Add DHCP Role to Windows 2012 Server

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Wide and Local Area Network Connections

Before add We and configure the Dynamic Host Configuration Service on our server, we need to check that our two Network Interface Cards (NICs) are functioning. We open the Network Connections window and we see the and external internal NICs.



External Network Interface Card Setup

We open the external NIC status window and we choose the Properties button. The external NIC properties window opens and we uncheck the IPv6 checkbox since we are only using IPv4 settings. We double click on the IPv4 TCP/IP protocol and that properties window appears. We have an address on the 192,168,10 network and we pointing at the are 192.168.10.1 Domain Controller and DNS server. All settings are correct and we press OK to close the windows.

<u> </u>	WAN Status	
General		
Connection —	WAN Properties	
IPv4 Connec	Networking Sharing	
Media State:	Connect using:	
Duration:	Broadcom NetLink (TM) Gigabit Ethemet	
Speed:	Internet Protocol Version 4 (TCP/IPv4) Properties ?	x
D <u>e</u> tails	This connection uses General	
Activity ———	✓ Client for Mi ✓ QoS Packe ✓ QoS Packe ✓ File and Prir → Microsoft N ✓ Link-Layer	rts or
Bytes:	✓ ▲ Link-Layer ✓ ▲ Internet Pro ✓ ▲ Internet Pro ✓ ▲ Internet Pro	
Properties	Subnet mask: 255.255.255.0 Install Default gateway: 192.168.10.1	
	Allows your compunetwork. Obtain DNS server address automatically Image: Obtain DNS server Image: Obtain DNS server	
	Alternate DNS server:	
	Validate settings upon exit Advanced	
	ОК Са	ncel

Internal Network Interface Card Setup

We then open the internal NIC status window and choose the again we Properties button. The internal NIC properties window opens and we uncheck the IPv6 checkbox since we are only using IPv4 settings. We double click on the IPv4 TCP/IP protocol and that properties window appears. Our address on the internal NIC is the first IP on the 192.168.100 network. All settings are correct and we press OK to close the windows.

<u> </u>	LAN Status	X
General		
IPv4 Connectivi		Properties X
IPv6 Connectivi	π D	
Media State:	Networking Sharing	
Duration:	Connect using:	
Speed:	Bestek BTI 9129/910v	Esmily East Ethemat NIC
D <u>e</u> tails	Healter HTL0135/0102	
		Internet Protocol Version 4 (TCP/IPv4) Properties ? ×
	This connection uses the follow	
Activity	Client for Microsoft Ne	General
	🗹 💂 QoS Packet Schedule	You can get IP settings assigned automatically if your network supports
	File and Printer Sharin	for the appropriate IP settings.
Bytes: 1	 Microsoft Network Ad Link-Laver Topology I 	
	 Link-Layer Topology I 	O Obtain an IP address automatically
Properties	🗌 📥 Internet Protocol Versi	Use the following IP address:
	🗹 📥 Internet Protocol Vers	IP address: 192 . 168 . 100 . 1
	Install	Subnet mask: 255 . 255 . 255 . 0
	Description	Default gateway:
	Allows your computer to acc network.	○ Obtain DNS server address automatically
		Use the following DNS server addresses:
		Preferred DNS server: 127 . 0 . 0 . 1
		Alternate DNS server:
		Validate settings upon exit Ad <u>v</u> anced
		OK Cancel

Connecting to the Internet

We check the Network and Sharing Center window and see that our server is connecting to the Internet through the charm.local Domain Controller.



Setup Security Policies

To add a new role such as DHCP on the Windows 2012 Standard Server, we select the Server Manager button from the Task Bar and select Manage from the Dashboard. From the list we choose Add Roles and Features.



2		Server Manage	er		_ D X
🕞 🗧 애 Dashbe	oard	-	۴ ا چ	Man	age Tools View Help
Dashboard Local Server	WELCOME TO SER	EVER MANAGER	ure this local		Remove Roles and Features Add Servers Create Server Group
 I Servers AD DS DNS File and Storage Services ▷ 	QUICK START	2 Add 3 Add 4 Crea	roles and features other servers to r te a server group	; nanag	Server Manager Properties
	LEARN MORE				Hide
	ROLES AND SERV Roles: 3 Server gro AD DS Manageabi Events	ER GROUPS hups: 1 Servers total: 1 1 lity	DNS Manageability Events		1
	Services		Services		

Before You Begin

Before we add a role to Windows the 2012 Standard Server, we will want to have a smart password on our administrator account, to configure our network connections with a static IP address and we want to have the most current Service Packs and Windows Updates loaded. If this is done, then we can go ahead press the and Next command button.

2	Add Roles and Features Wizard	– – X
Before you begin	DESTI cha	VATION SERVER rm2.charm.local
Before You Begin Installation Type Server Selection Server Roles	This wizard helps you install roles, role services, or features. You determine which roles, ro features to install based on the computing needs of your organization, such as sharing do hosting a website. To remove roles, role services, or features: Start the Remove Roles and Features Wizard	le services, or cuments, or
Confirmation Results	 Before you continue, verify that the following tasks have been completed: The Administrator account has a strong password Network settings, such as static IP addresses, are configured The most current security updates from Windows Update are installed If you must verify that any of the preceding prerequisites have been completed, close the complete the steps, and then run the wizard again. To continue, click Next. 	wizard,
	Skip this page by default < Previous	Cancel

Installation Type

Then we opt for the installation type which is either Role based or Remote Desktop Services Installation. For a stand alone server, we will choose the Role based option.

Press the Next button to continue.

B	Add Roles and Features Wizard
Select installation	type DESTINATION SERVER charm2.charm.local
Before You Begin	Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).
Server Selection Server Roles	Role-based or feature-based installation Configure a single server by adding roles, role services, and features.
Features Confirmation	 Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.
Results	
	< Previous Next > Install Cancel

Select Destination Server

Now we will select a server from the server pool. This can be a physical or virtual server. We opt to choose a server from the server pool and we highlight our server name from the list.

Press the Next button to advance.

🛓 📃 Add Roles and Features Wizard 📃 🗖 💌			
Select destination	IN SERVER Charm.local		
Before You Begin	Select a server or a virtual hard disk on which to install roles and features.		
Installation Type	Select a server from the server pool		
Server Selection	Select a virtual hard disk		
Server Roles	Server Pool		
Features			
Confirmation	Filter:		
Results	Name IP Address Operating System		
	charm2.charm.local 192.168.10.231 Microsoft Windows Server 2012 Standard 1 Computer(s) found 1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.		
	< <u>P</u> revious <u>N</u> ext > <u>I</u> nstall Cancel		

Select Server Role

The Add Roles and Features Wizard window shows the multitude of functions a 2012 server can provide. We annotate the DHCP Server checkbox and press the Next button.

A smaller dialogue box will appear and we then press the Add Features button on that pop up window.

2	Add Role	s and Features Wizard	_ D X
Select server roles			DESTINATION SERVER charm2.charm.local
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles t Roles Active Directory C Active Directory R Application Servee DHCP Server	o install on the selected server. Certificate Services Jomain Services (Installed) ederation Services ightweight Directory Services tights Management Services r	Description Dynamic Host Configuration Protocol (DHCP) Server enables you to centrally configure, manage, and provide temporary IP addresses and related information for client computers.
	DNS Server (Insta Fax Server File And Storage Hyper-V Network Policy a Print and Docum Remote Access (I Remote Desktop	Add features that and Add features that and The following tools are ree have to be installed on the Remote Server Admini Role Administratic Trock I DECO	es and Features Wizard × e required for DHCP Server? quired to manage this feature, but do not e same server. nistration Tools on Tools Server Tools
		✓ Include management	tools (if applicable)

Confirm Installation Selections

The DHCP Server role is now checked on the roles list and we push the Next button to continue.



Features Window

Next, the Features window comes up and we will not add any features at this time.

Press the Next button to go on.

B	Add Roles and Features Wizard	_ D X
Select features Before You Begin Installation Type Server Selection Server Roles Features DHCP Server Confirmation Results	Add Roles and Features Wizard Select one or more features to install on the selected server. Features Image: Image	DESTINATION SERVER charm2.charm.local
	Enhanced Storage Failover Clustering Group Policy Management (Installed) Ink and Handwriting Services Internet Printing Client IP Address Management (IPAM) Server <	> Install Cancel

Introduction to DHCP Server

On this window, we can learn more about the DHCP servers. We choose the Next button to proceed.

B	Add Roles and Features Wizard		x
DHCP Server	DESTINA charm	17ION SERV 12.charm.lo	/ER cal
Before You Begin Installation Type Server Selection Server Roles	The Dynamic Host Configuration Protocol allows servers to assign, or lease, IP addresses to and other devices that are enabled as DHCP clients. Deploying a DHCP server on the netwo computers and other TCP/IP-based network devices with valid IP addresses and the additio configuration parameters these devices need, called DHCP options. This allows computers a to connect to other network resources, such as DNS servers, WINS servers, and routers.	compute irk provid inal and devic	ers les es
Features	Things to note:		
DHCP Server	 You should configure at least one static IP address on this computer. 		
Confirmation Results	 Before you install DHCP Server, you should plan your subnets, scopes and exclusions. Sto in a safe place for later reference. 	vre the pla	an
	More information about DHCP Server		
	< Previous Next > Install	Cance	I

Confirm Installation Selections

Before the installation begins, we can see a summary of our choices and if we need to change anything, we can return to the specific dialogue box using the Previous button. If we agree with all of the settings, we should choose the Install button.

b	Add Roles and Features Wizard	_ D X
Confirm installation	on selections	DESTINATION SERVER charm2.charm.local
Before You Begin	To install the following roles, role services, or features on selected server, click Insta	all.
Installation Type	Restart the destination server automatically if required	
Server Selection	Optional features (such as administration tools) might be displayed on this page b	ecause they have
Server Roles	been selected automatically. If you do not want to install these optional features, c their check boxes.	lick Previous to clear
Features		
DHCP Server	DHCP Server	
Confirmation Results	Remote Server Administration Tools Role Administration Tools DHCP Server Tools	
	Export configuration settings Specify an alternate source path	
	< <u>P</u> revious <u>N</u> ext > <u>I</u> nst	all Cancel

Install DHCP Server

For several minutes, the DHCP server will be installed and authorized. When the process is complete, we close the Add Roles Wizard and the Server Manager windows.



DHCP Service Running

We visit the Server Manager and click on Tools and we select DHCP. When that window appears, we can see our DHCP is running and ready to assign IP addresses to our client computers.

