



# ANTAMEDIA **HOTSPOT**





## **Antamedia HotSpot**

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Antamedia HotSpot is gateway software which helps you in controlling and billing your customers for the Internet usage. It is suitable for all the purposes where a customer should be prompted to type the username and the password to get the Internet access. Software includes billing, statistics and reporting with many other useful features. It is hardware independent and you can use any type of access points, routers, switches and other equipment to control your WiFi, WiMax, LAN, Cable, DSL, Satellite and other type of network connections.

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# 1 Introduction

## 1.1 What is Antamedia HotSpot ?

**Antamedia HotSpot** is gateway software which helps you in controlling and billing your customers for the Internet usage. Antamedia HotSpot does not require any Client software installations. It uses captive portal technology to show login page in customer browser. Upon connecting to your network (using wireless cards or UTP cable), customer will be prompted to enter valid username and password to get Internet access. After successful login, your customer will see the remaining time and bandwidth quota, expiration date and other relevant info. HotSpot keeps track of customer account and shows warning message when the account is due to expire, helping a customer to refill the account and continue using your service without interruption.

Software includes billing, statistics and reporting with many useful features. It is hardware independent and you can use any type of access points, routers, switches and other equipment to control your WiFi, WiMax, LAN, Cable, DSL, Satellite and other type of network connections.

## 1.2 Requirements

In order to control wireless users, Hotspot software has to be set up on a gateway computer in your network. For minimal Hotspot configuration you need 3 devices:

- Hotspot gateway PC
- Internet modem/router
- Wi-fi device for providing access to users (wi-fi router or access point)

**System requirements** for Hotspot gateway PC:

We strongly encourage you to install HotSpot on SSD drive because it can significantly improve software performance.

**CPU:** 2 gigahertz (GHz) or faster 64-bit (x64) processor

**RAM:** 4 gigabyte (GB)

**NIC:** 2 network interface cards, for maximum performance we recommend using Intel PRO/1000 (EXPI9400PTBLK) network adapters

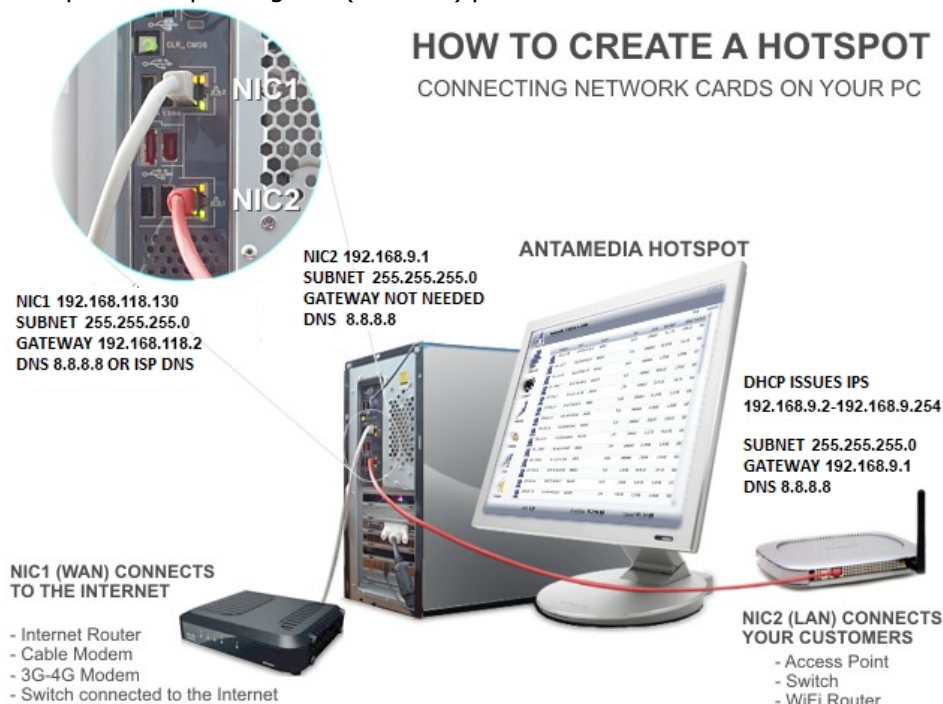
**OS:** Windows Server 2003, Server 2008, Server 2012, XP, Vista, Windows 7, Windows 8.1, Windows 10

Most modern computers have one network card built in, the other one you will need to purchase and install to computer's PCI slot.

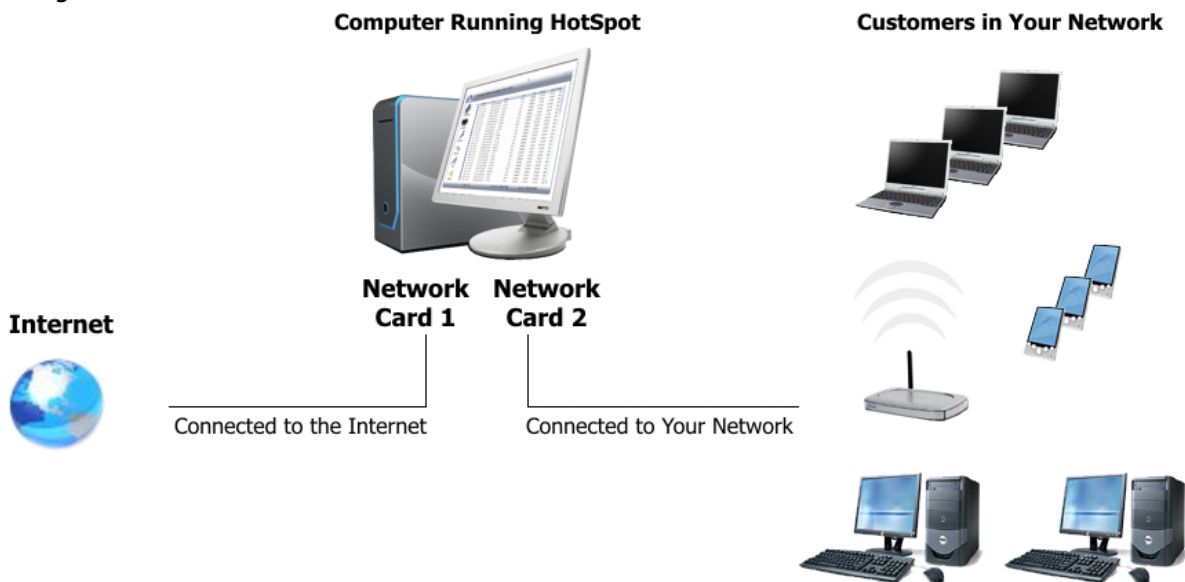




Please connect one network card to the Internet router and other one to wi-fi device that your customers will use to access Hotspot. If you plan to use a wi-fi router to provide access for customers, please connect it to Hotspot server pc using LAN (not WAN) port.



Note that 2 network cards on the Hotspot server cannot be bridged, the Hotspot (Internal) network has to operate in different IP range than External network. Please refer to the diagrams for the example IP settings.



## 1.3 How Can It Help You ?

### **Become Internet Service Provider**

Antamedia HotSpot has advanced architecture which allows both simple and very large networks. You can start offering WiFi services and grow slowly by adding new access points, connect different city areas, one step a time. However, HotSpot can be used to control wide area networks, cities, making you a Internet Service Provider. You can easily integrate several separate HotSpot networks in one large network, where all accounts are served from central database (included free of charge). Your customers will be able to connect to any HotSpot with their account.

### **Create Paid or Free WiFi HotSpot**

Antamedia WiFi HotSpot software helps you to create free or paid WiFi HotSpot. Advantage of our solution is very high customization of user accounts which allows creating limited or unlimited accounts. Among classic features like time and bandwidth quota limits, you can configure daily time limit, number of daily logins, number of simultaneous logins with aggregation, usage schedule (happy hour, nighttime, daytime, weekends ...), which is very practical when offering free WiFi Internet. In addition, it's very easy to offer paid Internet access with higher speeds, quota or unlimited daily or monthly access.

### **Offer WiFi Services in Your Hotel, Coffee Shop, Restaurant**

Offering high-speed wireless Internet services in one hotel will only help you increase occupancy and improve tenant and guest satisfaction. Furthermore, it will also represent additional source of revenue for your business. With the use of Antamedia WiFi HotSpot software in your WiFi Hotel, you will be able to:

- control and monitor access to the Internet for all computers, both wired and wireless in your guest rooms
- provide reliable wireless Internet access in your restaurant, lobby and conference rooms, which makes it ideal for seminars and meetings
- maintain secure access to the Internet resources outside the hotel, like on golf courses or by the hotel pools.

### **Serve Walk-in Laptop Customers in Your Cyber Cafe**

If you run an Internet Café or Gaming Center, a great profit booster can be a wireless network. Many people use their own laptop for everyday job or on vacation to stay in touch with their family and friends. Even in non-working hours of your primary business, your customers will be able to use your services and generate profit. Best of all, it is automated, there are no maintenance fee for computers, licenses for software and OS. Your cafe, showing your WiFi logo, will be more professional and will differentiate you in high cybercafe competition.

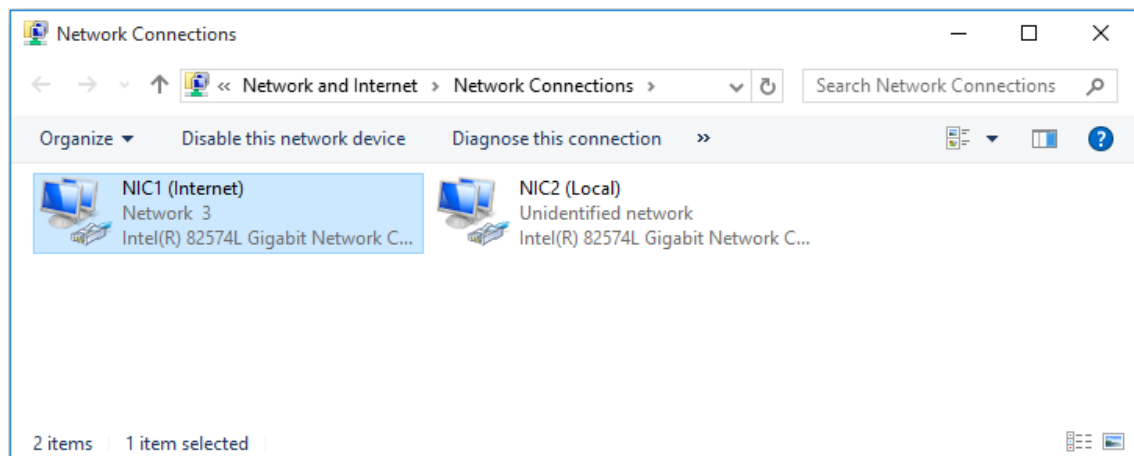
### **Can be used in Various Locations**

Flexible architecture makes it suitable for different locations like Airports, Cruise Ships, Train Stations, Motels... Customers can sign-in online and pay using credit card or tickets can be printed in advance and sold by front desk staff, receptionist, bartender, cybercafe operator, or by a vending machine. In case of credit card payment, the amount is collected from customer by your Credit Card processing company and stored to your merchant account. A payment gateway company transfers collected money to your bank account usually at the end of the month. Antamedia does not collect any fees. Full revenue goes to you.

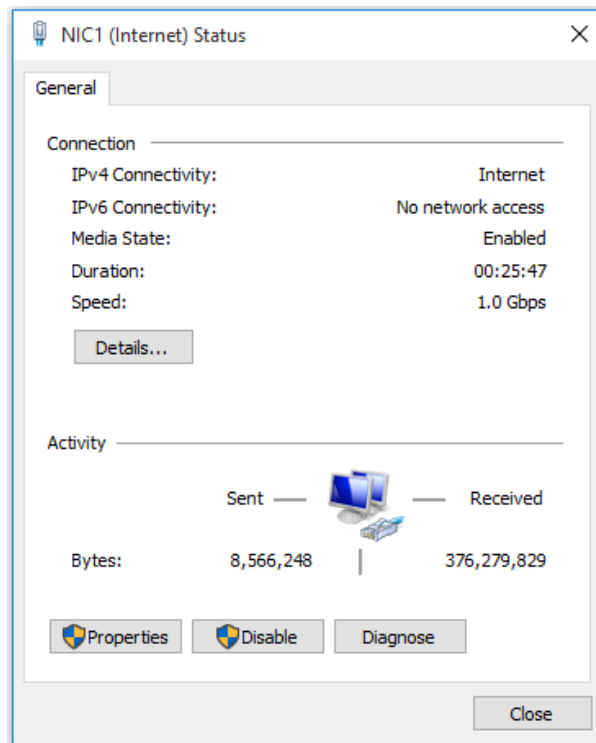
## 2 Pre-installation steps

Before installing Antamedia HotSpot software, please ensure that following conditions are met:

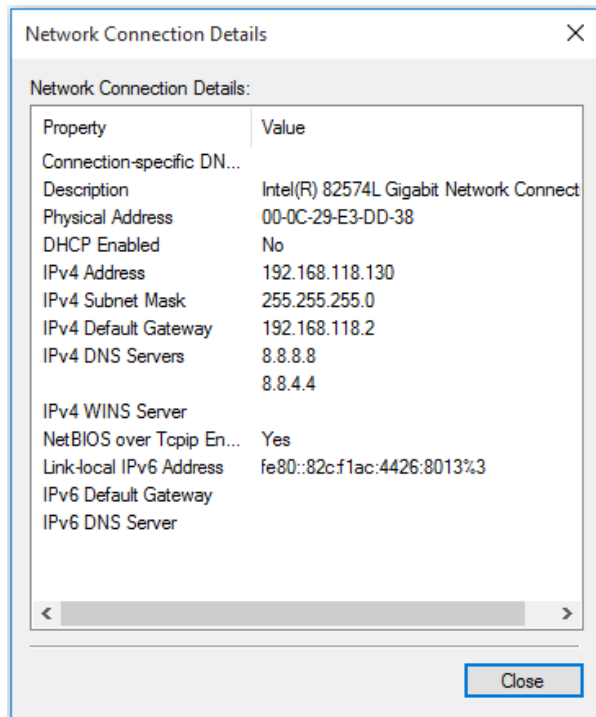
- ✓ Windows account on which software will be installed and used must has **administrative** privileges.
- ✓ Windows **User Account Control** is set to Never Notify level.
  - Go to Windows Control Panel – User Accounts screen
  - Click on Change User Account Control settings link
  - Move the slider to Never Notify level and click OK
  - Restart the computer to apply changes
- ✓ Windows **Smart Screen** is turned off.
  - Go to Windows Control Panel - Security and Maintenance screen.
  - Click on Change Windows Smart Screen settings
  - In new window select "Don't do anything (turn off Windows Smart Screen)" and press on OK
  - Restart the computer to apply changes
- ✓ Windows **Defender exclusions** are set.
  - Go to Windows Control Panel - Windows Defender and click on Settings.
  - Exclusion section press on "Add an exclusion" to exclude C:\Antamedia folder.
  - Restart the computer to apply changes
- ✓ **Static IP address** is configured **on NIC1**, the network card connected to the Internet router/modem.
  - It is recommended to set same IP address that is already assigned dynamically by router.
  - To see which IP NIC1 has currently assigned, go to Windows Control Panel - Network and Sharing Center screen
  - Click on Change adapter settings link and double click on the NIC1 (Internet) network adapter



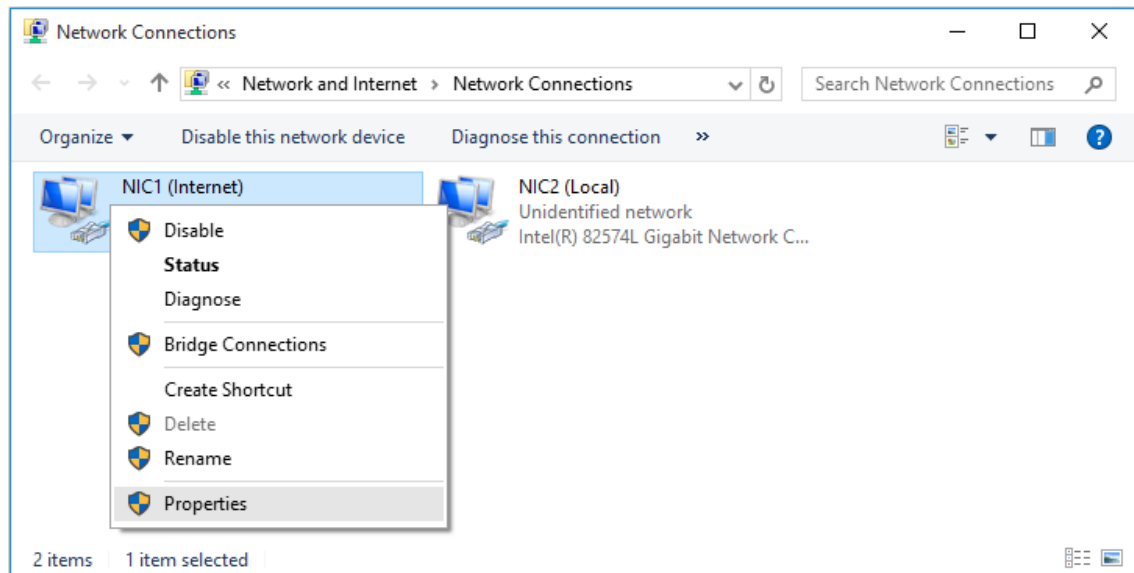
- From General tab press on Details button.



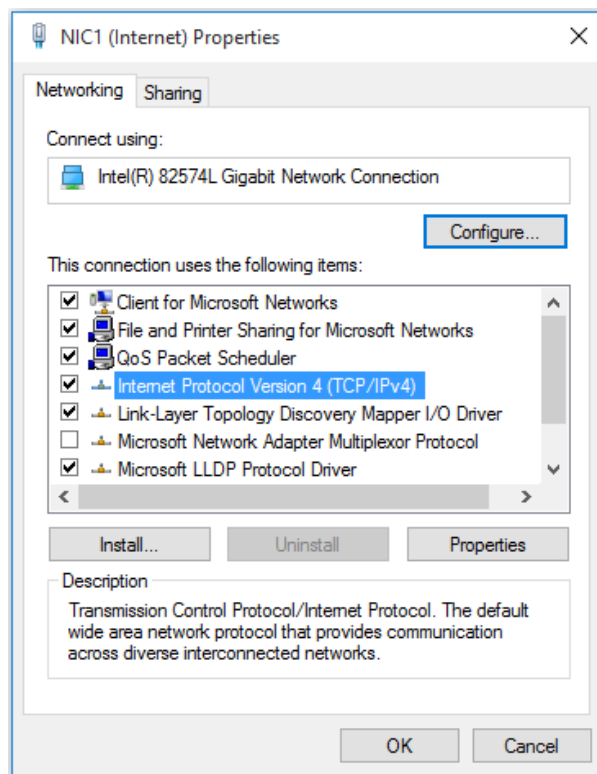
- Here you will see all current network connection details that you need to set as static



- After that go to Windows Control Panel – Network and Sharing Center screen.
- Click on Change adapter settings link.
- Right-click on NIC1 (Internet) and select Properties from menu.

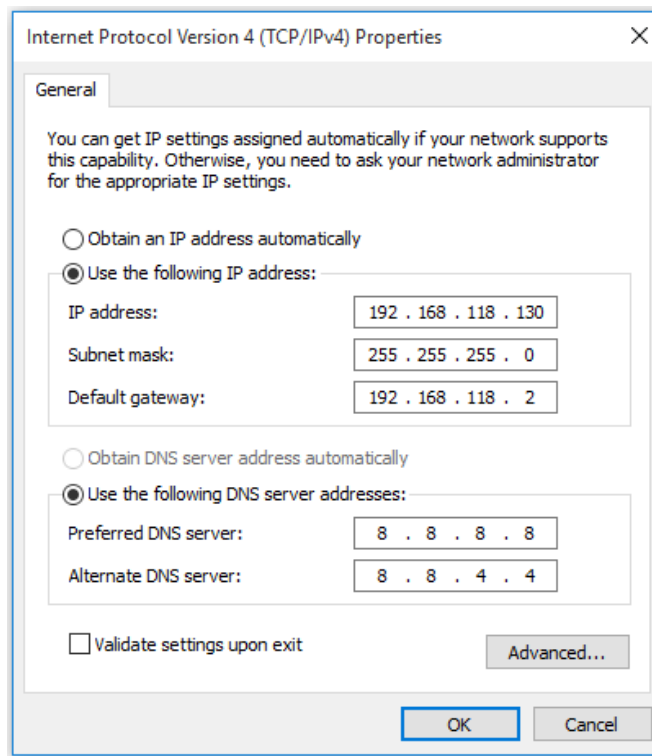


- Select Internet Protocol Version 4 (TCP/IPv4) and click Properties button.





- Click Use the following IP address radio button and enter details that you get from ipconfig previously



- Enter IP address (e.g. 192.168.118.130)
- Click in Subnet Mask field, value will be set automatically based on IP address, be sure that is same as in Network Connection Details
- IP address of the default gateway (IP of the Internet router).
- Enter DNS addresses, it is recommended to use DNS addresses of your ISP or public DNS service such as Google (8.8.8.8, 8.8.4.4).
- Click OK and close all dialog windows

✓ **Static IP address** is configured on **NIC2**, the network card connected to your internal network.

Please note that for this card you need to configure IP address (e.g. 192.168.9.1) and subnet mask (e.g. 255.255.255.0) but not Gateway IP

✓ **Note:** that Internet modem/router cannot be used as DHCP server for your local network clients.

DHCP server must be configured only for the local network.

You can configure Windows built in DHCP Server or to set it from your Wi-Fi router/access point used for communication with clients.

✓ There are no applications running on gateway PC that are using port 78, 80, 81, 82, 443, 463, 614, 12010, 1700, 1812, 1813 (IIS, proxy software).

✓ Windows 7, Windows 8.1 and Windows 10 DHCP Server can not provide more than 253 IP addresses for local network.

- ✓ If you want to use more than 253 addresses you can set it from Windows Server 2003, Windows Server 2008 or Windows Server 2012 DHCP Server role.

Also, you will need to set subnet mask which will give you this ability. Be sure that you prepare all network devices on local network to use same subnet mask. Bellow are some of examples

IP range (network - broadcast)	Subnet Mask	IP Quantity
192.168.137.0 - 192.168.137.255	255.255.255.0	256
192.168.136.0 - 192.168.137.255	255.255.254.0	512
192.168.136.0 - 192.168.139.255	255.255.252.0	1024
192.168.136.0 - 192.168.143.255	255.255.248.0	2048
192.168.128.0 - 192.168.143.255	255.255.240.0	4096
192.168.128.0 - 192.168.159.255	255.255.224.0	8192
192.168.128.0 - 192.168.191.255	255.255.192.0	16384
192.168.128.0 - 192.168.255.255	255.255.128.0	32768
192.168.0.0 - 192.168.255.255	255.255.0.0	65536

### 3 Windows 7, 8.1 and 10

Antamedia software can be set on any Windows OS. Here will be given instructions for configuration of Windows Connection Sharing that apply to Windows 7, Windows 8.1 and Windows 10.

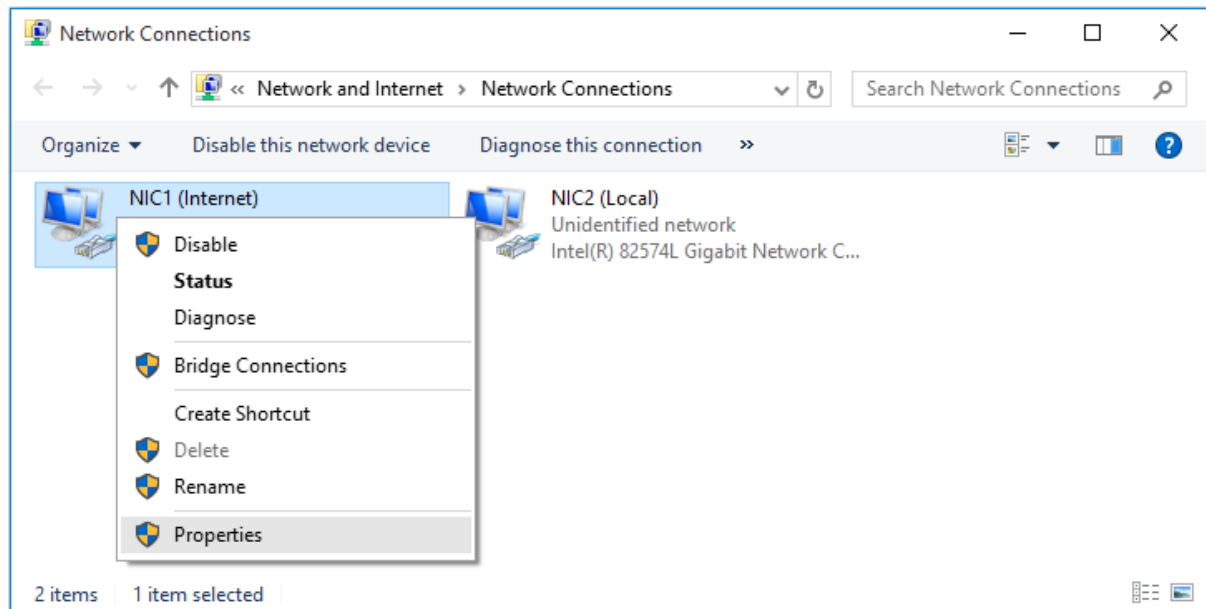
To set up properly Antamedia HotSpot on any of those Windows OS, please follow these steps:

1. Complete [pre-installation steps](#)
2. Set computer as gateway on network using Windows Connection Sharing or HotSpot NAT
3. Install and configure HotSpot software

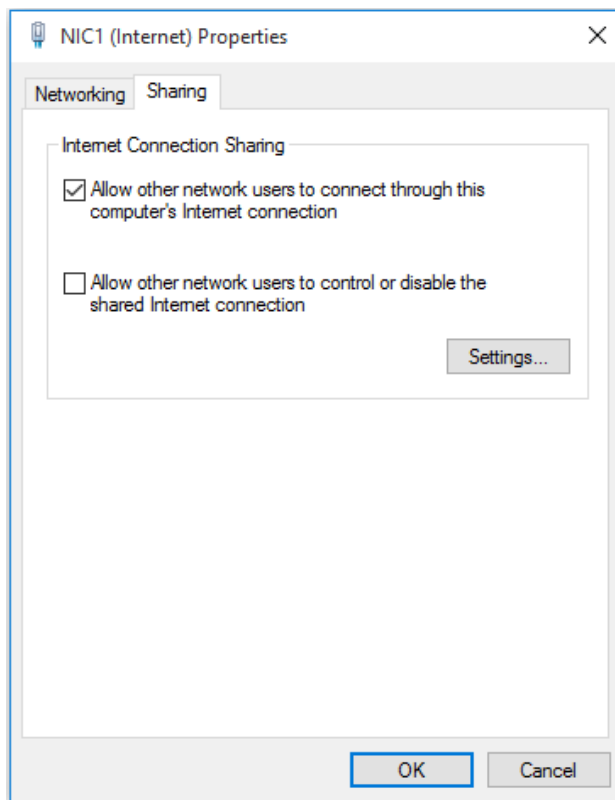
#### 3.1 Windows Connection Sharing with DHCP

Please follow these steps to configure computer as gateway on network using Windows Connection Sharing on Windows 7, Windows 8.1 and Windows 10:

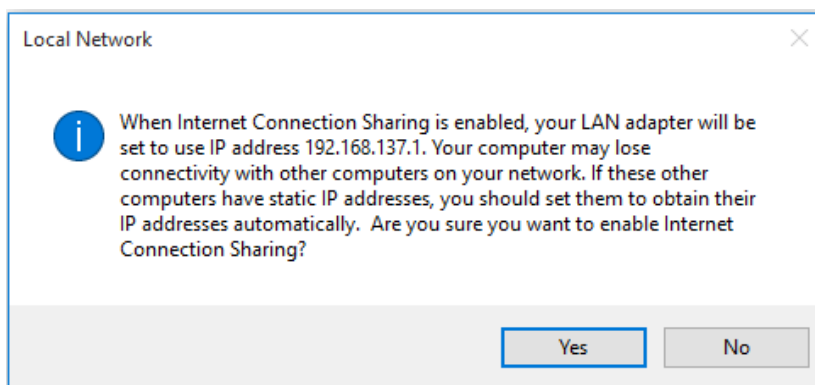
1. Go to Windows **Control Panel – Network and Sharing Center** screen.
2. Click on Change adapter settings link. **Right-click** on **NIC1 (Internet)** and select **Properties** from menu



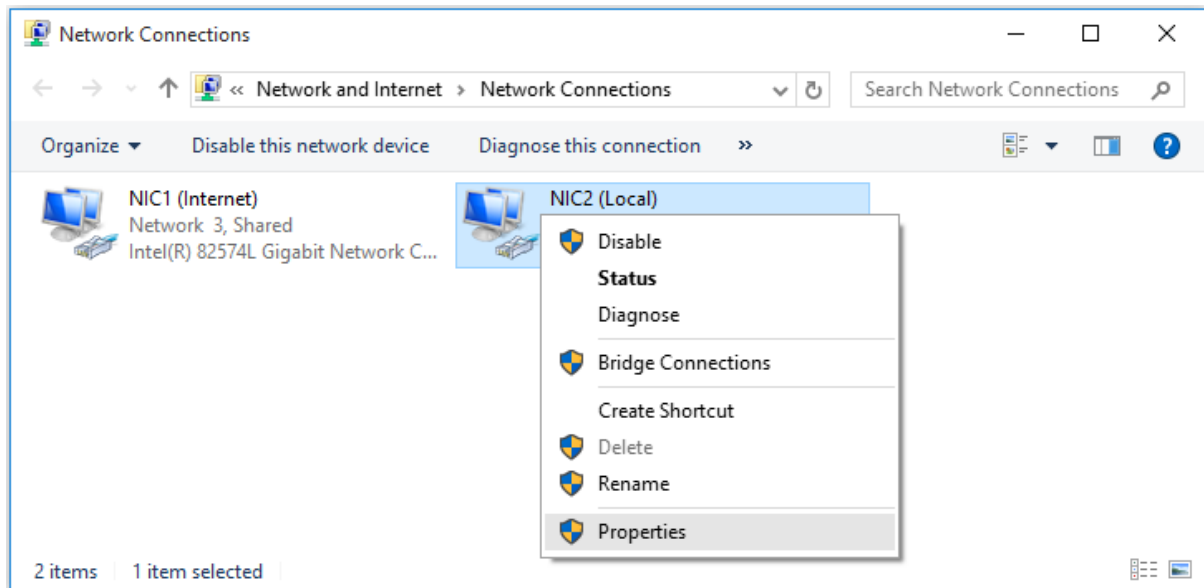
3. From **Properties** menu go to **Sharing** tab.



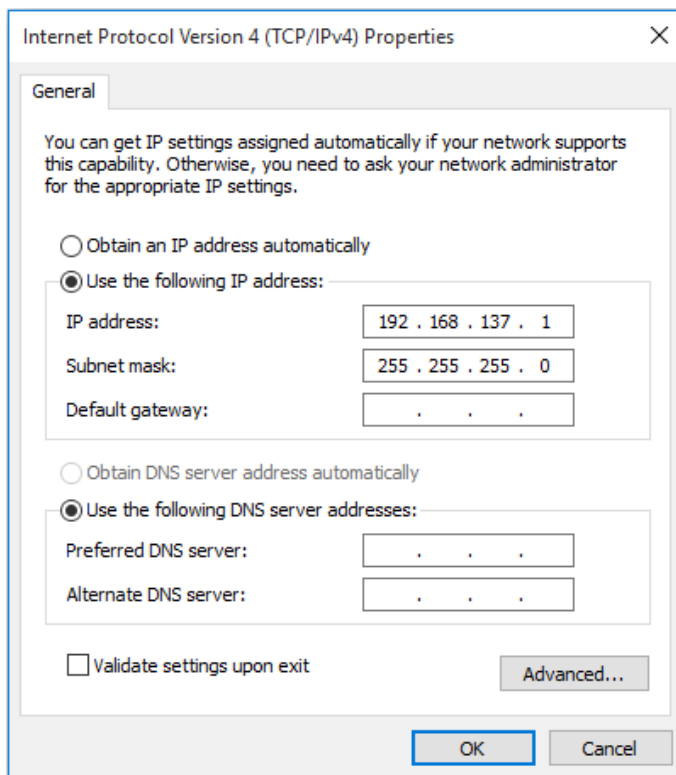
4. Select only first option "**Allow other network users to connect through this computer's Internet connection**" and press on **OK**.
5. Windows will give **Local Network** pop-up window with notification what actually is set and what you can expect. Here you need to press on **Yes**.



6. After that your **NIC2 (Local)** network adapter will have static IP address set to **Windows default values, 192.168.137.1** and subnet mask **255.255.255.0**.  
Windows DHCP Server is activated and DHCP leases are given in 192.168.137.x range
7. You can check **NIC2 (Local)** network adapter settings. Make Right-click menu on **NIC2 (Local)** and go to **Properties**.



8. From NIC2 (Local) network adapter Properties find **Internet Protocol Version 4 (TCP/IPv4)** select it and press on **Properties** button.
9. From New window you will see current configuration for **NIC2 (Local)** network adapter.





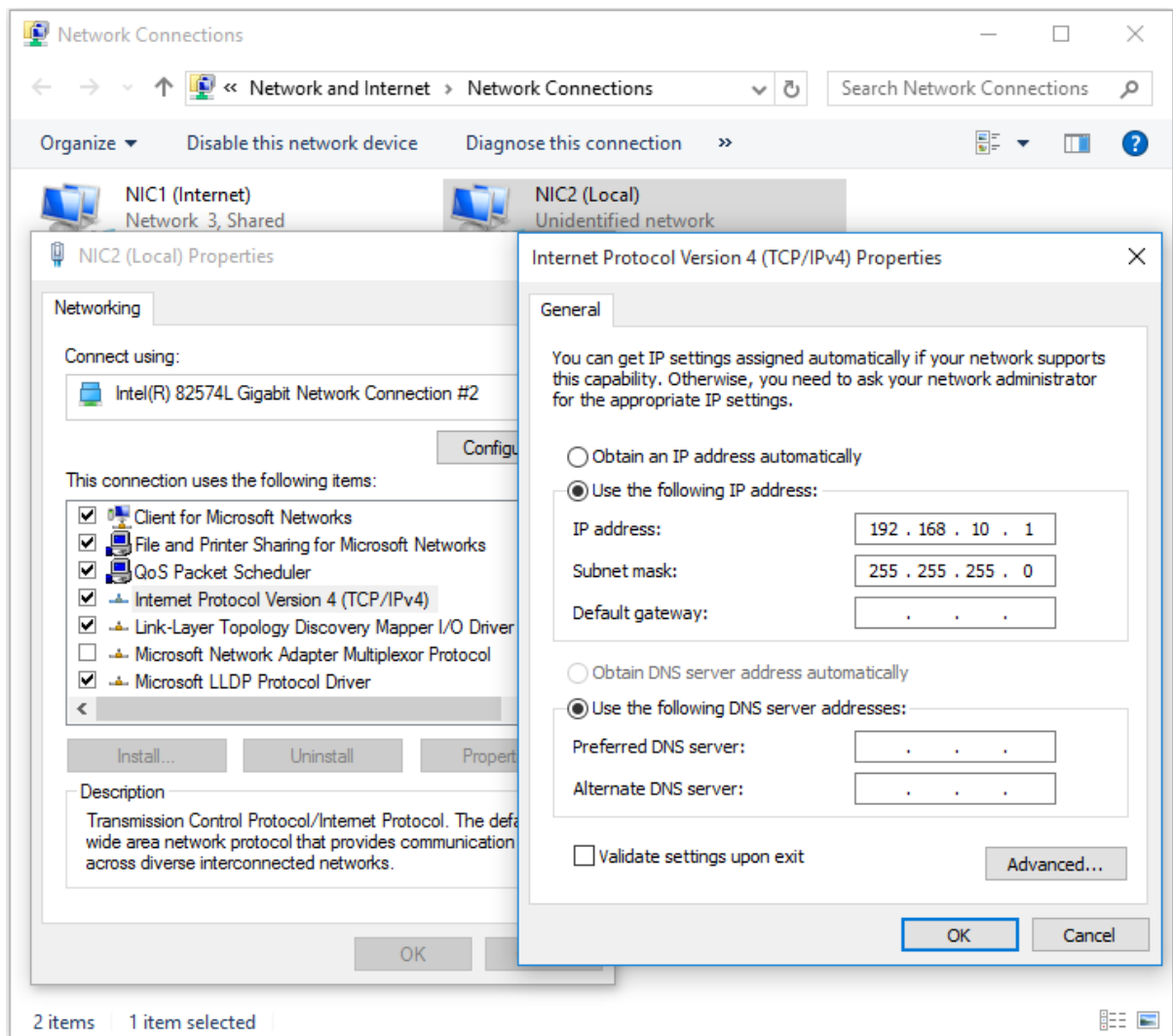
### 3.2 Disabling of Windows DHCP

Windows DHCP Server is enabled by default when Windows Connection sharing is activated on **NIC1 (Internet)** network adapter.

Only one DHCP Server can be used on local network. If you plan to use DHCP Server from your Router/ Access Point for local computers on network, you will need to disable Windows DHCP Server first.

Disabling of Windows DHCP Server which is activated with Windows Connection Sharing can be done easy.

All you need to do is to change **NIC2 (Local)** network adapter IP address to some other IP address. Here is example where instead of default Windows IP address **192.168.137.1** and subnet mask **255.255.255.0** is set IP address **192.168.10.1** with Subnet mask **255.255.255.0**



Client computers now don't receive DHCP leases from Windows on gateway computer. DHCP Server should be set and configured from the Router/Access Point on local network.

## 4 Windows Server 2003

Antamedia software can be set on Windows Server 2003 the same way as on Windows 7, Windows 8.1 or Windows 10. However, for medium to large sized networks (more than 200 users), we recommend using Windows Server's DHCP service to provide IP addressing and Windows Routing and Remote Access to share the connection.

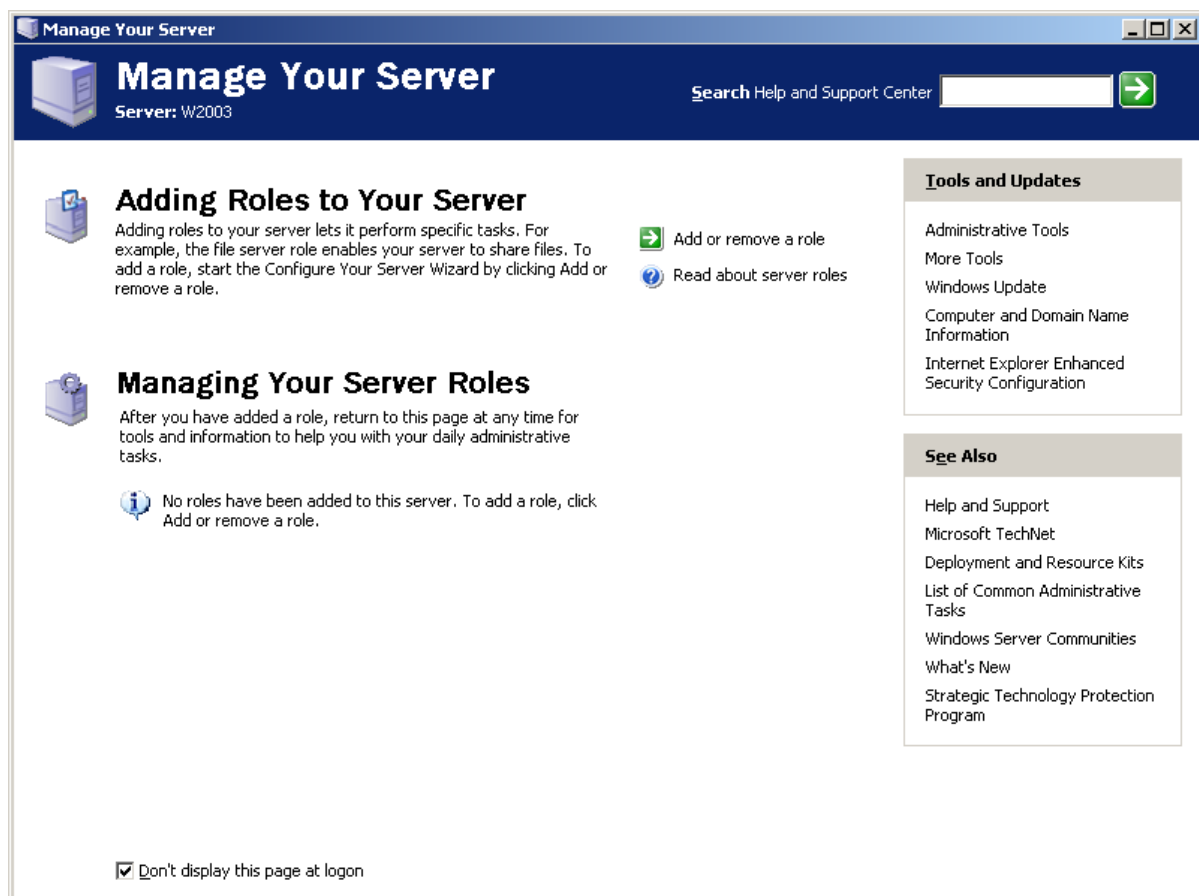
To set up Antamedia HotSpot on Windows Server 2003, please follow these steps:

1. Complete [pre-installation steps](#)
2. Install and configure Windows DHCP server service
3. Install and configure Windows Routing and Remote Access service
4. Install and configure HotSpot software

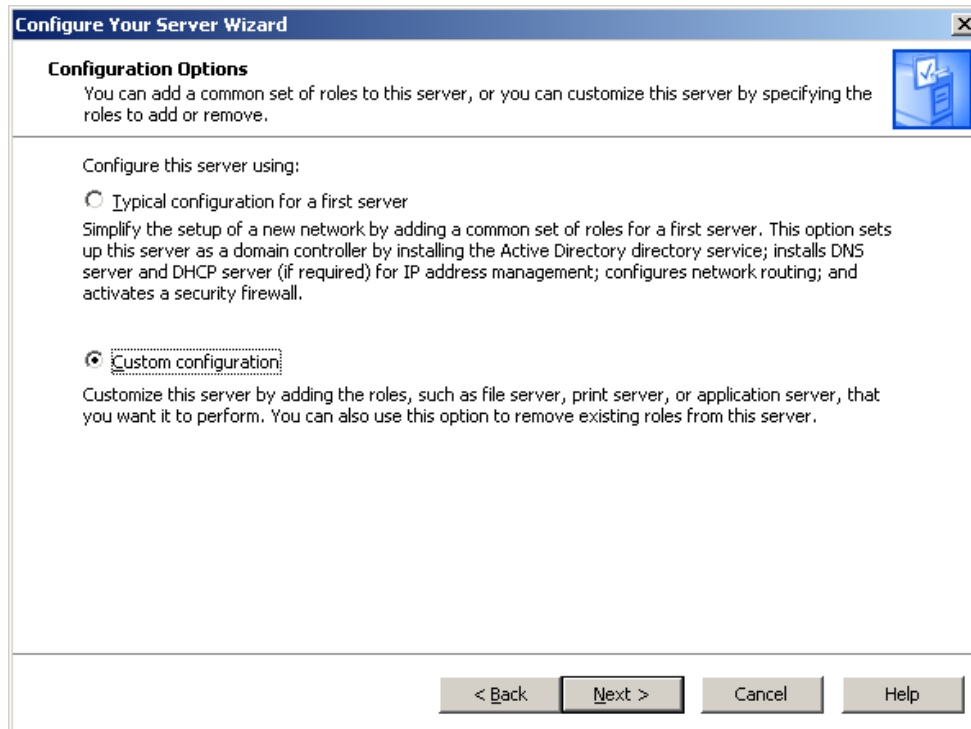
### 4.1 Configuring DHCP service

**Note:** If you configure a DHCP server on computer, you have to disable DHCP server option on all other devices (Wi-Fi routers, Access Points etc.) in the same subnet. Follow these steps to install and configure DHCP service:

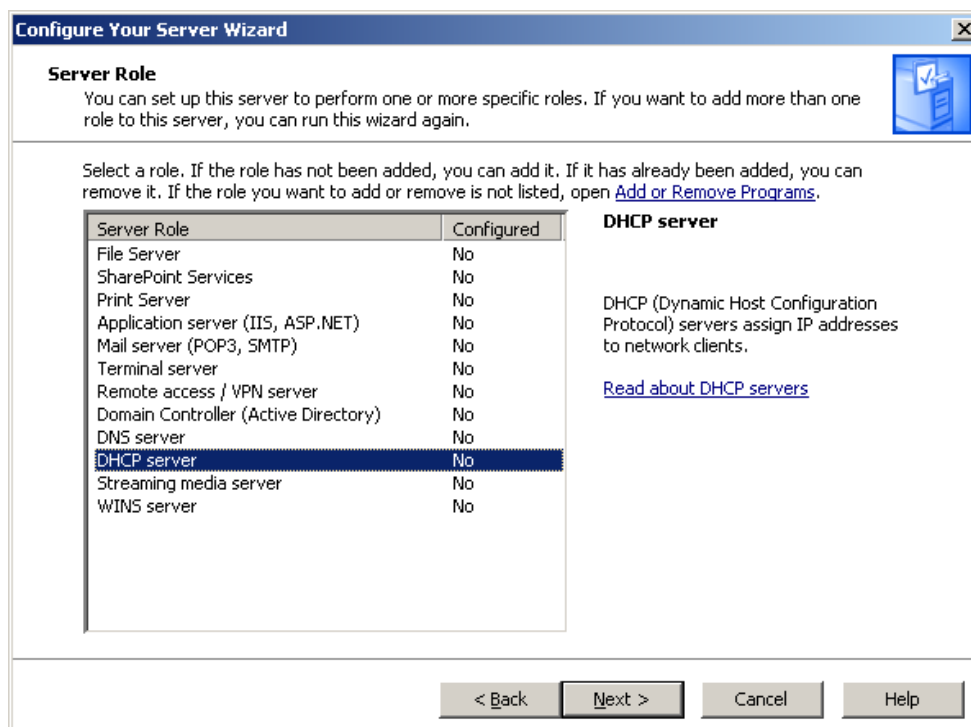
1. To start DHCP server installation, go to **Start Menu**, select **Manage Your Server** and click **Add Or Remove A Role** link in the window.



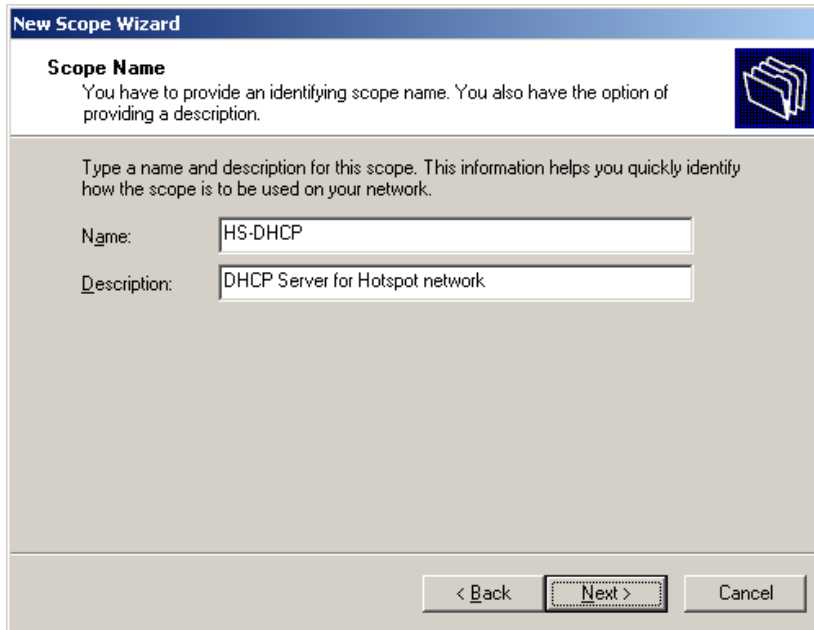
2. Click **Next** in the first screen and wait while Windows analyzes network connections.
3. On the "Configuration options" page select **Custom configuration** and click **Next**.



4. In the list select **DHCP server** and click **Next**.

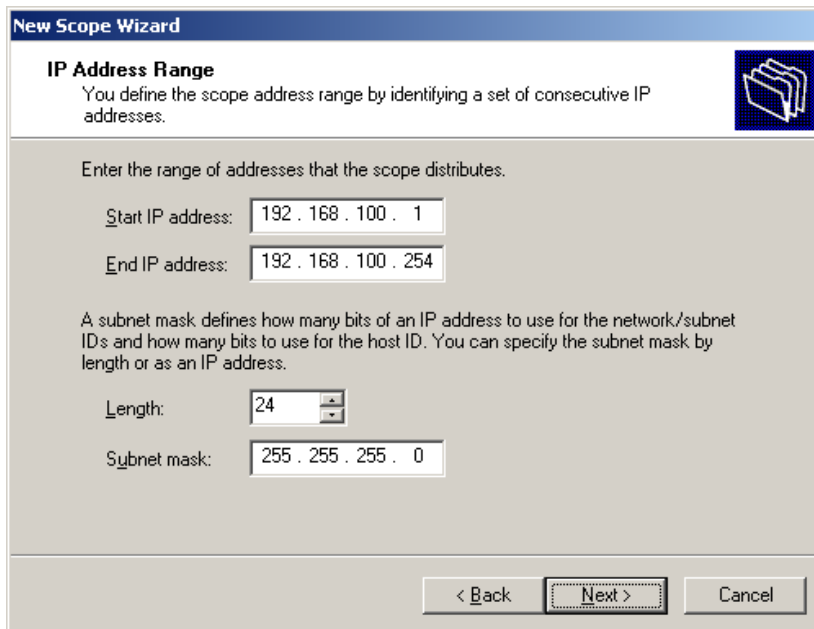


5. Click **Next** on the summary page, after a few moments **New Scope Wizard** window will open, click **Next** button.
6. Enter the name and description for the scope.



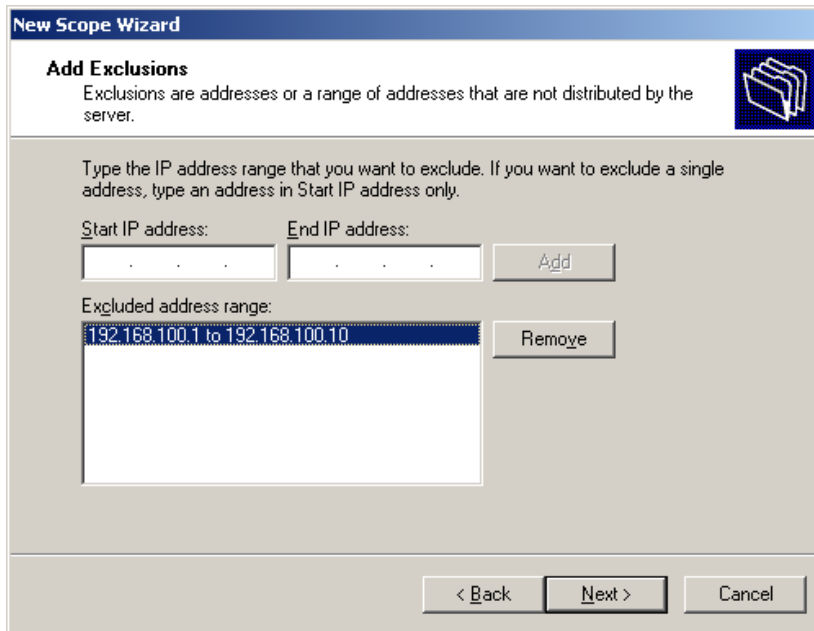
The screenshot shows the 'New Scope Wizard' window at the 'Scope Name' step. The title bar reads 'New Scope Wizard'. Below the title bar, the section is titled 'Scope Name' with a folder icon. The text says: 'You have to provide an identifying scope name. You also have the option of providing a description.' Below this, it says: 'Type a name and description for this scope. This information helps you quickly identify how the scope is to be used on your network.' There are two input fields: 'Name:' with the value 'HS-DHCP' and 'Description:' with the value 'DHCP Server for Hotspot network'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

7. Enter the range of IP addresses and subnet mask that will be distributed to clients.



The screenshot shows the 'New Scope Wizard' window at the 'IP Address Range' step. The title bar reads 'New Scope Wizard'. Below the title bar, the section is titled 'IP Address Range' with a folder icon. The text says: 'You define the scope address range by identifying a set of consecutive IP addresses.' Below this, it says: 'Enter the range of addresses that the scope distributes.' There are two input fields: 'Start IP address:' with the value '192 . 168 . 100 . 1' and 'End IP address:' with the value '192 . 168 . 100 . 254'. Below these, it says: 'A subnet mask defines how many bits of an IP address to use for the network/subnet IDs and how many bits to use for the host ID. You can specify the subnet mask by length or as an IP address.' There are two input fields: 'Length:' with the value '24' and 'Subnet mask:' with the value '255 . 255 . 255 . 0'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

8. Add the range of IP addresses to be excluded from distribution to clients. You will need to exclude static IPs in the network (Wi-Fi routers, Access Points, other servers etc.).



**New Scope Wizard**

**Add Exclusions**

Exclusions are addresses or a range of addresses that are not distributed by the server.

Type the IP address range that you want to exclude. If you want to exclude a single address, type an address in Start IP address only.

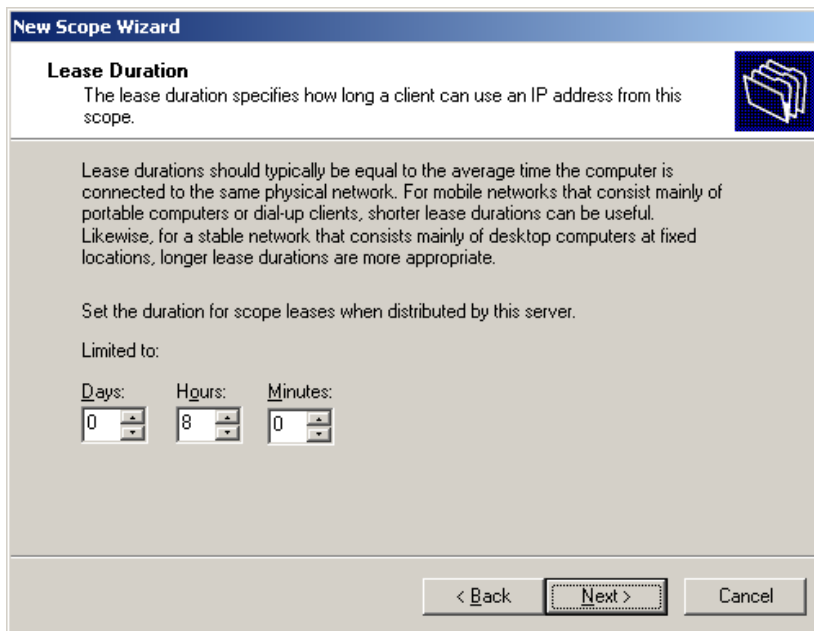
Start IP address:  End IP address:

Excluded address range:

192.168.100.1 to 192.168.100.10

< Back 

- Specify **Lease Duration** for the scope. For wireless networks we recommend setting duration to 8 hours.



**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.

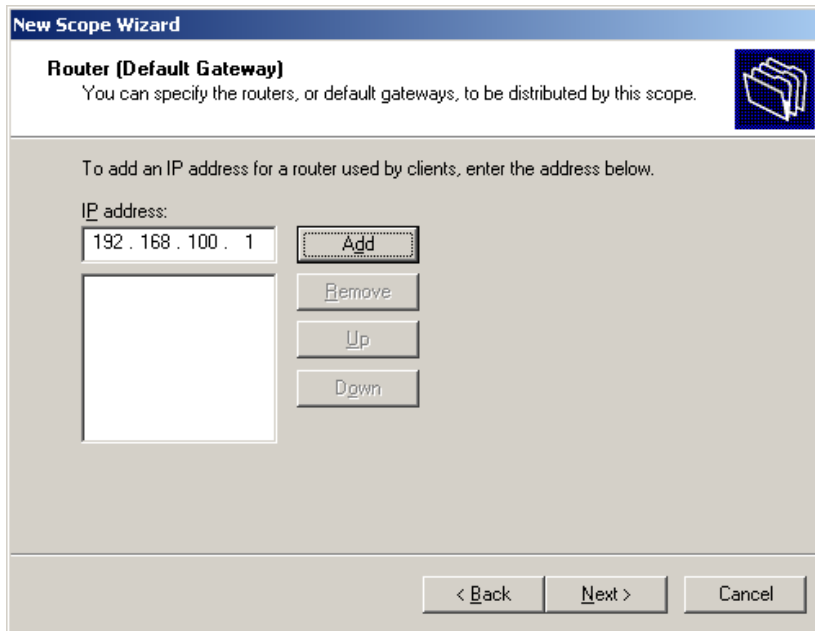
Limited to:

Days:  Hours:  Minutes:

< Back 

- On the "Configure DHCP Options" page select **Yes, I want to configure these options now** and click **Next**.
- Enter the Default Gateway's IP address that will be distributed to clients, click **Add** and then **Next**.





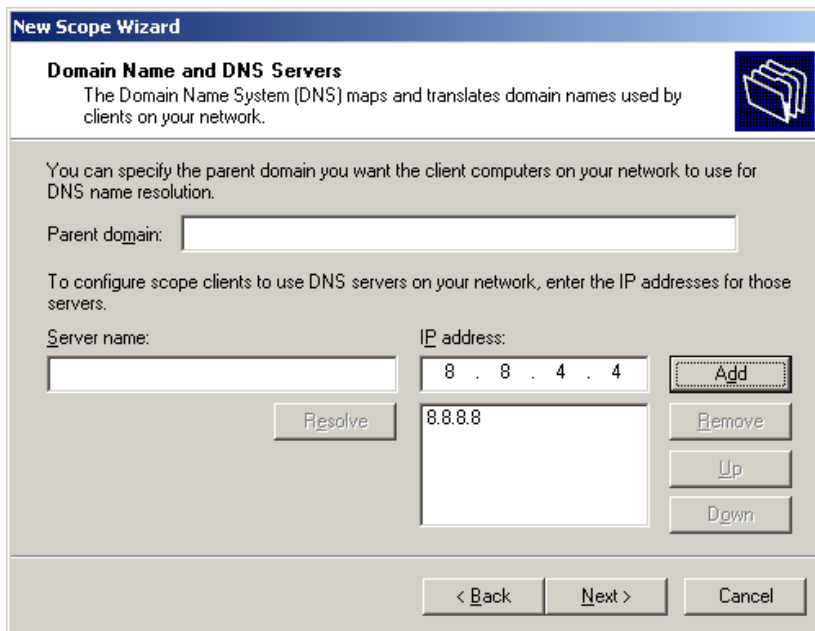
**New Scope Wizard**

**Router (Default Gateway)**  
You can specify the routers, or default gateways, to be distributed by this scope.

To add an IP address for a router used by clients, enter the address below.

IP address:

12. Enter the DNS server IP addresses that will be distributed by the DHCP server and given to the client.  
We recommend using DNS addresses of your ISP or free public DNS servers.



**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.

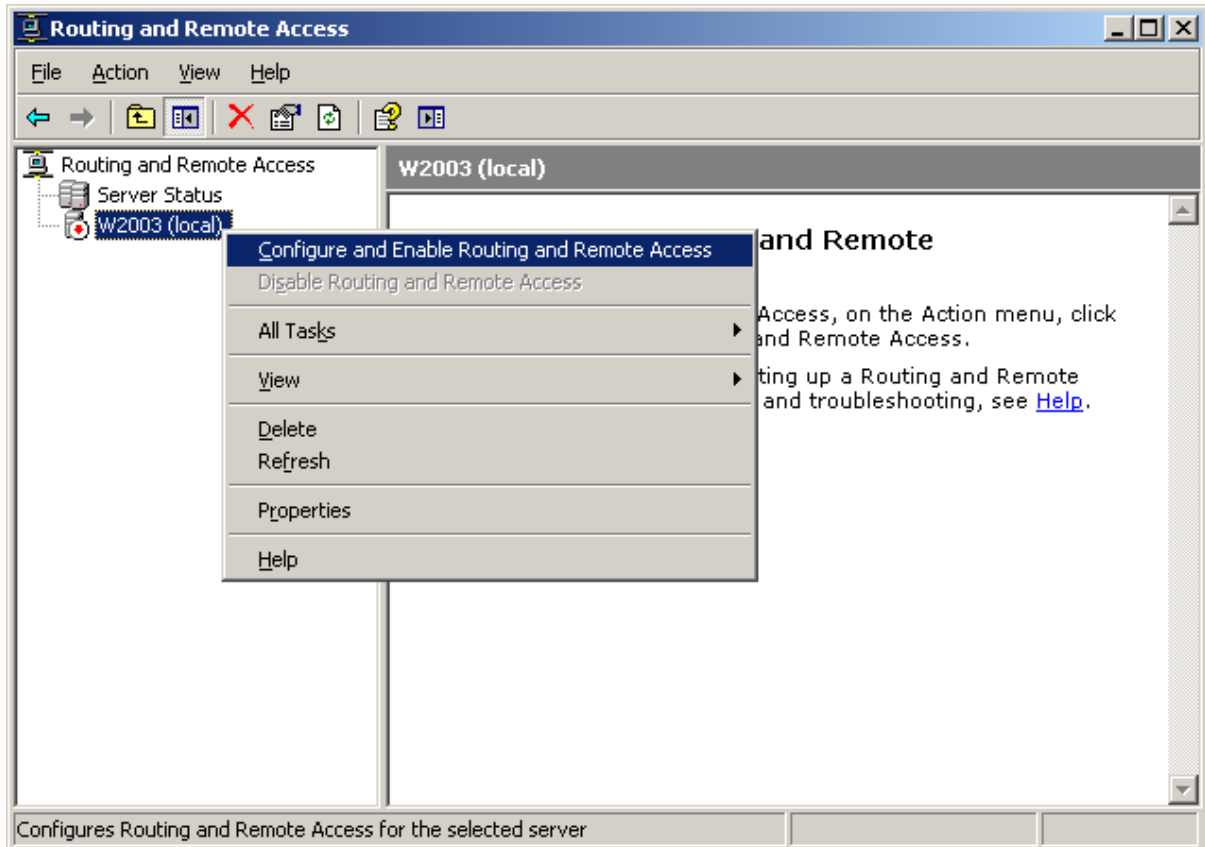
Server name:  IP address:

13. You can set IP addresses of the WINS servers on the "WINS Server" page if needed.
14. On the "Activate Scope" page select **Yes, I want to activate this scope now** and click **Next**.
15. Click **Finish** in both dialog windows.

## 4.2 Configuring Routing

Follow these steps to configure connection sharing by using Routing And Remote Access Services on Windows 2003:

1. Go to **Start Menu** and open **Administrative Tools - Routing And Remote Access** window. Right-click server name and select **Configure and Enable Routing and Remote Access**.



2. On the Welcome To The Routing And Remote Access Server Setup Wizard page, click **Next**.
3. On the Configuration page, select **Network Address Translation (NAT)**, and then click **Next**.

**Routing and Remote Access Server Setup Wizard**

**Configuration**

You can enable any of the following combinations of services, or you can customize this server.

☐ Remote access (dial-up or VPN)  
Allow remote clients to connect to this server through either a dial-up connection or a secure Virtual Private Network (VPN) Internet connection.

☒ Network address translation (NAT)  
Allow internal clients to connect to the Internet using one public IP address.

☐ Virtual Private Network (VPN) access and NAT  
Allow remote clients to connect to this server through the Internet and local clients to connect to the Internet using a single public IP address.

☐ Secure connection between two private networks  
Connect this network to a remote network, such as a branch office.

☐ Custom configuration  
Select any combination of the features available in Routing and Remote Access.

For more information about these options, see [Routing and Remote Access Help](#).

< Back Next > Cancel

4. On the NAT Internet Connection page, select the interface that connects the server to the Internet. Then click **Next**.

**Routing and Remote Access Server Setup Wizard**

**NAT Internet Connection**

You can select an existing interface or create a new demand-dial interface for client computers to connect to the Internet.

☒ Use this public interface to connect to the Internet:

Name	Description	IP Address
Internet	AMD PCNET Family P...	10.0.2.15 (DHCP)
LAN	AMD PCNET Family P...	192.168.100.1

☐ Create a new demand-dial interface to the Internet  
A demand-dial interface is activated when a client uses the Internet. Select this option if this server connects with a modem or by using the Point-to-Point Protocol over Ethernet. The Demand-Dial Interface Wizard will start at the end of this wizard.

☒ Enable security on the selected interface by setting up Basic Firewall.  
Basic Firewall prevents unauthorized users from gaining access to this server through the Internet.

For more information about network interfaces, see [Routing and Remote Access Help](#).

< Back Next > Cancel

5. On the Completing The Routing And Remote Access Server Setup Wizard page, click **Finish**.

## 5 Windows Server 2008

Antamedia software can be set on Windows Server 2008 the same way as on Windows 7, Windows 8.1 or Windows 10. However, we recommend using Windows Server's DHCP service to provide IP addressing and Windows Routing and Remote Access to share the connection.

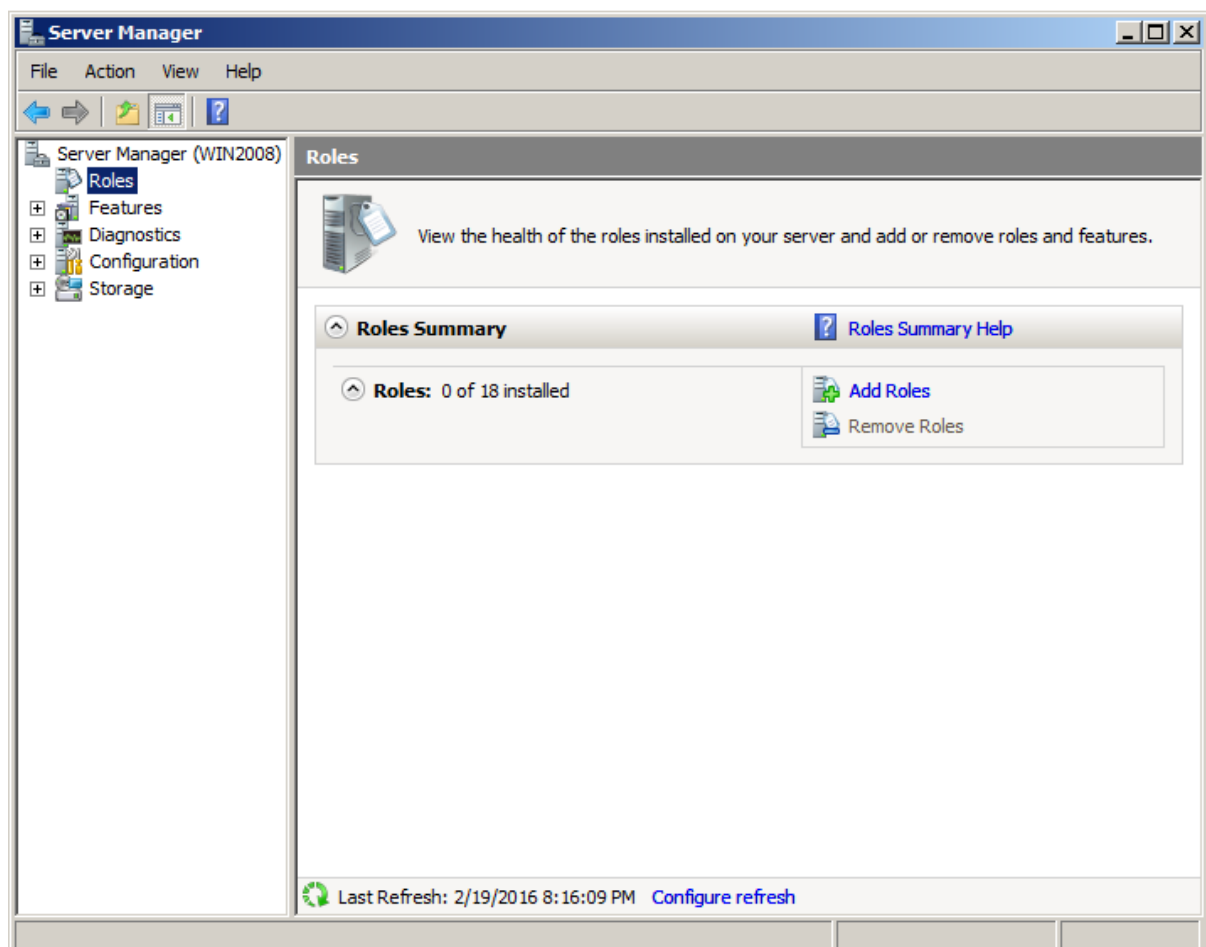
To set up Antamedia HotSpot on Windows Server 2008, please follow these steps:

1. Complete [pre-installation steps](#)
2. Install and configure Windows DHCP server service
3. Install and configure Windows Routing and Remote Access service
4. Install and configure HotSpot software

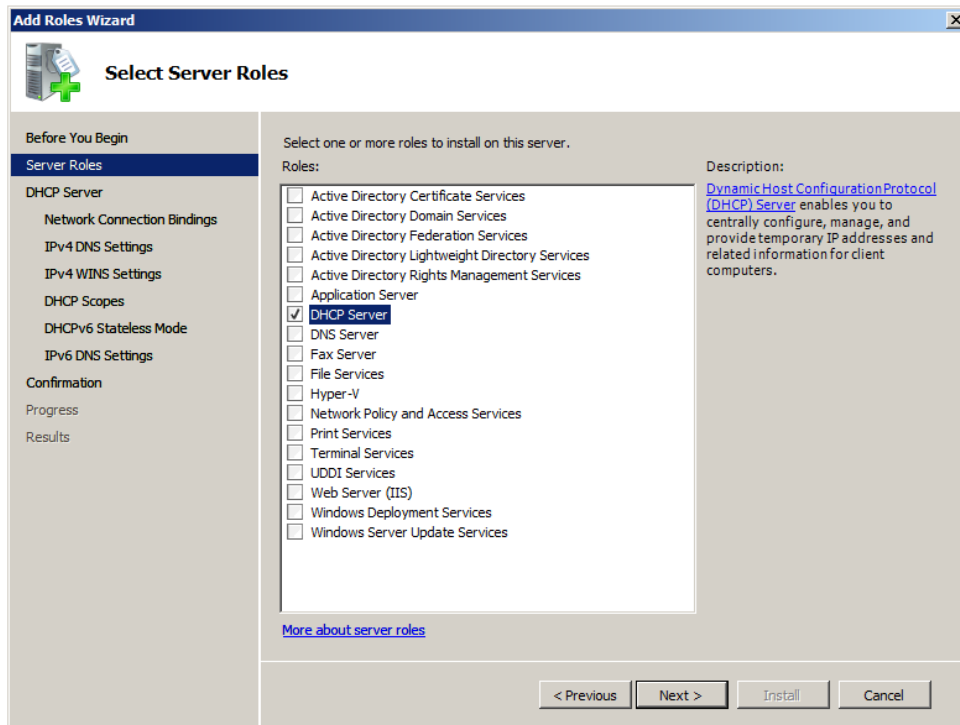
### 5.1 Configuring DHCP service

Follow these steps to install and configure DHCP service:

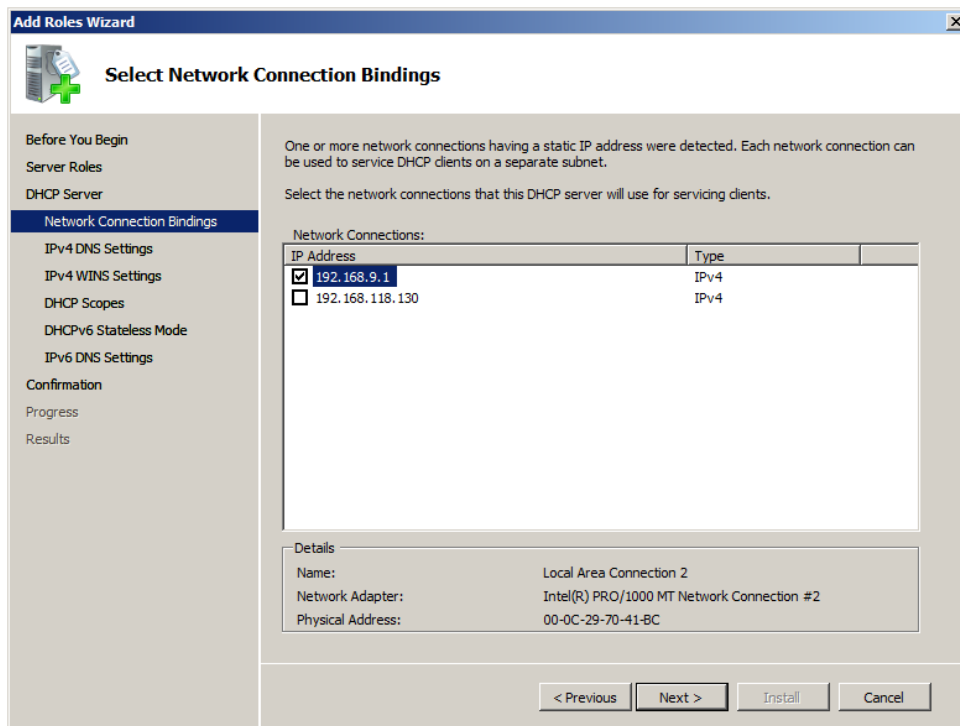
1. To start the DHCP installation process, click **Add Roles** from **Server Manager - Roles** screen.



2. When the **Add Roles Wizard** window opens, click **Next** on that screen. From the next screen select that you want to add the **DHCP Server** Role, and click **Next**.

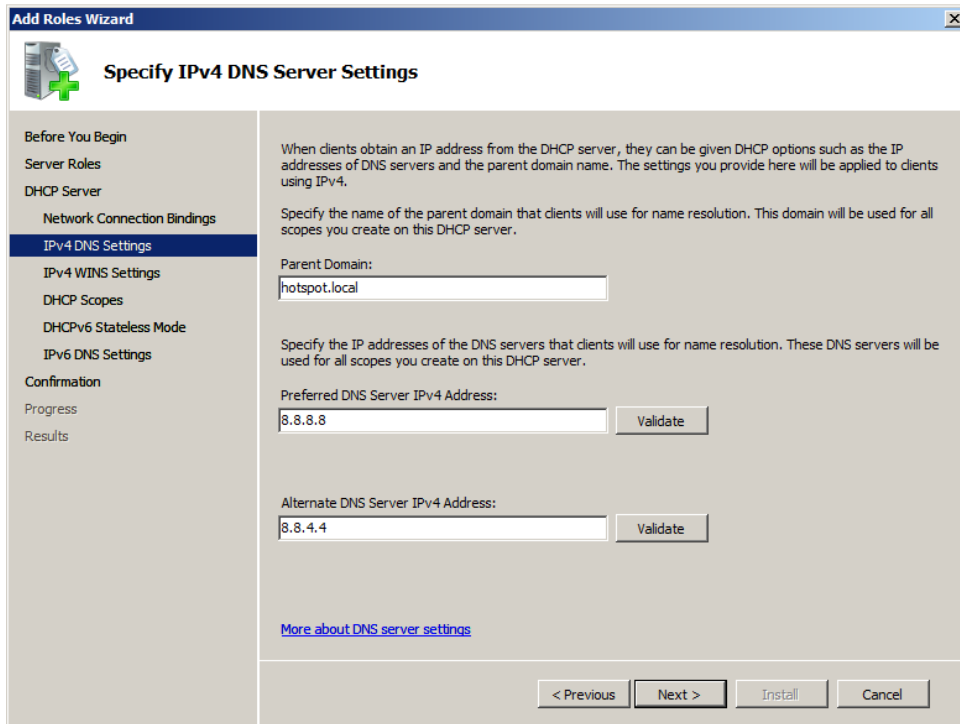


3. In the "**Network Connection Bindings**" screen leave checked only the network card that faces your client network.



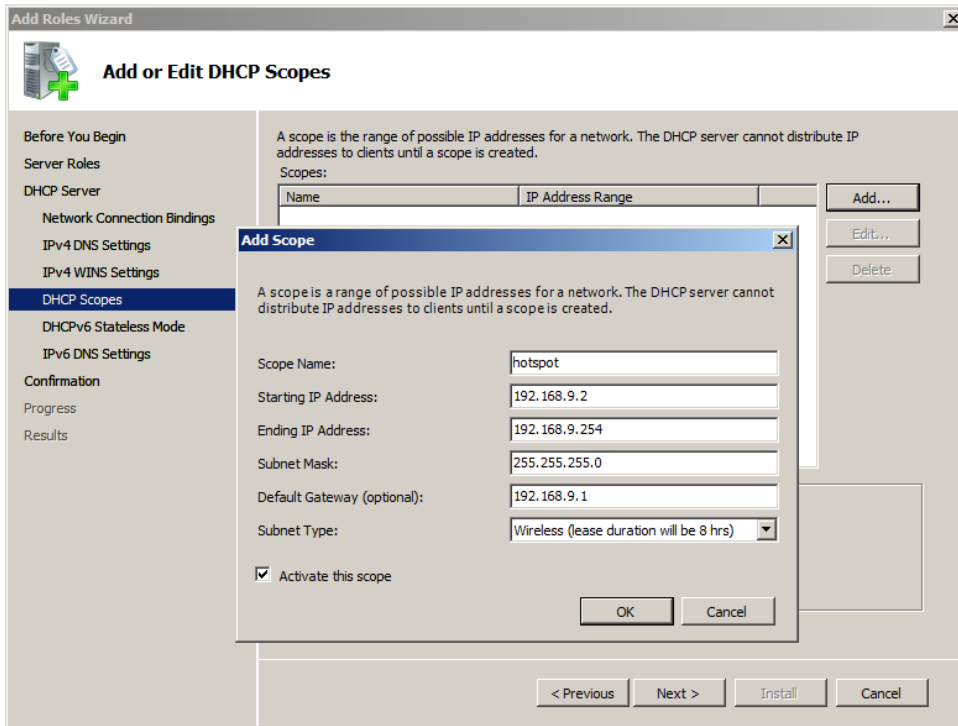


4. Next, you need to specify DNS settings (**Parent Domain**, **Primary DNS Server**, and **Alternate DNS Server**). For **Parent Domain** you can enter the name of your Active Directory domain or make up domain name if you don't have one (in this example "hotspot.local" domain is used). We recommend using DNS addresses of your ISP or free public DNS servers for **Primary** and **Alternate DNS Servers**.



The screenshot shows the 'Add Roles Wizard' window with the title 'Specify IPv4 DNS Server Settings'. The left sidebar contains a tree view with the following items: 'Before You Begin', 'Server Roles', 'DHCP Server', 'Network Connection Bindings', 'IPv4 DNS Settings' (selected), 'IPv4 WINS Settings', 'DHCP Scopes', 'DHCPv6 Stateless Mode', 'IPv6 DNS Settings', 'Confirmation', 'Progress', and 'Results'. The main content area has a heading 'Specify IPv4 DNS Server Settings' with a green plus icon. Below the heading, there is explanatory text: 'When clients obtain an IP address from the DHCP server, they can be given DHCP options such as the IP addresses of DNS servers and the parent domain name. The settings you provide here will be applied to clients using IPv4.' This is followed by a sub-heading 'Specify the name of the parent domain that clients will use for name resolution. This domain will be used for all scopes you create on this DHCP server.' and a text input field labeled 'Parent Domain:' containing 'hotspot.local'. Below this, another sub-heading reads 'Specify the IP addresses of the DNS servers that clients will use for name resolution. These DNS servers will be used for all scopes you create on this DHCP server.' This is followed by two input fields: 'Preferred DNS Server IPv4 Address:' containing '8.8.8.8' and 'Alternate DNS Server IPv4 Address:' containing '8.8.4.4'. Each input field has a 'Validate' button to its right. At the bottom left of the main area is a link 'More about DNS server settings'. At the bottom of the window are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

5. You can set IP addresses of the WINS servers on the "IPv4 WINS settings" screen if needed.
6. In the "DHCP Scopes" screen click **Add** and the options for new scope.
7. Give **name** for the scope. Set **Starting** and **Ending IP address** and **Subnet mask** that will be distributed to clients.  
Specify **Default gateway** IP address and set **Lease Duration** for the scope. For wireless networks we recommend setting duration to 8 hours.  
Make sure that "**Activate this scope**" option is ticked.



**Add or Edit DHCP Scopes**

A scope is the range of possible IP addresses for a network. The DHCP server cannot distribute IP addresses to clients until a scope is created.

Scopes:

Name	IP Address Range

Buttons: Add..., Edit..., Delete

**Add Scope**

A scope is a range of possible IP addresses for a network. The DHCP server cannot distribute IP addresses to clients until a scope is created.

Scope Name: hotspot

Starting IP Address: 192.168.9.2

Ending IP Address: 192.168.9.254

Subnet Mask: 255.255.255.0

Default Gateway (optional): 192.168.9.1

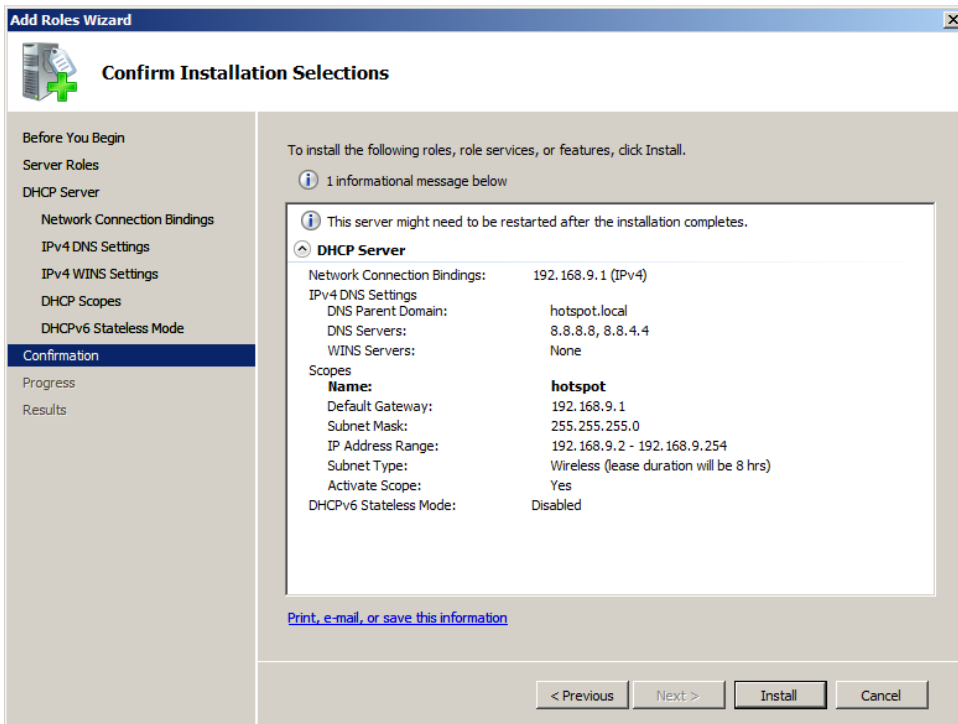
Subnet Type: Wireless (lease duration will be 8 hrs)

☒ Activate this scope

Buttons: OK, Cancel

Navigation: < Previous, Next >, Install, Cancel

8. We recommend disabling DHCPv6 mode if you don't require this function. From DHCPv6 screen click **Disable DHCPv6** mode and click **Next**. After clicking Next, you will see summary page, click **Install** button. Restart the PC after installation.



**Confirm Installation Selections**

To install the following roles, role services, or features, click Install.

1 informational message below

This server might need to be restarted after the installation completes.

**DHCP Server**

Network Connection Bindings:	192.168.9.1 (IPv4)
IPv4 DNS Settings	
DNS Parent Domain:	hotspot.local
DNS Servers:	8.8.8.8, 8.8.4.4
WINS Servers:	None
Scopes	
<b>Name:</b>	<b>hotspot</b>
Default Gateway:	192.168.9.1
Subnet Mask:	255.255.255.0
IP Address Range:	192.168.9.2 - 192.168.9.254
Subnet Type:	Wireless (lease duration will be 8 hrs)
Activate Scope:	Yes
DHCPv6 Stateless Mode:	Disabled

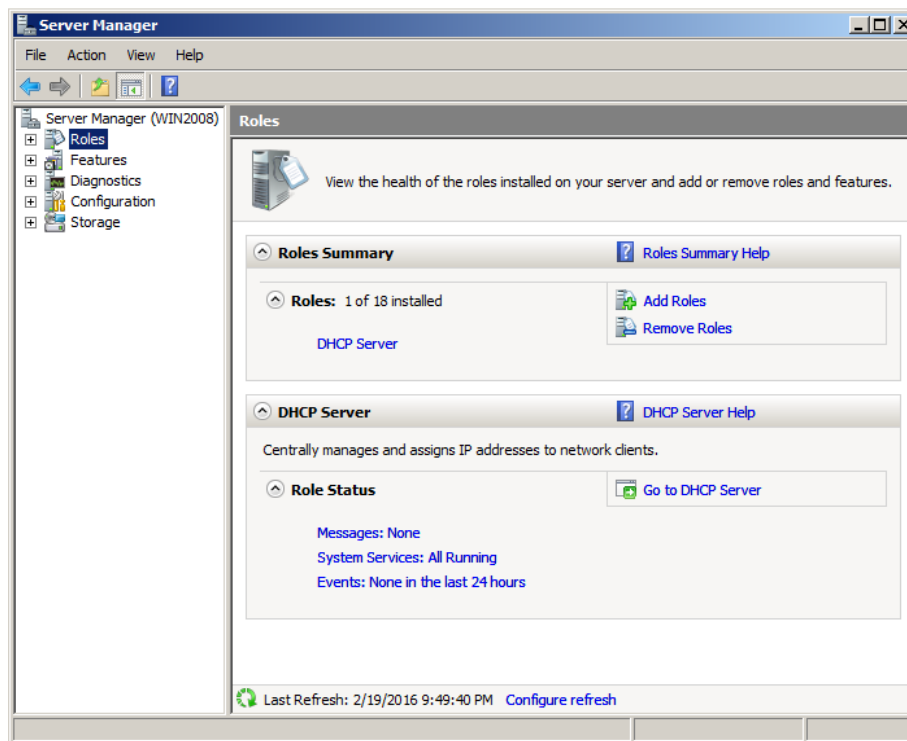
[Print, e-mail, or save this information](#)

Navigation: < Previous, Next >, Install, Cancel

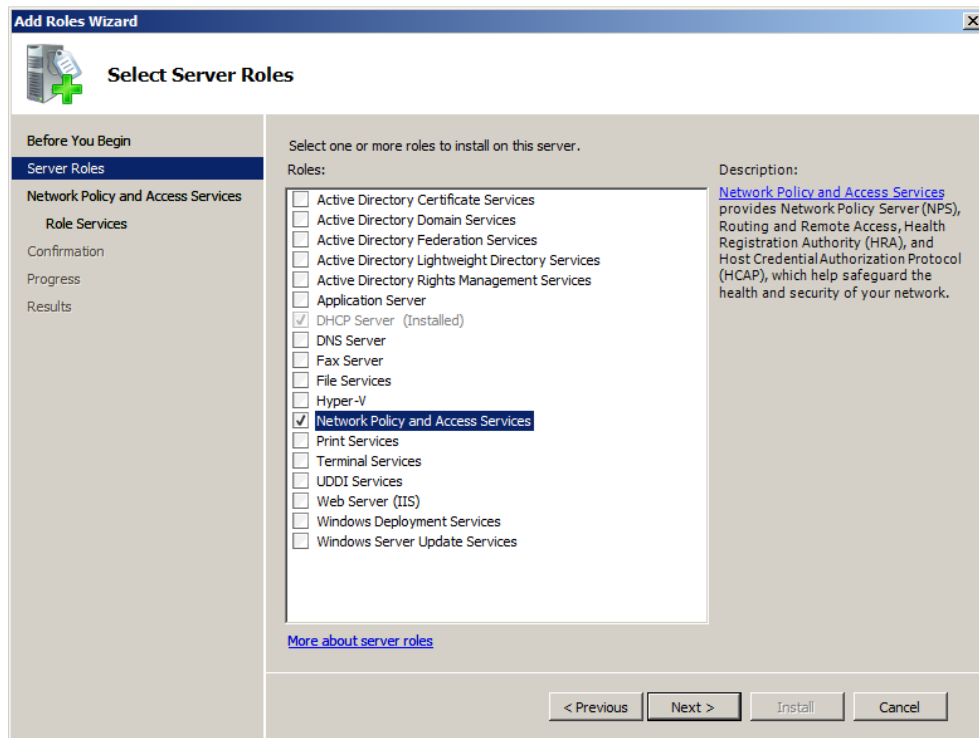
## 5.2 Configuring Routing

Please follow these steps to configure connection sharing by using Routing And Remote Access Services on Windows 2008:

1. Go to **Server Manager - Roles** screen and click **Add Roles**.

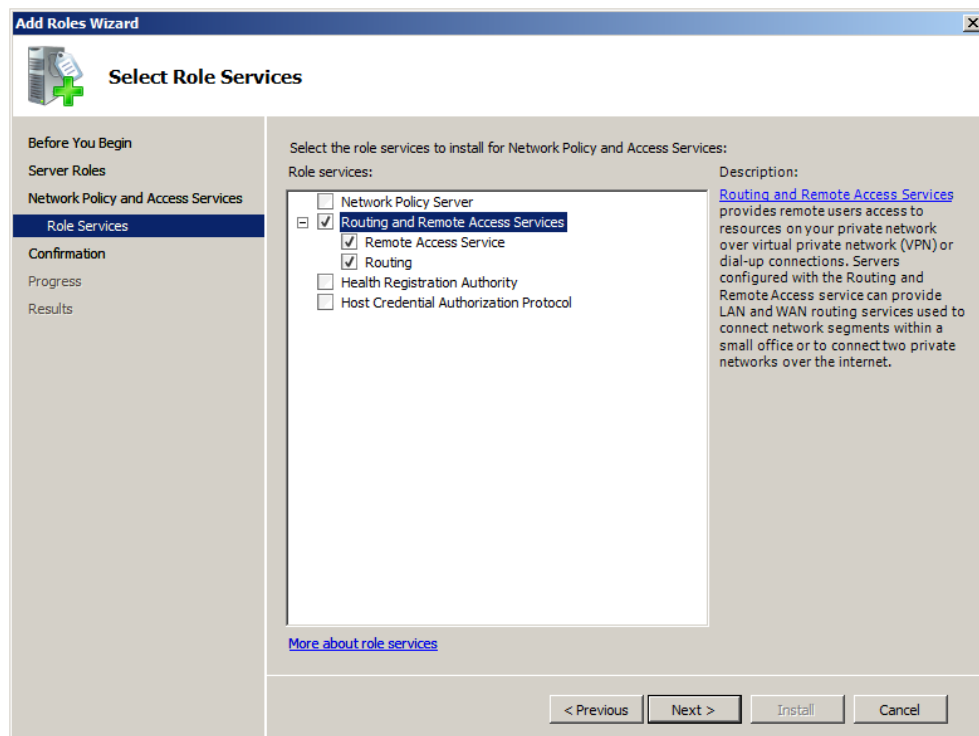


2. In **Add Roles Wizard** window click **Next**. From the **"Select Server Roles"** screen select that you want to add the **Network Policy And Access Services** role, and click **Next**.

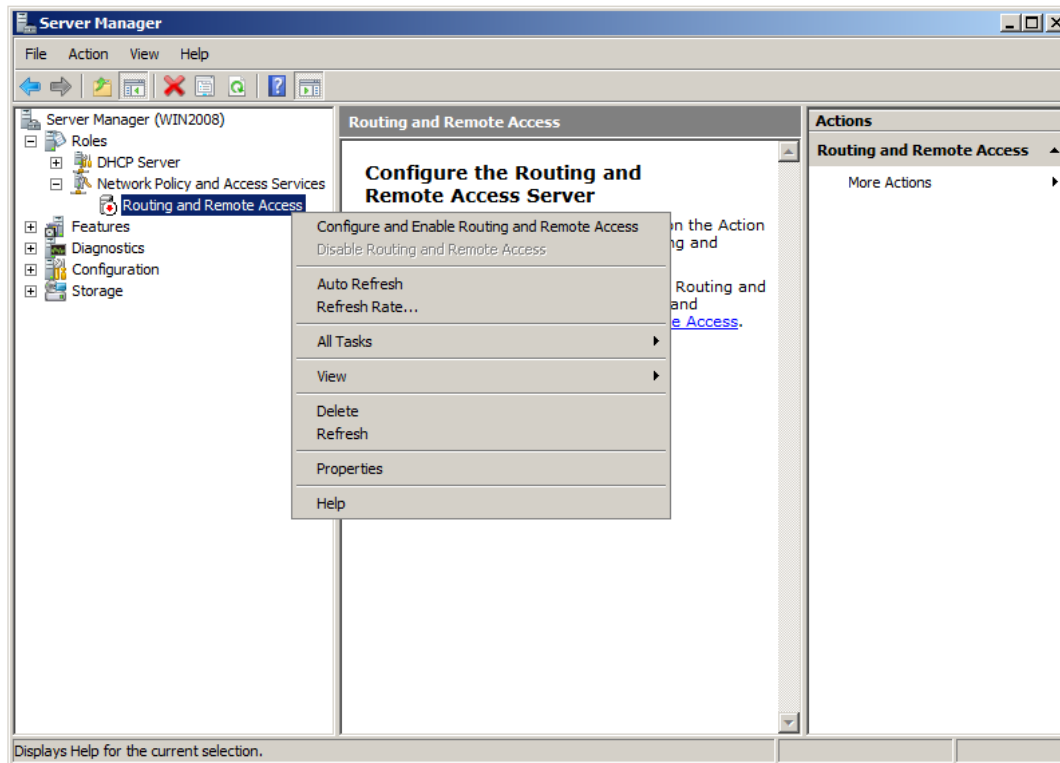


3. Read the information about this service and click **Next**.

4. On the "**Select Role Services**" page select **Routing And Remote Access Services** in the list and click **Next**.



5. Click **Install** on Confirmation page.
6. Click **Close** after installation is finished and go to **Server Manager - Roles - Network Policy And Access Services**. Right-click **Routing and Remote Access** and select **Configure and Enable Routing and Remote Access**.



7. On the Welcome To The Routing And Remote Access Server Setup Wizard page, click **Next**.
8. On the Configuration page, select **Network Address Translation (NAT)**, and then click **Next**.

**Routing and Remote Access Server Setup Wizard**

**Configuration**  
You can enable any of the following combinations of services, or you can customize this server.

- ☐ Remote access (dial-up or VPN)  
Allow remote clients to connect to this server through either a dial-up connection or a secure virtual private network (VPN) Internet connection.
- ☒ Network address translation (NAT)  
Allow internal clients to connect to the Internet using one public IP address.
- ☐ Virtual private network (VPN) access and NAT  
Allow remote clients to connect to this server through the Internet and local clients to connect to the Internet using a single public IP address.
- ☐ Secure connection between two private networks  
Connect this network to a remote network, such as a branch office.
- ☐ Custom configuration  
Select any combination of the features available in Routing and Remote Access.

[For more information.](#)

< Back   Next >   Cancel

9. On the NAT Internet Connection page, select the interface that connects the server to the Internet. Then click **Next**.

**Routing and Remote Access Server Setup Wizard**

**NAT Internet Connection**  
You can select an existing interface or create a new demand-dial interface for client computers to connect to the Internet.

☒ Use this public interface to connect to the Internet:

Network Interfaces:

Name	Description	IP Address
NIC1 (Internet)	Intel(R) PRO/1000 MT Network Conne...	192.168.118.130
NIC2 (Local)	Intel(R) PRO/1000 MT Network Conne...	192.168.9.1

☐ Create a new demand-dial interface to the Internet  
A demand-dial interface is activated when a client uses the Internet. Select this option if this server connects with a modem or by using the Point-to-Point Protocol over Ethernet. The Demand-Dial Interface Wizard will start at the end of this wizard.

[For more information.](#)

< Back   Next >   Cancel

10. On the Completing The Routing And Remote Access Server Setup Wizard page, click **Finish**.  
11. Click **OK** when prompted.

The server is now ready to forward packets from the Local network to the Internet.

## 6 Windows Server 2012

Antamedia HotSpot software can be set on Windows Server 2012 the same way as on Windows 7, Windows 8.1 or Windows 10. However, we recommend using Windows Server's DHCP service to provide IP addressing and Windows Routing and Remote Access to share the connection.

To set up Antamedia HotSpot on Windows Server 2012, please follow these steps:

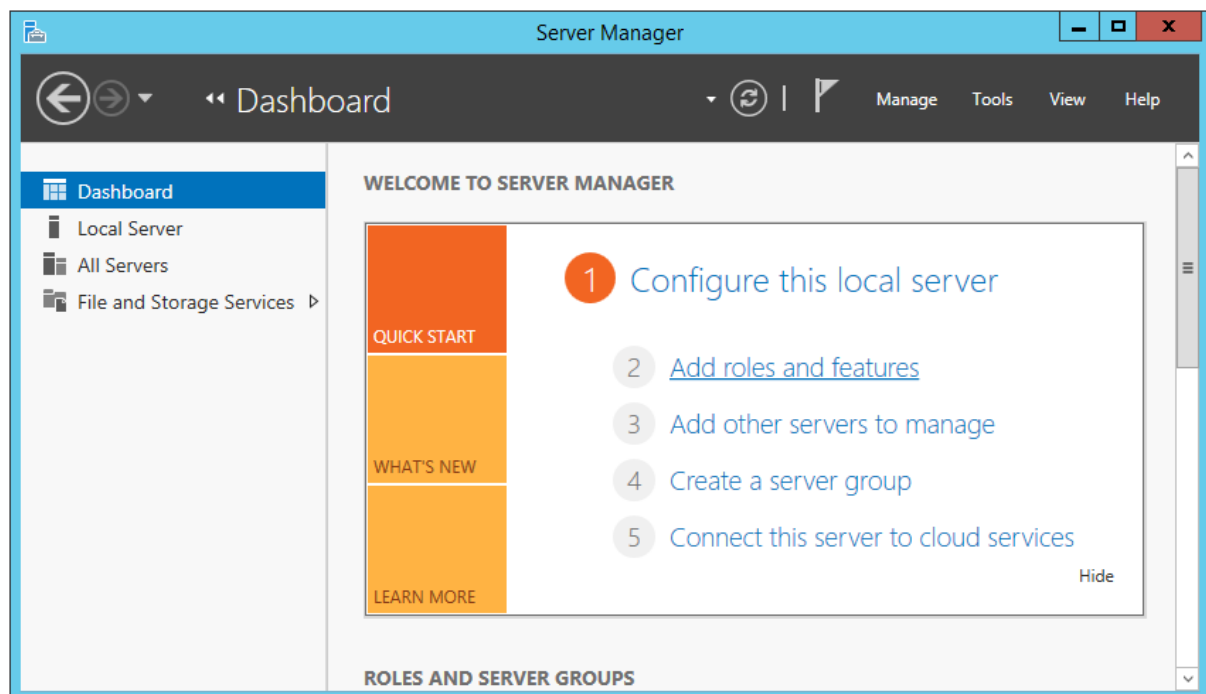
1. Complete [pre-installation steps](#)
2. Install and configure Windows DHCP server service
3. Install and configure Windows Routing and Remote Access service
4. Change IIS port
5. Install and configure HotSpot software

### 6.1 Configuring DHCP service

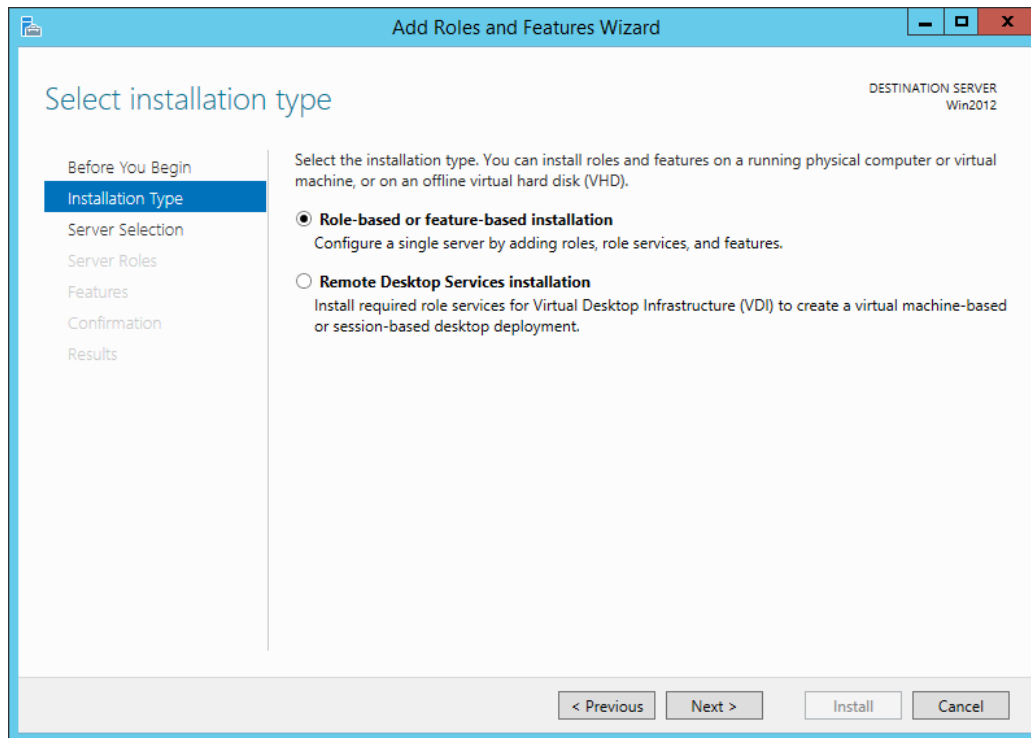
**Note:** If you configure a DHCP server on gateway computer, you have to disable DHCP server option on all other devices (Wi-Fi routers, Access Points etc.) in the same subnet.

Follow these steps to install and configure DHCP service:

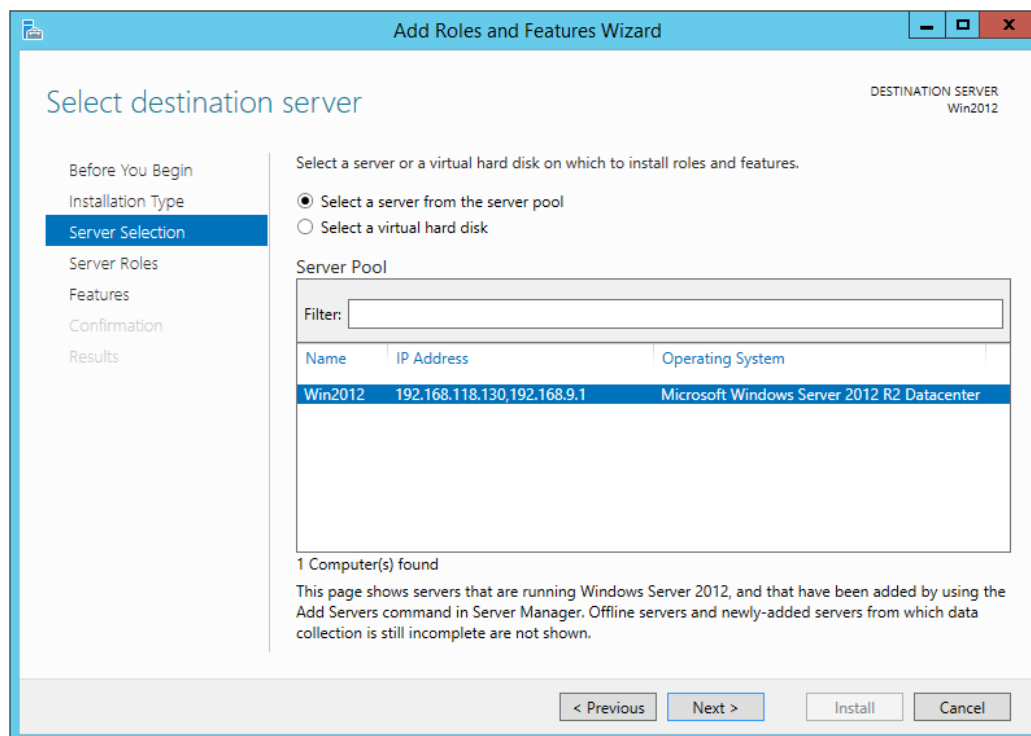
1. To start the DHCP installation process, click **Add Roles and features** from **Server Manager - Roles** screen.



2. When the **Add Roles and Feature Wizard** window opens, click **Next** on that screen.
3. From **Installation Type** screen select "**Role-based on feature-based installation**" and click **Next**

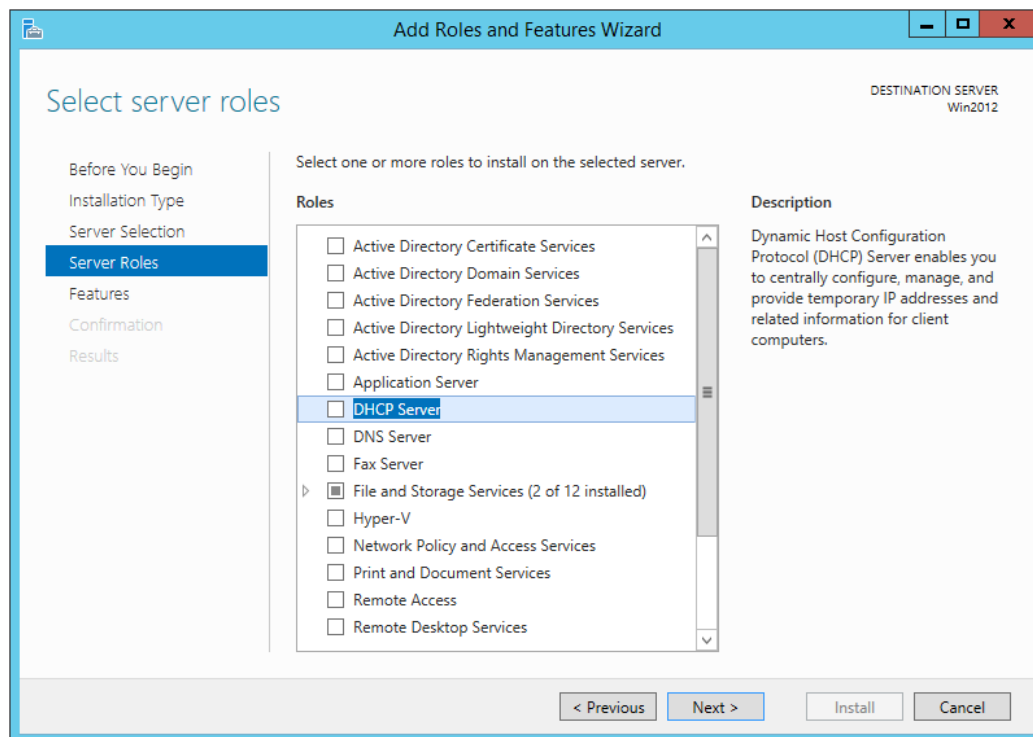


- From **Server Selection** choose **"Select a server from the server pool"** and select your computer in the list below then click on **Next**

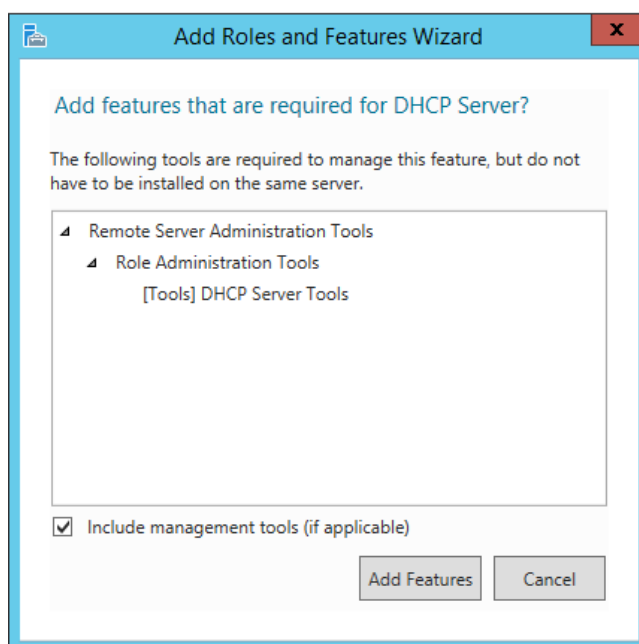




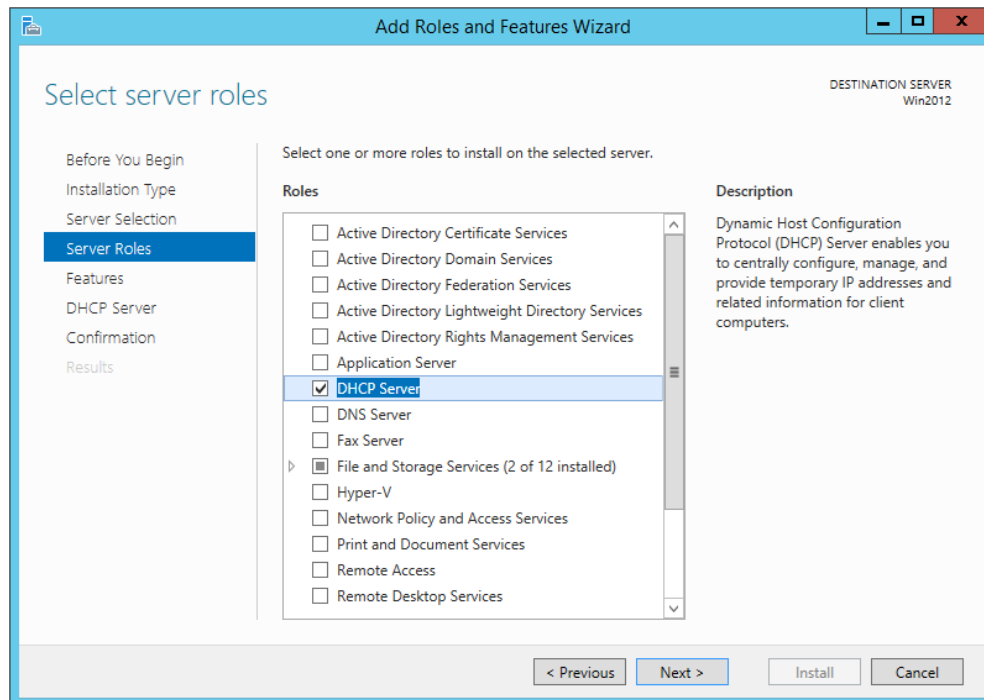
5. At **Server Roles** screen select "**DHCP Server**"



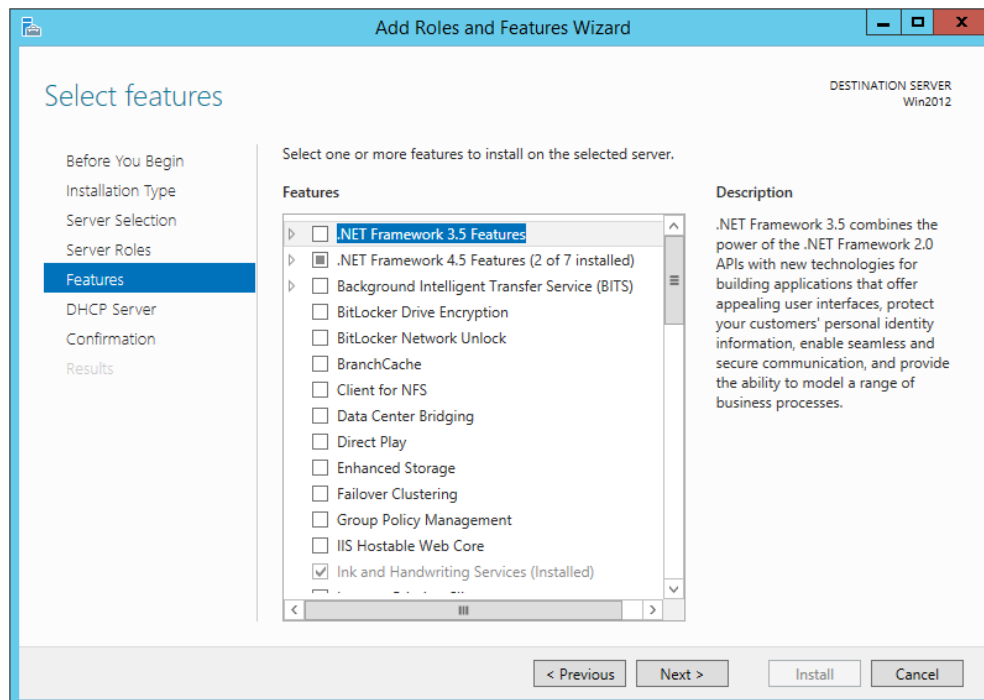
6. **Add Roles and Features Wizard** pop-up window will inform you about the role and features that you add. Click on **Add Features**.



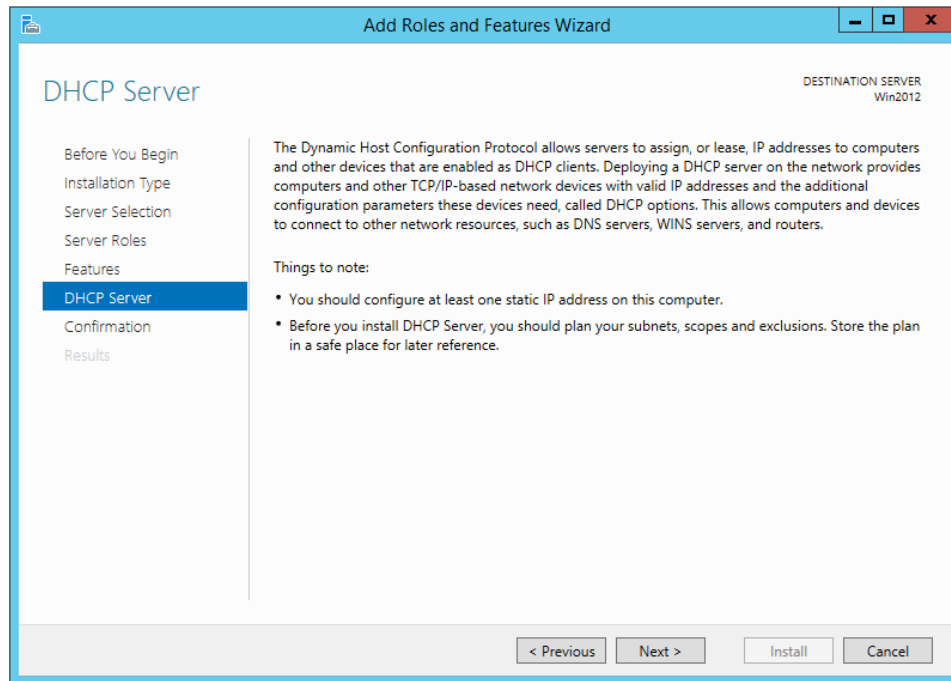
7. **DHCP Server** role is now selected in the list of **Server Roles** and press on **Next**



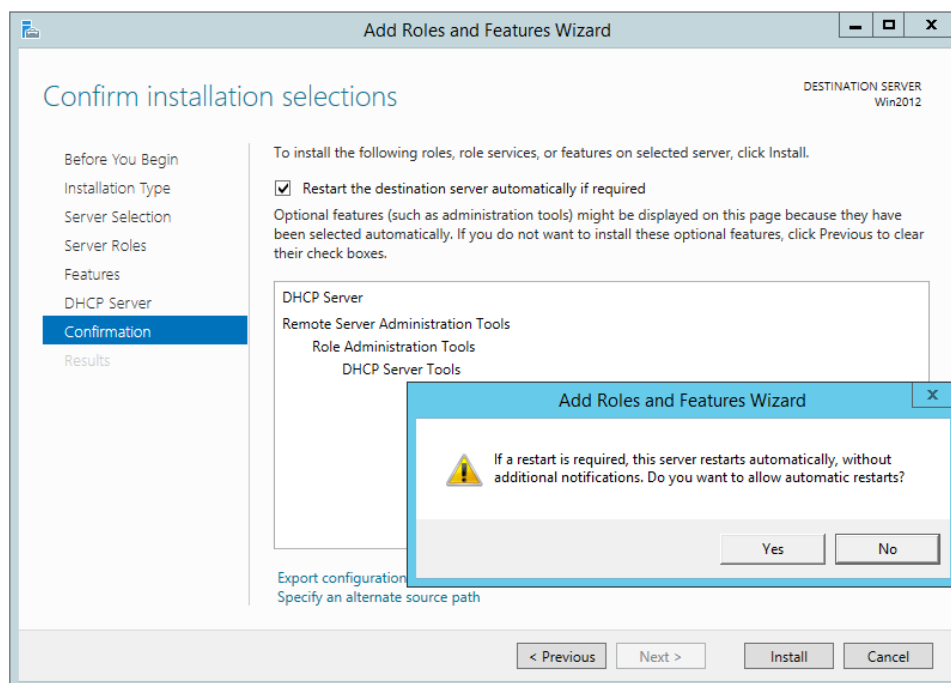
8. On **Features** screen is by default selected all required features for installation of DHCP Server role, click on **Next**



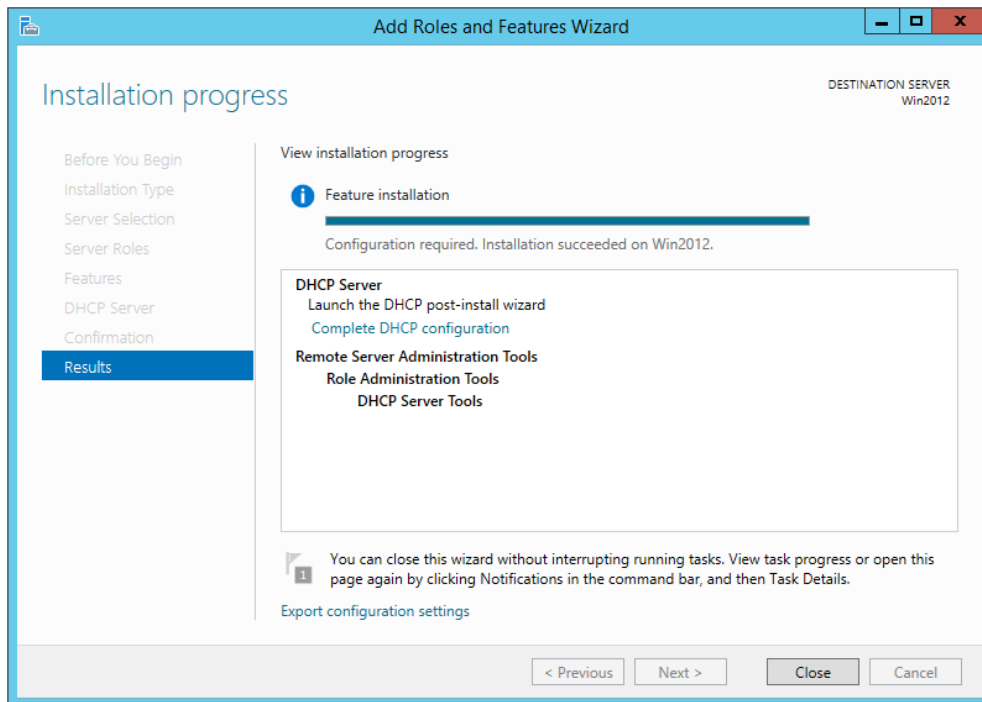
9. At **DHCP Server** screen you will see a **note** which guide you to set static IP addresses on the network connections and that you need carefully to plan subnets, scopes and exclusions before installing DHCP Server. Click on **Next**



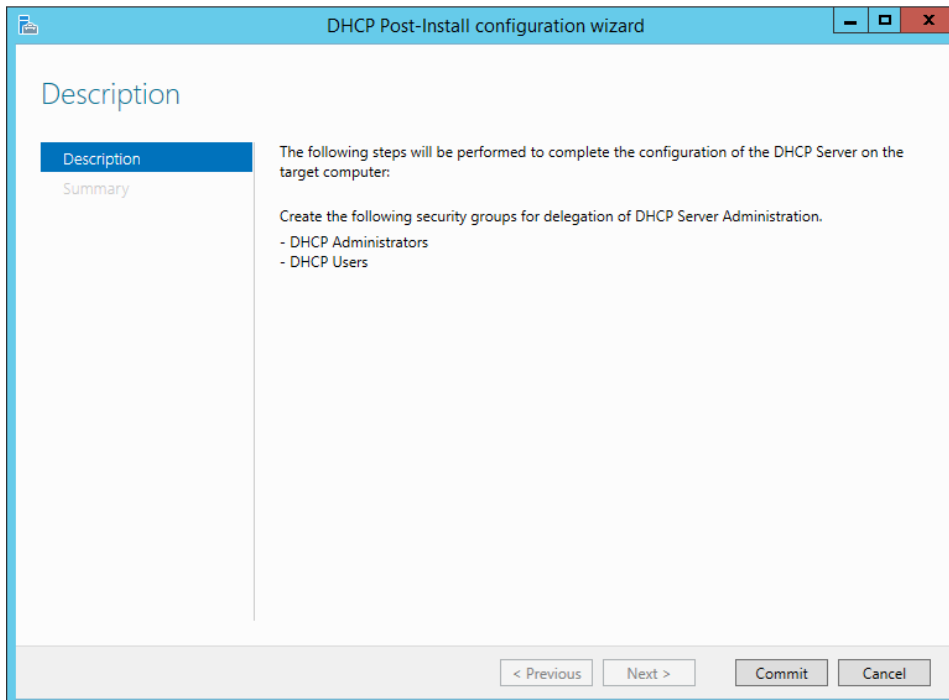
10. From **Confirmation** screen select option "**Restart the destination server automatically if required**" and confirm it by pressing on **Yes** and new pop-up window. Then click on **Install** button.



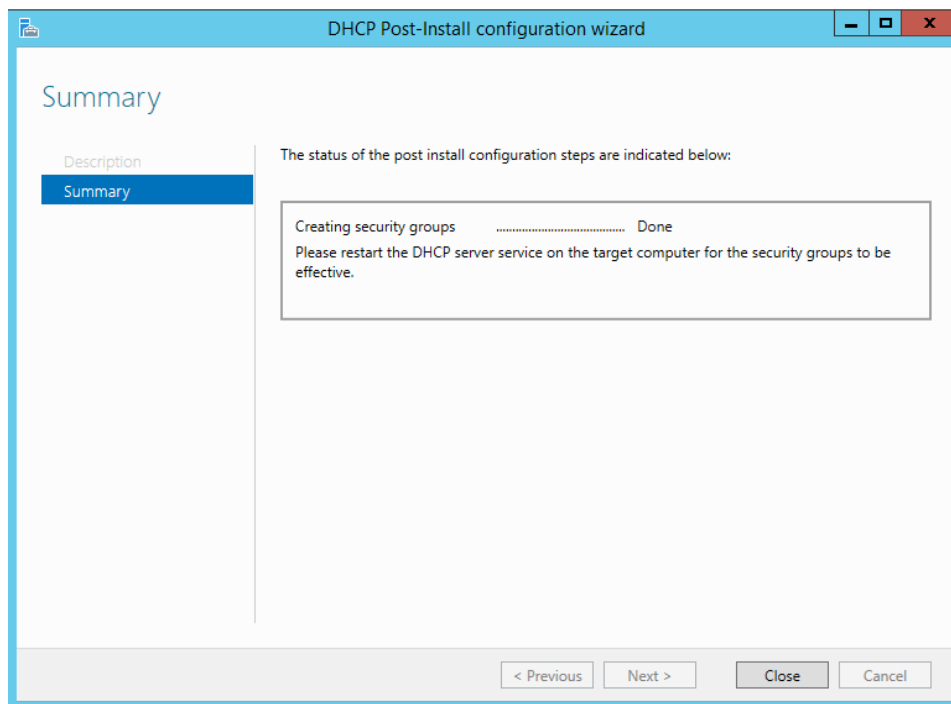
11. When installation is finished you should press on "**Complete DHCP configuration**" link.



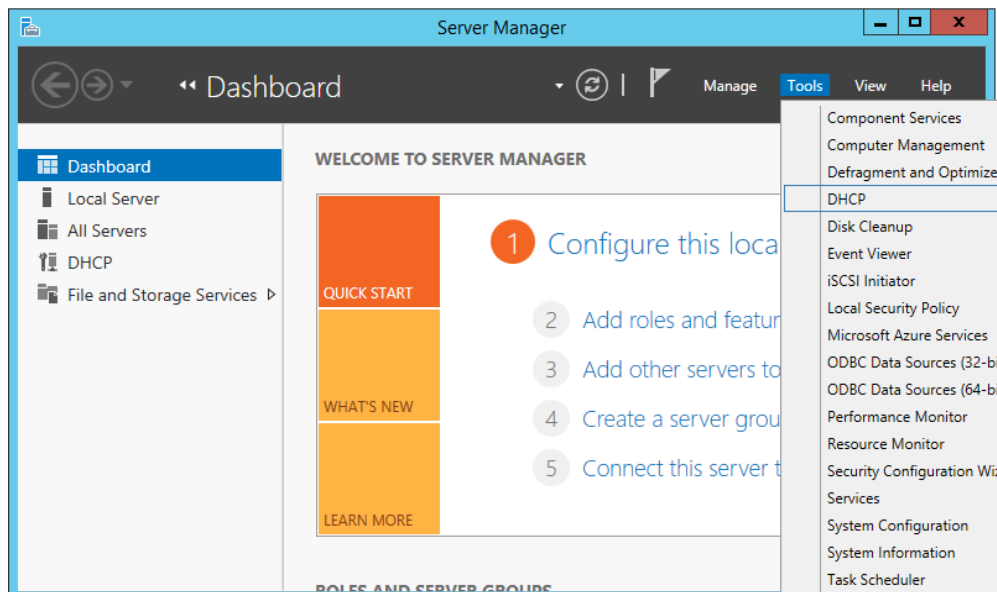
12. **DHCP Post-Install configuration wizard** will start with "**Description**" and instructions about the creation of security groups, here click on **Commit**



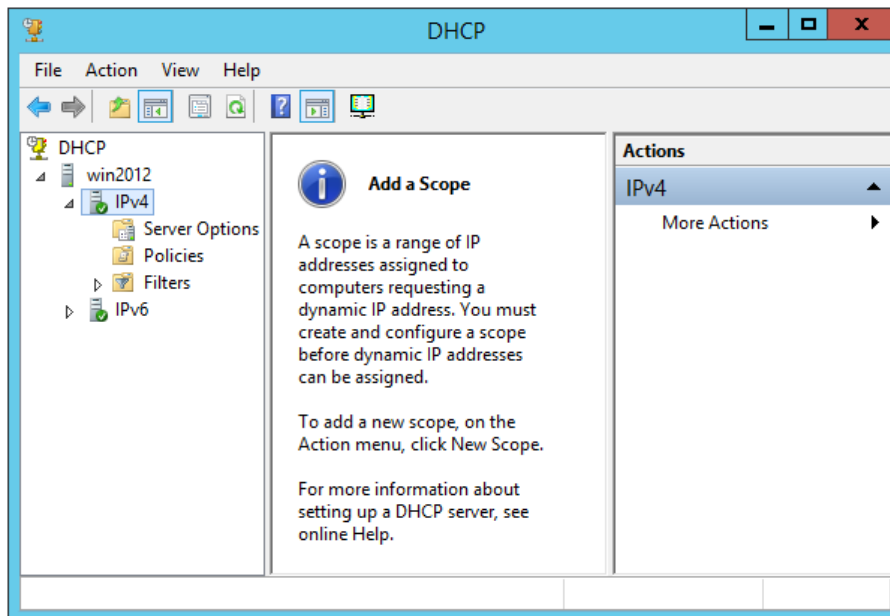
13. From **Summary** screen click on **Close** button.



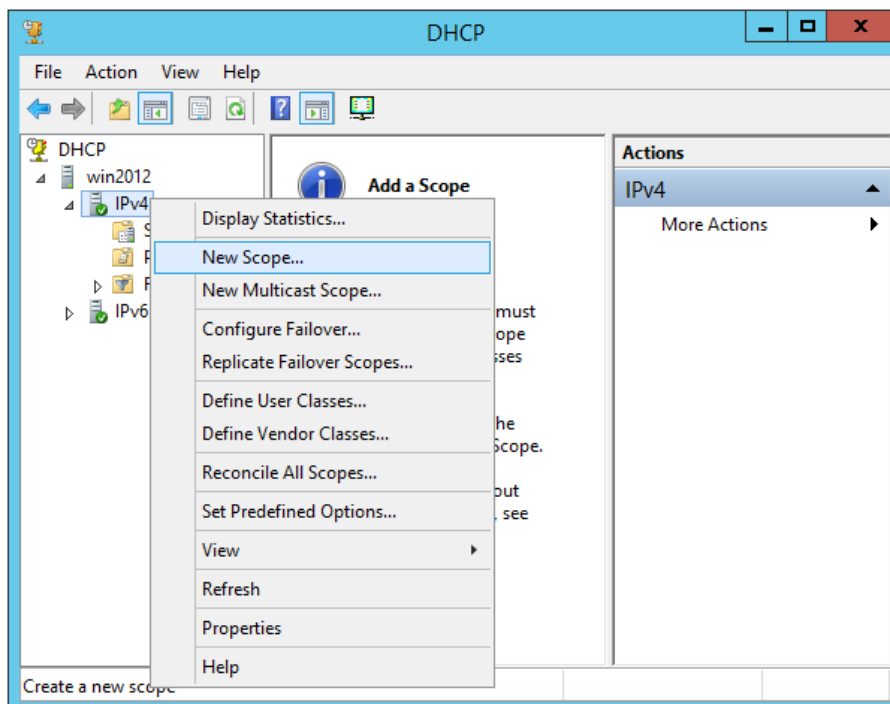
14. Restart computer and from **Server Manager** press on **Tools** and choose **DHCP**.



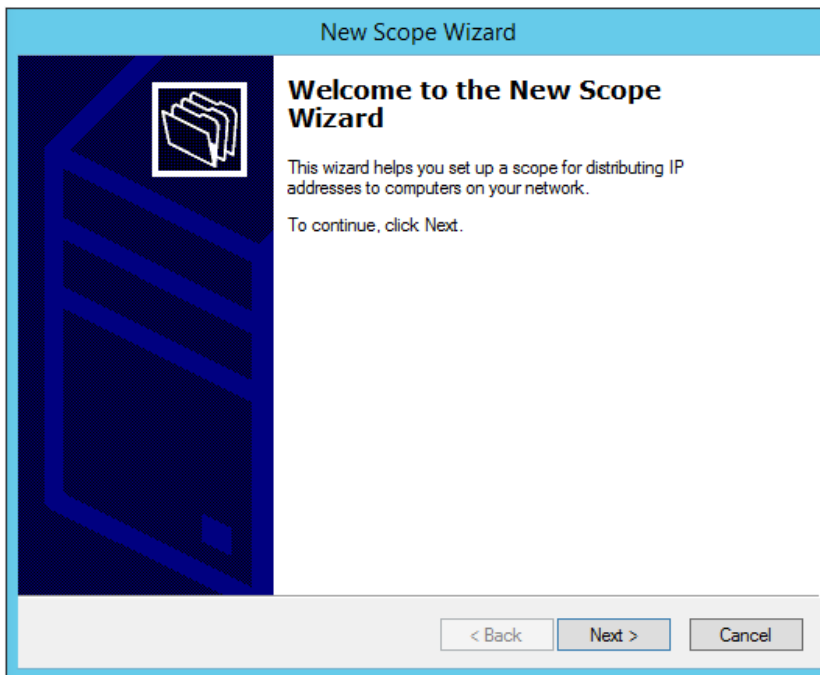
15. From **DHCP** window select your server and click at **IPv4v4**.



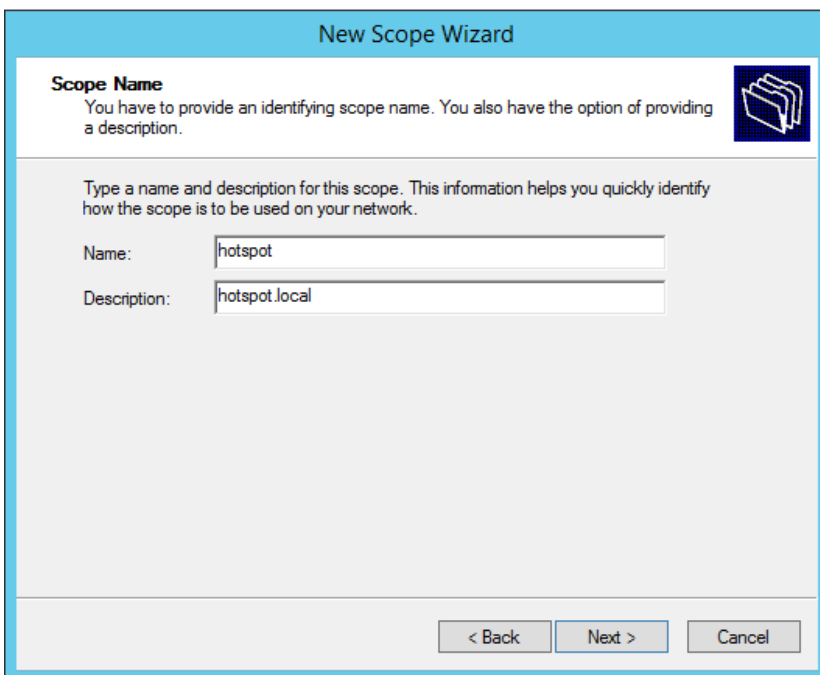
16. From **IPv4v4** right-click menu select **New Scope**



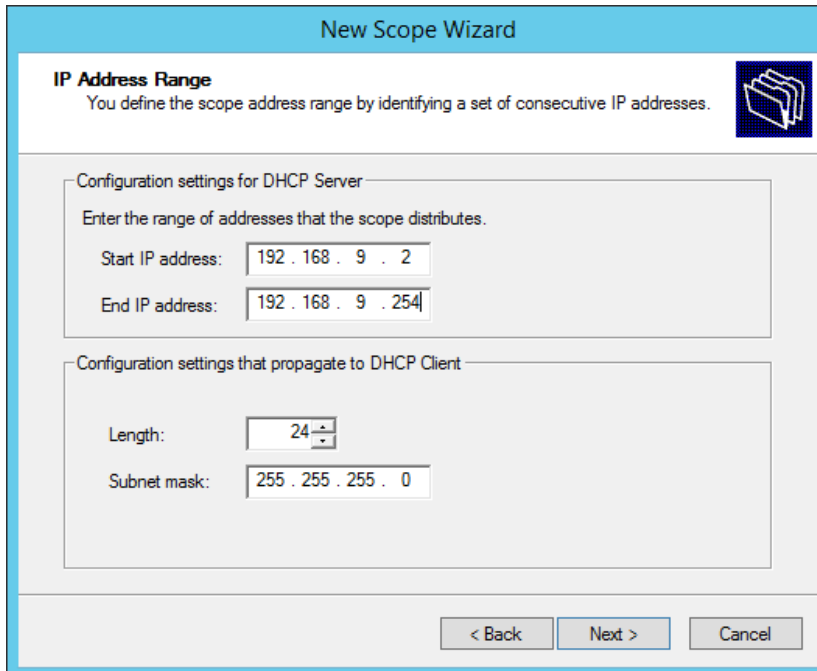
17. From **New Scope Wizard** press on **Next** .



18. Set **Scope Name** and **Description** before you click on **Next**



19. From **IP Address Range** screen enter **Start IP address**, **End IP address**, **Length** and **Subnet mask** and click on **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: 192 . 168 . 9 . 2

End IP address: 192 . 168 . 9 . 254

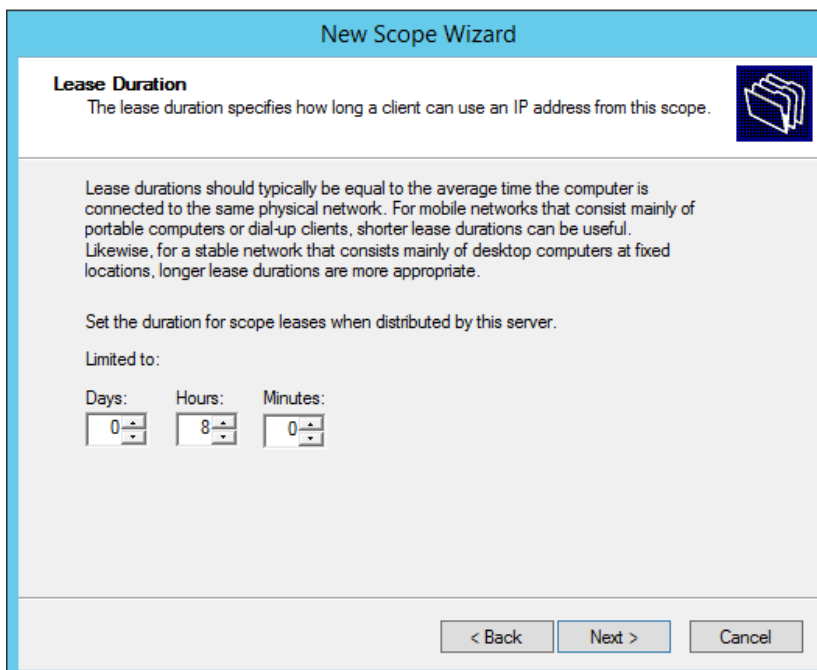
Configuration settings that propagate to DHCP Client

Length: 24

Subnet mask: 255 . 255 . 255 . 0

< Back   Next >   Cancel

20. From **Add Exclusions and Delay** screen set excluded IP or range of addresses if it is required and press on **Next** to continue with setup.
21. At **Lease Duration** screen set 8 hours as lease time duration. Shorter time interval is recommended for wireless networks with higher number of new users. Click on 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.

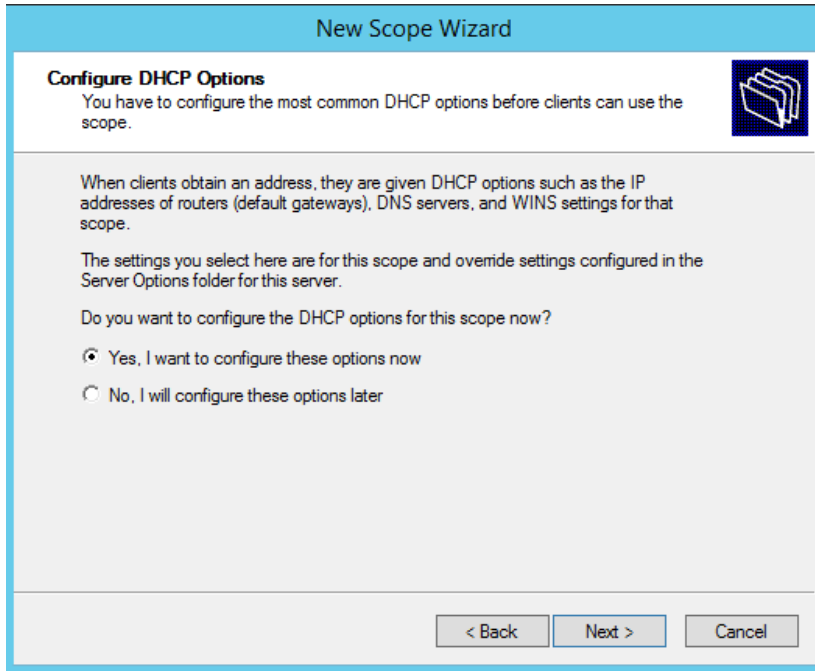
Limited to:

Days: 0   Hours: 8   Minutes: 0

< Back   Next >   Cancel

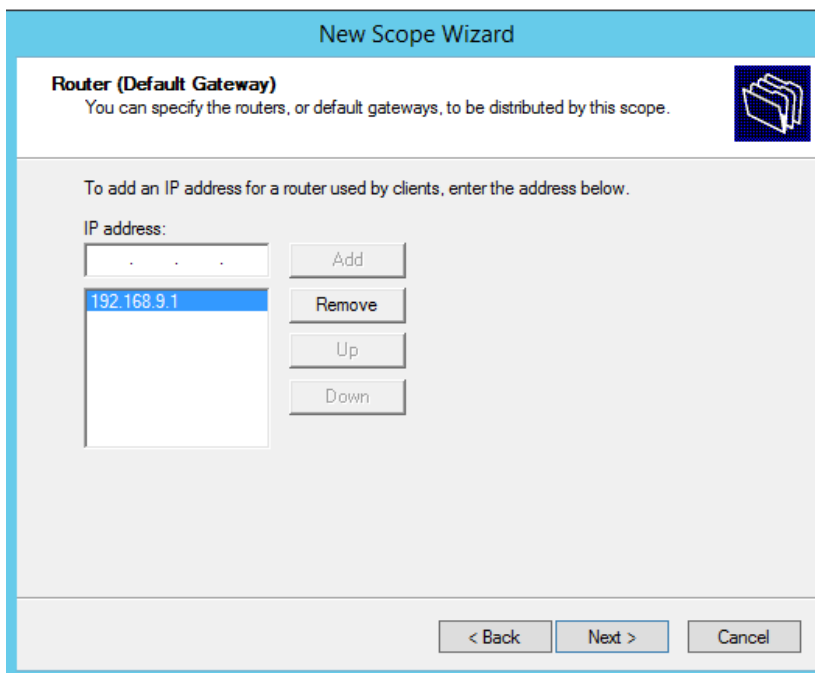


22. From **Configure DHCP Options** select "**Yes, i want to configure these options now**" and click on **Next**



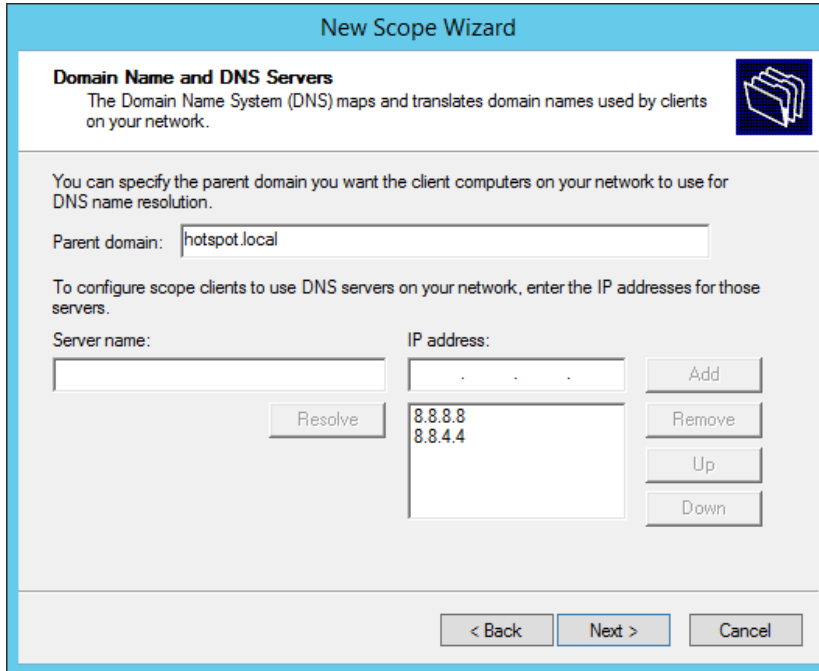
The screenshot shows the 'New Scope Wizard' window with the 'Configure DHCP Options' step selected. The window has a blue header bar with the title 'New Scope Wizard'. Below the header, the title 'Configure DHCP Options' is followed by the instruction 'You have to configure the most common DHCP options before clients can use the scope.' To the right of this text is a folder icon. The main content area explains that DHCP options like IP addresses of routers, DNS servers, and WINS settings are distributed to clients. It then asks 'Do you want to configure the DHCP options for this scope now?' with two radio button options: 'Yes, I want to configure these options now' (which is selected) and 'No, I will configure these options later'. At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'.

23. On **Router (Default Gateway)** screen type your **NIC2 (Local)** static IP address and press on **Add** button. Then click on **Next**



The screenshot shows the 'New Scope Wizard' window with the 'Router (Default Gateway)' step selected. The window has a blue header bar with the title 'New Scope Wizard'. Below the header, the title 'Router (Default Gateway)' is followed by the instruction 'You can specify the routers, or default gateways, to be distributed by this scope.' To the right of this text is a folder icon. The main content area explains that to add an IP address for a router, the user should enter the address below. There is a text input field labeled 'IP address:' with a placeholder '...'. Below this field is a list box containing the IP address '192.168.9.1', which is currently selected. To the right of the list box are four buttons: 'Add', 'Remove', 'Up', and 'Down'. At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'.

24. From **Domain Name and DNS Servers** you need to specify DNS settings (**Parent domain, IP addresses for DNS Servers**). For **Parent Domain** you can enter the name of your Active Directory domain or make up domain name if you don't have one (in this example "**hotspot.local**" domain is used). We recommend using DNS addresses of your ISP or free public DNS servers as Google DNS **8.8.8.8** and **8.8.4.4**. Add DNS in list and click on **Next**.



The screenshot shows the 'New Scope Wizard' window, specifically the 'Domain Name and DNS Servers' step. The window has a blue title bar and a light blue header. The main content area is white. At the top, there's a section titled 'Domain Name and DNS Servers' with a sub-header 'The Domain Name System (DNS) maps and translates domain names used by clients on your network.' Below this, there's a text box for 'Parent domain:' containing 'hotspot.local'. Underneath, there's a section for 'To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.' This section has two columns: 'Server name:' and 'IP address:'. The 'IP address:' column contains a list with '8.8.8.8' and '8.8.4.4'. To the right of the list are buttons for 'Add', 'Remove', 'Up', and 'Down'. At the bottom of the window are buttons for '< Back', 'Next >', and 'Cancel'.

**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:

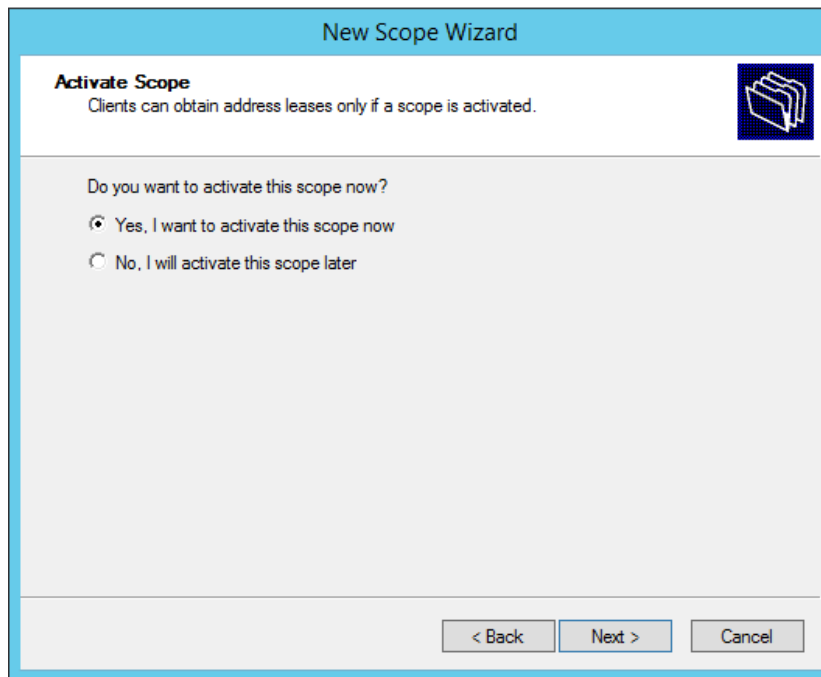
To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.

Server name:	IP address:
<input type="text"/>	<input type="text" value="8.8.8.8"/>
<input type="text"/>	<input type="text" value="8.8.4.4"/>

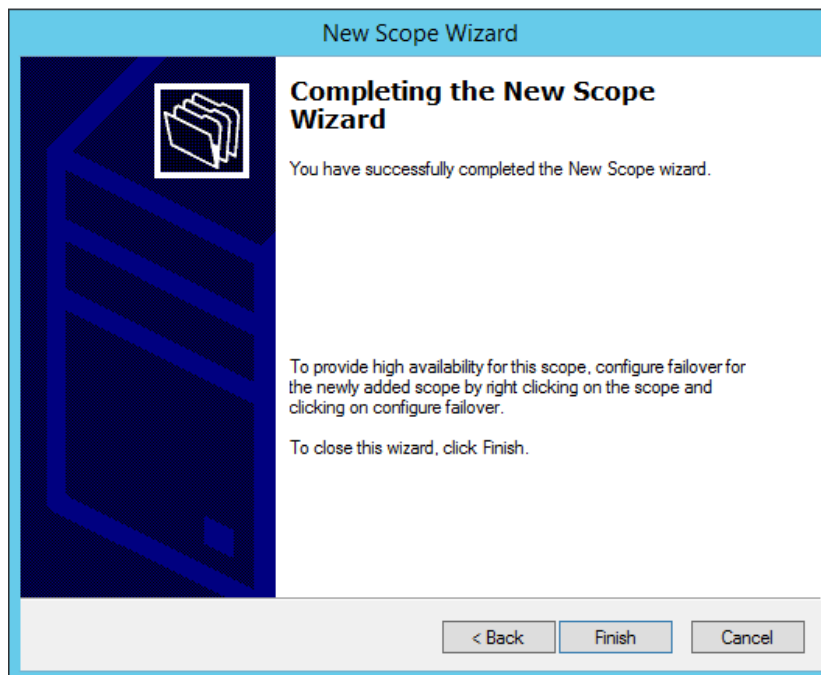
Buttons: Add, Remove, Up, Down, Resolve, < Back, Next >, Cancel

25. You can set IP addresses of the WINS servers on the "WINS Servers" screen if needed and click on **Next**

26. In **Activate Scope** screen select "**Yes, i want to activate this scope now**" and press on Next.



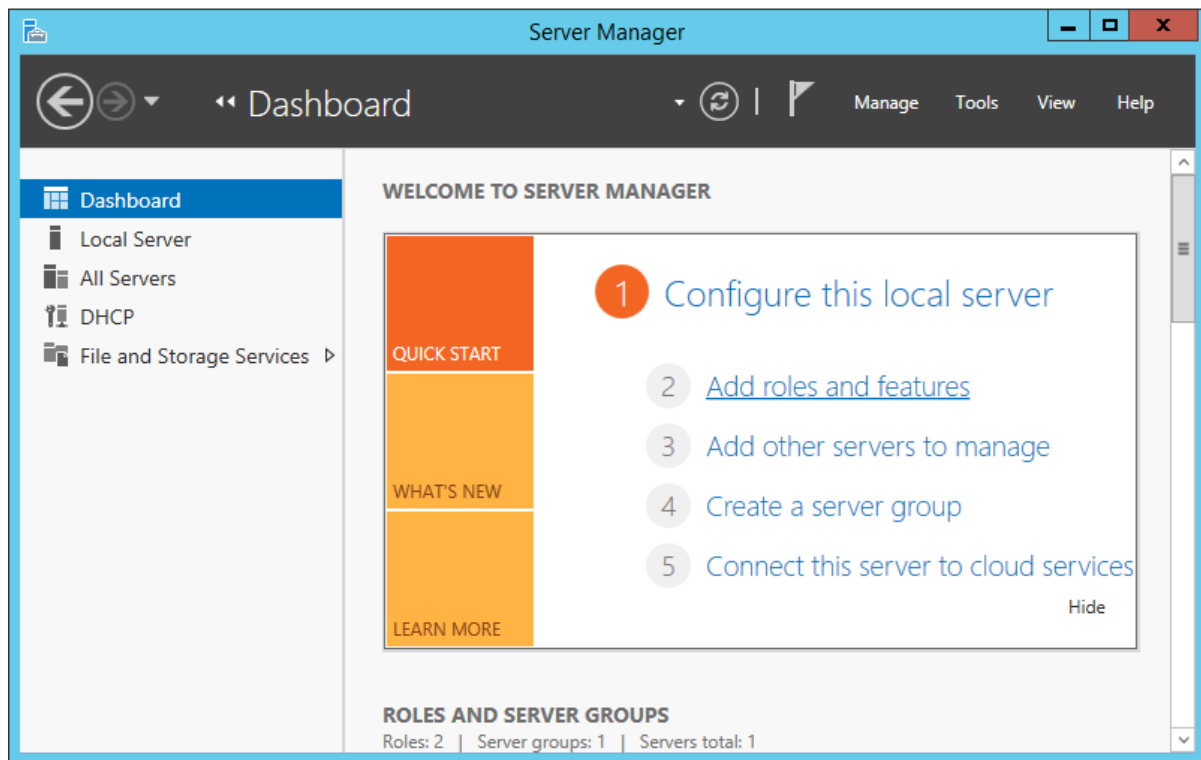
27. On **Completing the New Scope Wizard** click on **Finish**.



## 6.2 Configuring Routing

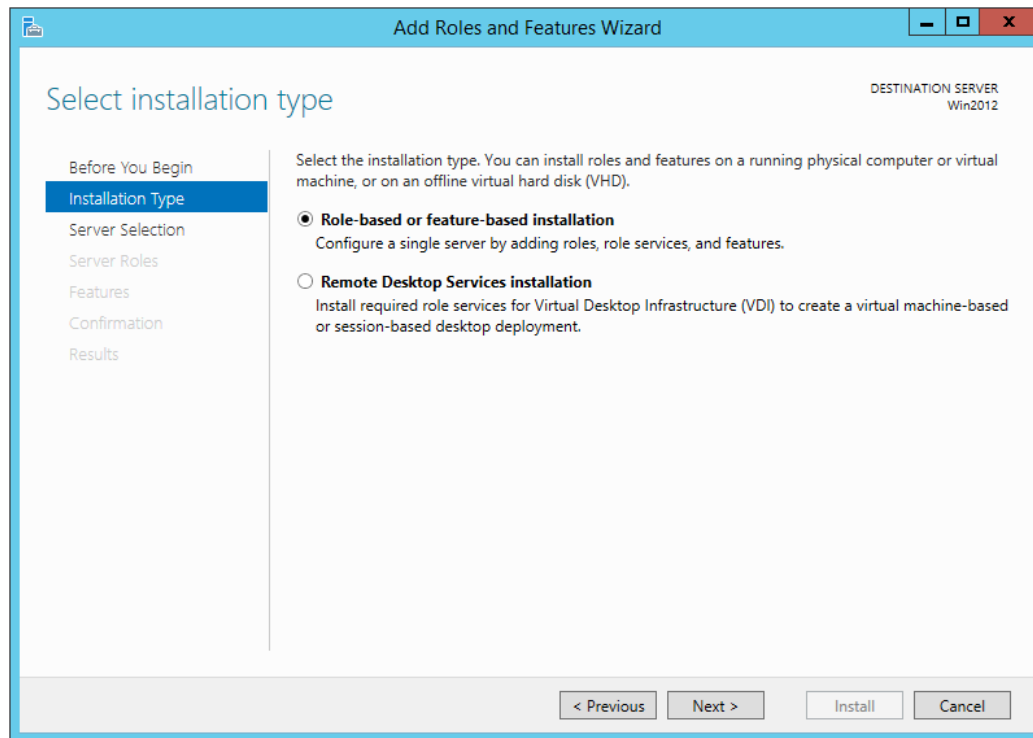
Follow these steps to configure connection sharing by using Routing And Remote Access Services on Windows 2012:

1. Go to **Server Manager - Roles** screen and click **Add roles and features**.



2. In **Add Roles Wizard** window from **Before You Begin** screen click **Next**.

3. From **Installation Type** select "**Role-based or feature-based installation**" and click on **Next**



**Add Roles and Features Wizard**

DESTINATION SERVER  
Win2012

**Select installation type**

Before You Begin  
**Installation Type**  
Server Selection  
Server Roles  
Features  
Confirmation  
Results

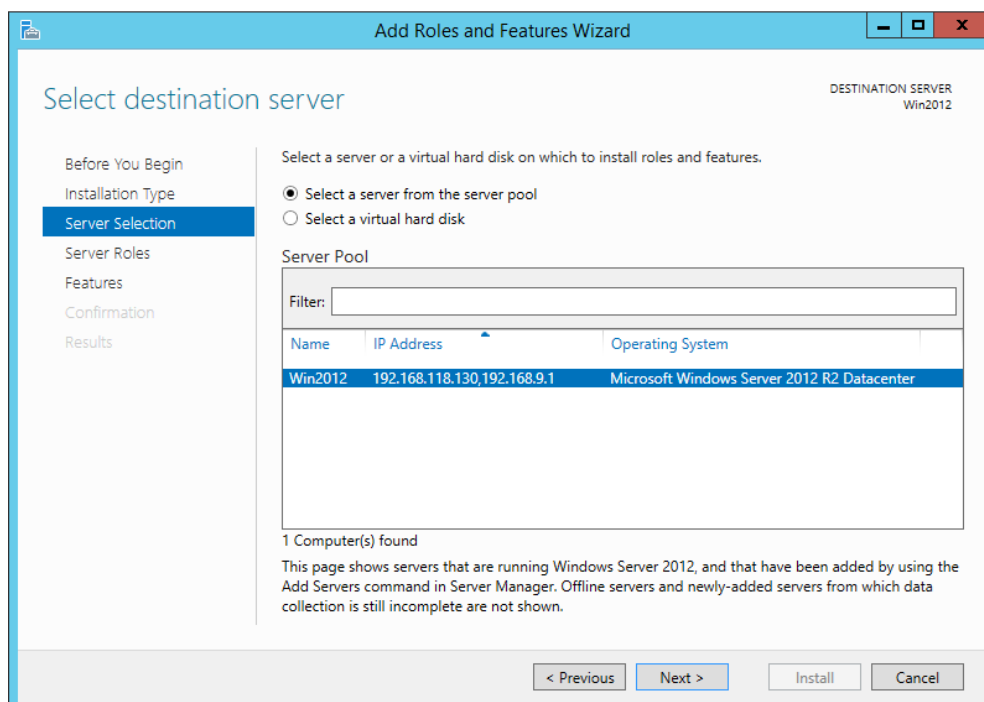
Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

☒ **Role-based or feature-based installation**  
Configure a single server by adding roles, role services, and features.

☐ **Remote Desktop Services installation**  
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

< Previous   Next >   Install   Cancel

4. From **Server Selection** screen choose "**Select a server from the server pool**", press on your server in the list and click on **Next** button.



**Add Roles and Features Wizard**

DESTINATION SERVER  
Win2012

**Select destination server**

Before You Begin  
Installation Type  
**Server Selection**  
Server Roles  
Features  
Confirmation  
Results

Select a server or a virtual hard disk on which to install roles and features.

☒ Select a server from the server pool  
☐ Select a virtual hard disk

**Server Pool**

Filter:

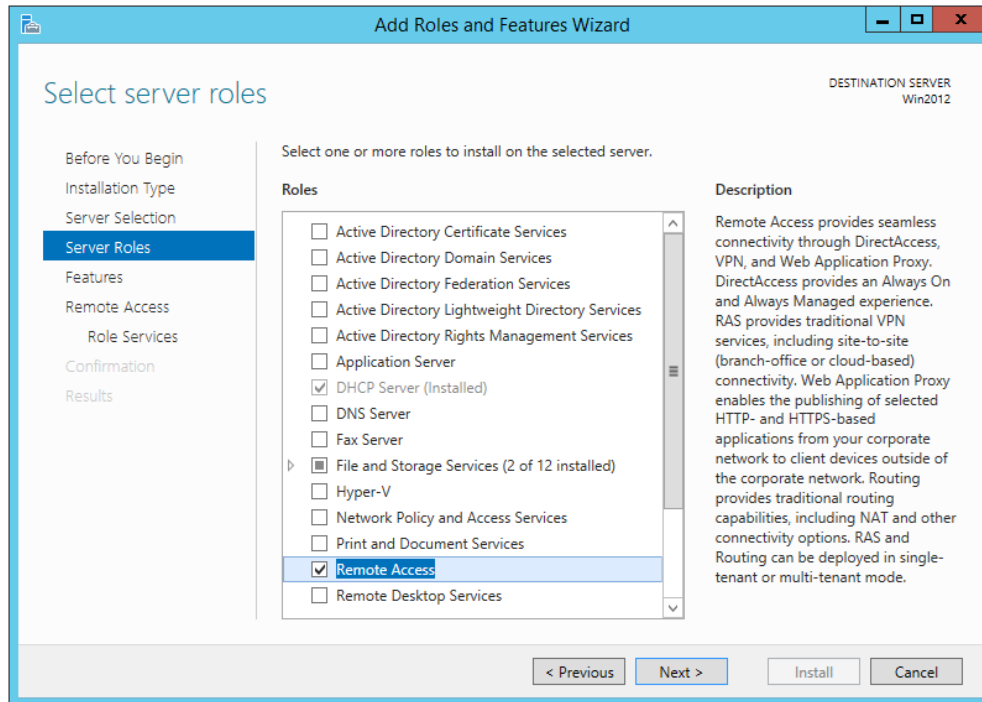
Name	IP Address	Operating System
Win2012	192.168.118.130,192.168.9.1	Microsoft Windows Server 2012 R2 Datacenter

1 Computer(s) found

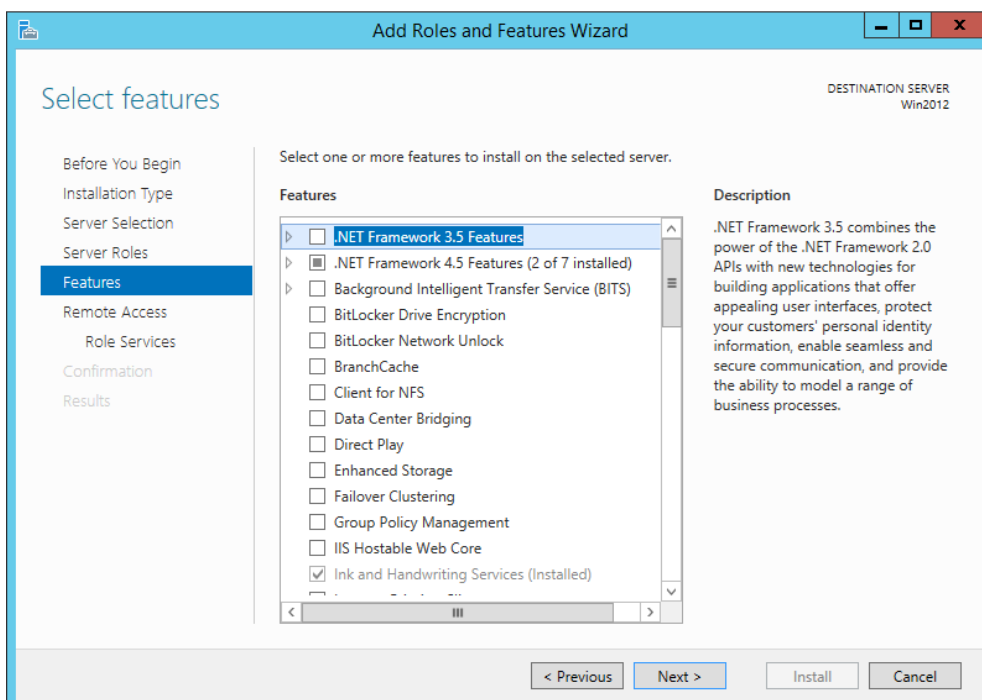
This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous   Next >   Install   Cancel

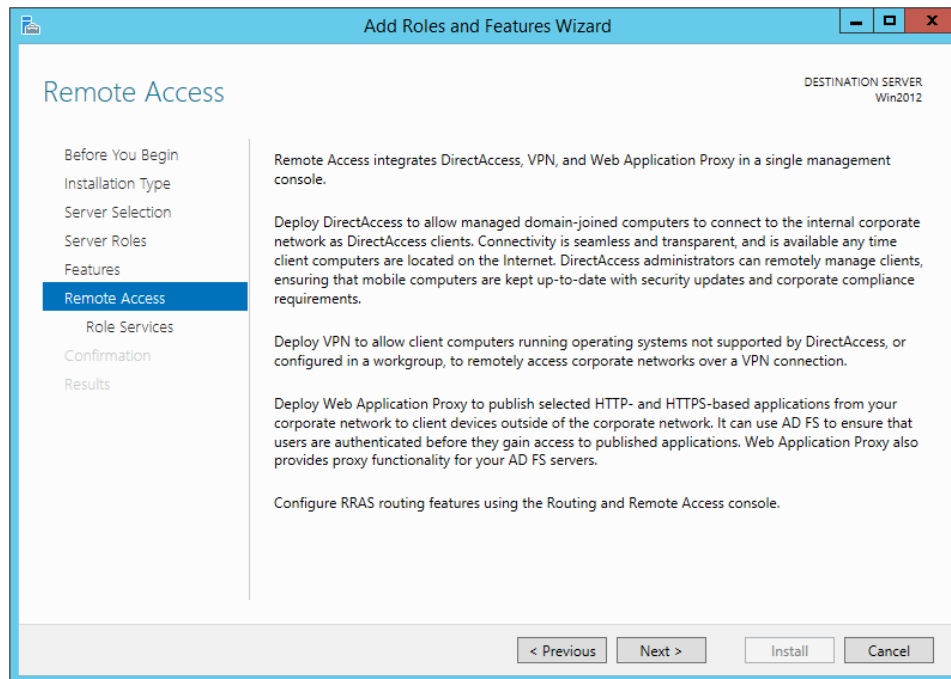
5. On **Server Roles** screen select "**Remote Access**" role and click on **Next**



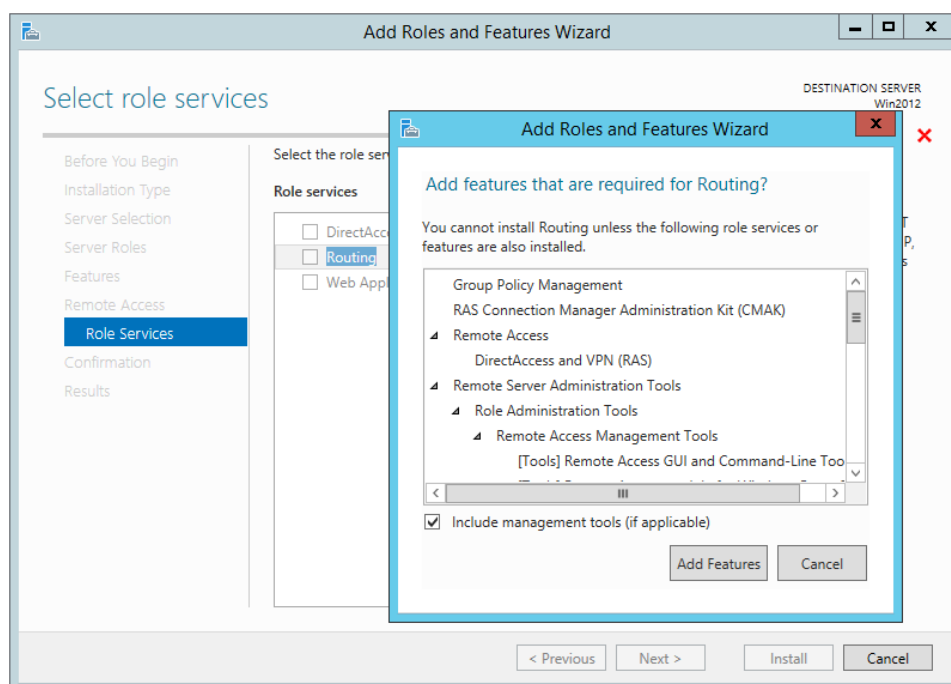
6. From **Features** screen is already selected all required features that should be activated, click on **Next**



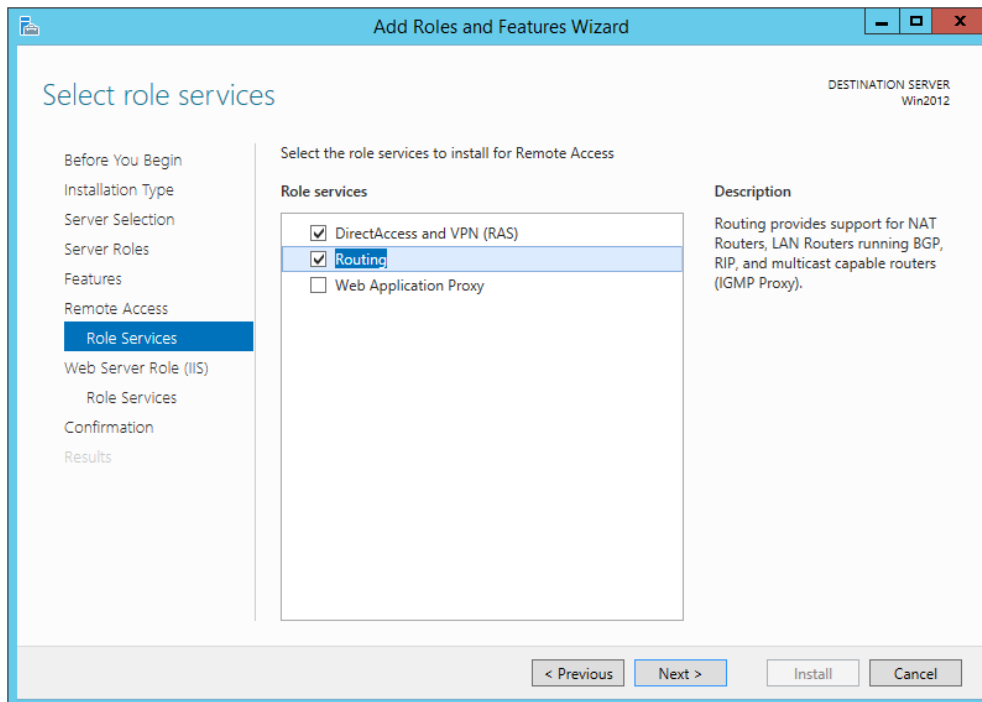
7. On **Remote Access** screen are given information about all available options from the role. Click on **Next** button.



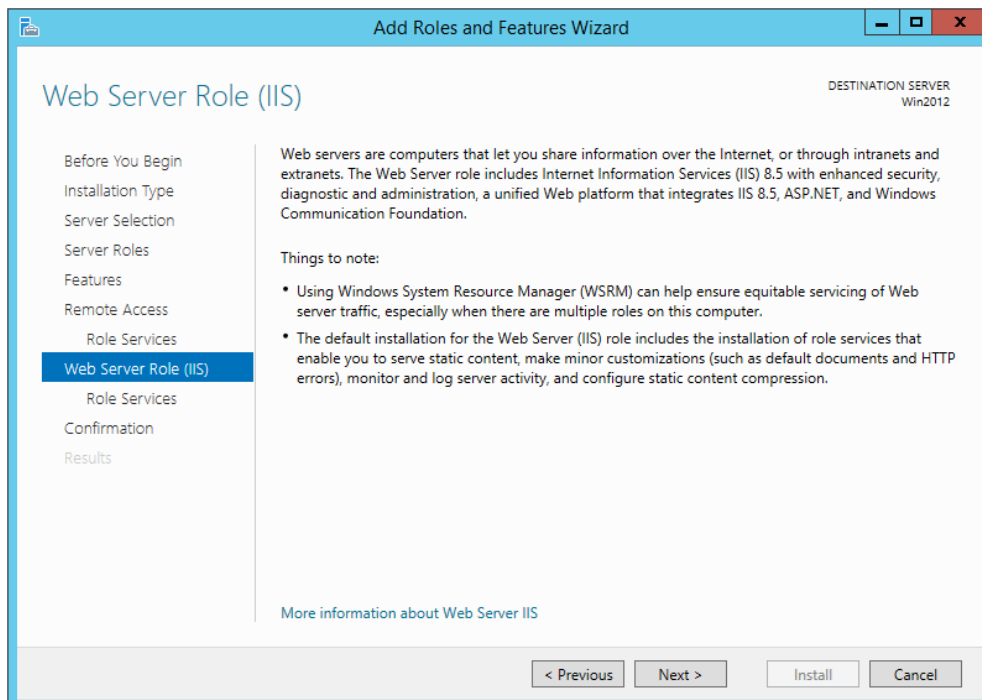
8. From **Role Services** screen select "**Routing**", this will bring you new pop-up window with required features for Routing, click on **Add Features**.



9. This will also activate "**DirectAccess and VPN (RAS)**" by default and click on **Next**.

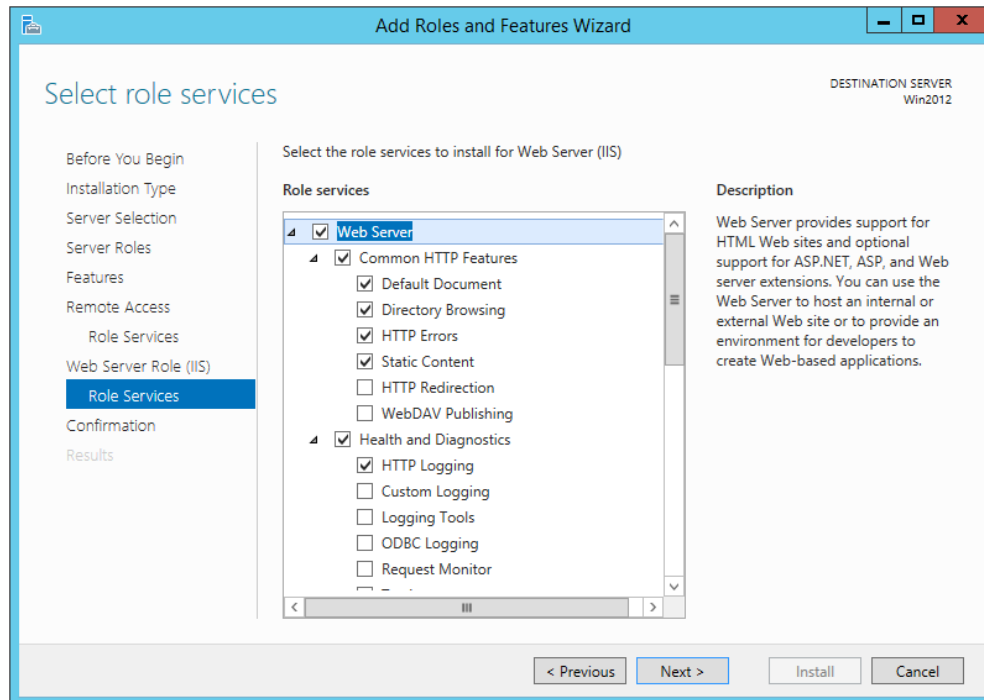


10. It will bring **Web Serve Role (IIS)** screen on which you need to press on **Next**

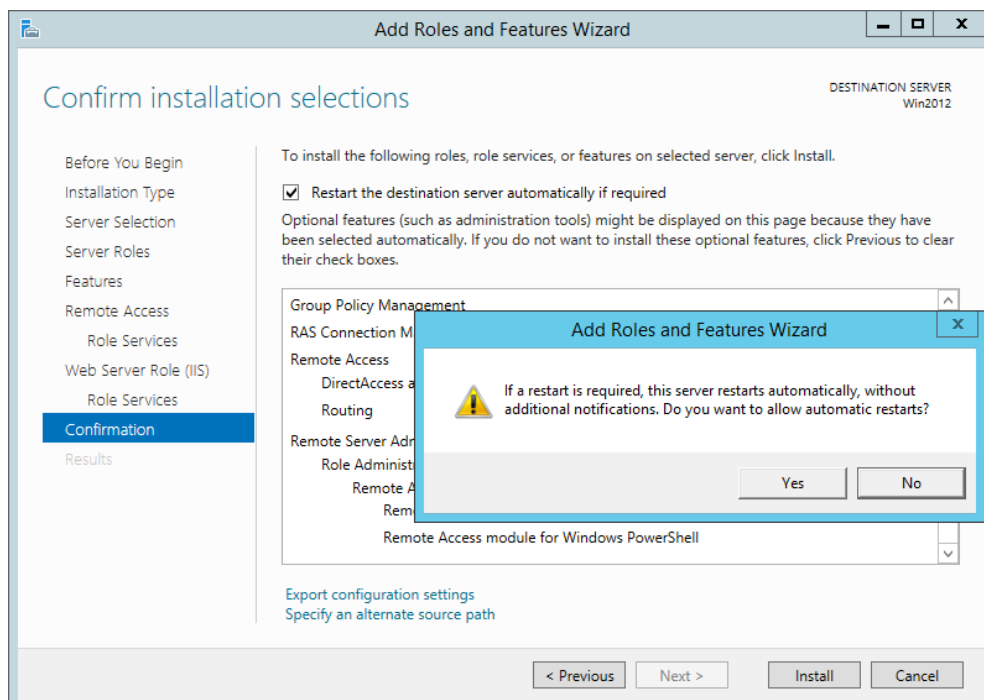




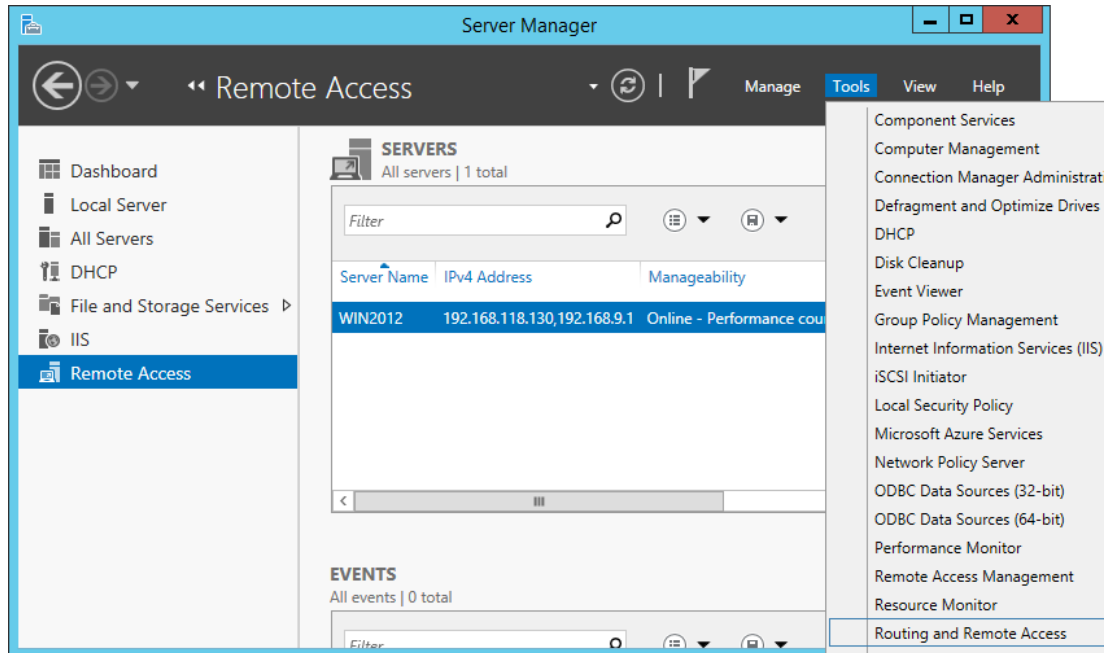
11. **Role Services** screen show list of services required for installation of Web Server (IIS), press on **Next**.



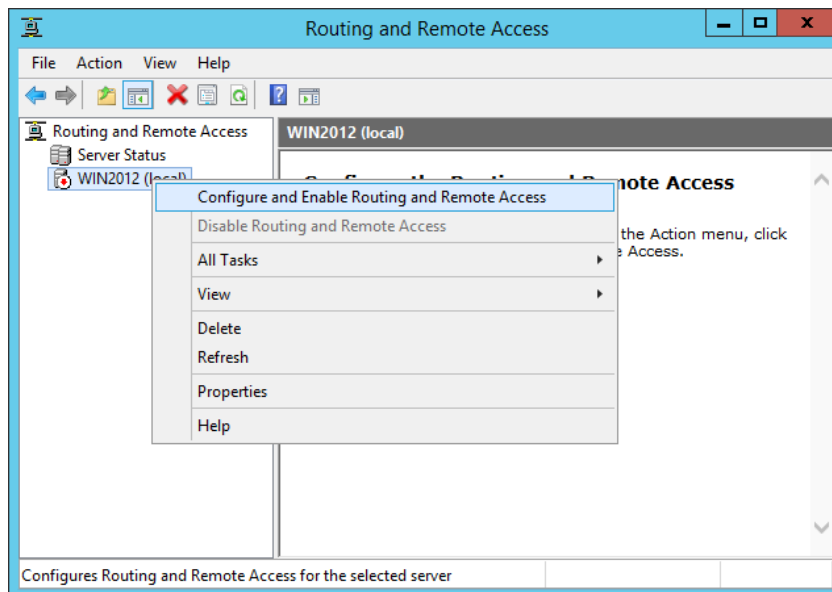
12. From **Confirmation** screen select "**Restart the destination server automatically if required**", from pop-up windows click on **Yes** to allow automatic restart, and press on **Install**.



13. When installation is finished, close **"Add roles and Features Wizard"**.
14. Go to **Server Manager** and from **Tools** panel click on **"Routing and Remote Access"**

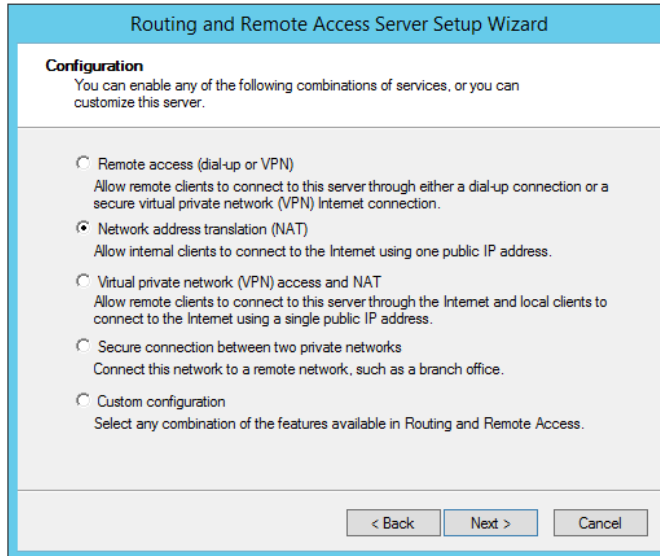


15. From **Routing and Remote Access** windows make right-click on your server and choose **"Configure and Enable Routing and Remote Access"**



16. From **Routing and Remote Access Server Setup Wizard** screen click on **Next**.

17. From **Configuration** screen select "**Network address translation (NAT)**" and click on **Next**



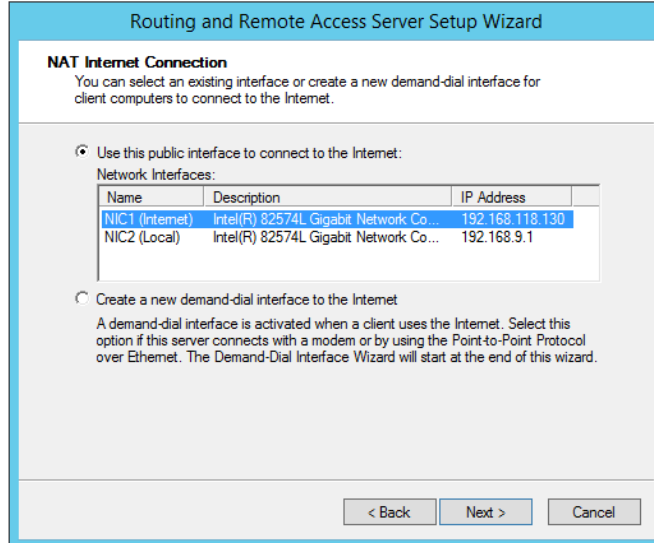
**Routing and Remote Access Server Setup Wizard**

**Configuration**  
You can enable any of the following combinations of services, or you can customize this server.

- ☐ Remote access (dial-up or VPN)  
Allow remote clients to connect to this server through either a dial-up connection or a secure virtual private network (VPN) Internet connection.
- ☒ **Network address translation (NAT)**  
Allow internal clients to connect to the Internet using one public IP address.
- ☐ Virtual private network (VPN) access and NAT  
Allow remote clients to connect to this server through the Internet and local clients to connect to the Internet using a single public IP address.
- ☐ Secure connection between two private networks  
Connect this network to a remote network, such as a branch office.
- ☐ Custom configuration  
Select any combination of the features available in Routing and Remote Access.

< Back   Next >   Cancel

18. On **NAT Internet Connection** select network interface which is used for connecting to Internet and be sure that "**Use this public interface to connect to the Internet**" is used, then click on **Next**



**Routing and Remote Access Server Setup Wizard**

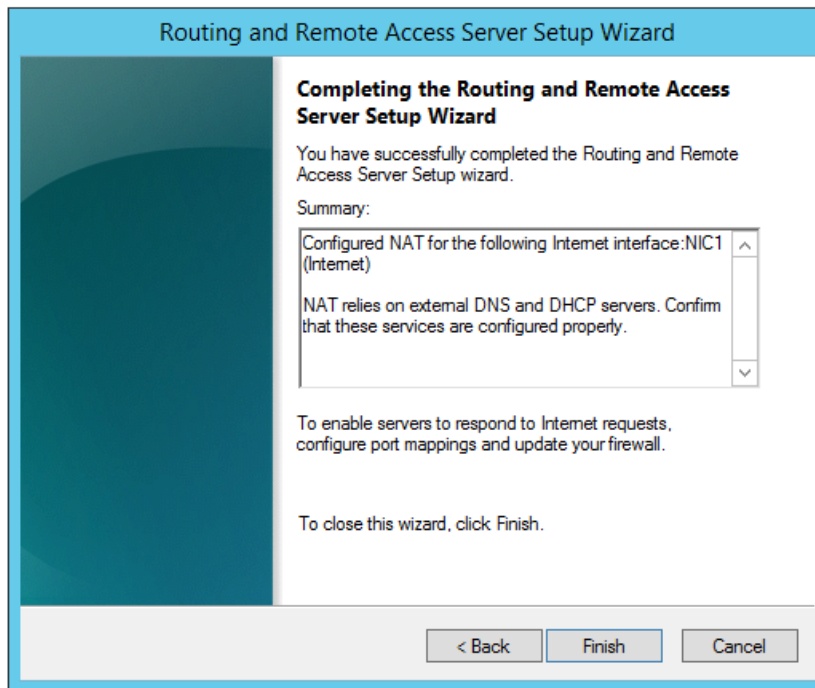
**NAT Internet Connection**  
You can select an existing interface or create a new demand-dial interface for client computers to connect to the Internet.

- ☒ Use this public interface to connect to the Internet:  

Name	Description	IP Address
NIC1 (Internet)	Intel(R) 82574L Gigabit Network Co...	192.168.118.130
NIC2 (Local)	Intel(R) 82574L Gigabit Network Co...	192.168.9.1
- ☐ Create a new demand-dial interface to the Internet  
 A demand-dial interface is activated when a client uses the Internet. Select this option if this server connects with a modem or by using the Point-to-Point Protocol over Ethernet. The Demand-Dial Interface Wizard will start at the end of this wizard.

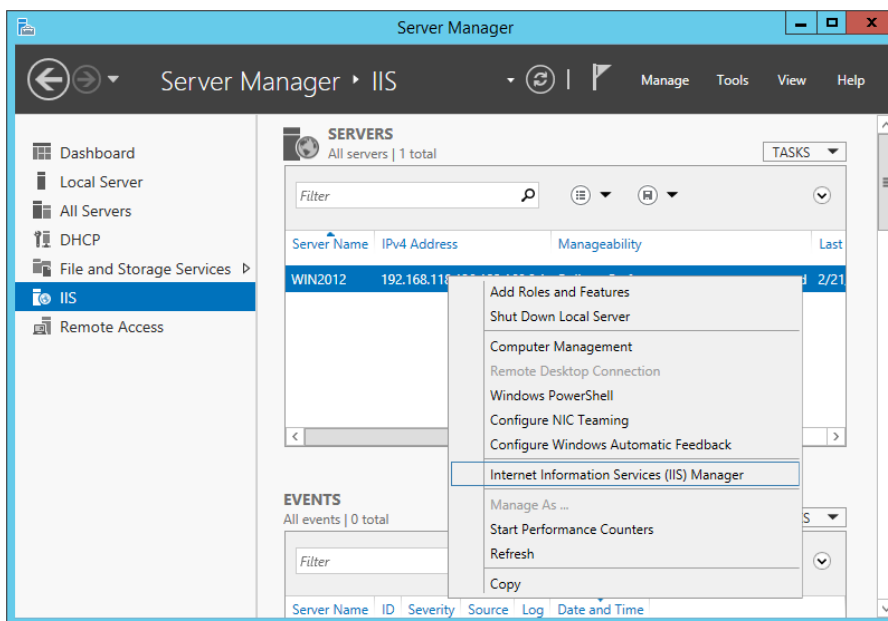
< Back   Next >   Cancel

19. At **Completing the Routing and Remote Access Server Setup Wizard** press on **Finish**

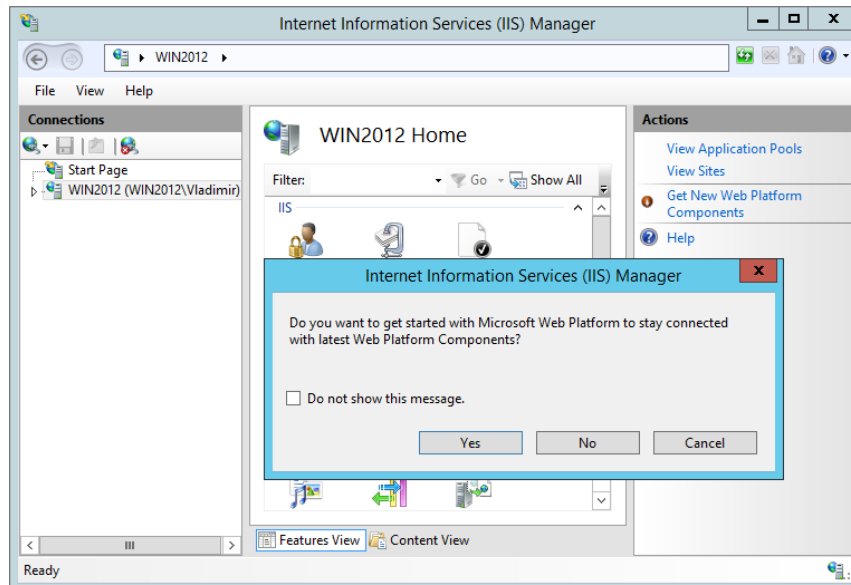


20. It is required to change **IIS** port from default port 80 in order to use Antamedia applications on computer.

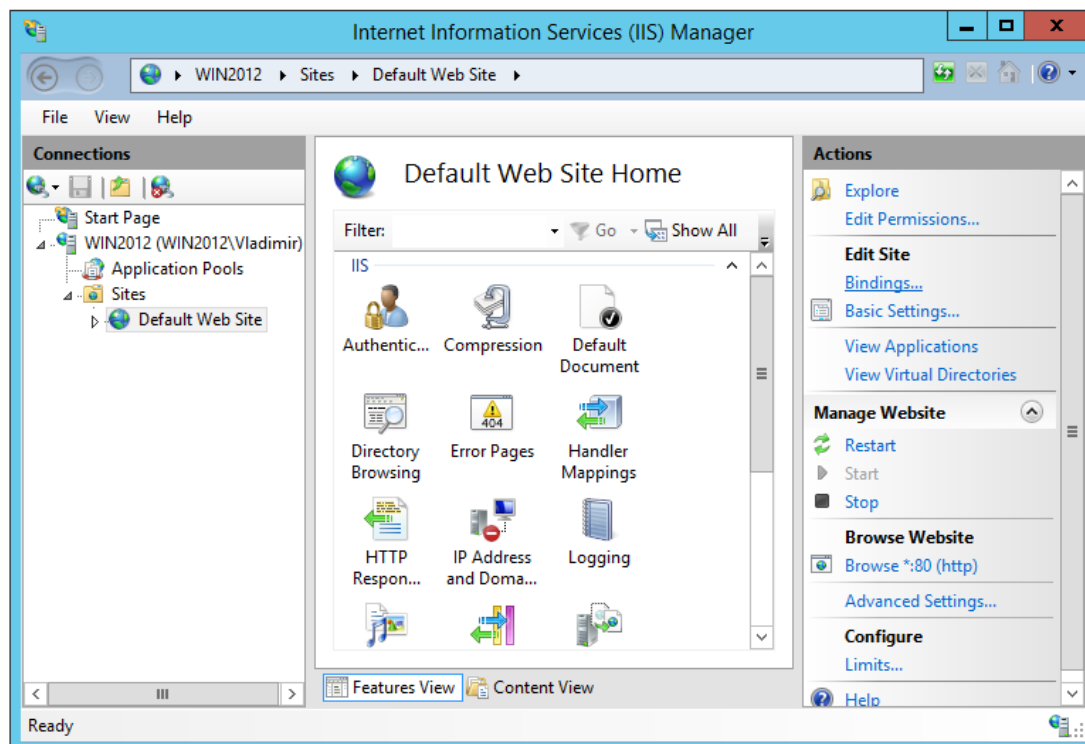
21. Go to **Server Manager** and select **IIS** panel. From right click menu on you server select "**Internet Information Services (IIS) Manager**"



22. In **Internet Information Services Manager** select your server and from new pop-up set to stay connected to latest Web Platform Components with click on **Yes**

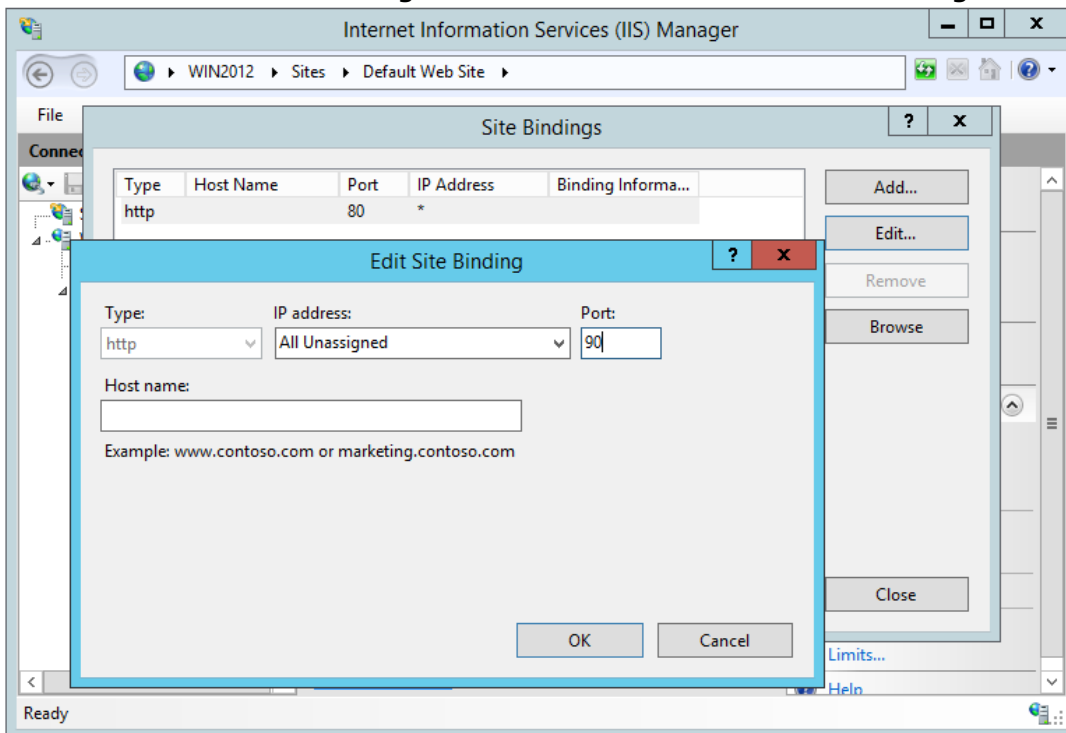


23. Click again on your server and from **Sites** select "**Default Web Site**".  
24. In **Actions** panel click on "**Bindings**" link



25. From **Site Bindings** select type http with port 80 and click on **Edit**  
26. In **Edit Site Binding** window change **port 80** to some other port, for example **port 90** and click on

**OK.** After that close **Site Bindings** and **Internet Information Services Manager** window.



Windows Server 2012 is now ready to forward packets from (internal) local network to the Internet and to install Antamedia HotSpot.



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