

# Install and configure Windows Server 2008 DHCP Server

Before you can use advanced DHCP services, you need to install and configure some basic issues. That is the content we will introduce in the article.

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**Network Administrator** - *Dynamic Host Configuration Protocol (DHCP) is a core infrastructure service on networks that provides IP addressing and DNS server information for clients and other devices. DHCP is used so that you do not have to assign static IP addresses for each device on the network besides managing the dynamic IP address creation problems. Increasingly, DHCP is expanded to accommodate new network services such as indows Health Service and Network Access Protection (NAP). However, before you can use its advanced services, you need to install and configure some basic issues. That is the content we will introduce in the article.*

## **Install Windows Server 2008 DHCP Server**

Installing Windows Server 2008 DHCP Server is easy. DHCP Server is currently a 'role' of Windows Server 2008 - not a separate component as before.

To install Windows Server 2008 DHCP Server, you need an installed Windows Server 2008 system and configured with a static IP address. You need to know the range of your network IP address, the range of IP addresses you want to use for clients, DNS server IP addresses and default ports. In addition, you also plan for all the relevant subnets, the scope you will define and what barriers to create.

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

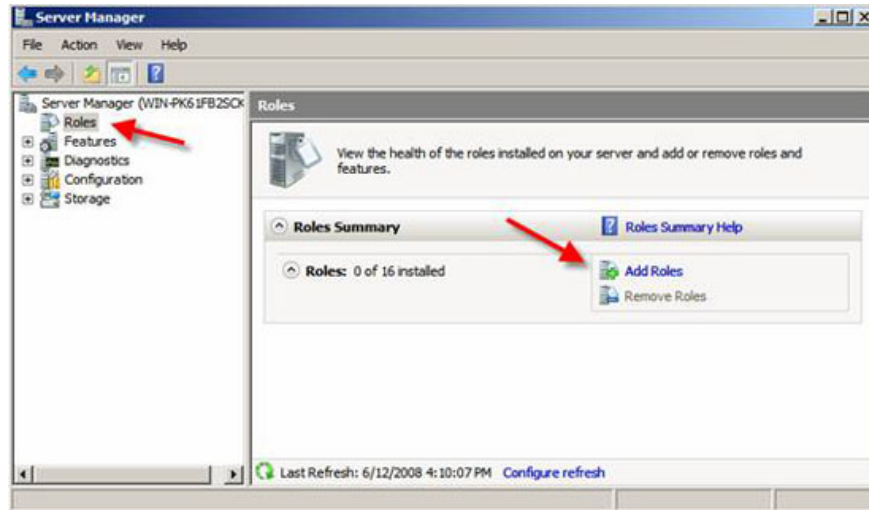


Figure 1: Adding a new Role in Windows Server 2008

When the **Add Roles Wizard** appears, click **Next** on that screen.

Next, select the desired component, **DHCP Server Role** , and then click **Next**.

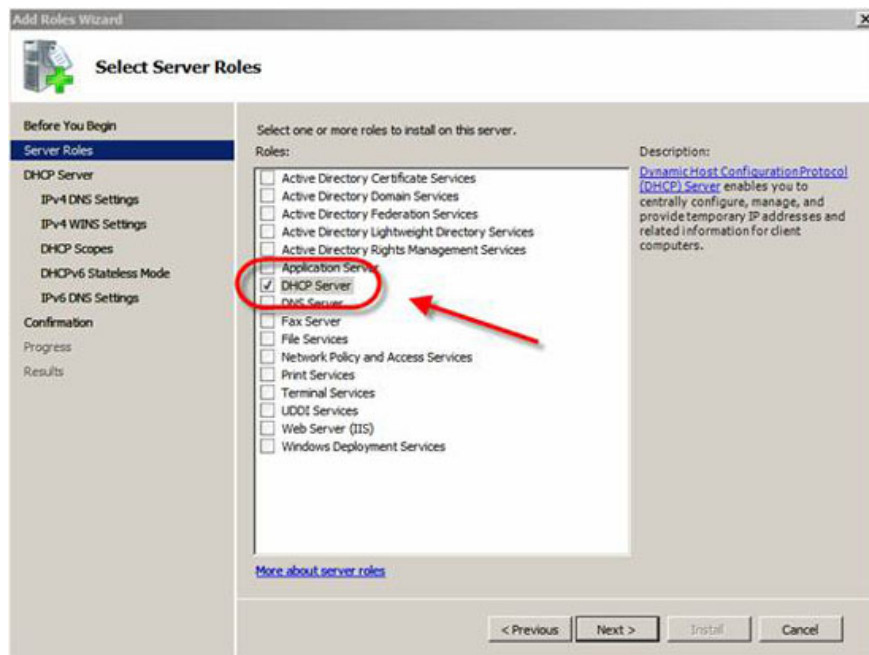


Figure 2: Select DHCP Server Role

If no static IP address is assigned on the server, you will get a warning, this alert informs you that you should not install DHCP with a dynamic IP address.

Here, you will be prompted for network IP information, range information and DNS information. If you only install the DHCP server without configuring the scope and settings, simply click **Next** through the questions

during the installation process.

On the other hand, you can also configure the DHCP Server option during this stage of the installation.

In our case, I chose to configure some basic IP settings and configure the first DHCP Scope.

We have shown our compelling network connection and have been asked to verify it, like below:

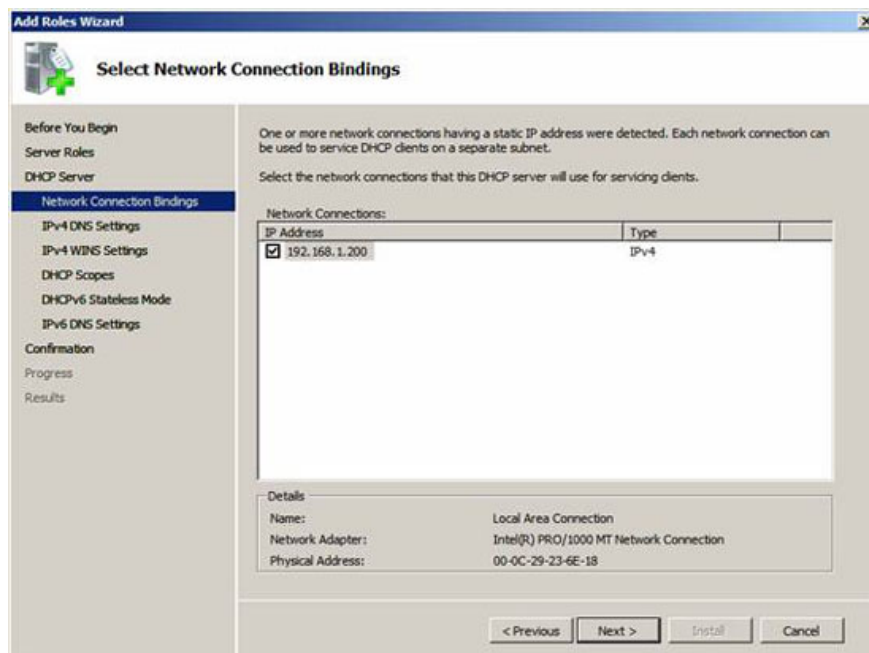


Figure 3: Tie the network connection

What this wizard asks is, 'what interface do you want to provide DHCP services on?' temporarily translated as 'what interface do you want to provide for DHCP services?' We have selected the default and clicked **Next**.

Next, enter the **Parent Domain** , **Primary DNS Server**, and **Alternate DNS Server** (see image below) and click **Next**.

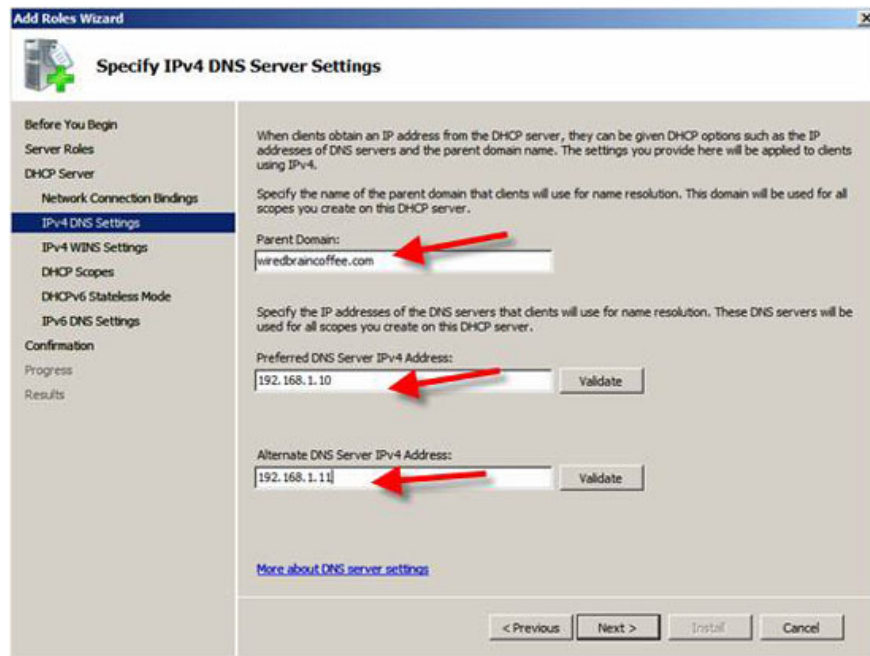
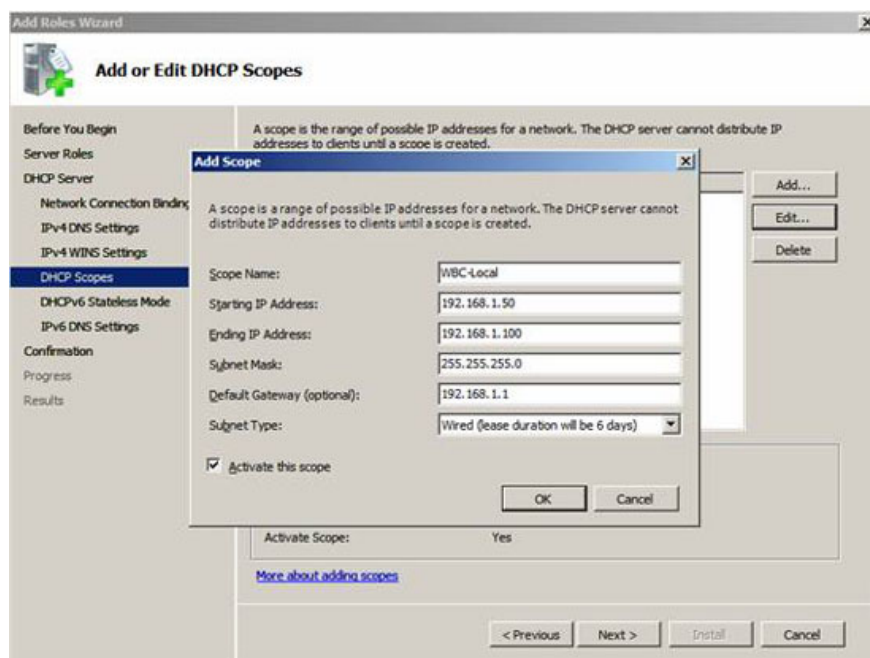


Figure 4: Entering domain and DNS information

We chose NOT to use WINS on our network and click **Next** .

We will then be upgraded to configure the DHCP scope for the new DHCP Server. Choose to configure the IP address range of 192.168.1.50-100 for more than 25 clients on our local network. To do that, you need to click **Add** to add a new scope. As you can see in the figure below, we have named Scope **WBC-Local**, configured the start and end IP address 192.168.1.50-192.168.1.100, the **subnet mask** is 255.255.255.0, **default The gateway** is 192.168.1.1, **subnet type** , and **activated** the scope.

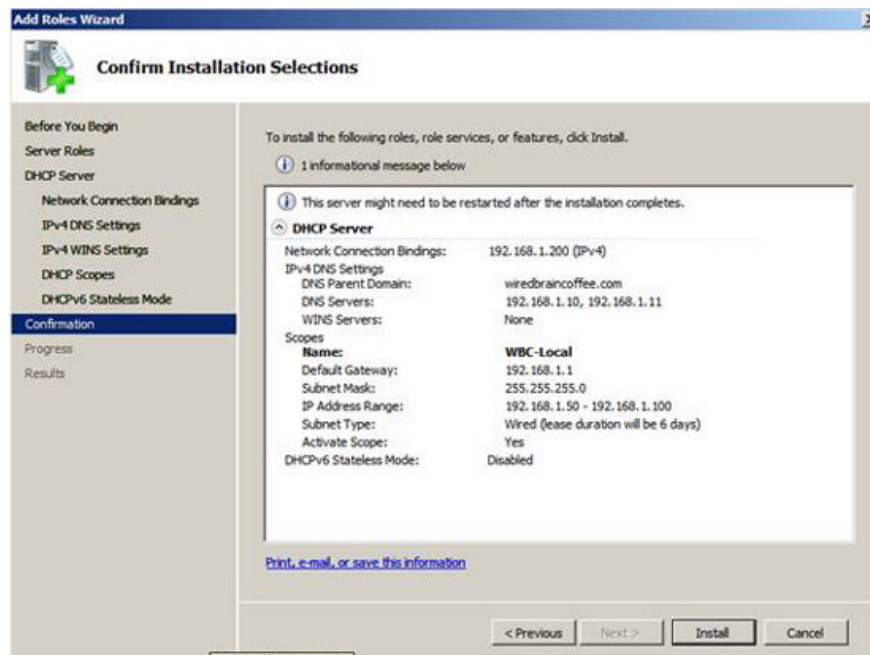


## Figure 5: Add a new DHCP Scope

Back in the Add Scope screen, we click Next to add a new scope (when the DHCP Server is installed).

Select **Disable DHCPv6 stateless mode** for this server and click **Next**.

Then confirm DHCP Installation Selections (on the screen below) and click **Install**.



## Figure 6: Confirm the install options

After a few seconds, the DHCP Server will be installed and we will see a window appear as shown below:

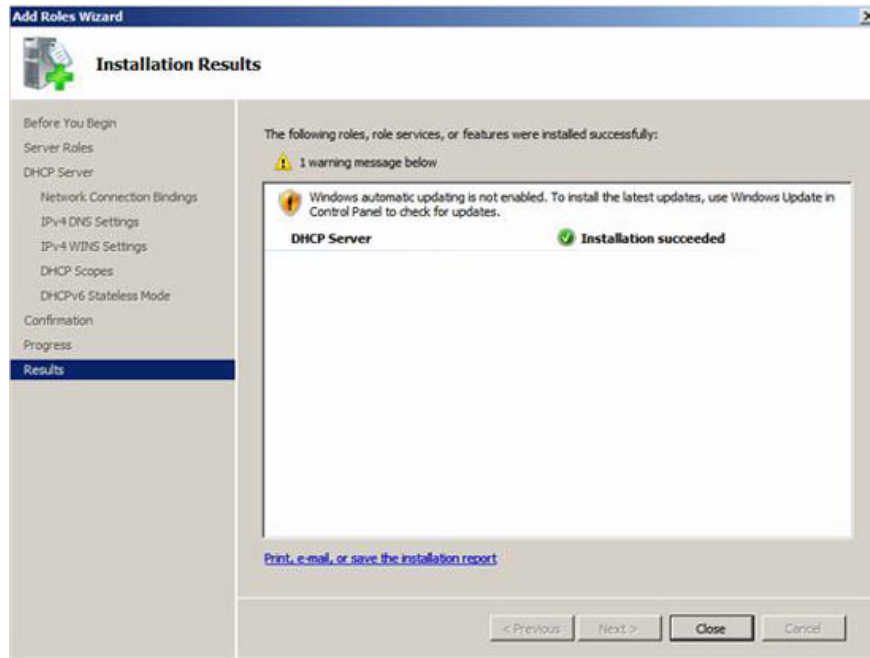


Figure 7: Successful installation of Windows Server 2008 DHCP Server

Click **Close** to close the installation window, then switch to how to manage the DHCP Server.

### **Manage the new Windows Server 2008 DHCP Server**

As with installation, managing Windows Server 2008 DHCP Server is also very simple. Going back to the Windows Server 2008 **Server Manager** , in **Roles** , click on the **DHCP Server** entry .

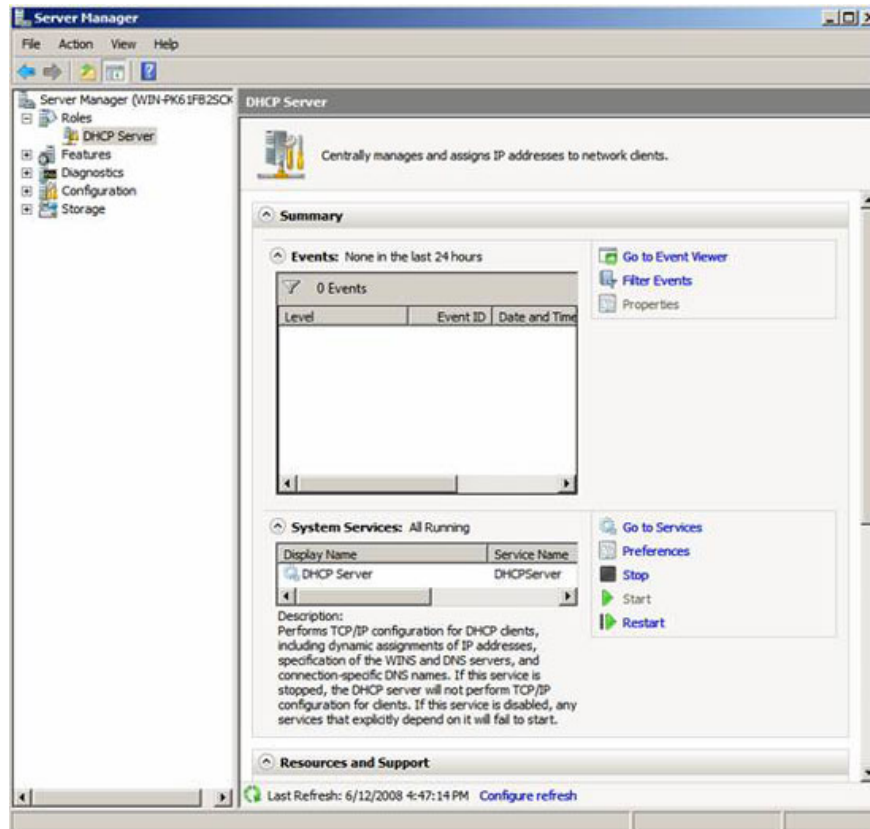


Figure 8: DHCP Server Manager in Server Manager

Because DHCP Server and client scopes cannot be managed here, what we can do is manage what events, services and resources are related to the DHCP Server installation. Therefore, this is a good place to check the status of the DHCP Server and what events happened around it.

However, to configure the DHCP Server and see which clients have obtained IP addresses, we need to enter the DHCP Server MMC. To do so, you need to go to **Start > Administrative Tools > DHCP Server**, like this:

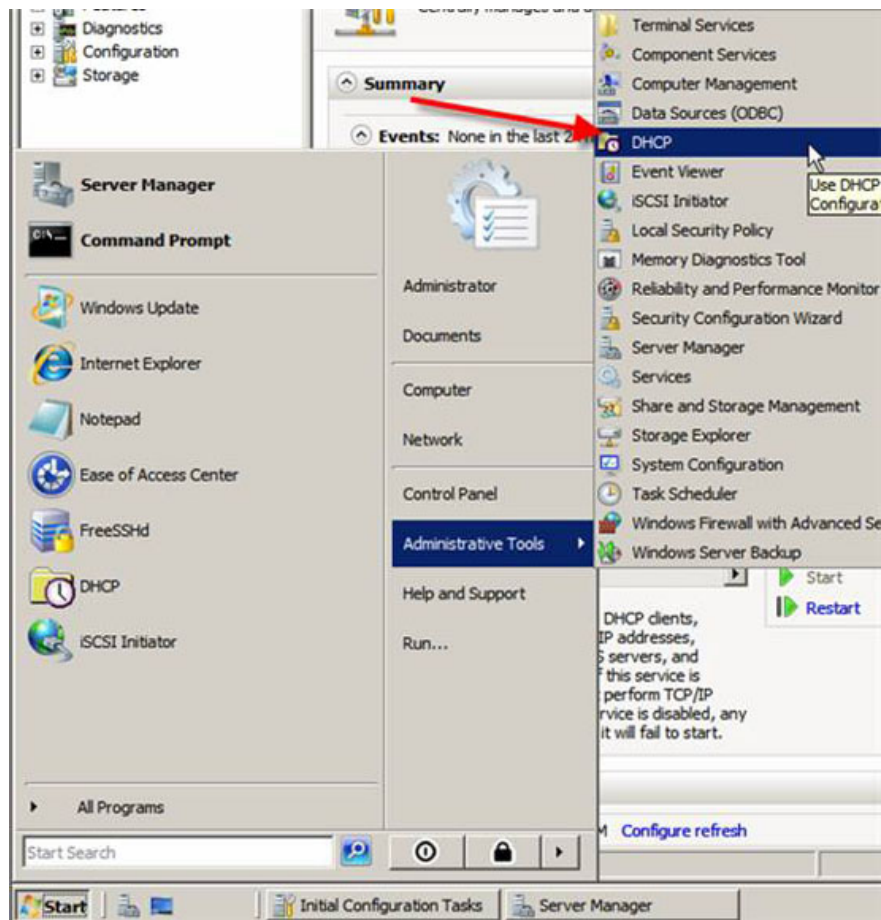


Figure 9: Starting the DHCP Server MMC

When launched, MMC will provide a lot of features. This is what when MMC appears:

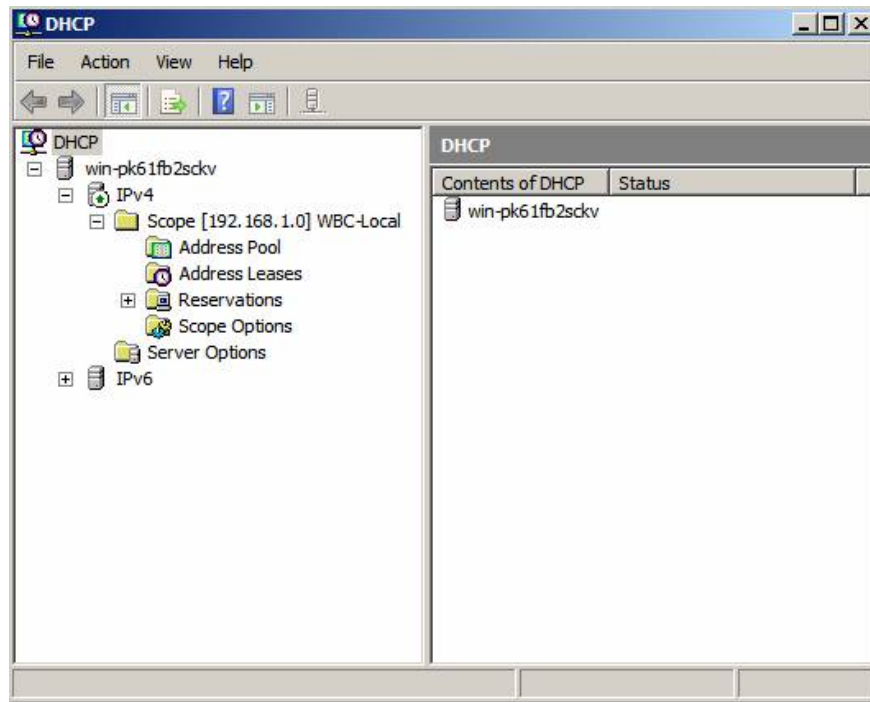


Figure 10: Windows Server 2008 DHCP Server MMC

DHCP Server MMC provides IPv4 & IPv6 DHCP Server information including all scope, pool, lease, reservation, scope options and server options.

If we go to the address pool and scope options, we can see the configuration we created when installing the DHCP Server. The IP address range is here and so is the DNS Server & default gateway.

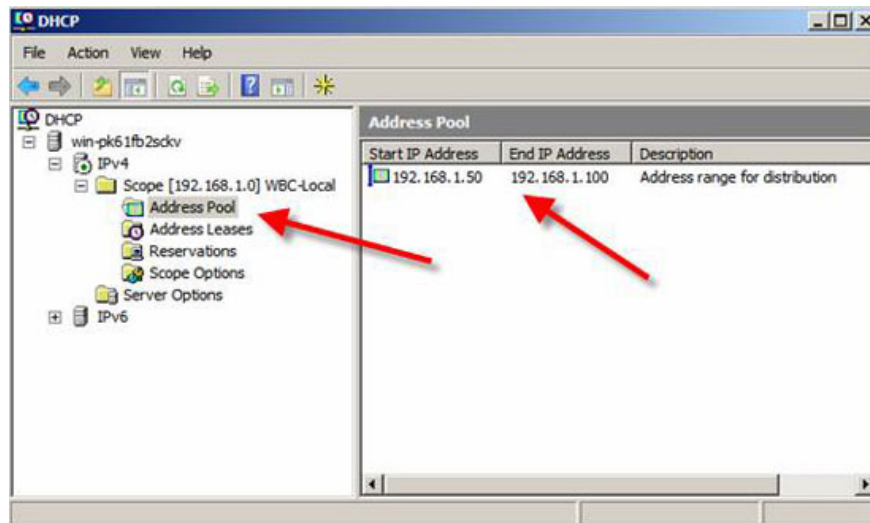


Figure 11: Address Pool of DHCP Server

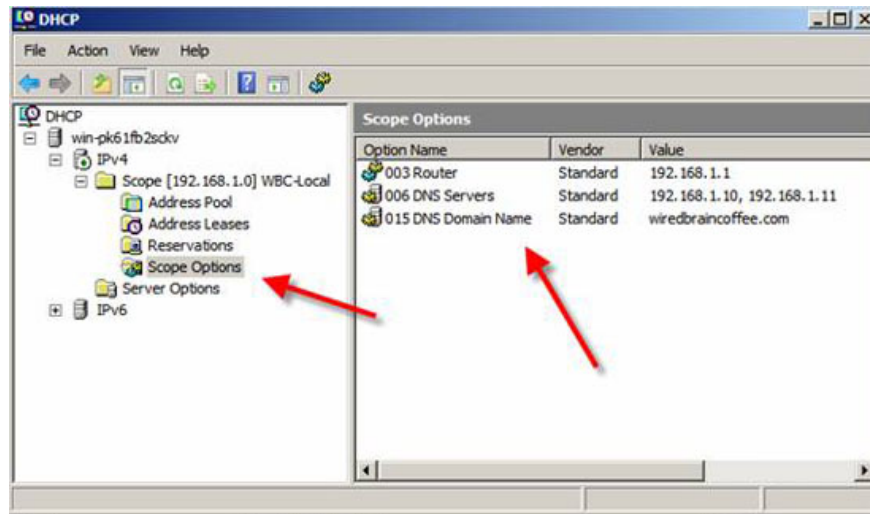


Figure 12: Scope Options of DHCP Server

So how do we know if the configurations work? To know that, we have to do a test.

### How to test Windows Server 2008 DHCP Server

To test it, we have a Windows Vista client on the same network segment as the Windows Server 2008 DHCP server. For safety purposes, we do not add other devices to this segment.

Using the **IPCONFIG / RELEASE** command and then **IPCONFIG / RENEW**, we verify that we have received an IP address from a new DHCP server, see the picture below:

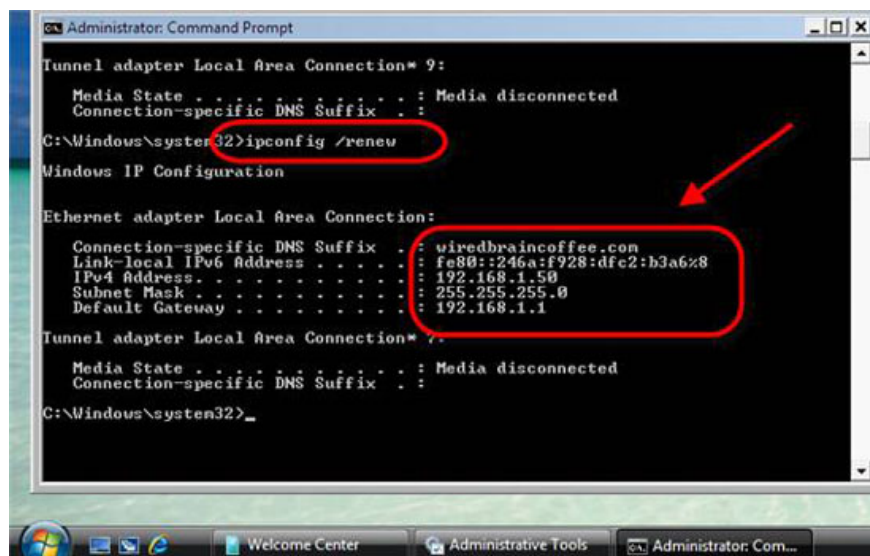


Figure 13: The Vista client has received the IP address from the new DHCP Server

Go to Windows 2008 Server to verify that the new Vista client is listed as a client in the DHCP server.

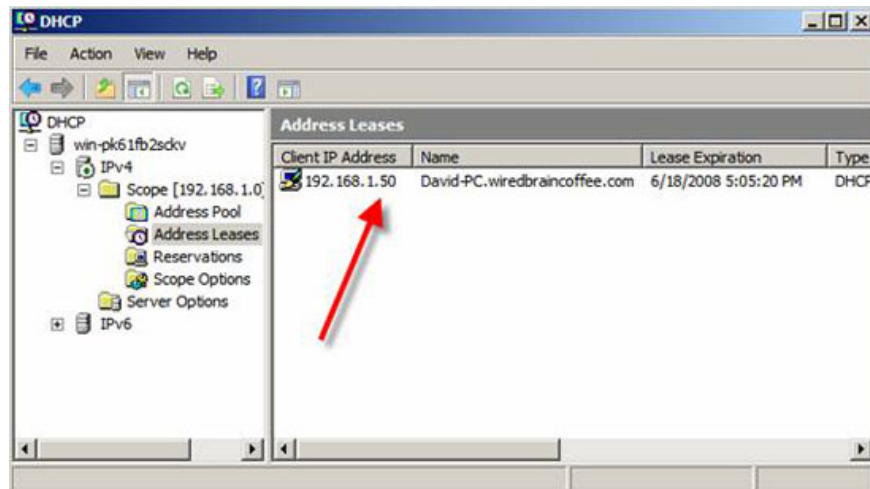


Figure 14: Win 2008 DHCP Server has Vista clients listed in Address Leases

With those expressions, we will know that our configuration task is complete and configure the settings to work well!

## Conclude

In this article, I have shown you how to install and configure a DHCP Server in Windows Server 2008. During the installation process, I showed you what a DHCP Server is, how it is. can help you as well as how to install and manage it and the server, how to configure specific DHCP server settings like DHCP Server scopes. At the end, we tested the configuration mail that was done as in the post and it worked perfectly.

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