

Adding RRAS to Server 2008

September 7, 2010

Setting Up RRAS

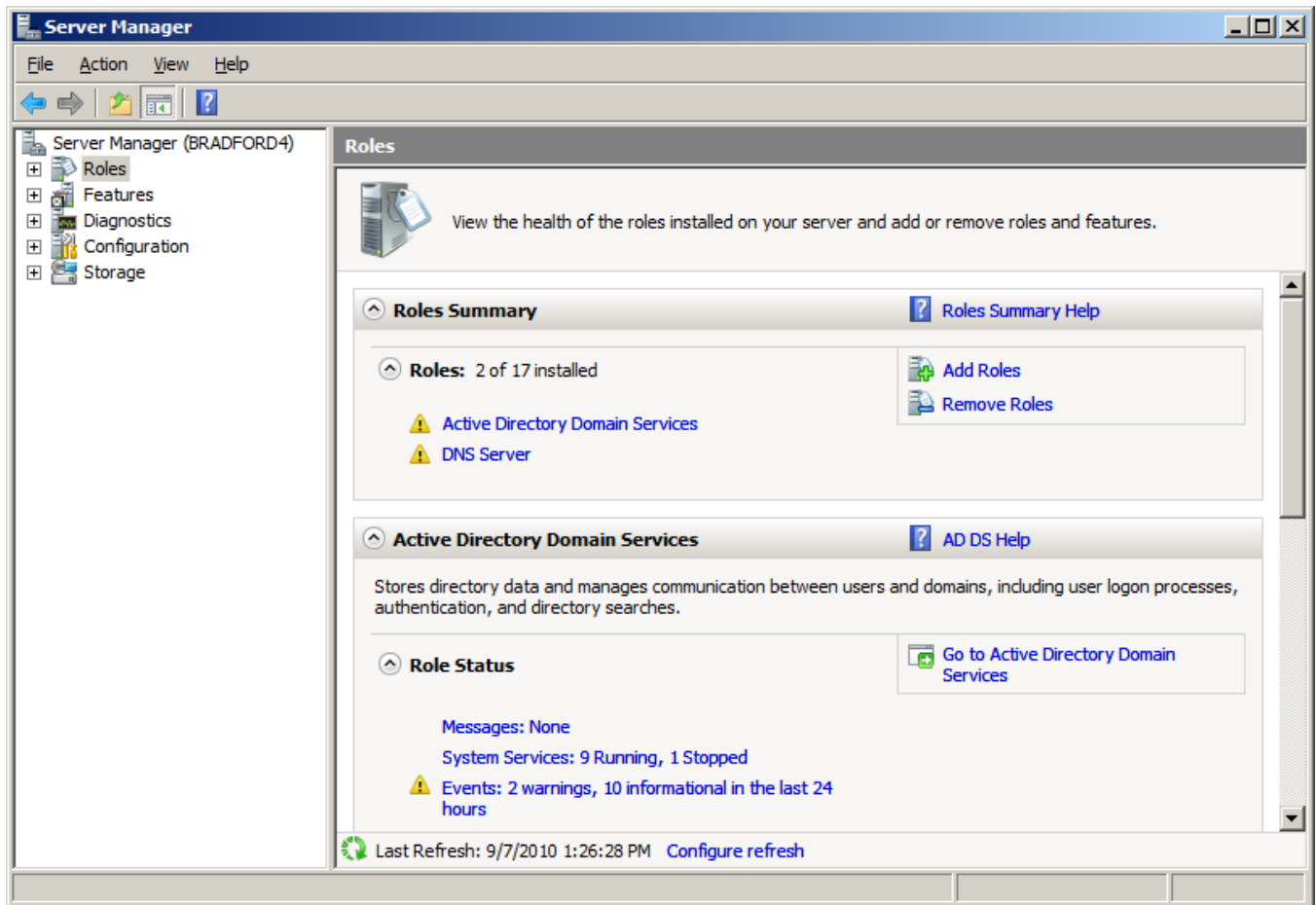
After setting up Active Directory, our client computers do not have access to the Internet. We need to add the Routing and Remote Access Server role to our machine, so the client computers can access the Wide Area Network beyond our server.

We want two Network Interface Cards on our server, one that connects to the outside world and one that connects to the client machines. Many times we name the cards, exterior and interior.



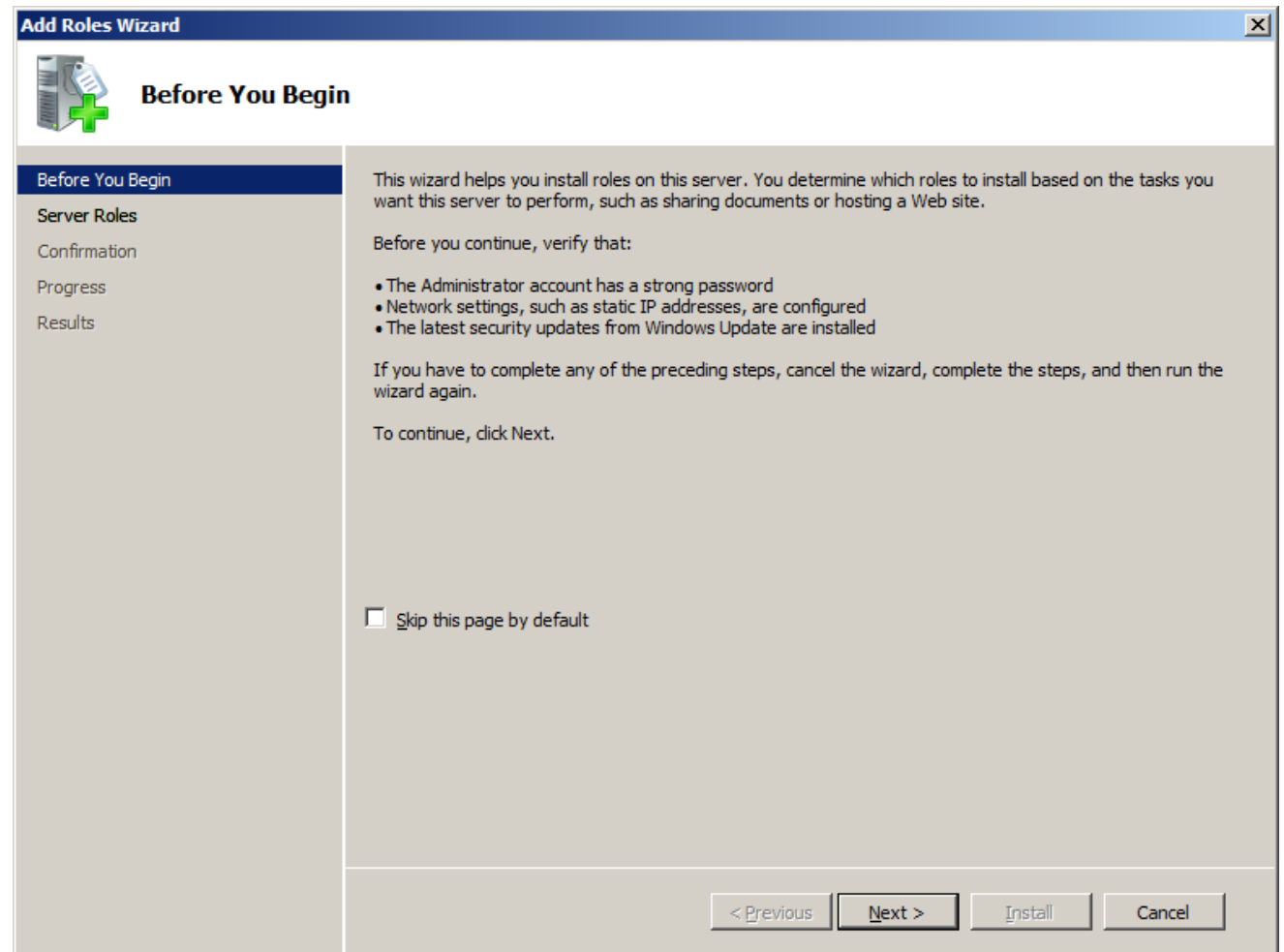
Server Manager

We open the Server Manager after visiting Administrative Tools and we choose Roles in the left pane. We can see that presently the server is set for DNS and Active Directory. To insert another role, we pick the Add Role hyperlink.



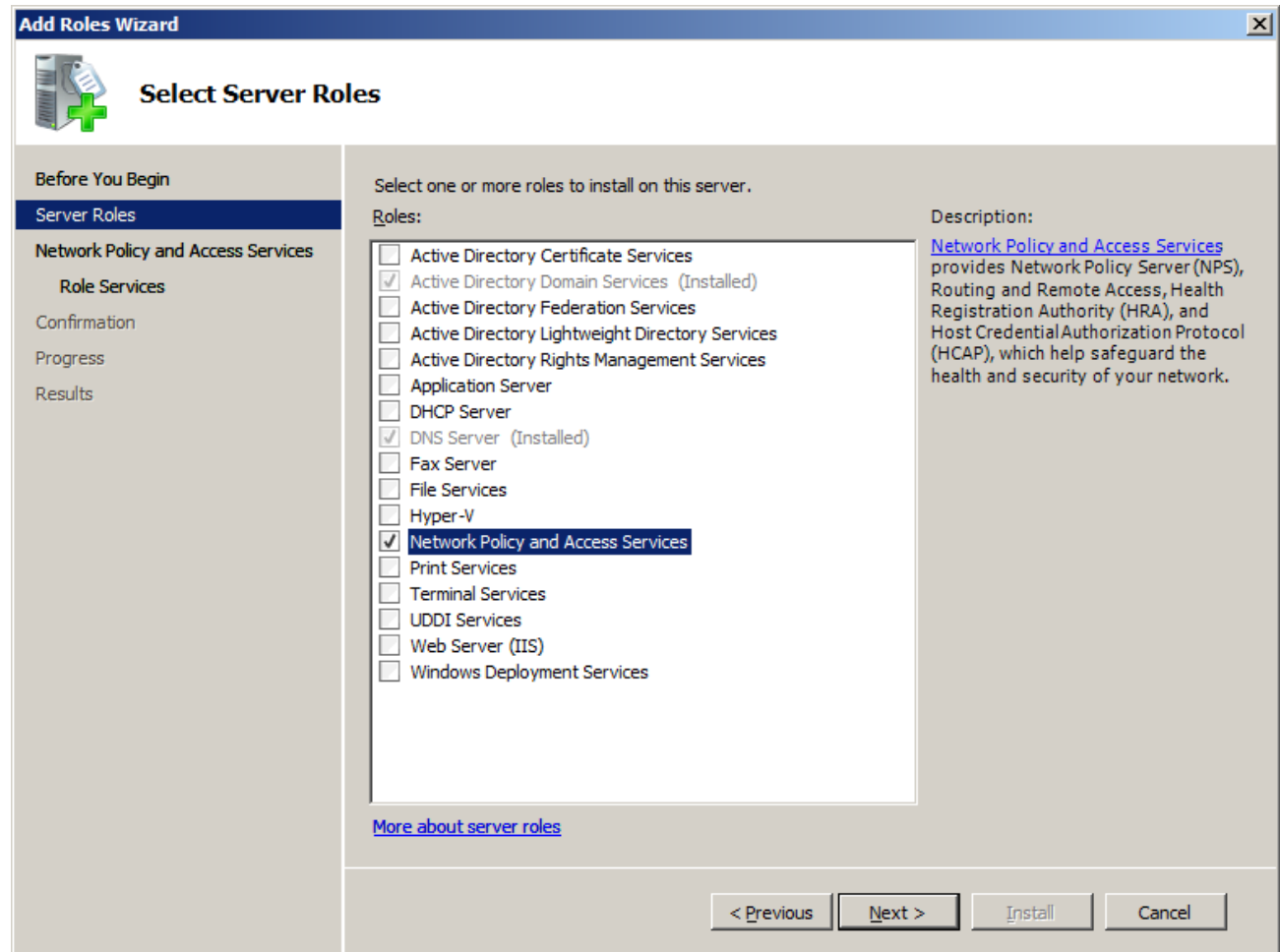
Before You Begin

Before we begin, we are reminded that we should have our administrator password, our static IP addresses configured and that all Windows Updates are loaded. Our server is ready, so we press on the Next button to continue.



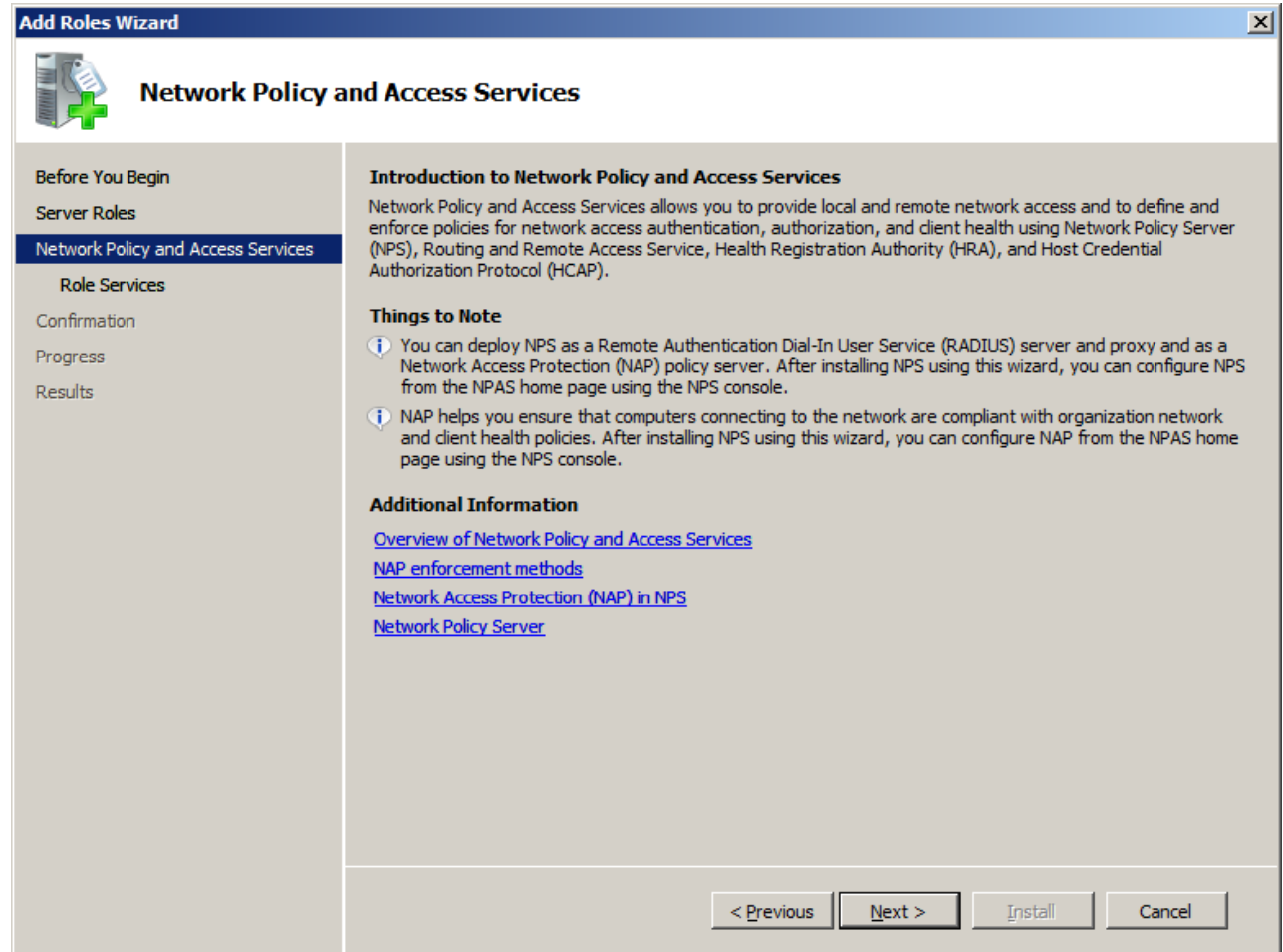
Select Server Roles

We annotate the Network Policy and Access Services checkbox and we pick the Next button to advance.



Network Policy and Access Services

On this window, we can learn more about the Access Services.



The screenshot shows the 'Add Roles Wizard' window for 'Network Policy and Access Services'. The window title is 'Add Roles Wizard' and the main heading is 'Network Policy and Access Services'. The left sidebar contains a list of steps: 'Before You Begin', 'Server Roles', 'Network Policy and Access Services' (highlighted), 'Role Services', 'Confirmation', 'Progress', and 'Results'. The main content area is titled 'Introduction to Network Policy and Access Services' and contains the following text: 'Network Policy and Access Services allows you to provide local and remote network access and to define and enforce policies for network access authentication, authorization, and client health using Network Policy Server (NPS), Routing and Remote Access Service, Health Registration Authority (HRA), and Host Credential Authorization Protocol (HCAP)'. Below this is a 'Things to Note' section with two items: 'You can deploy NPS as a Remote Authentication Dial-In User Service (RADIUS) server and proxy and as a Network Access Protection (NAP) policy server. After installing NPS using this wizard, you can configure NPS from the NPAS home page using the NPS console.' and 'NAP helps you ensure that computers connecting to the network are compliant with organization network and client health policies. After installing NPS using this wizard, you can configure NAP from the NPAS home page using the NPS console.' At the bottom, there is an 'Additional Information' section with three links: 'Overview of Network Policy and Access Services', 'NAP enforcement methods', and 'Network Access Protection (NAP) in NPS'. The bottom right corner of the window has four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

Add Roles Wizard

Network Policy and Access Services

Before You Begin
Server Roles
Network Policy and Access Services
Role Services
Confirmation
Progress
Results

Introduction to Network Policy and Access Services

Network Policy and Access Services allows you to provide local and remote network access and to define and enforce policies for network access authentication, authorization, and client health using Network Policy Server (NPS), Routing and Remote Access Service, Health Registration Authority (HRA), and Host Credential Authorization Protocol (HCAP).

Things to Note

- You can deploy NPS as a Remote Authentication Dial-In User Service (RADIUS) server and proxy and as a Network Access Protection (NAP) policy server. After installing NPS using this wizard, you can configure NPS from the NPAS home page using the NPS console.
- NAP helps you ensure that computers connecting to the network are compliant with organization network and client health policies. After installing NPS using this wizard, you can configure NAP from the NPAS home page using the NPS console.

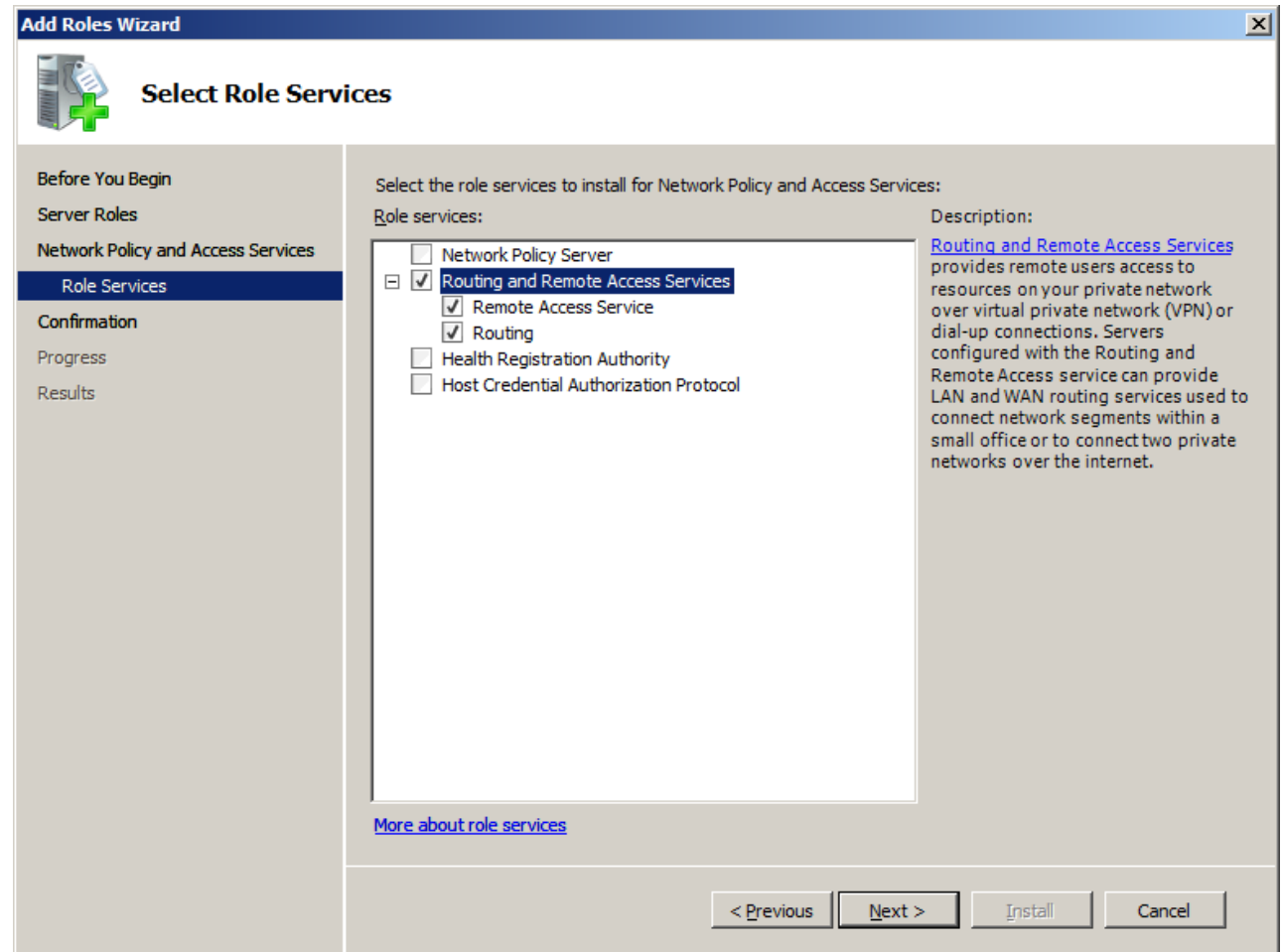
Additional Information

- [Overview of Network Policy and Access Services](#)
- [NAP enforcement methods](#)
- [Network Access Protection \(NAP\) in NPS](#)
- [Network Policy Server](#)

< Previous Next > Install Cancel

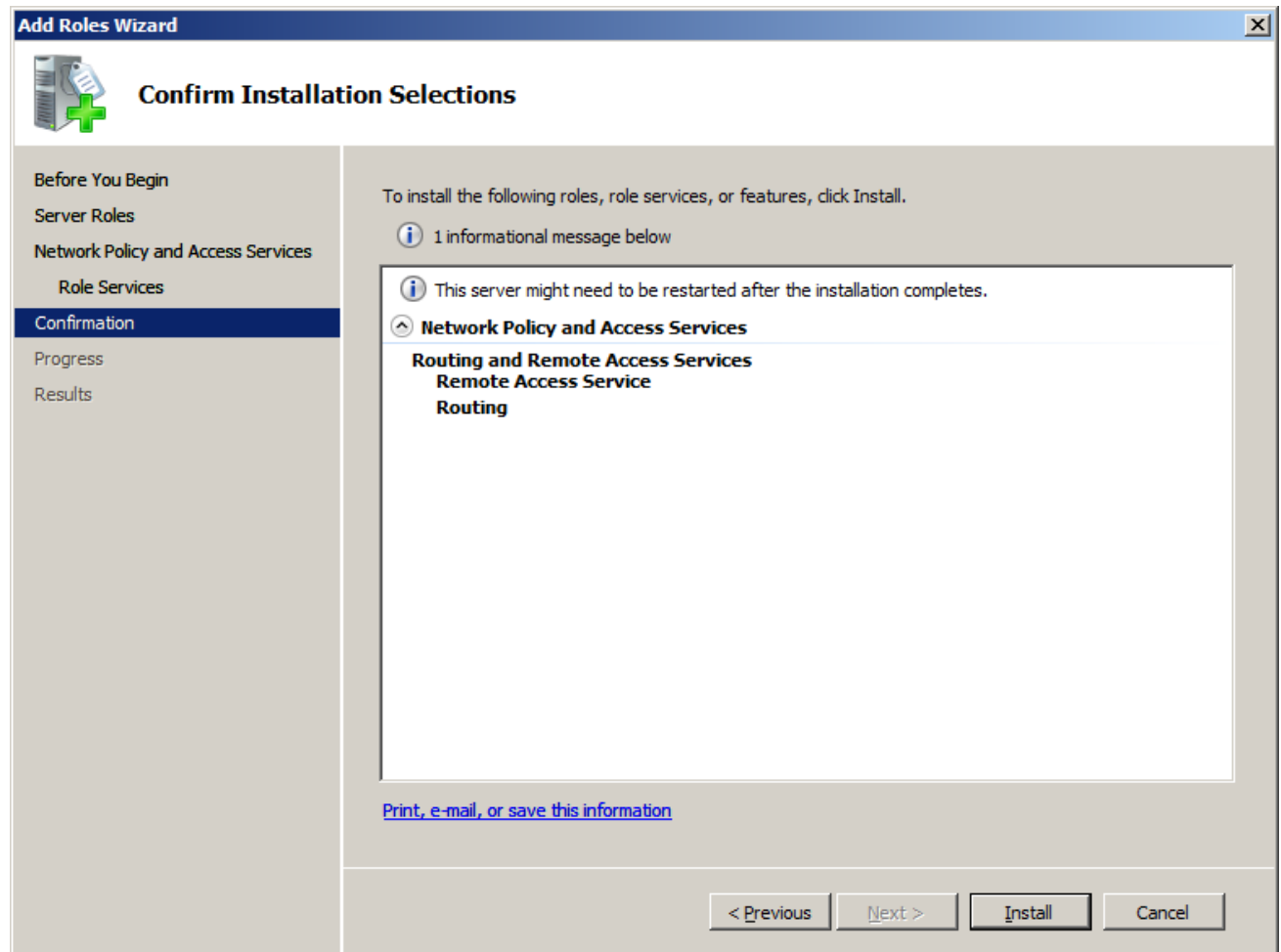
Select Role Services

We check Routing and Remote Access Services as shown in the window.



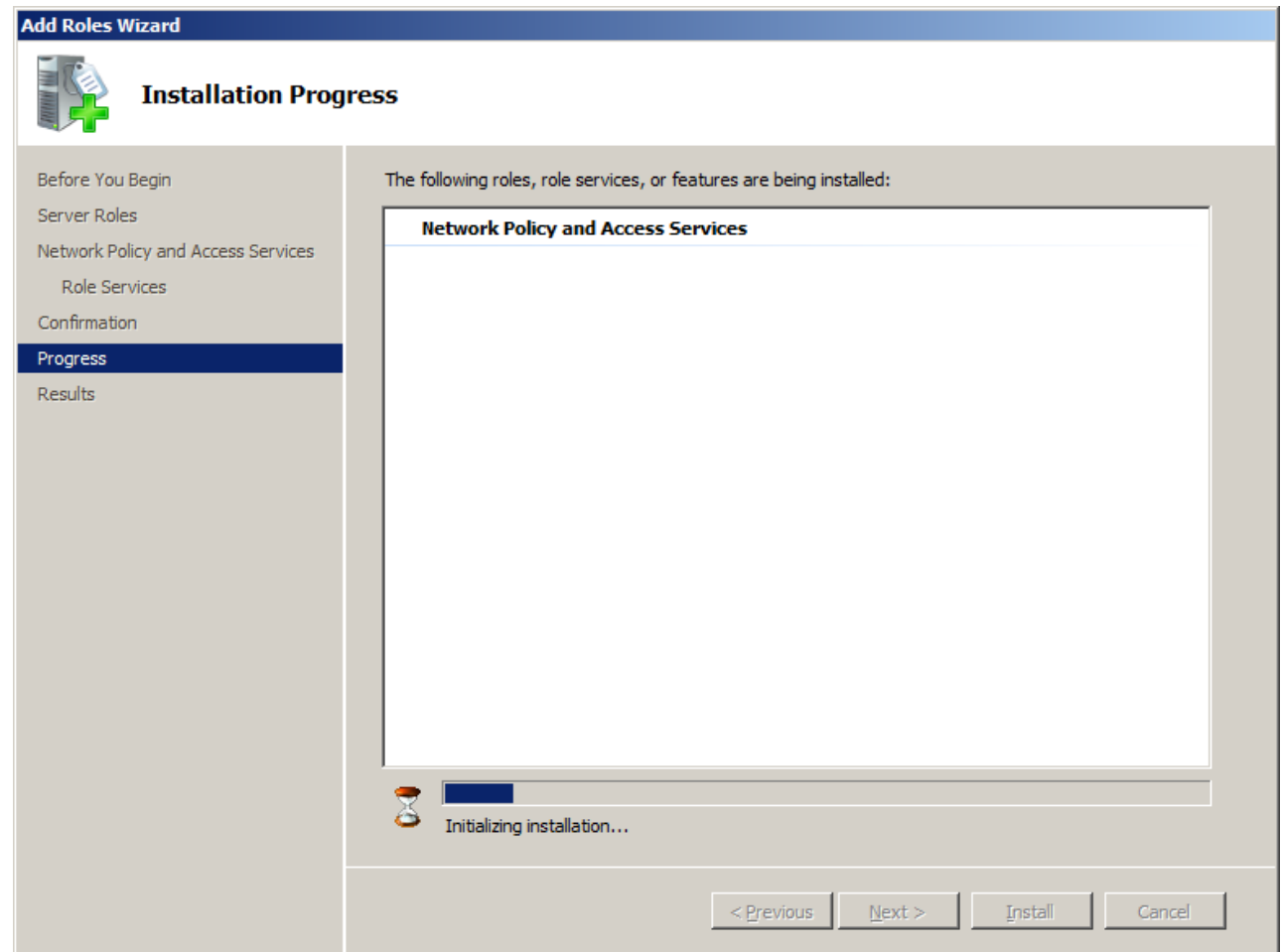
Confirm Installation Selections

We confirm our selection and we double click on the Install button.



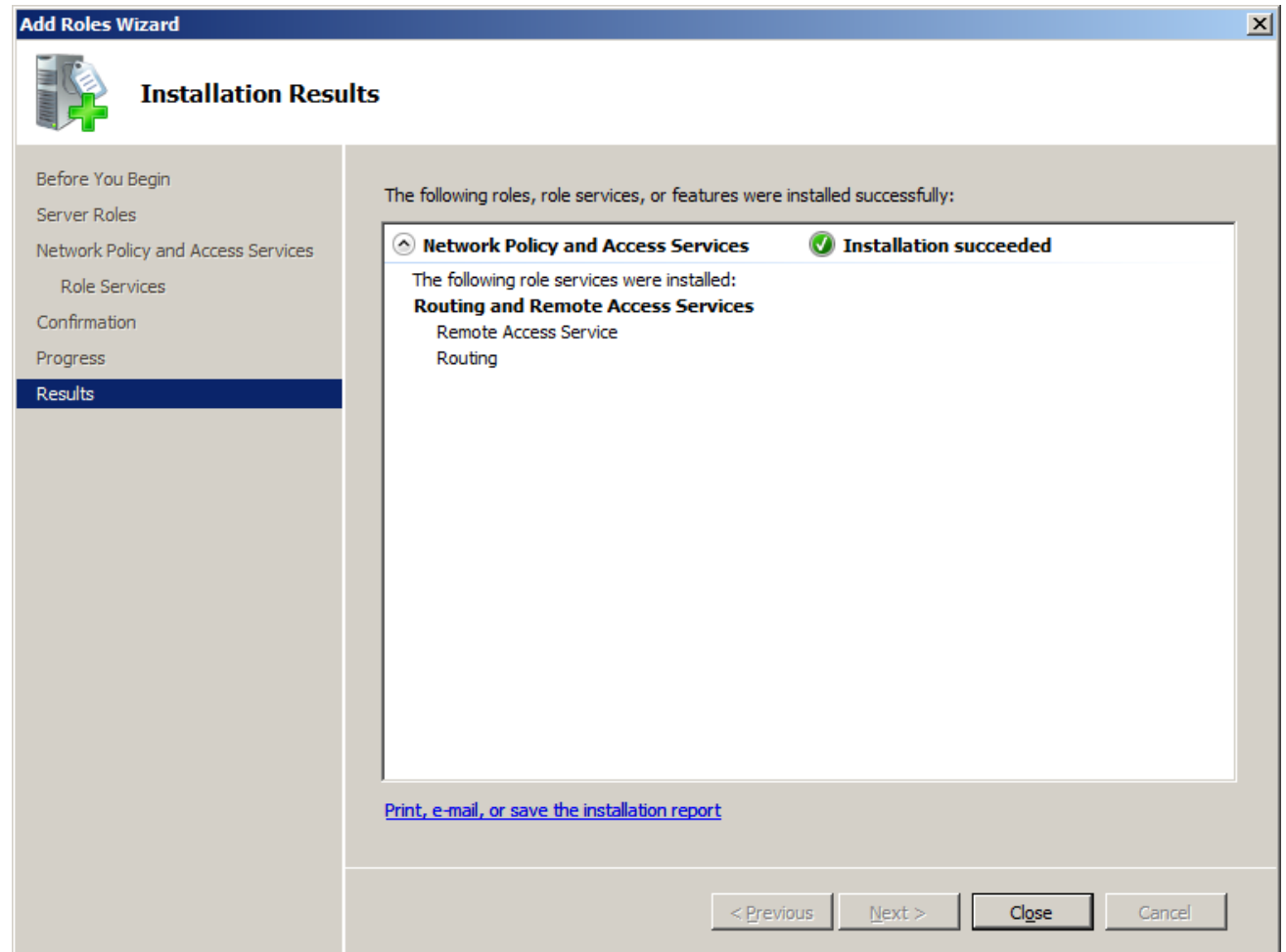
Install RRAS

It may take several minutes to load the RRAS software.



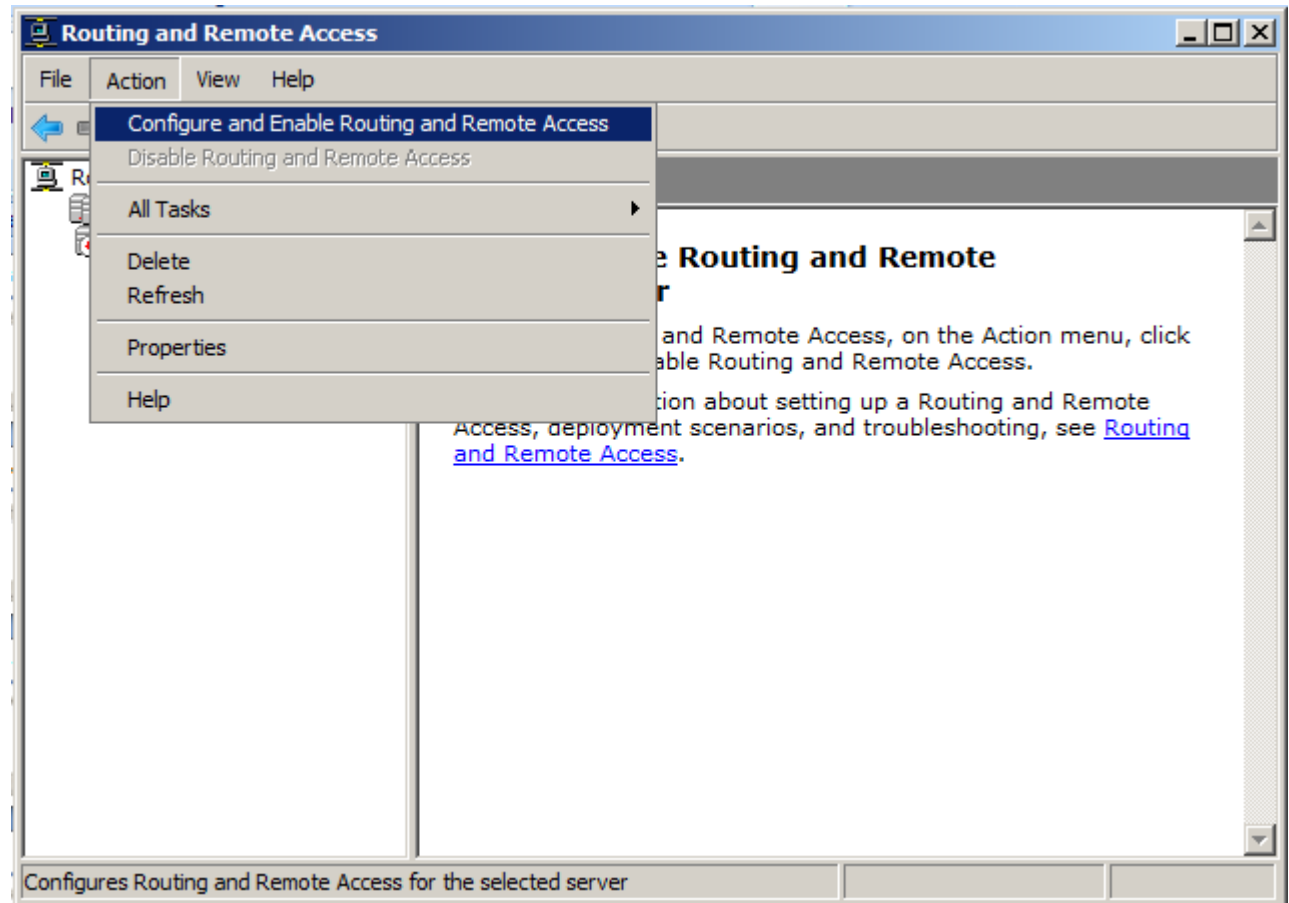
Installation Complete

After the installation is completed, we can close the Add Roles Wizard window.



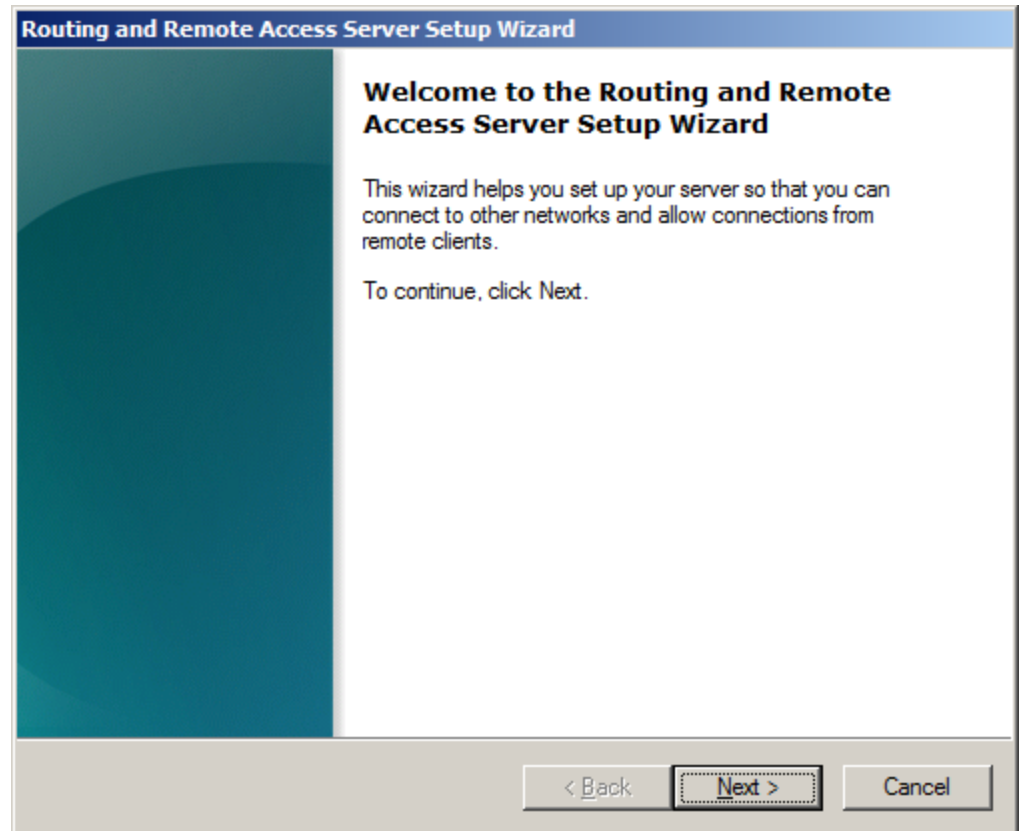
Routing and Remote Access

We open Administrative Tools and choose Routing and Remote Access and that dialogue box appears. Highlight the server name. Then on the Menu bar, we select Action and Configure and Enable Routing and Remote Access.



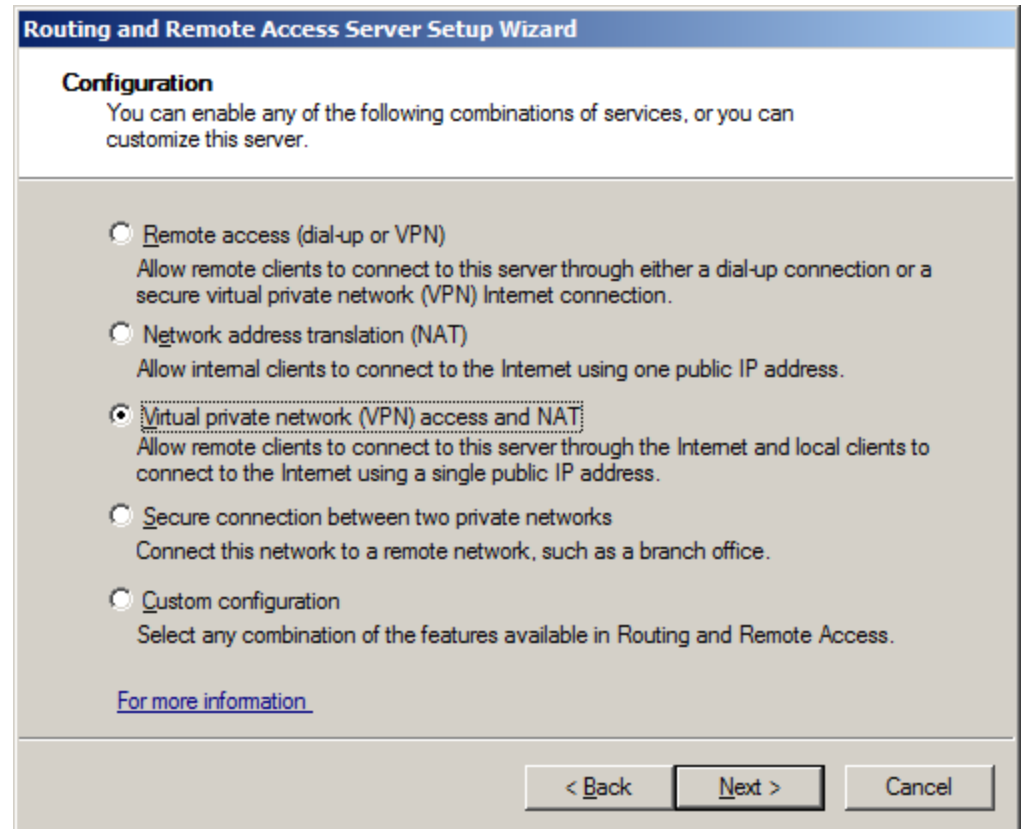
Routing and Remote Access Server Setup Wizard

The Routing and Remote Access Server Setup Wizard will appear and we depress the Next button to continue.



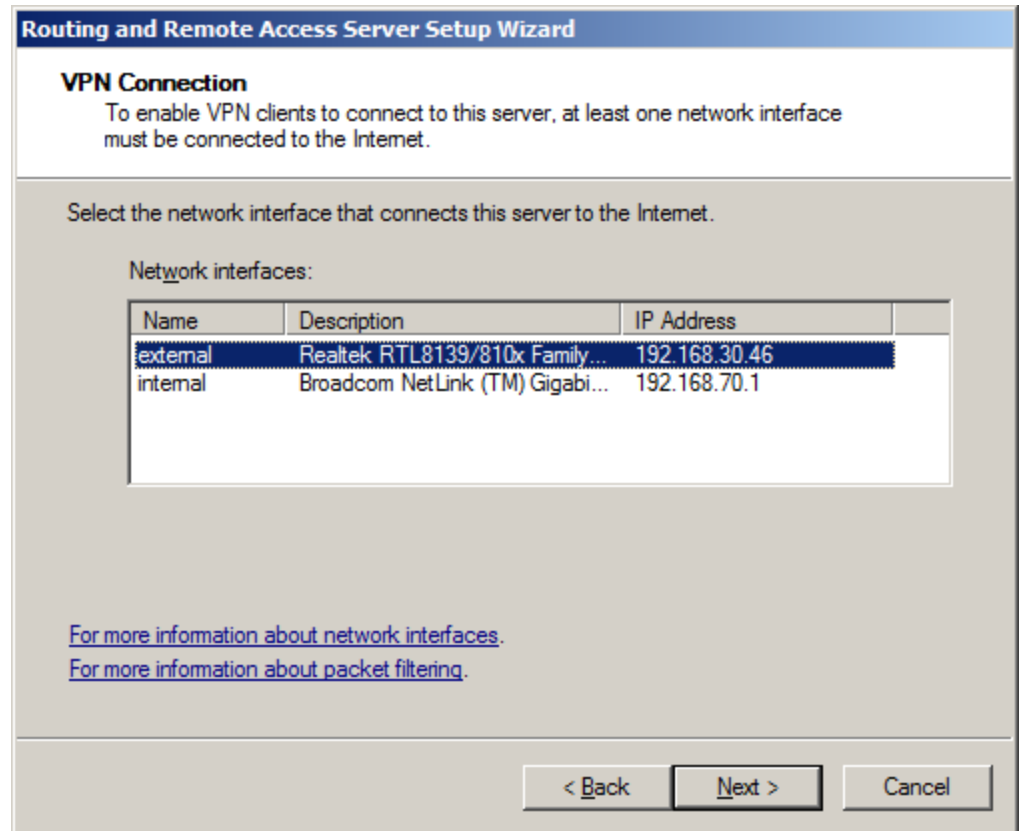
Configuration

This window gives us five unique roles for the RRAS setup. The first is a dial-up or VPN connection to the server. The next is Network Address Translation which opens the Internet to internal clients. The next is VPN and NAT, which is our choose. The fourth option is making a connection to a branch office and the last is custom configuration. After selecting our option, we choose the Next button to carry on.



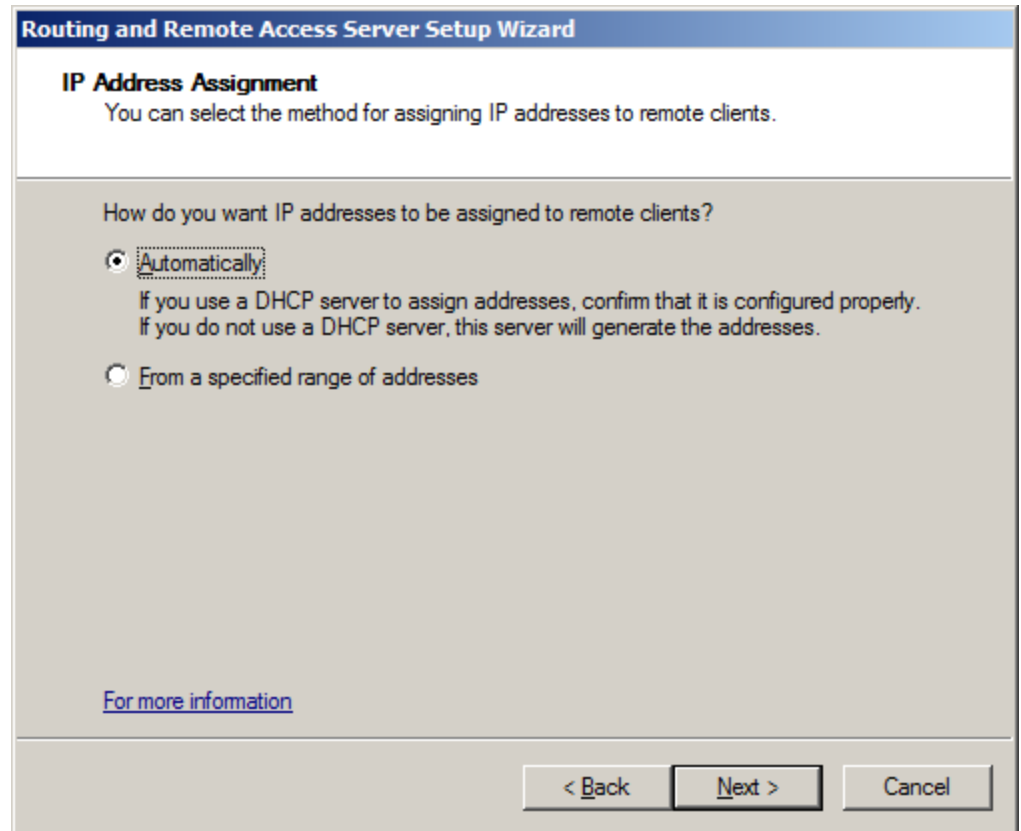
VPN Connection

We show what Local Area Connection connects to the Internet and to the internal network. We highlight the external card that attaches to the Internet.



IP Address Assignemnt

We will allow the server to automatically assign addresses.



The screenshot shows a window titled "Routing and Remote Access Server Setup Wizard" with a sub-header "IP Address Assignment". Below the sub-header is the text "You can select the method for assigning IP addresses to remote clients." The main content area asks "How do you want IP addresses to be assigned to remote clients?" and provides two radio button options: "Automatically" (which is selected) and "From a specified range of addresses". Below the "Automatically" option is explanatory text: "If you use a DHCP server to assign addresses, confirm that it is configured properly. If you do not use a DHCP server, this server will generate the addresses." At the bottom left of the main area is a blue hyperlink "For more information". At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

Routing and Remote Access Server Setup Wizard

IP Address Assignment
You can select the method for assigning IP addresses to remote clients.

How do you want IP addresses to be assigned to remote clients?

Automatically
If you use a DHCP server to assign addresses, confirm that it is configured properly.
If you do not use a DHCP server, this server will generate the addresses.

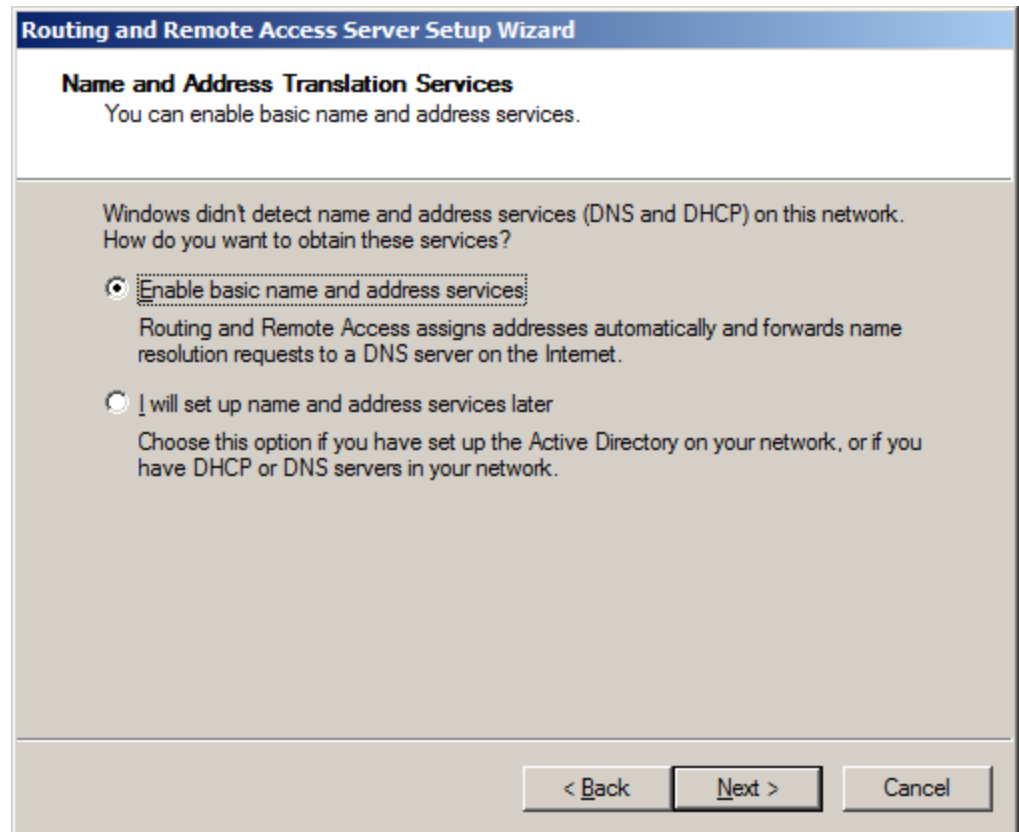
From a specified range of addresses

[For more information](#)

< Back Next > Cancel

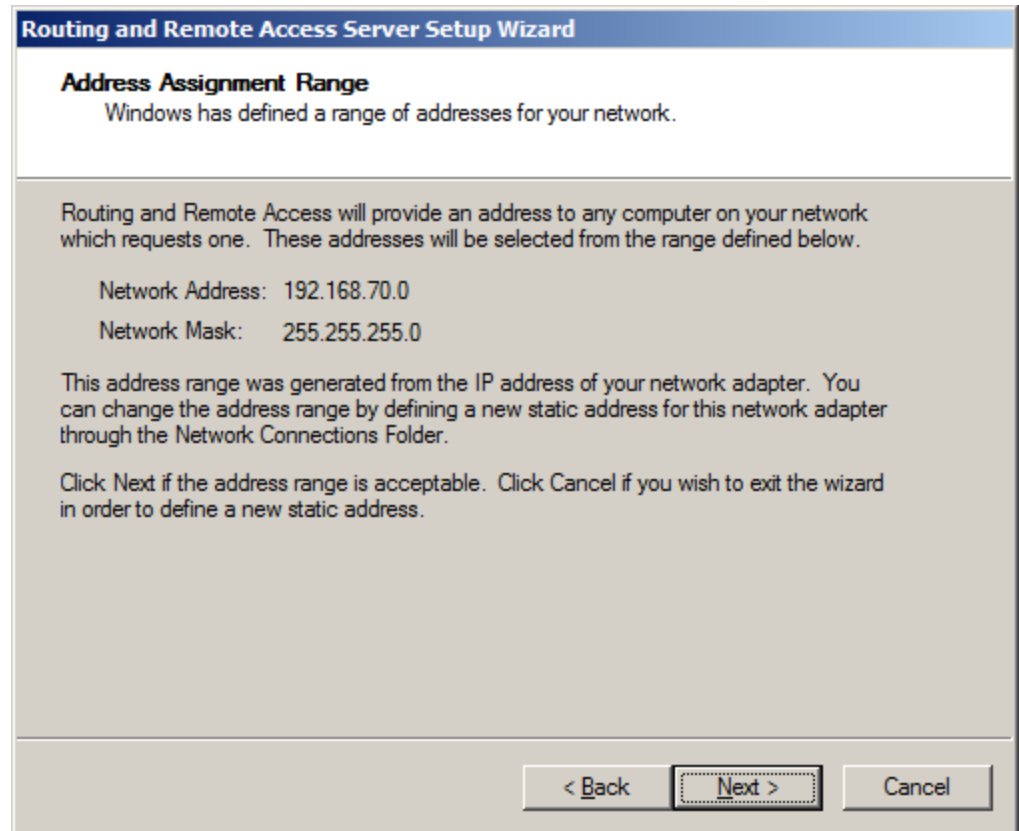
Name and Address Translation Services

We will enable basic name and address translation services and requests will automatically be forwarded to DNS servers.



Address Assignment Range

Our internal NIC is on the 192.168.70 network, so the address assignment range will be in this LAN.



Managing Multiple Remote Access Servers

We do not want to work with a Radius server, which are found in large networks. We decide on the No option and choose the Next button to go forward.

The image shows a screenshot of a Windows dialog box titled "Routing and Remote Access Server Setup Wizard". The main heading is "Managing Multiple Remote Access Servers". Below the heading, there is a sub-heading "Managing Multiple Remote Access Servers" followed by a paragraph: "Connection requests can be authenticated locally or forwarded to a Remote Authentication Dial-In User Service (RADIUS) server for authentication." Below this, there is another paragraph: "Although Routing and Remote Access can authenticate connection requests, large networks that include multiple remote access servers often use a RADIUS server for central authentication." This is followed by another paragraph: "If you are using a RADIUS server on your network, you can set up this server to forward authentication requests to the RADIUS server." Below this, there is a question: "Do you want to set up this server to work with a RADIUS server?". There are two radio button options: the first is "No, use Routing and Remote Access to authenticate connection requests" and the second is "Yes, set up this server to work with a RADIUS server". The first option is selected. At the bottom left, there is a link "For more information". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Routing and Remote Access Server Setup Wizard

Managing Multiple Remote Access Servers
Connection requests can be authenticated locally or forwarded to a Remote Authentication Dial-In User Service (RADIUS) server for authentication.

Although Routing and Remote Access can authenticate connection requests, large networks that include multiple remote access servers often use a RADIUS server for central authentication.

If you are using a RADIUS server on your network, you can set up this server to forward authentication requests to the RADIUS server.

Do you want to set up this server to work with a RADIUS server?

No, use Routing and Remote Access to authenticate connection requests

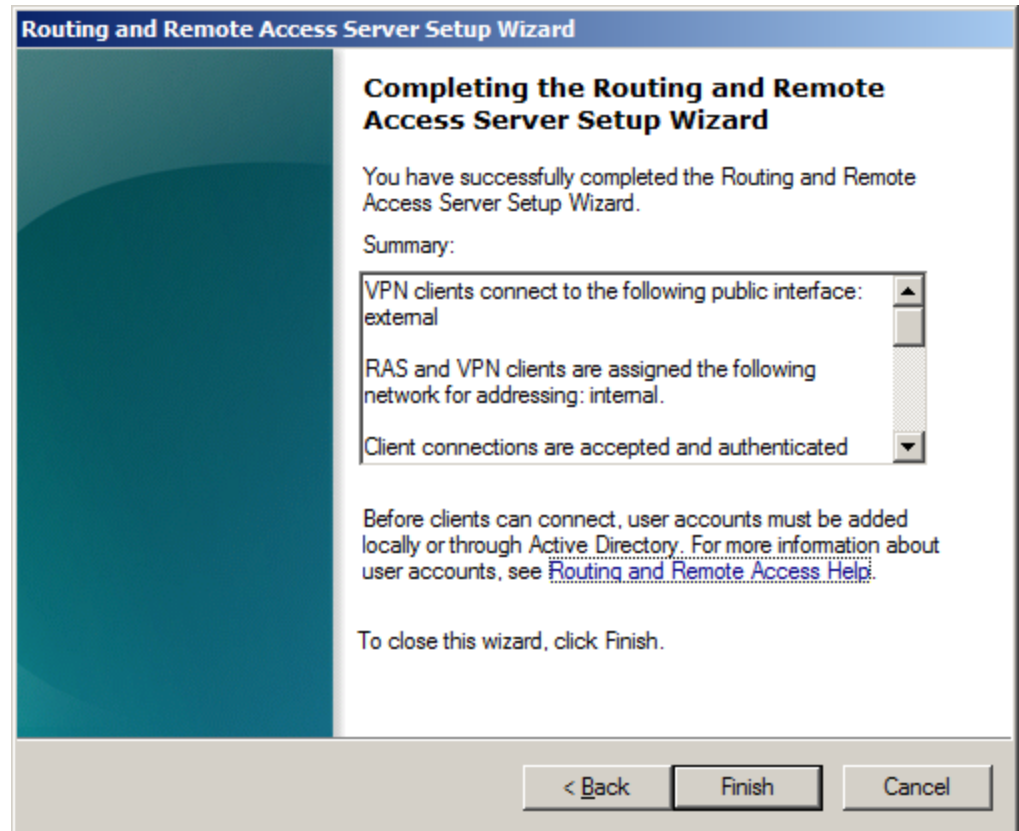
Yes, set up this server to work with a RADIUS server

[For more information](#)

< Back Next > Cancel

Completing RRAS Setup

The RRAS setup wizard is now complete. We can press the Finish button or go back to correct a setting.



Our Machine is a RRAS Server

Our server is now providing Internet access to the client computers on the 192.168.70 network. We can set up a VPN now if we wish.

