

Creating a DNS Server

May 10, 2010

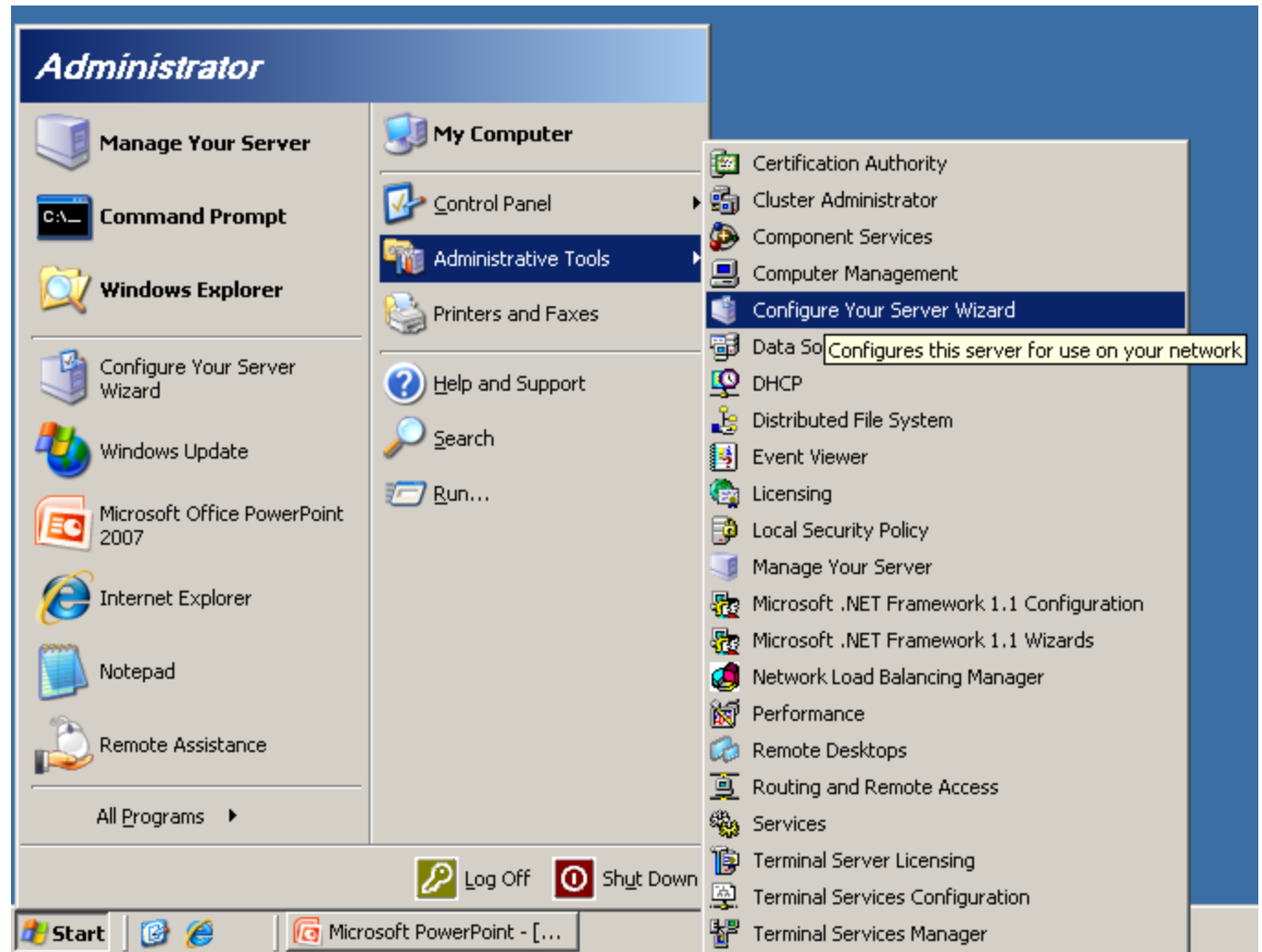
Purpose of a DNS Server

To convert URL requests into IP addresses



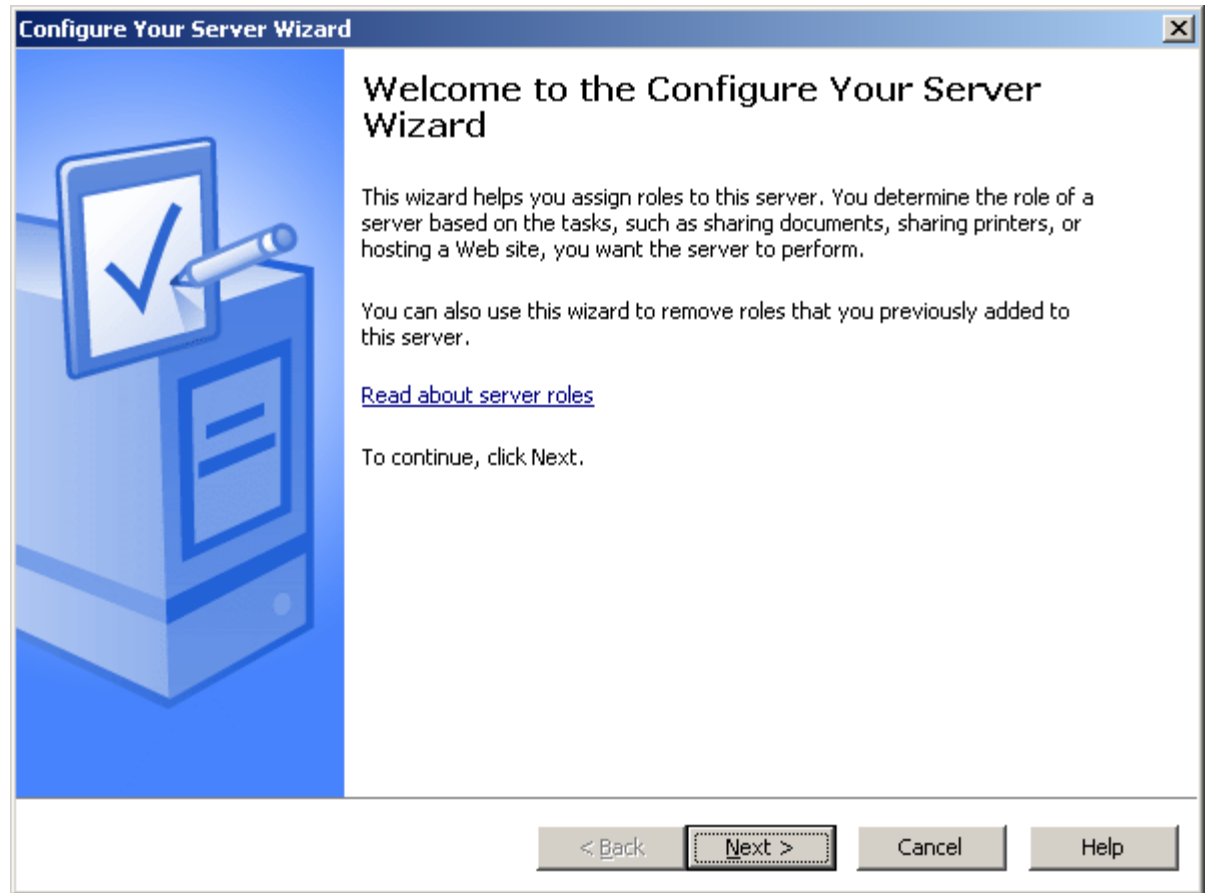
Starting the Process

To start the process of making a DNS Server, we select the Start button to open the Start Menu. We choose Administrative Tools and then we pick Configure Your Server Wizard.



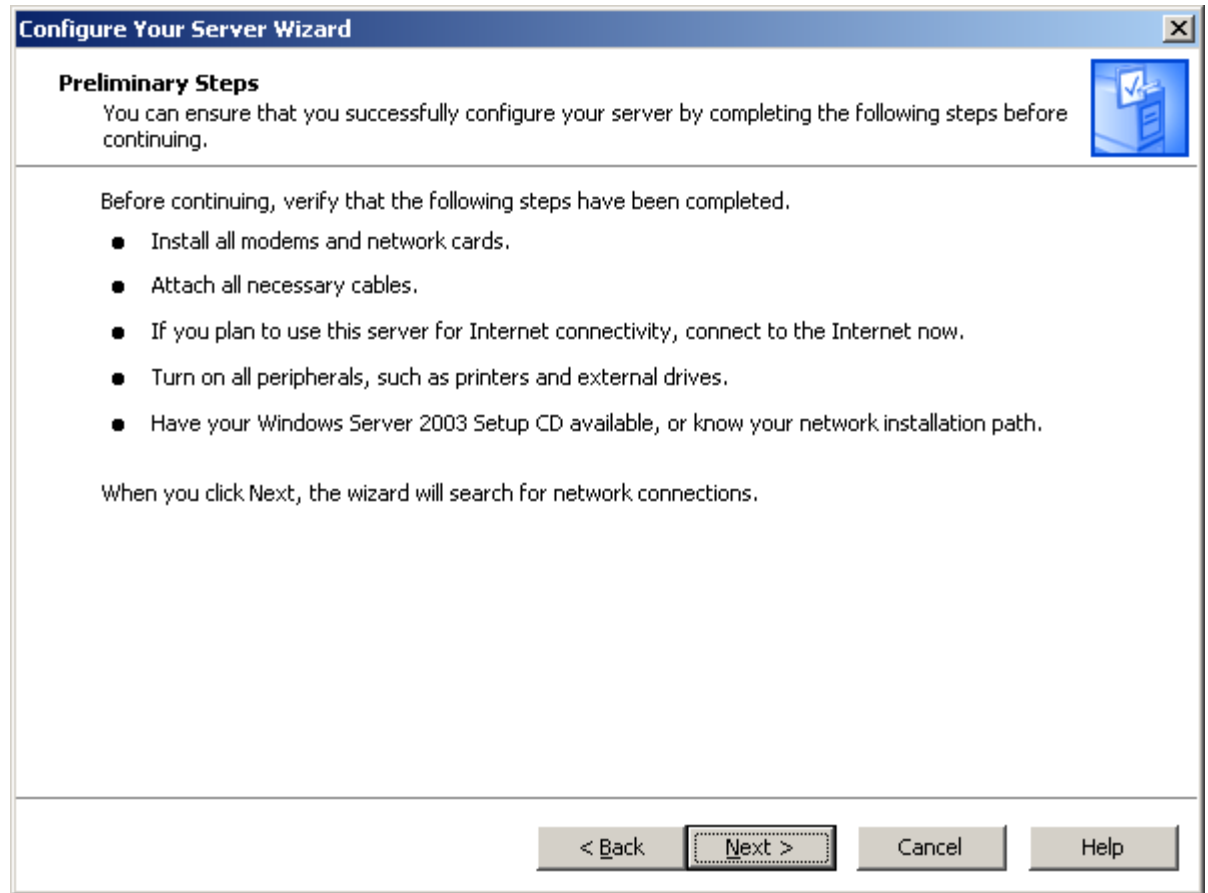
Configure the Server Wizard

The Configure Your Server Wizard appears on the graphical display and we select the Next command button.



Preliminary Steps

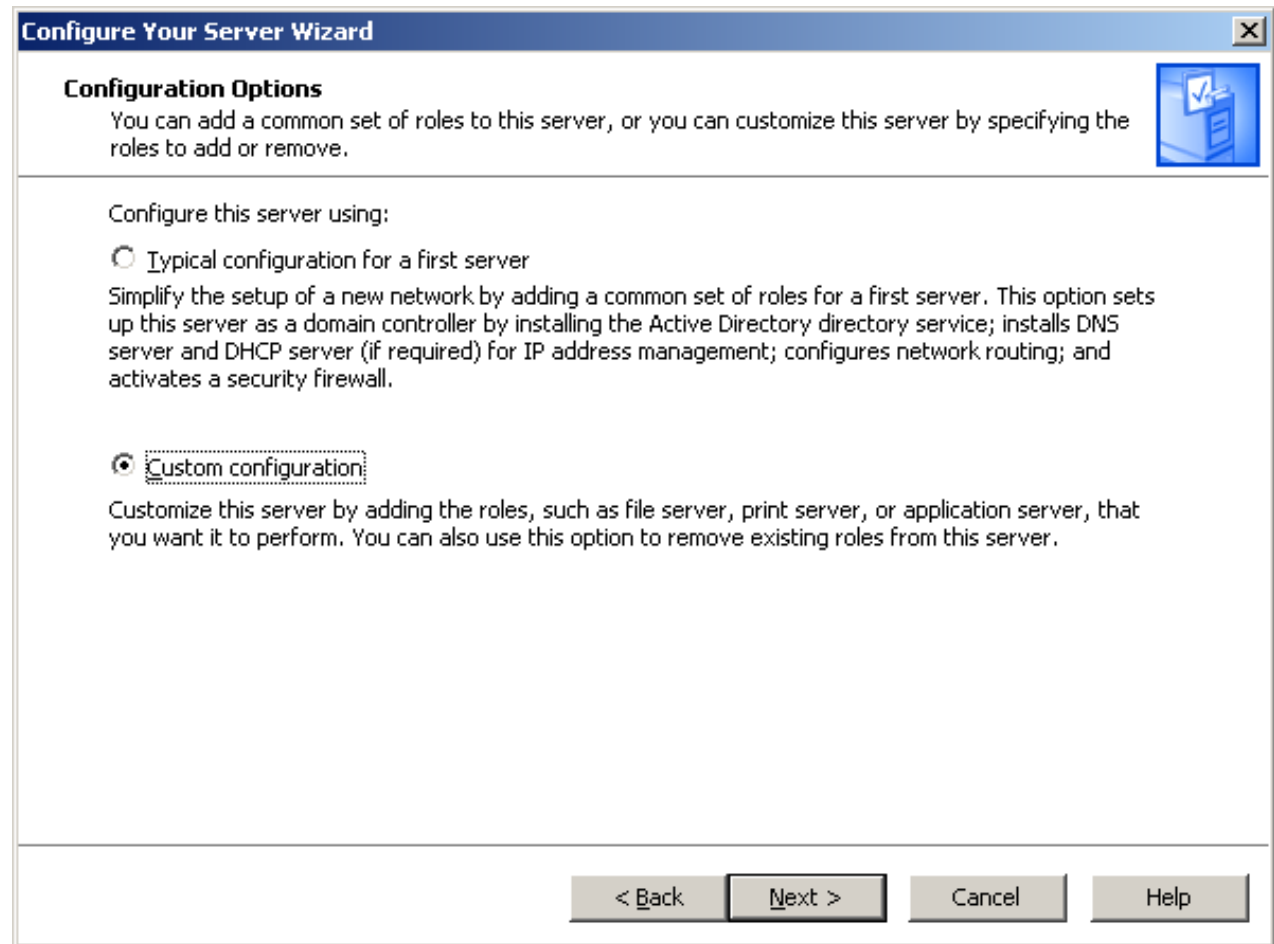
We are prompted to have the Windows Server CD available to load extra files and to have the necessary Network Interface Cards, cables and Internet connections to complete the task. When we are ready, we should press the Next command button.



Configure your Server Wizard

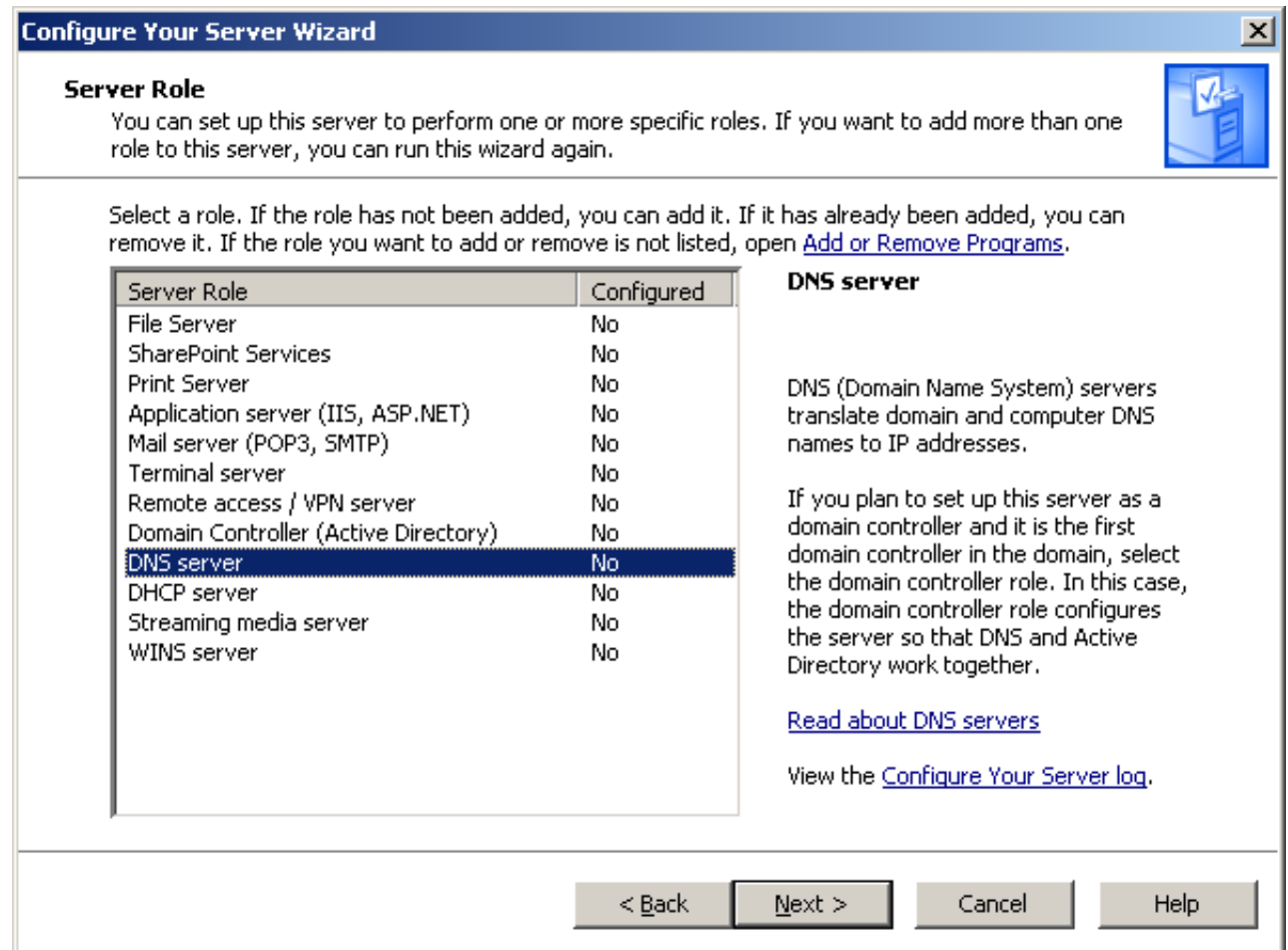
In most cases, we will choose a custom configuration. Typical configuration will install Active Directory (domain controller), DNS role, DHCP role and activate a security firewall.

We will select the Next button.



Selecting a Server Role

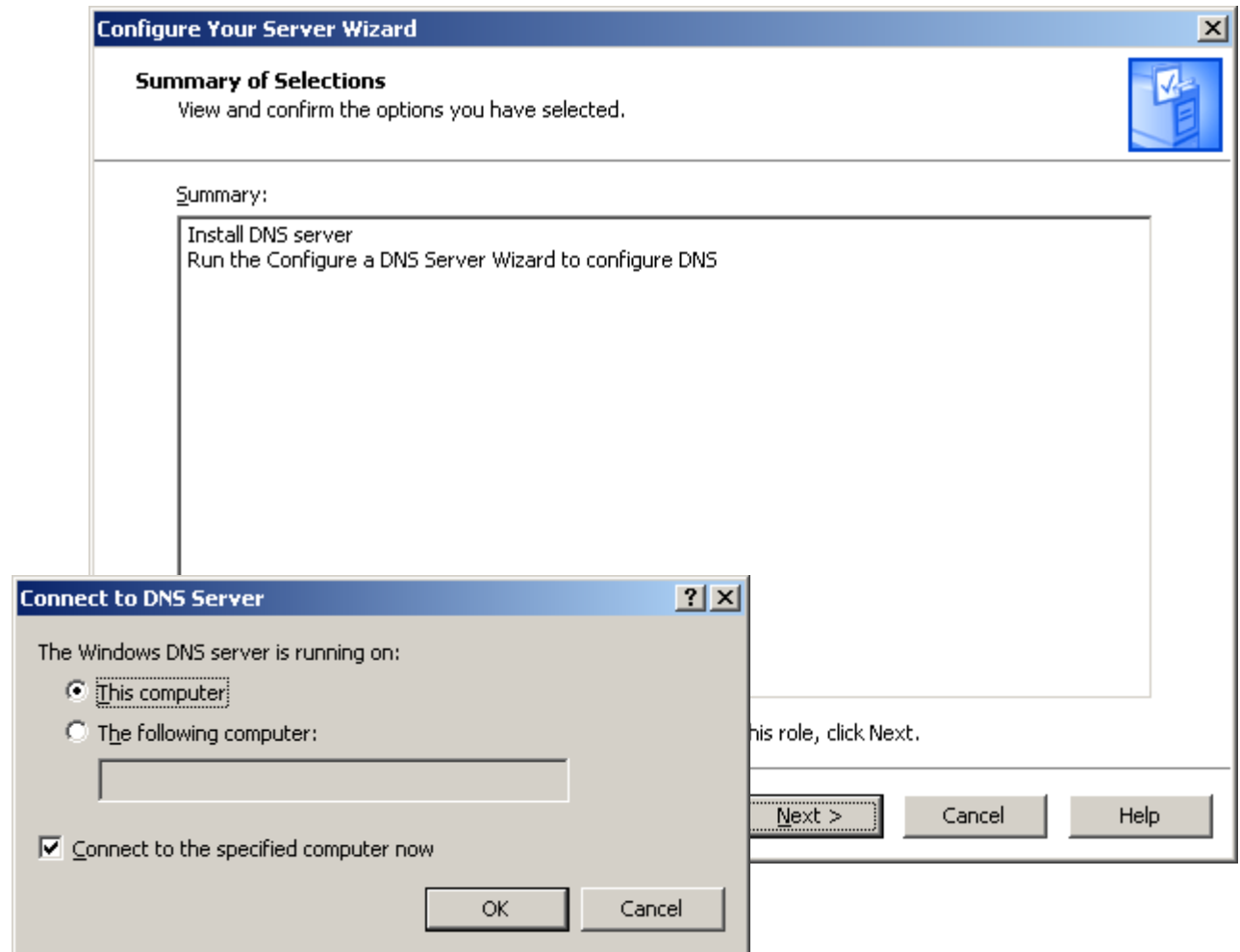
We will pick the DNS Server function and we then push the Next button.



Install DNS Server

Then we will be asked to install the Windows 2003 Server installation disk to load files.

Next, we are prompted where the DNS server is running. We pick the “this computer” radial button and we select the OK push button.



DNS Checklist

1. Create a name for your organization's server (domain).
2. Register your organization's domain name with the Internet domain name registrar.
3. Plan how to divide up your DNS domain name and network address space into forward and reverse lookup zones as needed.
4. Plan which computers will be DNS servers and where they will be in the network.
5. Build the first DNS Server.
6. Begin adding and configuring zones for your first DNS server.
7. Evaluate the DNS Server performance.
8. Install and configure additional DNS servers if they are to be used as secondary servers for your initial zones.
9. Add DNS resource records--such as A, PTR, CNAME, and MX records--as needed to complete zone configurations.
10. Permit WINS lookups for certain zones.
11. Use the monitoring features of the DNS console to authenticate the server are operating properly
12. Correct DNS -related problems.

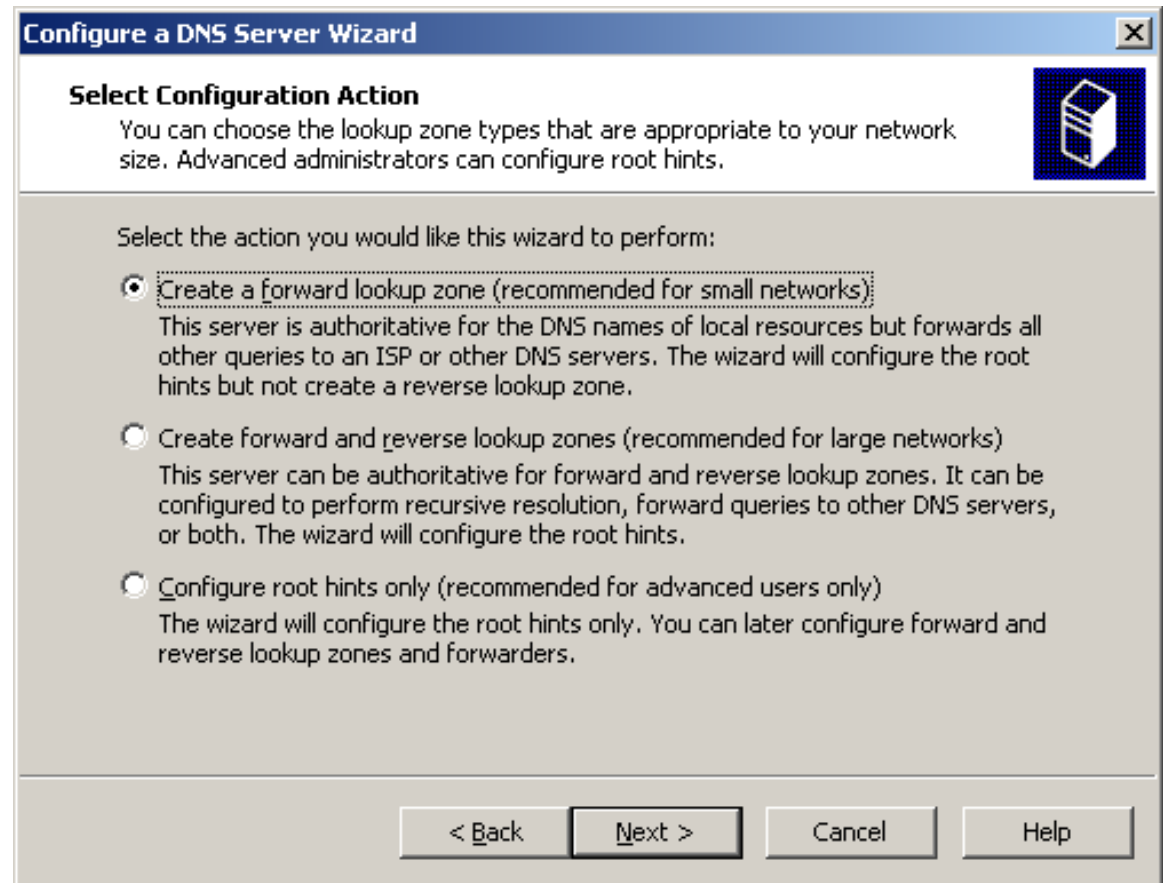


We should review the DNS checklist so we are completely ready to do the installation.

Select the Configuration Action

For our smaller network, we will create forward lookup to the ISP.

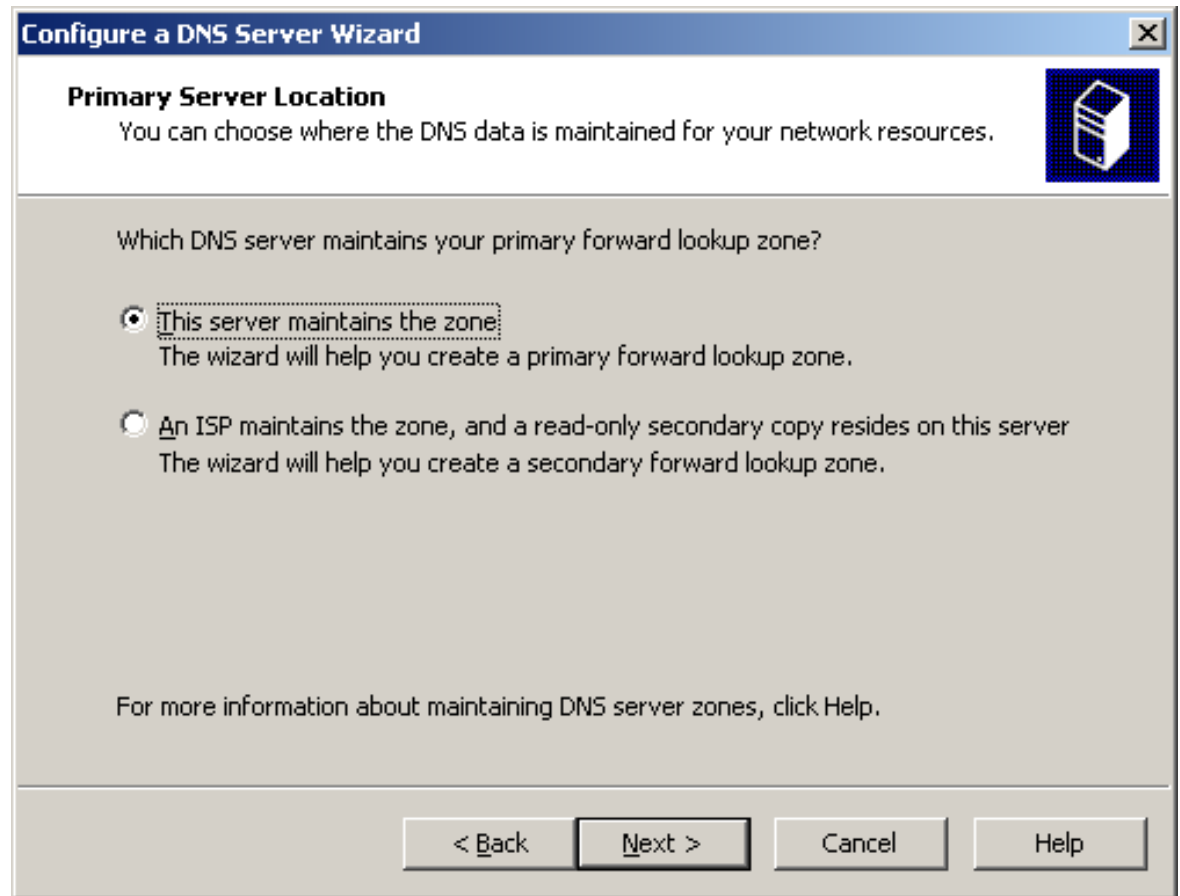
We will create reverse lookup zones to save us time in this exercise.



Primary Server Location

This server will maintain the primary forward lookup zone, so we will pick the first option.

We press the Next button to persist.



Zone Name

The zone name is the name of the server and should eventually become the name of the domain.

We are calling our zone, “bits” and we will press the Next button to continue.

New Zone Wizard

Zone Name
What is the name of the new zone?

The zone name specifies the portion of the DNS namespace for which this server is authoritative. It might be your organization's domain name (for example, microsoft.com) or a portion of the domain name (for example, newzone.microsoft.com). The zone name is not the name of the DNS server.

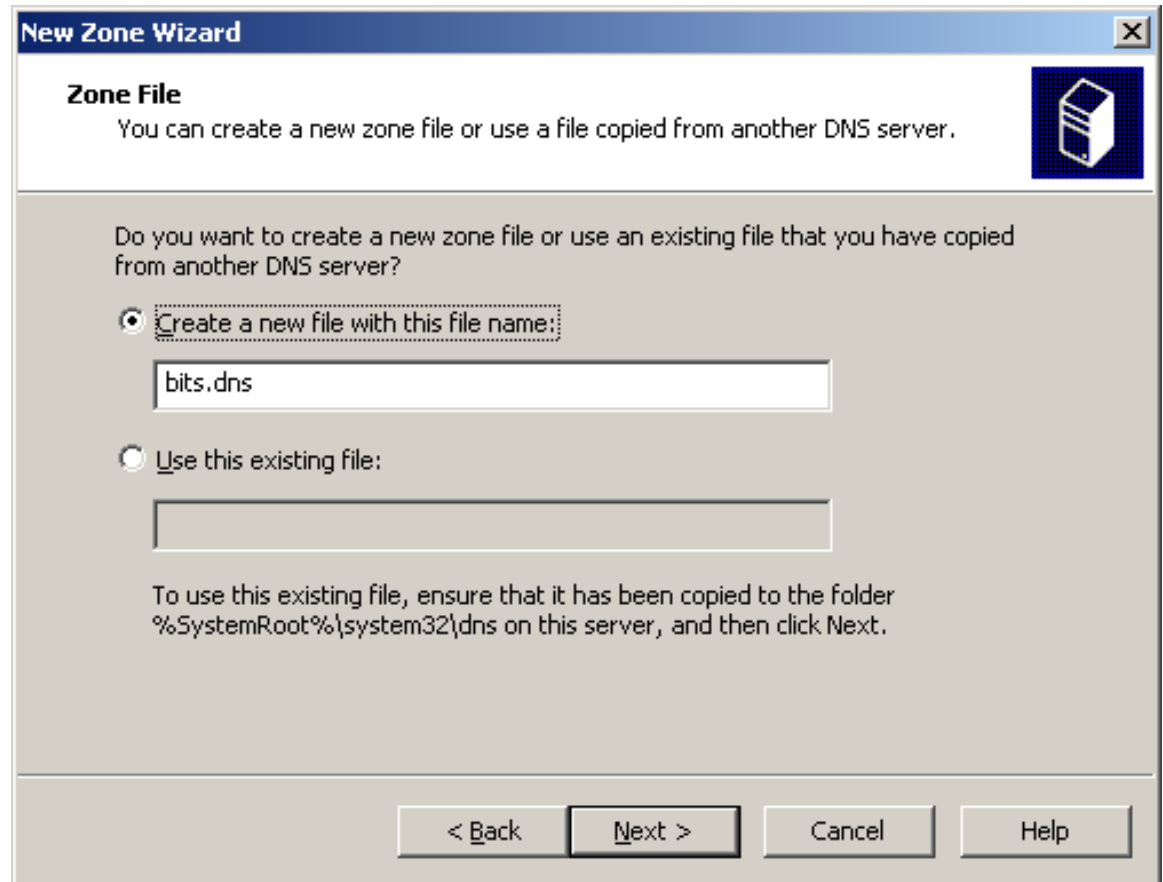
Zone name:

For more information about zone names, click Help.

< Back Next > Cancel Help

Zone File

We will create a new zone file and then we pick the Next button.



The screenshot shows the 'New Zone Wizard' dialog box. The title bar reads 'New Zone Wizard'. The main heading is 'Zone File', followed by the instruction: 'You can create a new zone file or use a file copied from another DNS server.' Below this, a question asks: 'Do you want to create a new zone file or use an existing file that you have copied from another DNS server?'. There are two radio button options: 'Create a new file with this file name:' (which is selected) and 'Use this existing file:'. The first option has a text input field containing 'bits.dns'. The second option has an empty text input field. At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

New Zone Wizard

Zone File
You can create a new zone file or use a file copied from another DNS server.

Do you want to create a new zone file or use an existing file that you have copied from another DNS server?

Create a new file with this file name:
bits.dns

Use this existing file:

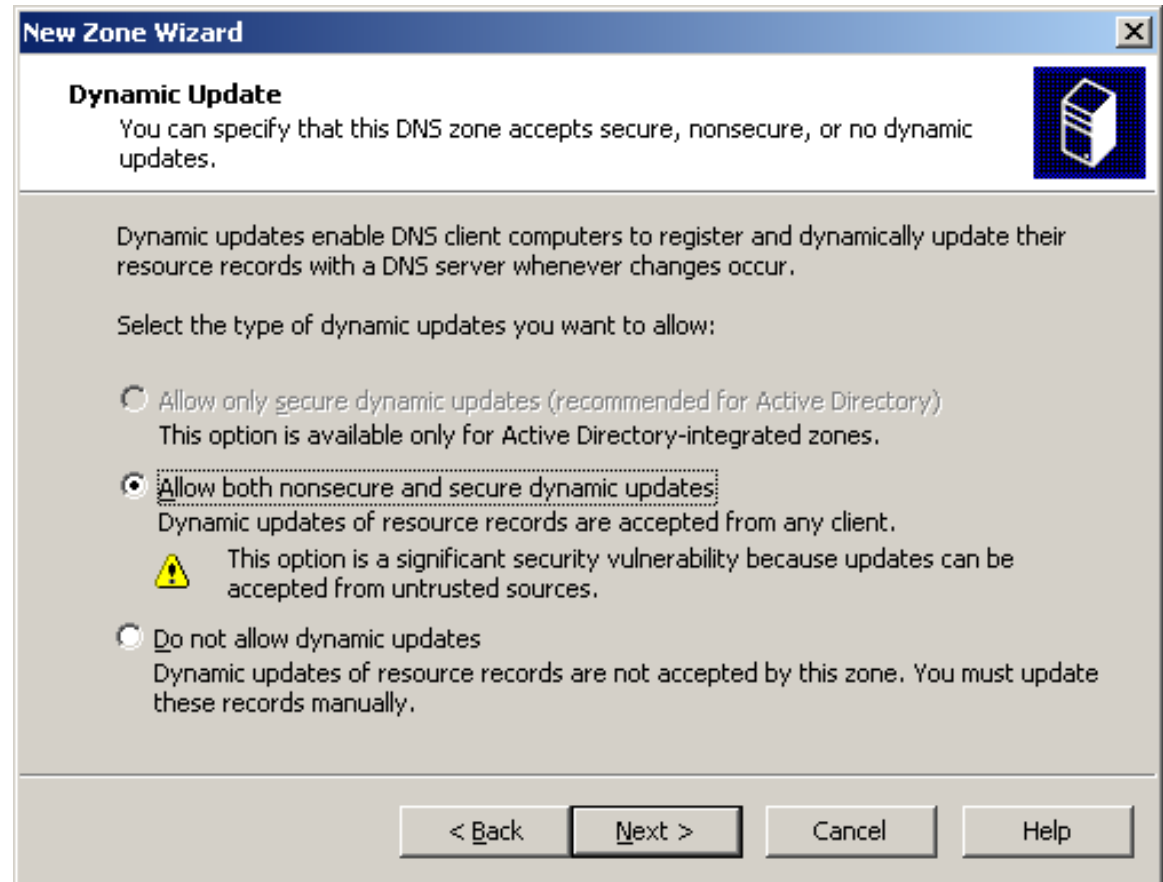
To use this existing file, ensure that it has been copied to the folder %SystemRoot%\system32\dns on this server, and then click Next.

< Back Next > Cancel Help

Dynamic Update

We want to allow both non-secure and secure dynamic updates or resource records.

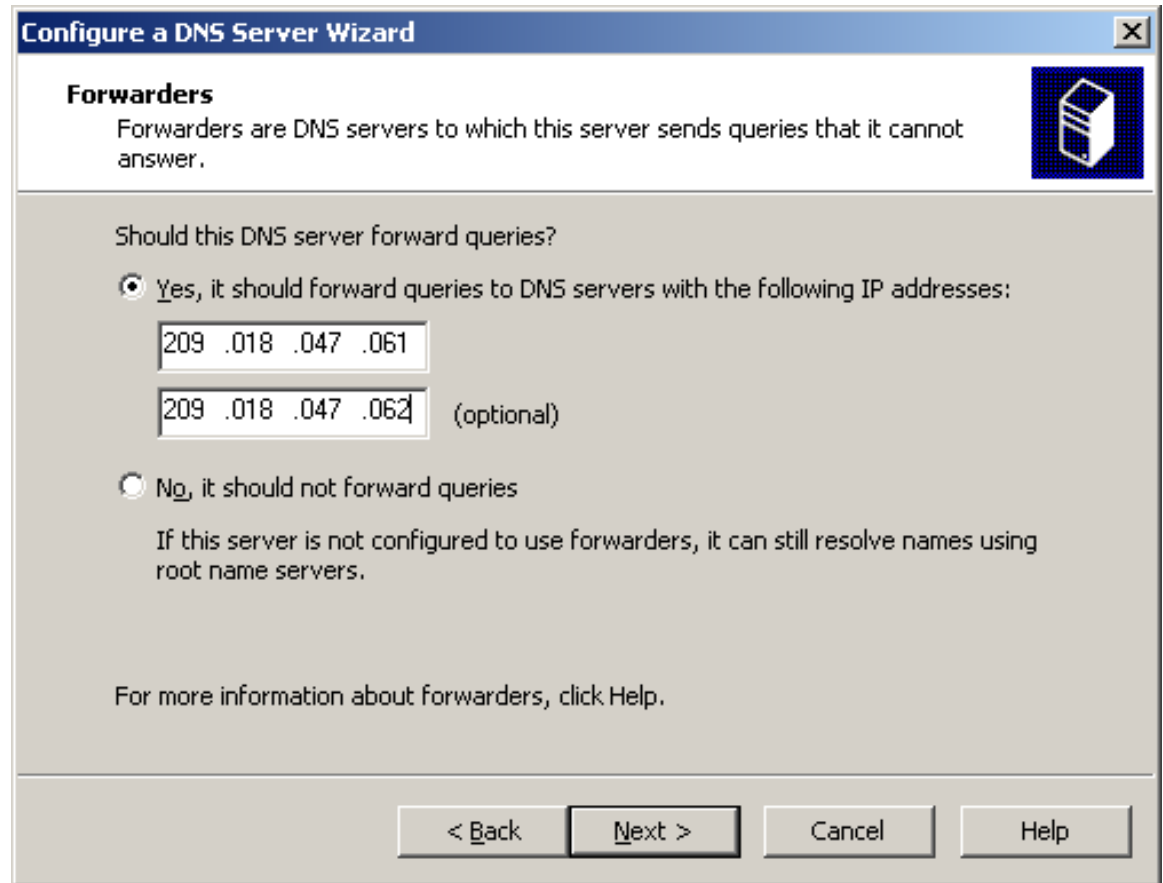
We need to consider the security threat to a server farm when picking this option.



DNS Forwarders

Our Internet Service Provider has given us two DNS addresses, a primary and a secondary. We can enter them in the Forwarders' window.

We choose Next to continue.



The screenshot shows a Windows-style dialog box titled "Configure a DNS Server Wizard". The current step is "Forwarders". The text explains that forwarders are DNS servers used for queries the server cannot answer. It asks if the server should forward queries, with two radio button options: "Yes, it should forward queries to DNS servers with the following IP addresses:" (selected) and "No, it should not forward queries". Under the "Yes" option, there are two input fields for IP addresses: the first contains "209 .018 .047 .061" and the second contains "209 .018 .047 .062" with "(optional)" to its right. Below the "No" option, it states that the server can still resolve names using root name servers. At the bottom, there is a link to "Help" and four buttons: "< Back", "Next >", "Cancel", and "Help".

Configure a DNS Server Wizard

Forwarders
Forwarders are DNS servers to which this server sends queries that it cannot answer.

Should this DNS server forward queries?

Yes, it should forward queries to DNS servers with the following IP addresses:

209 .018 .047 .061

209 .018 .047 .062 (optional)

No, it should not forward queries

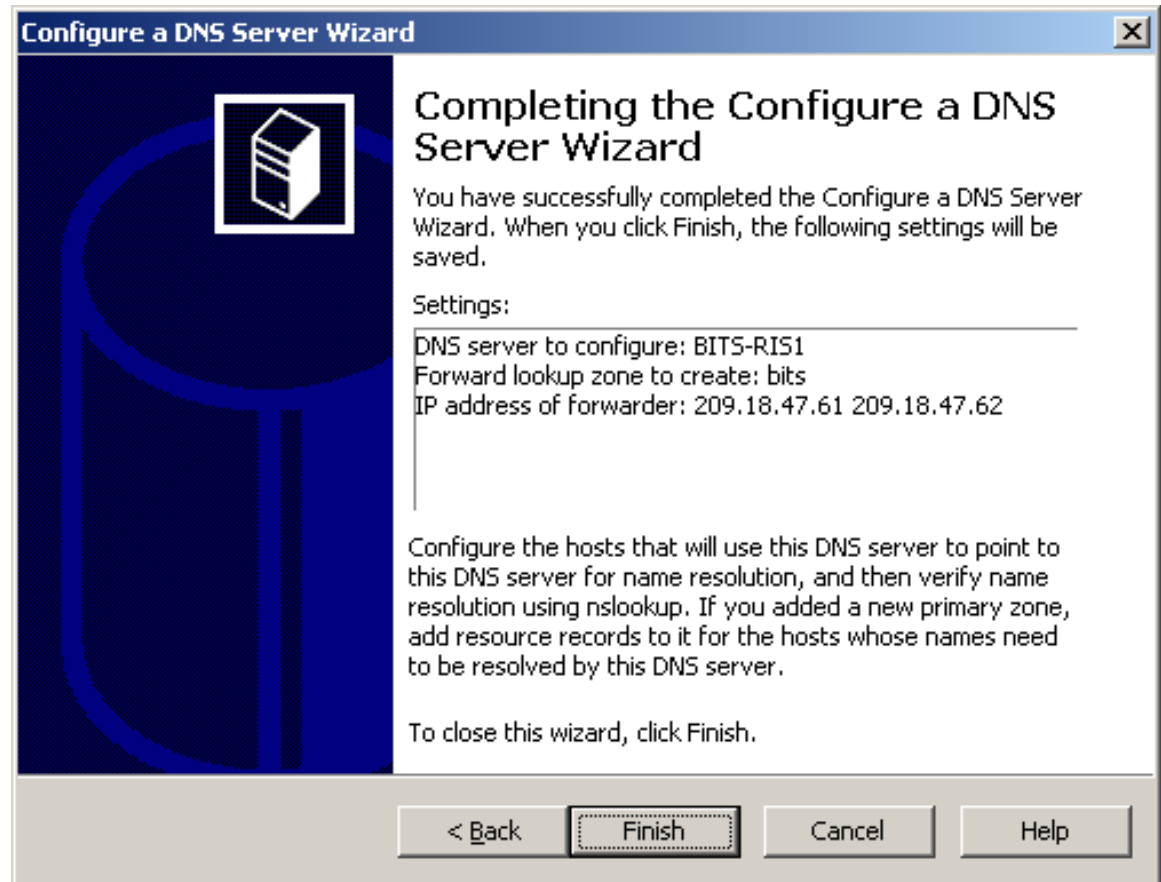
If this server is not configured to use forwarders, it can still resolve names using root name servers.

For more information about forwarders, click Help.

< Back Next > Cancel Help

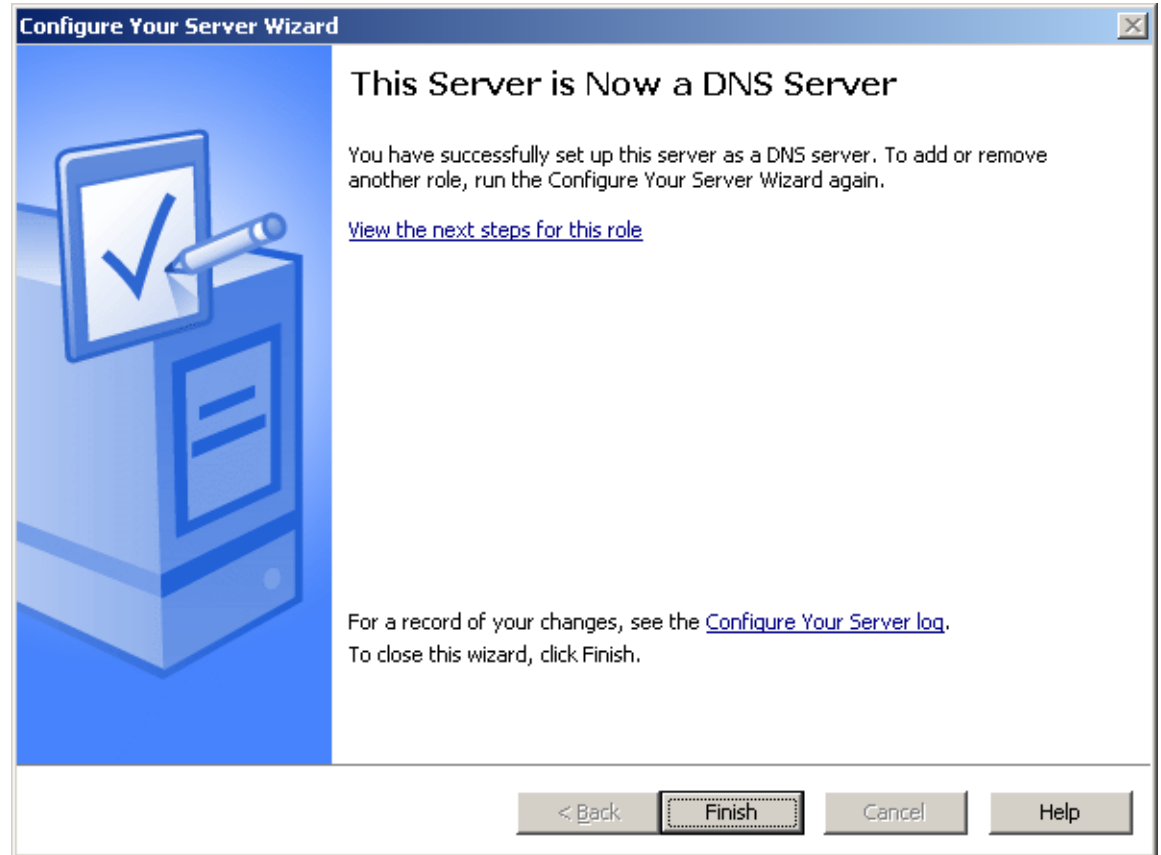
Complete the DNS Configuration Wizard

This window tells the wizard is complete. To continue with our work, such as adding reverse lookup zones and more, we will open the DNS Management window.

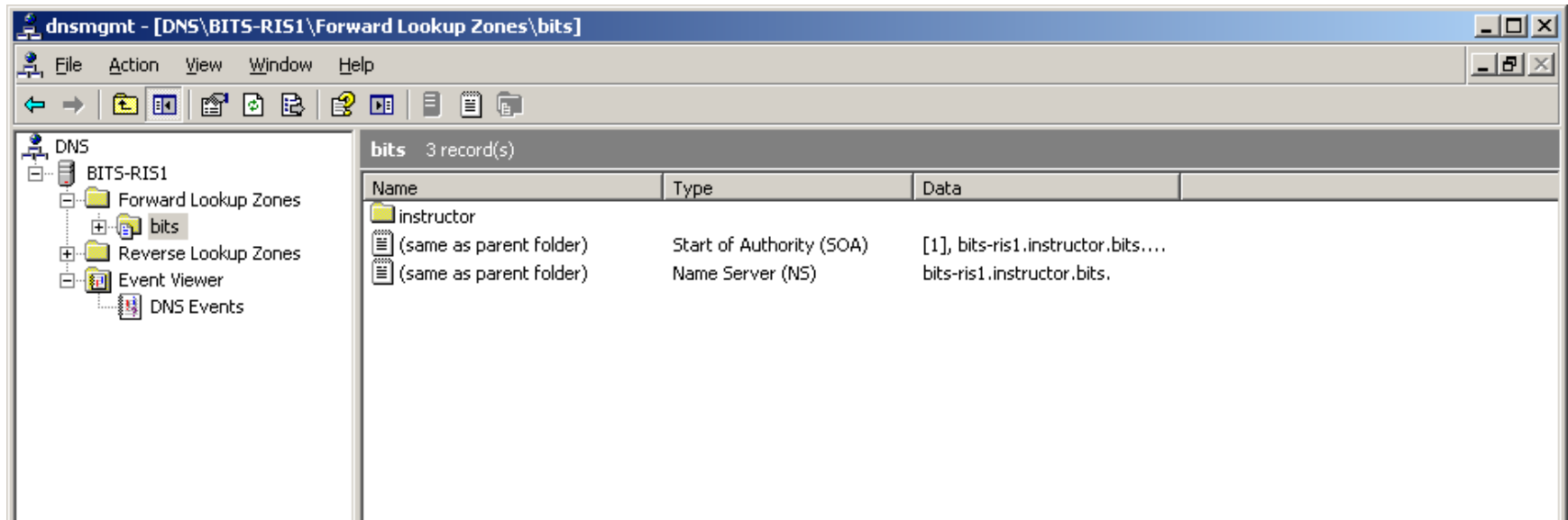


Server is a DNS Server

After this announcement, we will go the DNS Management console and check the Event viewer for error messages. A common message would be that our DNS server was unable to contact the forward lookup zone.



DNS Management Console



Return to the Administrative Tools listing on the Startup Menu and we can see DNS listed. Click on DNS to open the DNS Management Console.