings that Subnet mask: Default gateway (optional)	propagate to DHCP client 255.255.255.0 192.168.1.1 OK Cancel 25	

Configure your scope details according to your network.

	Scopes:	1 m - Hannes	
15	Pilot I AN	192,168,1,51 - 192,168,1,99	Add
	1 IOC LAN	12.100.1.01 12.100.1.00	Edit
			Delete
	Properties		HINGL
	Default gateway:	192.168.1.1	
	Subpet mask:	255.255.255.0	
	IP address range:	19 168.1.51 - 192.168.1.99	
	ID address rapids	10 160 1 51 102 160 1 00	

Click next >



	Active Directory Domain Services (AD DS) stores a list of DHCP servers that are authorized to the network. Authorizing DHCP servers helps avoid accidental damage caused by running DHC incorrect configurations or DHCP servers with correct configurations on the wrong network. Specify credentials to use for authorizing this DHCP server in AD DS.	i ser CP s
ndings		
	• Use current credentials	
	The credentials of the current user will be used to authorize this DHCP server in AD DS.	
	User Name: PILOT\administrator	
э		
Marco and a second		
tion		
tion	C Use alternate credentials	
tion	C Use alternate credentials Specify domain administrator credentials for authorizing this DHCP server in AD DS.	
tion	C Use alternate credentials Specify domain administrator credentials for authorizing this DHCP server in AD DS. User Name:	Sne
tion	C Use alternate credentials Specify domain administrator credentials for authorizing this DHCP server in AD DS. User Name:	Sper
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tion	Use alternate credentials     Specify domain administrator credentials for authorizing this DHCP server in AD DS.     User Name:     Skip authorization of this DHCP server in AD DS	Spe
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tion	<ul> <li>Use alternate credentials</li> <li>Specify domain administrator credentials for authorizing this DHCP server in AD DS.</li> <li>User Name:</li> <li>Skip authorization of this DHCP server in AD DS</li> <li>Skip authorization of this DHCP server in AD DS</li> <li>This DHCP server must be authorized in AD DS before it can service clients.</li> <li>More about authorizing DHCP servers in AD DS</li> </ul>	Spe
tion	<ul> <li>Use alternate credentials</li> <li>Specify domain administrator credentials for authorizing this DHCP server in AD DS.</li> <li>User Name:</li> <li>Skip authorization of this DHCP server in AD DS</li> <li>Skip authorization of this DHCP server in AD DS</li> <li>This DHCP server must be authorized in AD DS before it can service clients.</li> </ul>	Sper

Account with permission in AD.

Click Next >

DHCP Server	T III ALIII ALII ALIII ALII ALII ALII AL		
Network Connection Bindings	$({f j})$ This server might need to be restarted after the installation completes.		
IPv4 DN5 Settings	O DHCP Server		
IPv4 WINS Settings	Network Connection Bindings :	192.168.1.200 (IPv4)	
DHCP Scopes	IPv4 DNS Settings DNS Parent Domain :	pilot.local	
DHCPv6 Stateless Mode	DNS Servers :	127.0.0.1	
DHCP Server Authorization	WINS Servers :	None	
Confirmation	Scopes Name :	Pilot LAN	
Progress	Default Gateway :	192.168.1.1	
Deculto	Subnet Mask :	255.255.255.0	
Results	IP Address Range :	192.168.1.51 - 192.168.1.99	
	Subnet Type :	Wired (lease duration will be 8 days)	
	Activate Scope :	Yes	
	DHCPv6 Stateless Mode :	Disabled	
	DHCP Server Authorization :	Authorize using credentials associated with PILOT	





Done



Verify your configuration by opening your DHCP server. You can now carry on creating further scopes if your

network has more than 1 vlan or you can modify the settings configured earlier.

ope [192.168.1.0] Pilot LAB Subnet Properties	? :
General DNS Network Access Protection Advanced	
Assign IP addresses dynamically to clients of:	
C DHCP	
C BOOTP	
Both	
Lease duration for BOOTP clients	
C Limited to:	
Days: Hours: Minutes:	
Delay configuration Specify the delay (in milli seconds) with which the DHCP server distributes addresses Subnet delay: 0 = 1 ms	
OK Cancel	Apply

Configure a client pc to obtain ip address. go to command prompt Start > Run > cmd > ipconfig /all

You will see tha a  $\operatorname{ip}$  address has been allocated by the new scope to this client  $\operatorname{pc}$ 

Good Luck



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