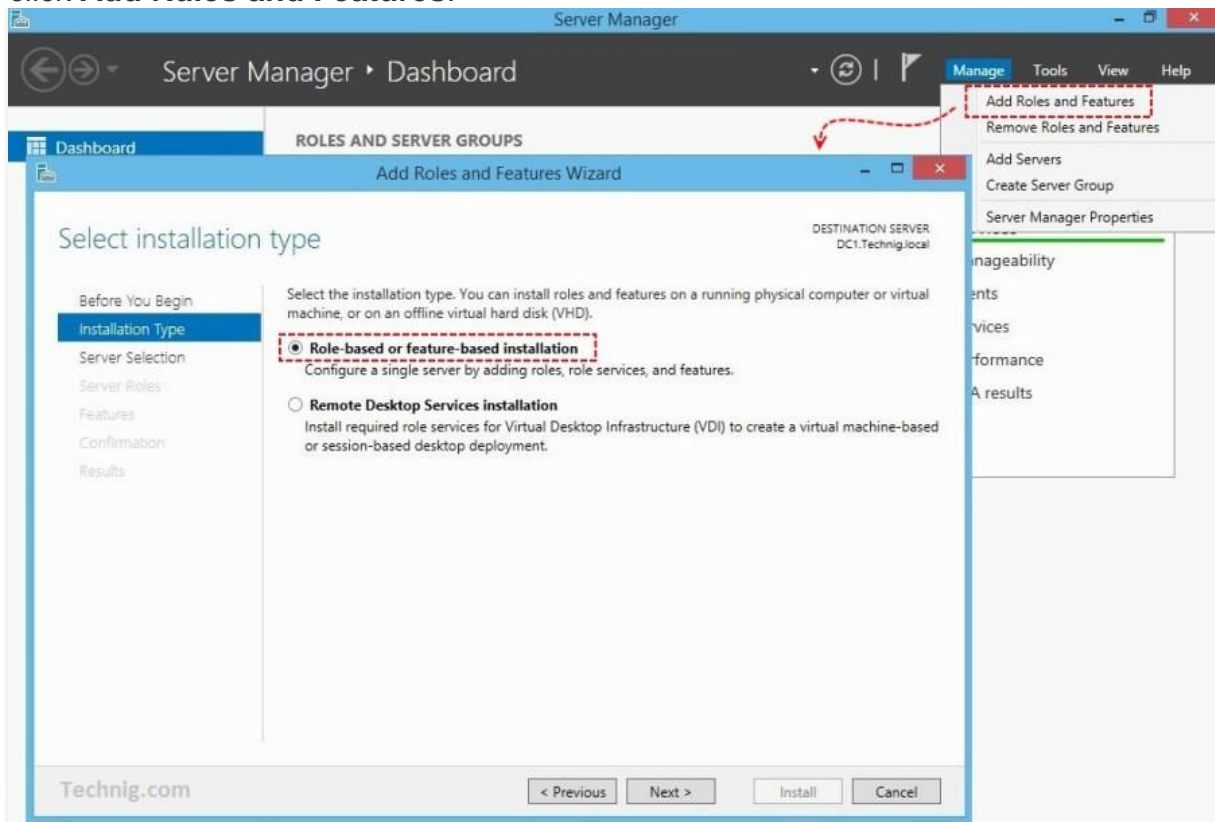


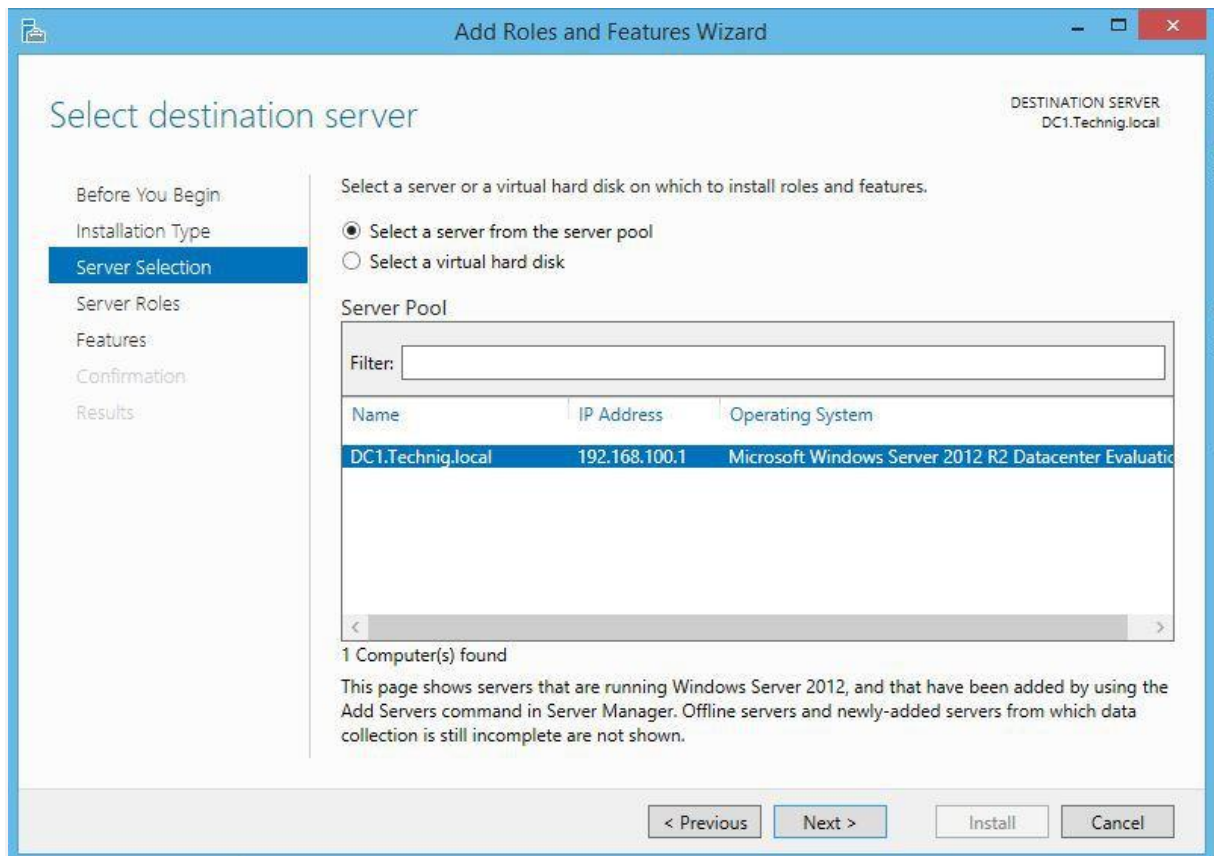
Install and Configure DHCP Server Role

To install DHCP Server go to **Dashboard** on **Server Manager** and click **Manage** then click **Add Roles and Features**.



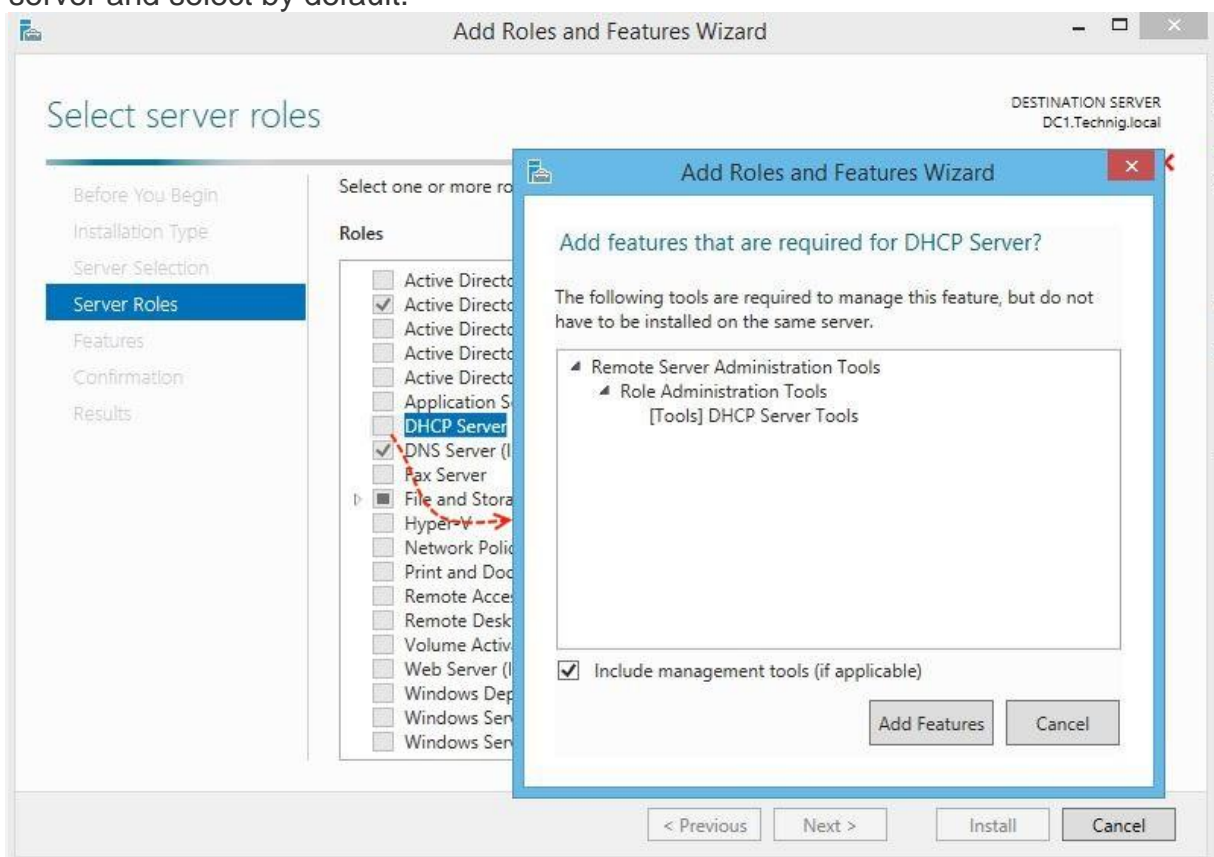
Server Manager Dashboard

In the Role installation window select **Role-based or feature-based installation** the click **Next**.



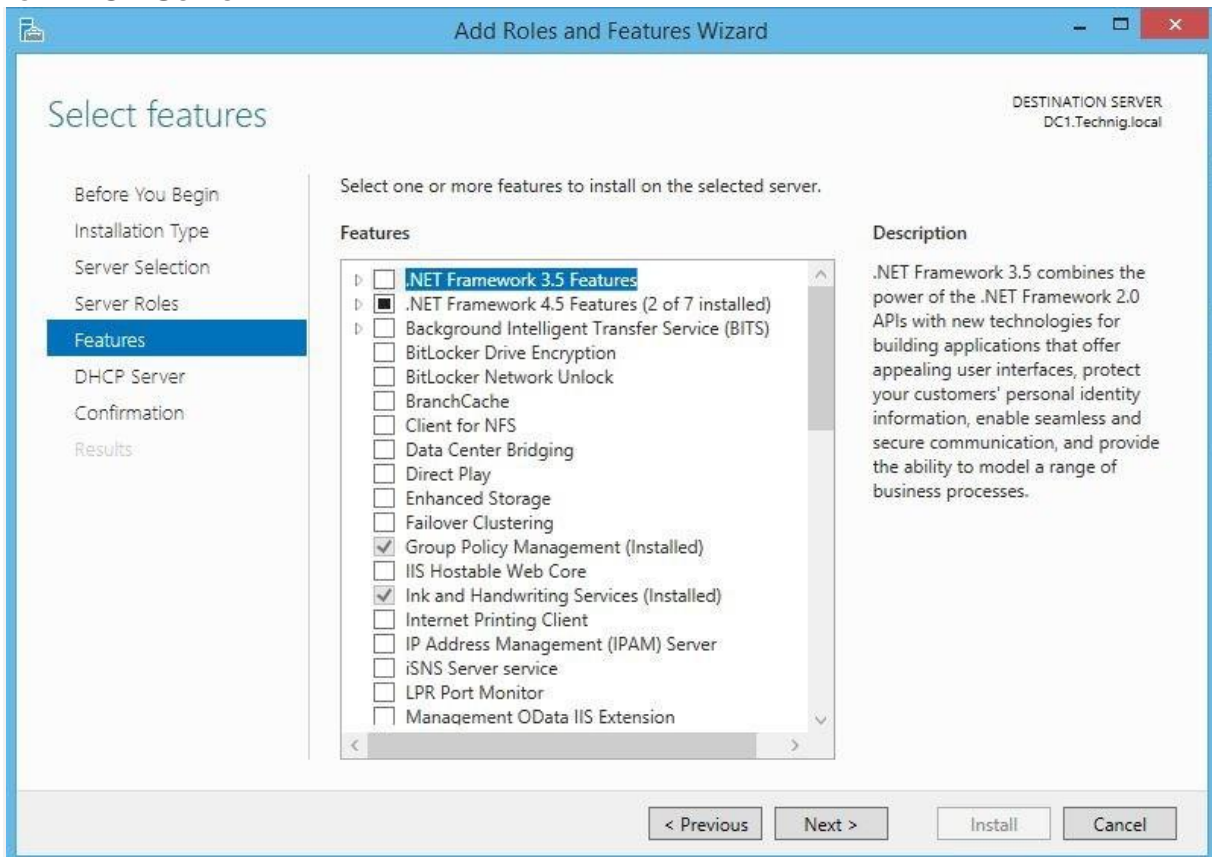
DHCP Server Destination Server

Select the Server you want to install DHCP from the **Server pool**. Here we have one server and select by default.



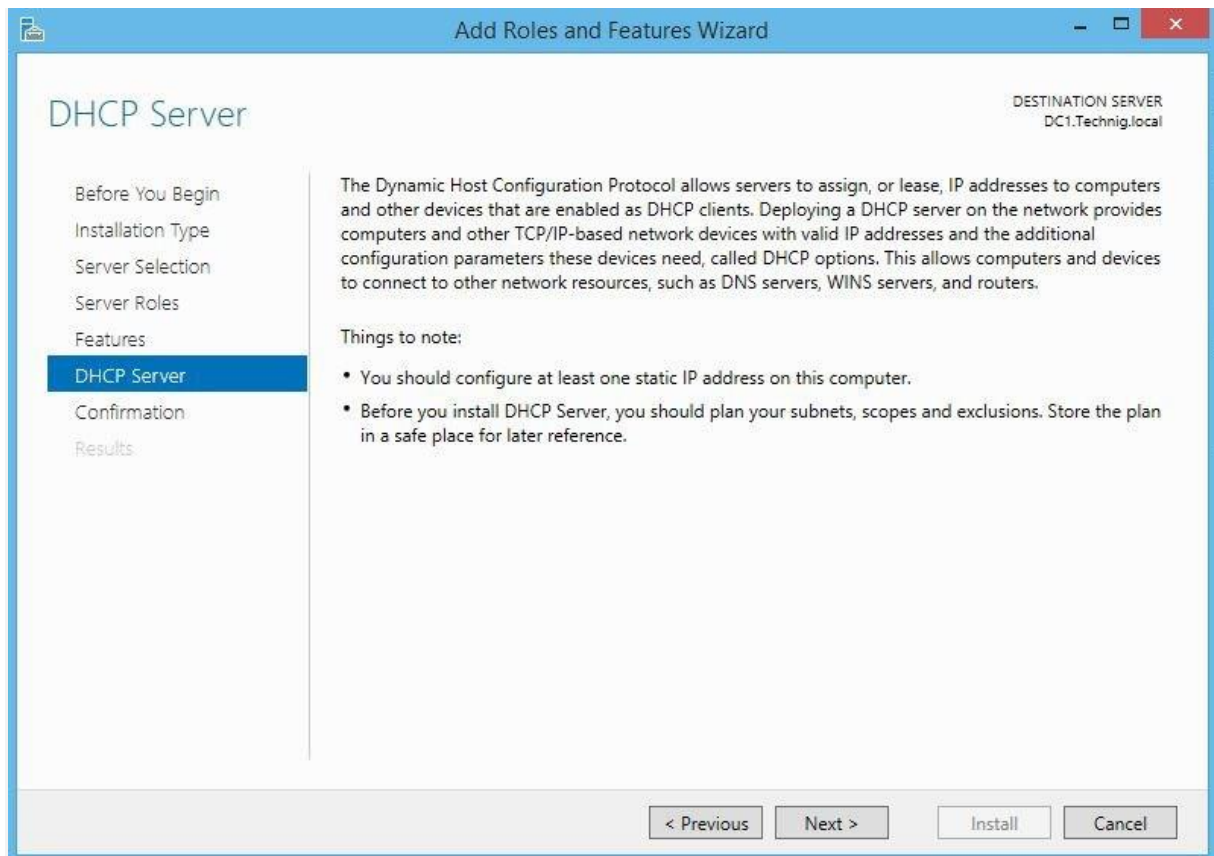
Add DHCP Server Role

From the Roles list select DHCP Server. When the Add Roles and Features Wizard Page opened, click **Add Features** then Click **Next**. This will install required features for DHCP Server.



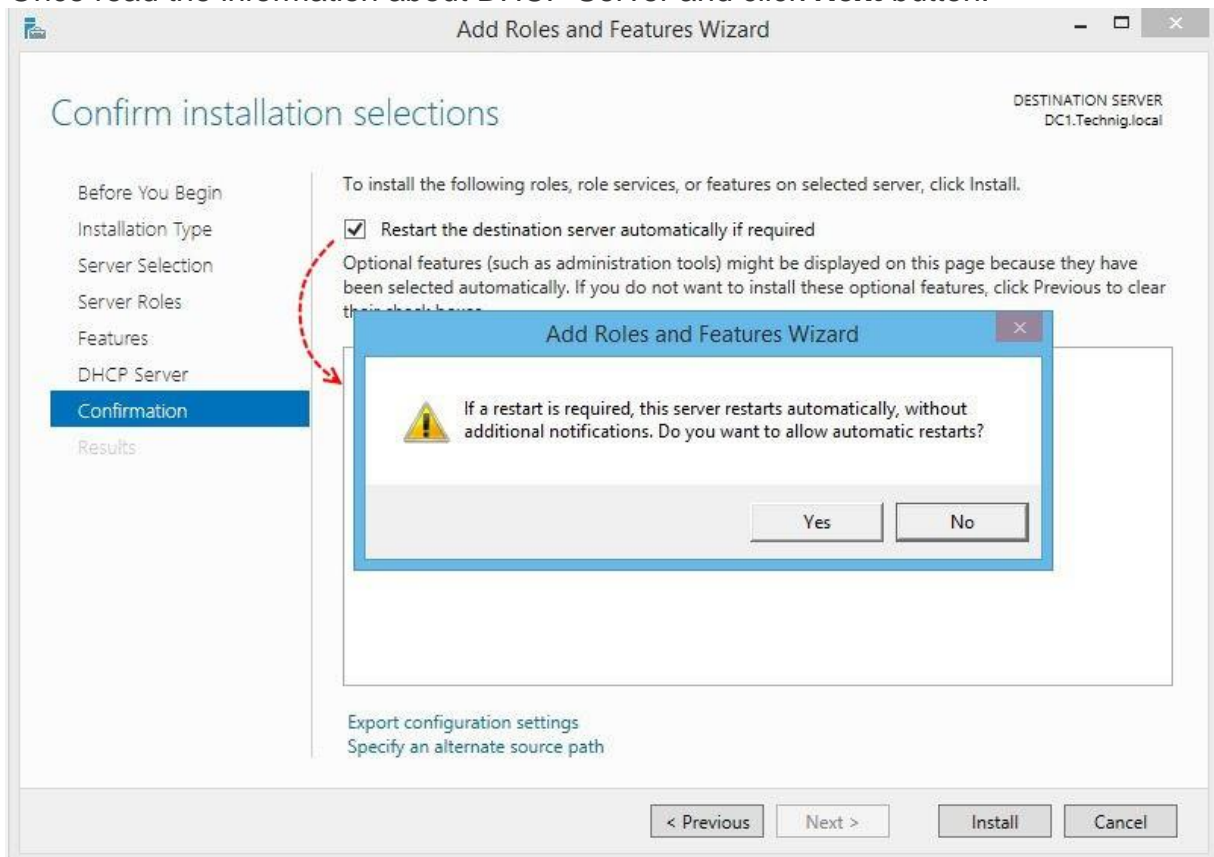
Windows Features

In the Features window don't change anything, just click **Next**.



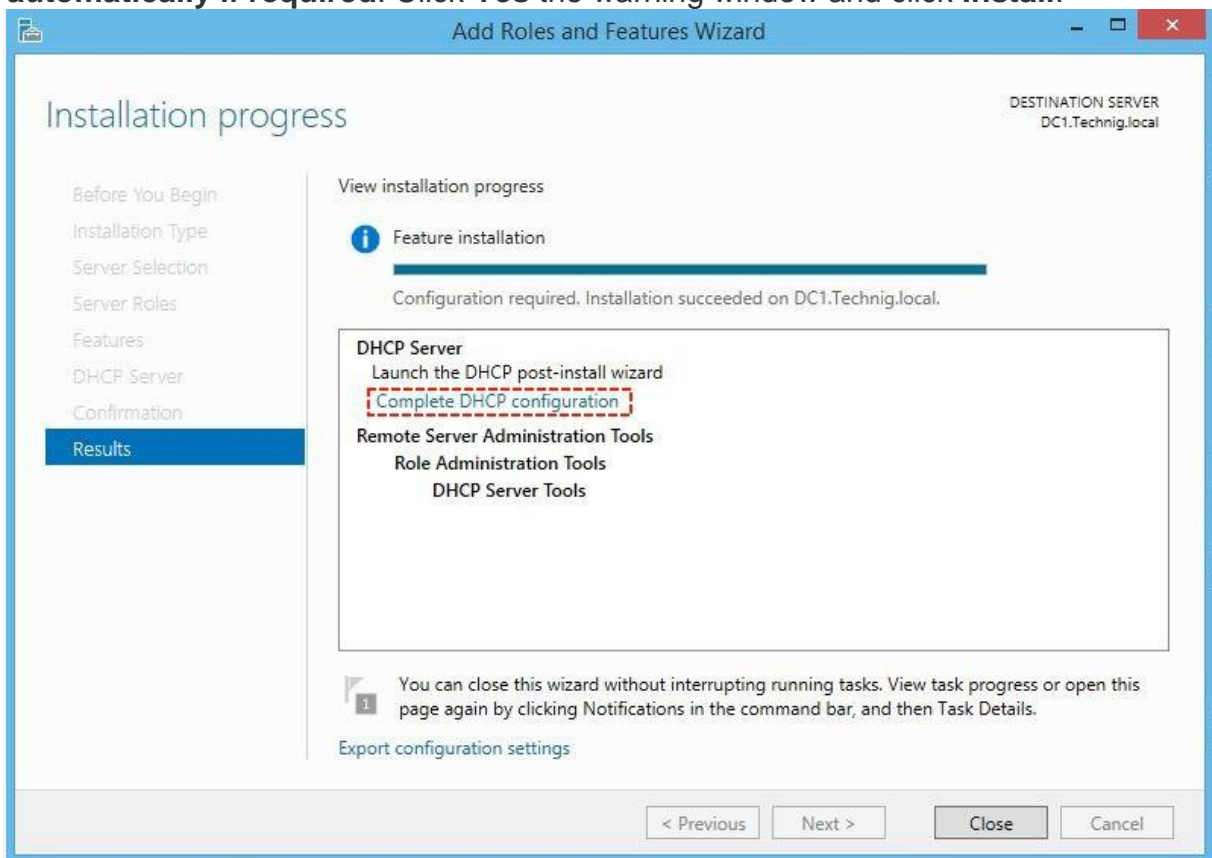
DHCP Server Information

Once read the information about DHCP Server and click **Next** button.



Restart automatically

In the **Confirm installation** page, select **Restart the destination server automatically if required**. Click **Yes** the warning window and click **Install**.



DHCP Installation Process

The installation will take a minute, when it has complete successfully click **Complete DHCP Configuration** link.

DHCP Post-Install configuration wizard

Description

Description
Authorization
Summary

The following steps will be performed to complete the configuration of the DHCP Server on the target computer:

Create the following security groups for delegation of DHCP Server Administration.

- DHCP Administrators
- DHCP Users

Authorize DHCP server on target computer (if domain joined).

< Previous **Next >** Commit Cancel

DHCP Post-Install

Read **DHCP Post-Install configuration wizard description** and click **Next**.

DHCP Post-Install configuration wizard

Authorization

Description
Authorization
Summary

Specify the credentials to be used to authorize this DHCP server in AD DS.

☒ Use the following user's credentials

User Name:

☐ Use alternate credentials

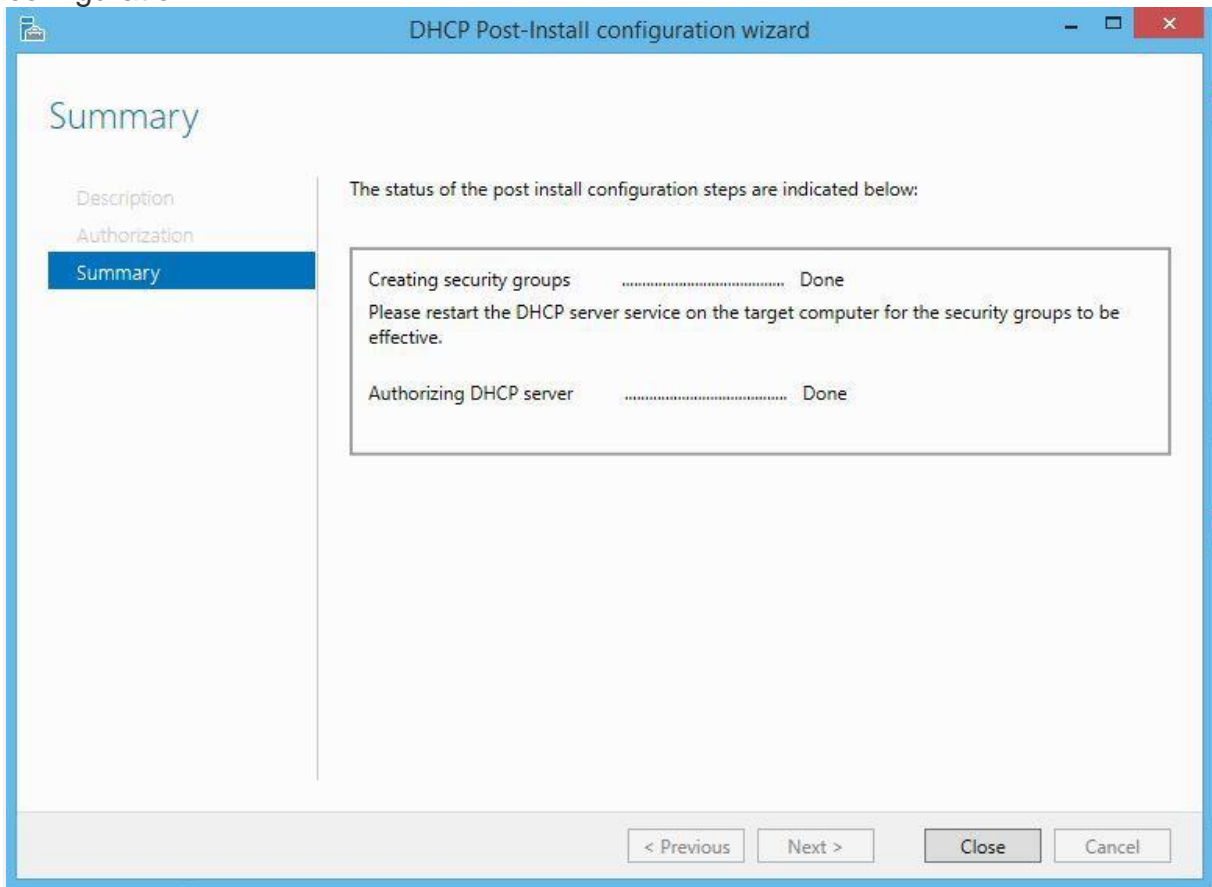
UserName:

☐ Skip AD authorization

< Previous Next > Commit Cancel

DHCP Authorization

Set the appropriate user for management of DHCP Server. Here I leave it by default, because the administrator (**Shais**) has the right privilege to perform DHCP Server configuration.

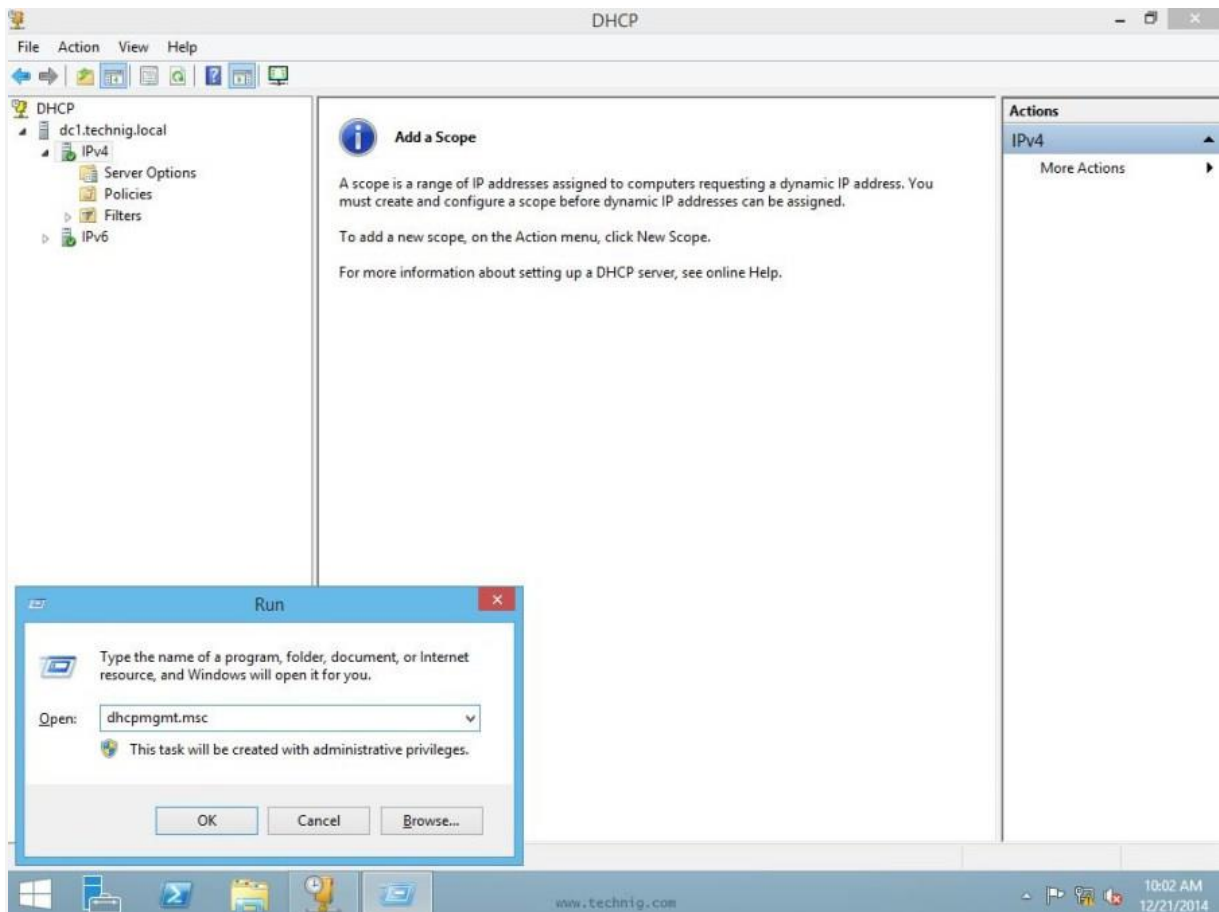


DHCP Summary

On the **DHCP summary** window click **Close** and close the DHCP Installation page also.

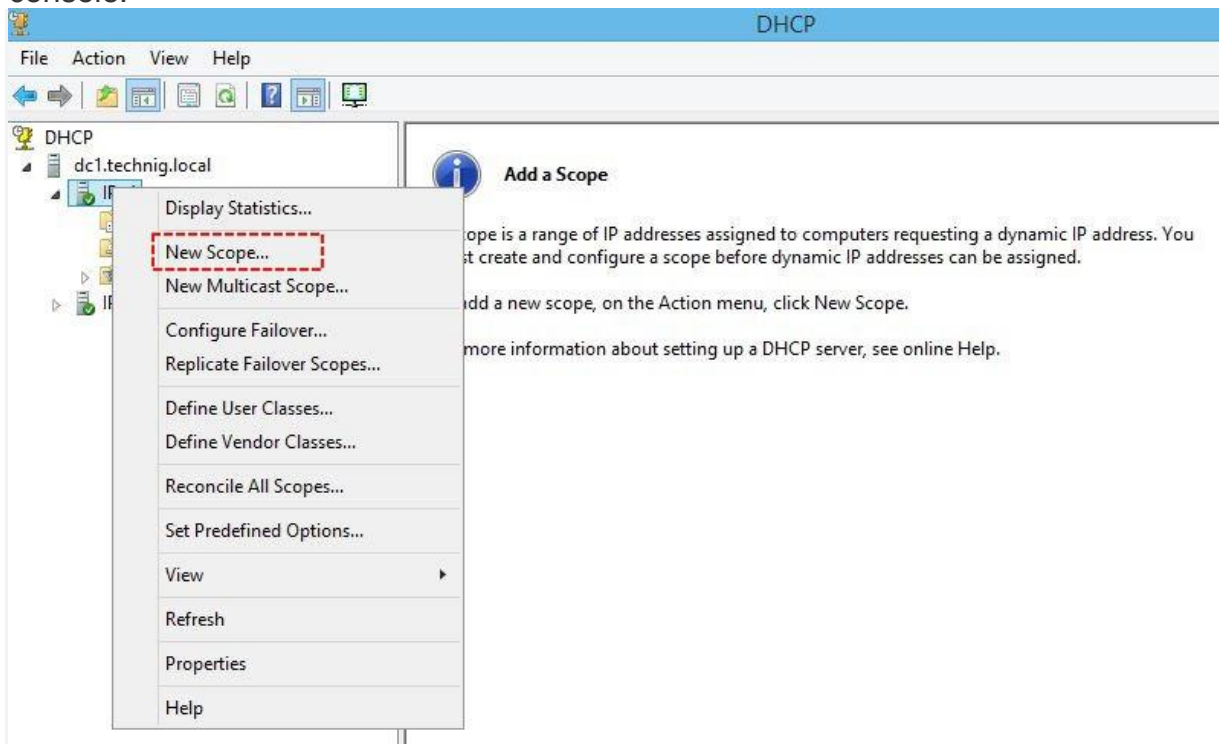
2. Configure DHCP Server and Create Scope

Now try to configure the installed dhcp server and create Scope to lease IP address for clients.



DCHP Management Console

Type **dhcpgmt.msc** in Windows Run and press **enter** to open DHCP management console.



Create New Scope

On DHCP console window expand the **domain name** and **IPv4**. Right click the **IPv4** the click **New Scope**.



Click **Next** on the **New Scope Wizard** page.

New Scope Wizard

Scope Name
You have to provide an identifying scope name. You also have the option of providing a description.

Type a name and description for this scope. This information helps you quickly identify how the scope is to be used on your network.

Name:

Description:

< Back Next > Cancel

Scope Name and Description

In the **Scope name** define the name of Scope and write any **description** then click**Next**.

New Scope Wizard

IP Address Range
You define the scope address range by identifying a set of consecutive IP addresses.

Configuration settings for DHCP Server

Enter the range of addresses that the scope distributes.

Start IP address:

End IP address:

Configuration settings that propagate to DHCP Client

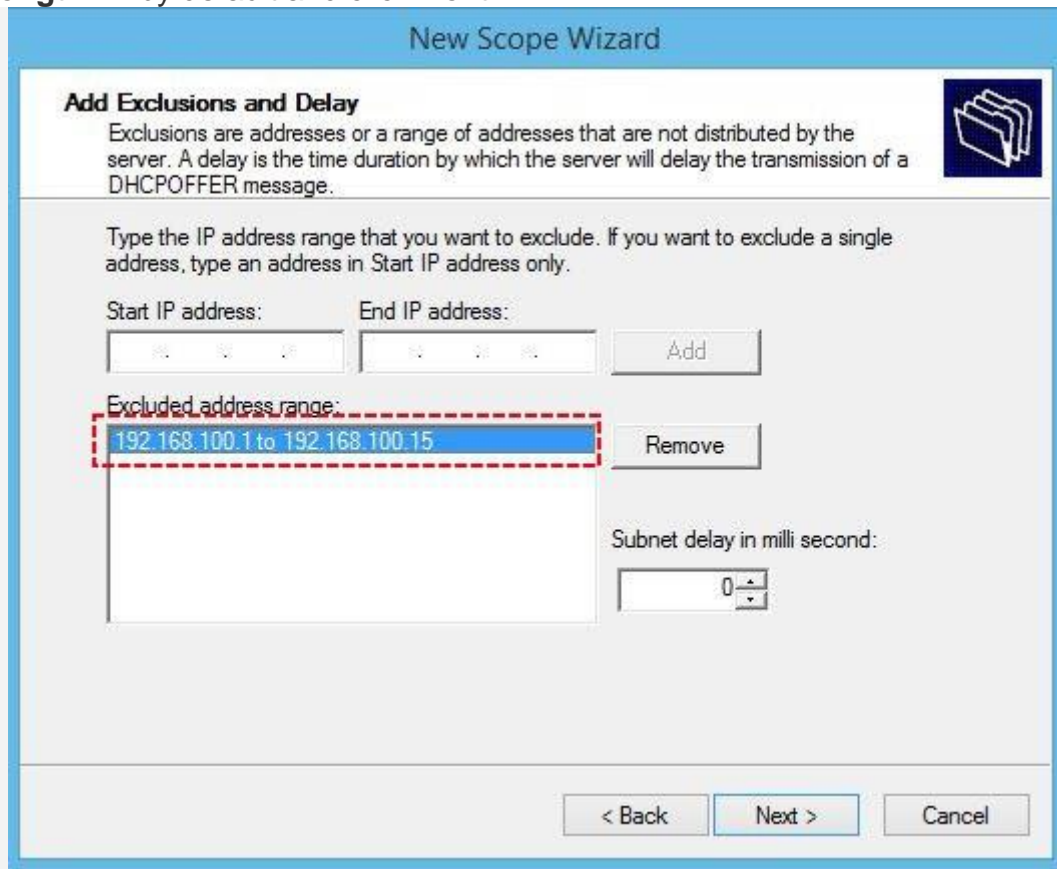
Length:

Subnet mask:

< Back Next > Cancel

IP Address Range

Assign the **start IP address** range and the **end IP address** range. I have set from **192.168.100.1** to **192.168.100.254** which is a class C IP address. Leave the **length** 24 by default and click **Next**.



The image shows a screenshot of the 'New Scope Wizard' window, specifically the 'Add Exclusions and Delay' step. The window has a blue title bar and a light blue border. Inside, there's a header section with the title 'Add Exclusions and Delay' and a folder icon. Below this, a text box explains that exclusions are addresses or ranges not distributed by the server and that a delay is the time duration for DHCP offer transmission. The main area contains two input fields for 'Start IP address' and 'End IP address', each with a small 'Add' button. Below these is a list of 'Excluded address range' with one entry, '192.168.100.1 to 192.168.100.15', which is highlighted in blue and enclosed in a red dashed box. To the right of this list is a 'Remove' button. At the bottom right, there's a 'Subnet delay in milli second' field with a spinner set to '0'. At the very bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Add Exclusion

Add the exclusive range prevent them from leasing to client by DHCP Server. The IP address range which reserved are used for Network Servers and popular workstation. Here I add **192.168.100.1** to **192.168.100.15**. Just set the **IP address** and click **Add** button then click **Next**.

New Scope Wizard

Lease Duration 

The lease duration specifies how long a client can use an IP address from this scope.

Lease durations should typically be equal to the average time the computer is connected to the same physical network. For mobile networks that consist mainly of portable computers or dial-up clients, shorter lease durations can be useful. Likewise, for a stable network that consists mainly of desktop computers at fixed locations, longer lease durations are more appropriate.

Set the duration for scope leases when distributed by this server.


Limited to:

Days: Hours: Minutes:

DHCP Lease Duration

Let the **Lease Duration** by default and click **Next**.

New Scope Wizard

Configure DHCP Options 

You have to configure the most common DHCP options before clients can use the scope.

When clients obtain an address, they are given DHCP options such as the IP addresses of routers (default gateways), DNS servers, and WINS settings for that scope.

The settings you select here are for this scope and override settings configured in the Server Options folder for this server.

Do you want to configure the DHCP options for this scope now?

☒

☐ No, I will configure these options later

Configure DHCP Options

Only click **Next** the **Configure DHCP Options** and **Yes, I want to configure this option now** must be checked.



The image shows a screenshot of the 'New Scope Wizard' window, specifically the 'Router (Default Gateway)' step. The window has a blue title bar and a light gray background. At the top, the title 'New Scope Wizard' is centered. Below it, the section 'Router (Default Gateway)' is highlighted in yellow. A subtitle reads: 'You can specify the routers, or default gateways, to be distributed by this scope.' To the right of this text is a small icon of a folder with a document. Below the subtitle, a message states: 'To add an IP address for a router used by clients, enter the address below.' Underneath this message, there is a label 'IP address:' followed by a text input field. The input field contains the IP address '192.168.100.254'. To the right of the input field is a list of buttons: 'Add', 'Remove', 'Up', and 'Down'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Router IP Address

If you have router in your network, set the router IP address and click **Add** button then click **Next**.

New Scope Wizard

Domain Name and DNS Servers

The Domain Name System (DNS) maps and translates domain names used by clients on your network.

You can specify the parent domain you want the client computers on your network to use for DNS name resolution.

Parent domain:

To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.

Server name:	IP address:	
<input type="text"/>	<input type="text" value="192.168.100.1"/>	<input type="button" value="Add"/>
<input type="button" value="Resolve"/>		<input type="button" value="Remove"/>
		<input type="button" value="Up"/>
		<input type="button" value="Down"/>

< Back Next > Cancel

Domain Name and DNS Server

Type your domain name and it's IP address then click **Next**.

New Scope Wizard

WINS Servers

Computers running Windows can use WINS servers to convert NetBIOS computer names to IP addresses.

Entering server IP addresses here enables Windows clients to query WINS before they use broadcasts to register and resolve NetBIOS names.

Server name:	IP address:	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
<input type="button" value="Resolve"/>		<input type="button" value="Remove"/>
		<input type="button" value="Up"/>
		<input type="button" value="Down"/>

To change this behavior for Windows DHCP clients modify option 046, WINS/NBT Node Type, in Scope Options.

< Back Next > Cancel

WINS Servers

Do nothing for **WINS Servers**, because we don't use WINS Server ether. Just click **Next**.



The image shows a Windows XP-style dialog box titled "New Scope Wizard". The main heading is "Activate Scope". Below it, a message states: "Clients can obtain address leases only if a scope is activated." In the top right corner, there is a small icon of a folder with a document. The main area of the dialog contains the question "Do you want to activate this scope now?" followed by two radio button options. The first option, "Yes, I want to activate this scope now", is selected. The second option is "No, I will activate this scope later". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel". The "Next >" button is highlighted with a blue border.

New Scope Wizard

Activate Scope
Clients can obtain address leases only if a scope is activated.

Do you want to activate this scope now?

☒ Yes, I want to activate this scope now

☐ No, I will activate this scope later

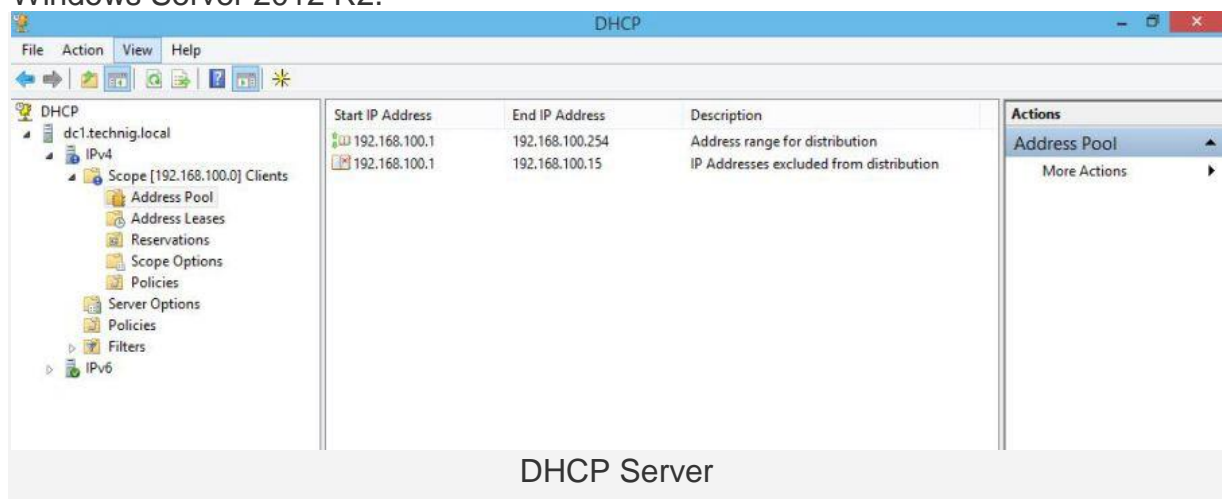
< Back Next > Cancel

Active Scope

In **Active Scope** windows click **Next**. Be sure the **Yes, I want to activate this scope now** must checked.



Finally click **Finish** to close and complete the installation of DHCP Server in Windows Server 2012 R2.



Now you can assign IP address to your network clients automatically trough this DHCP Server.

How to Install DHCP Server on Windows Server 2016?

If you don't like to read more details, just watch this simple lab manual to install and configure DHCP Server on your Windows Server.

