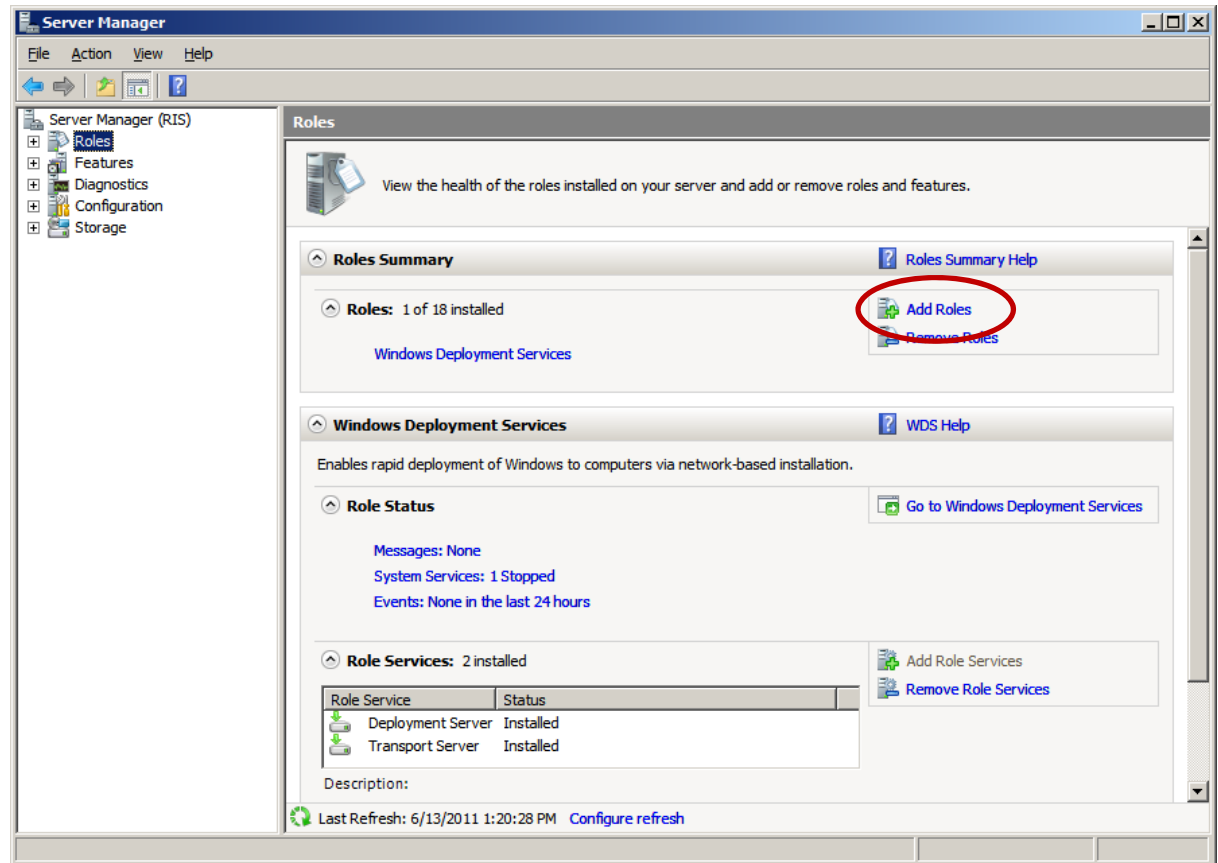


# Adding the DHCP Service on a 2008 RIS Server

June 14, 2011

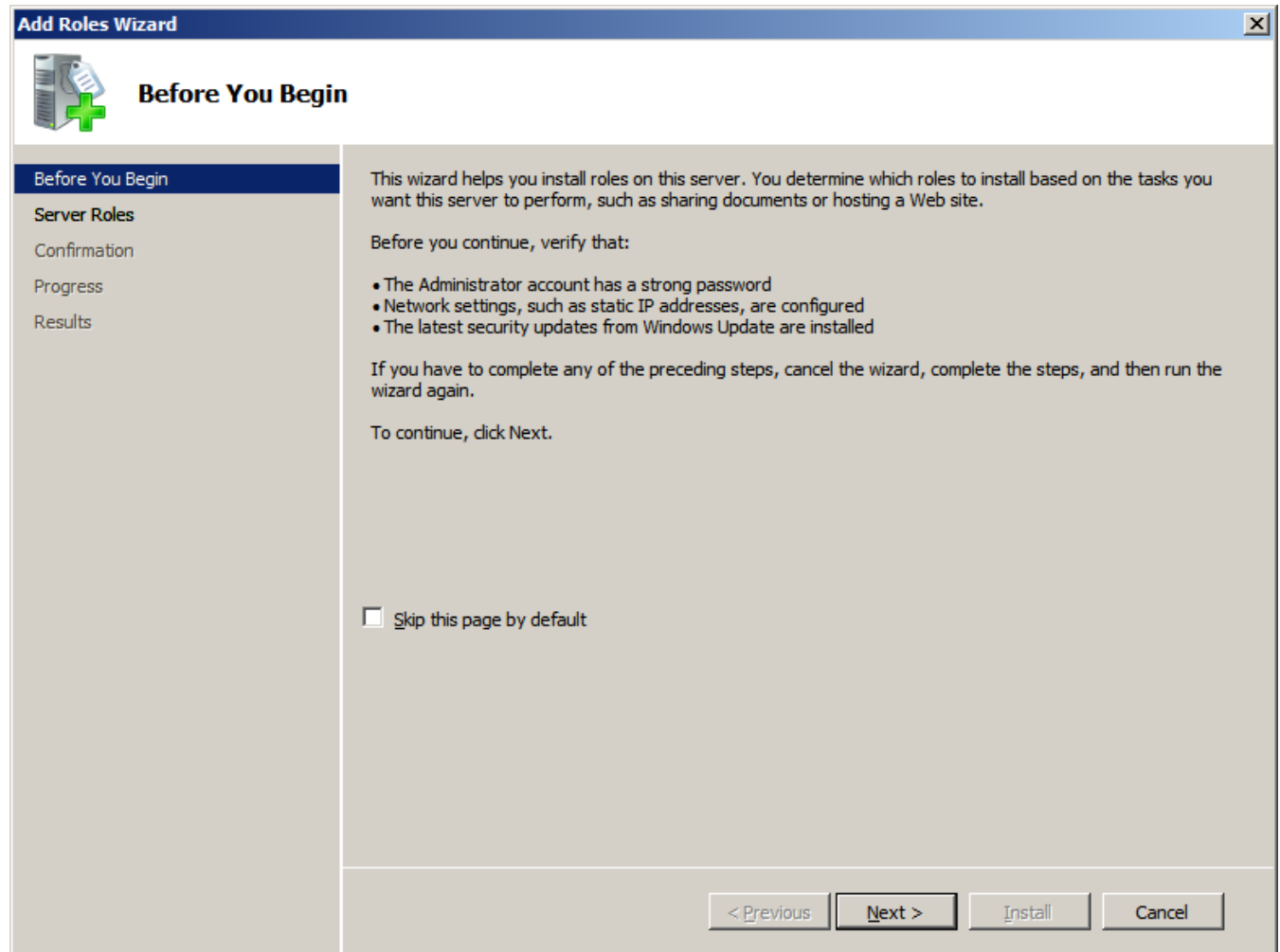
# Server Manager

On this Windows 2008 Server, we already assigned the Windows Deployment Services role, so we are ready to add the DHCP service by selecting Add Roles.



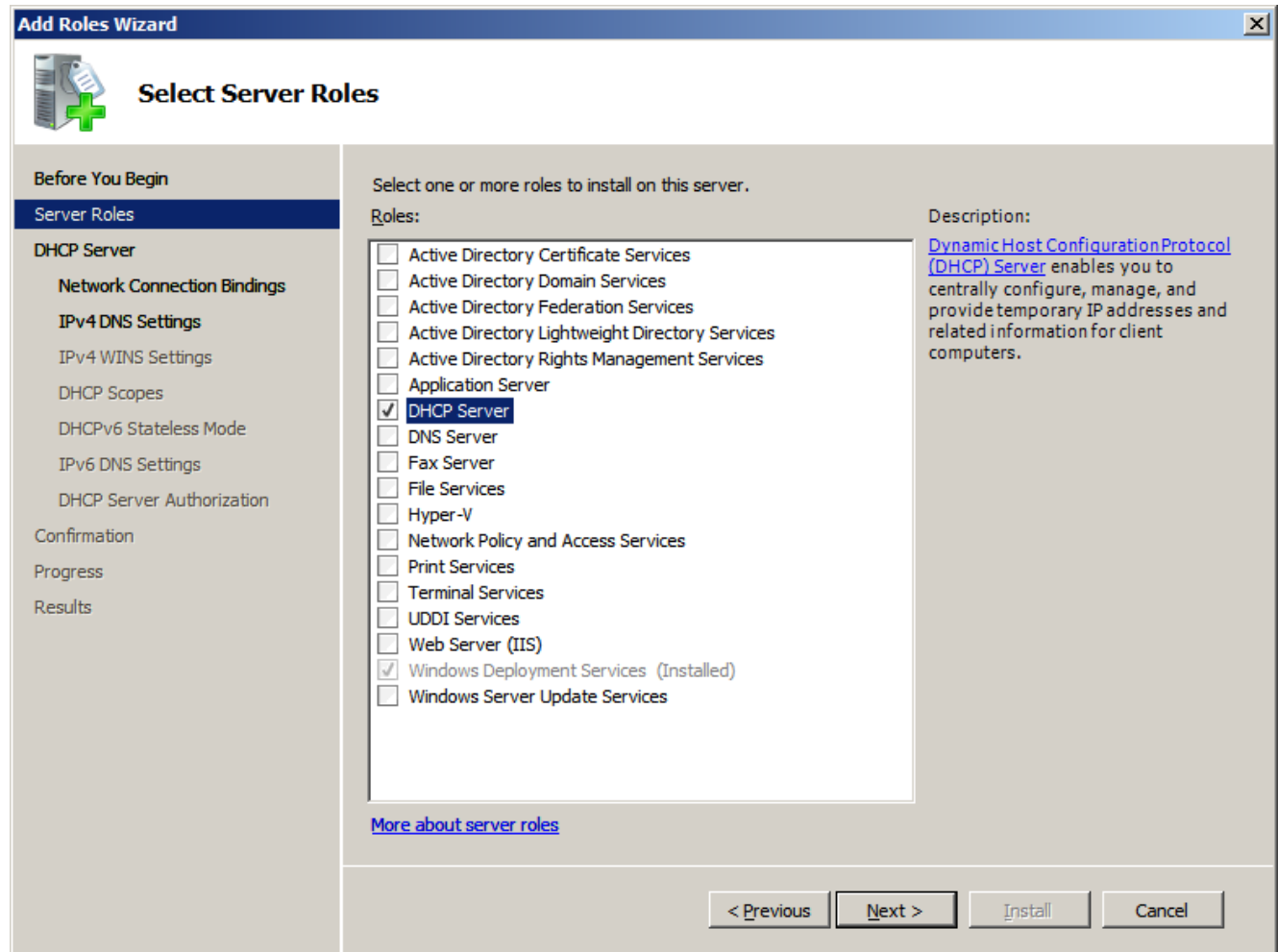
# Before You Begin

Before we begin, we should make our administrator logon a smart password. Our server should have a static IP address and all of the Windows Updates should be loaded.



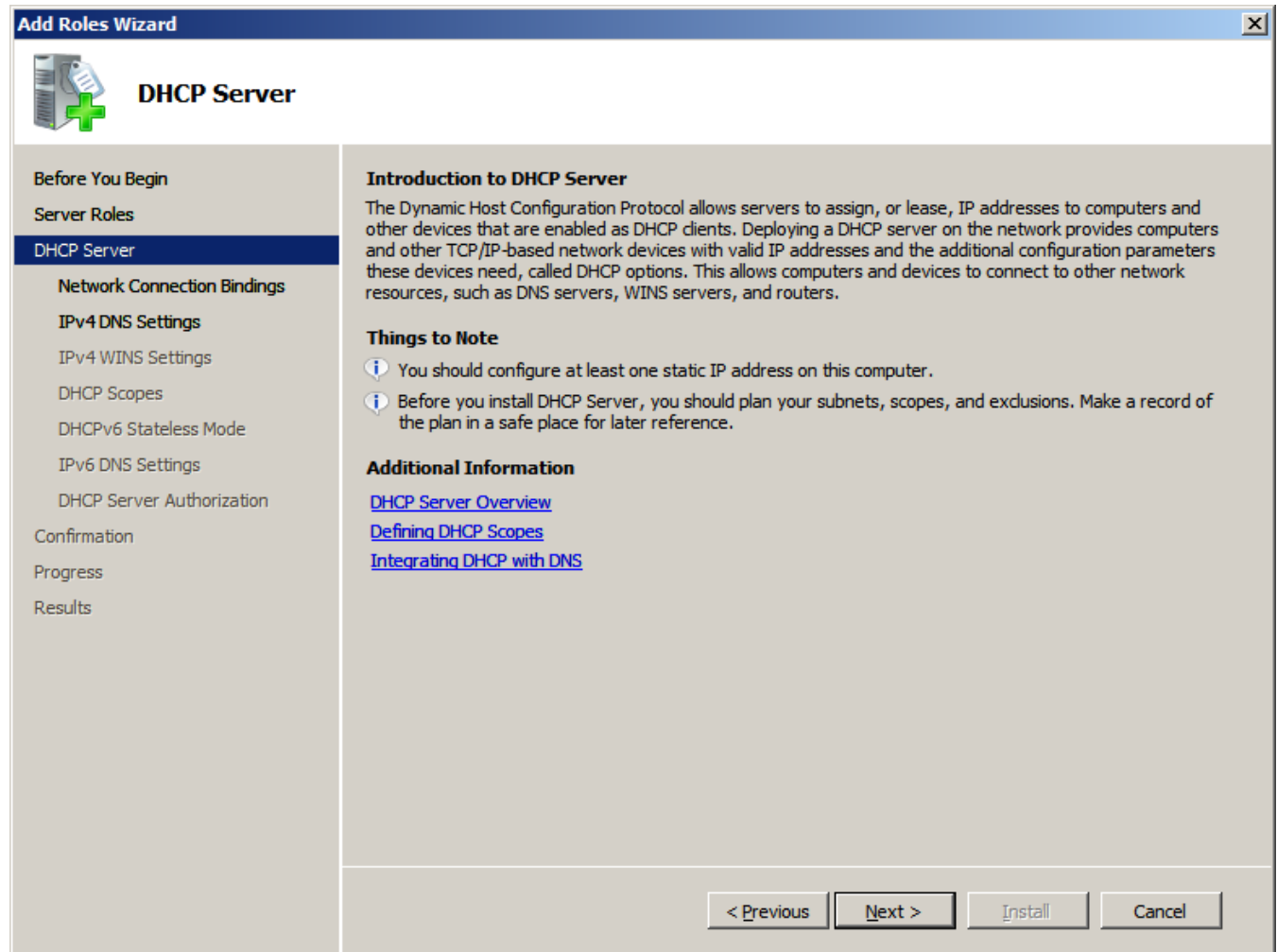
# Select DHCP Server Role

We annotate the DHCP Servers checkbox and we pick the Next button to advance.



# Introduction to DHCP Server

On this window, we can learn more about the DHCP servers. This server should have at least one static IP address, which we set up in the lesson that connected the RIS server to the Domain Controller. We choose the Next button to proceed.



The screenshot shows the 'Add Roles Wizard' window for installing the DHCP Server role. The window title is 'Add Roles Wizard' and it features a close button in the top right corner. On the left side, there is a tree view under the heading 'Server Roles'. The 'DHCP Server' role is selected and highlighted in blue. Below it, several sub-features are listed: 'Network Connection Bindings', 'IPv4 DNS Settings', 'IPv4 WINS Settings', 'DHCP Scopes', 'DHCPv6 Stateless Mode', 'IPv6 DNS Settings', and 'DHCP Server Authorization'. Below these, there are sections for 'Confirmation', 'Progress', and 'Results'. The main content area on the right is titled 'Introduction to DHCP Server' and contains the following text: 'The Dynamic Host Configuration Protocol allows servers to assign, or lease, IP addresses to computers and other devices that are enabled as DHCP clients. Deploying a DHCP server on the network provides computers and other TCP/IP-based network devices with valid IP addresses and the additional configuration parameters these devices need, called DHCP options. This allows computers and devices to connect to other network resources, such as DNS servers, WINS servers, and routers.' Below this text is a 'Things to Note' section with two informational icons and their respective messages: 'You should configure at least one static IP address on this computer.' and 'Before you install DHCP Server, you should plan your subnets, scopes, and exclusions. Make a record of the plan in a safe place for later reference.' Underneath is an 'Additional Information' section with three hyperlinks: 'DHCP Server Overview', 'Defining DHCP Scopes', and 'Integrating DHCP with DNS'. At the bottom of the window, there are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

# Select Network Connection Bindings

We then highlight the IP address of the NIC that will provide the DHCP service. We pick the Next button to advance.

**Add Roles Wizard**

## Select Network Connection Bindings

Before You Begin  
Server Roles  
DHCP Server  
**Network Connection Bindings**  
IPv4 DNS Settings  
IPv4 WINS Settings  
DHCP Scopes  
DHCPv6 Stateless Mode  
IPv6 DNS Settings  
DHCP Server Authorization  
Confirmation  
Progress  
Results

One or more network connections having a static IP address were detected. Each network connection can be used to service DHCP clients on a separate subnet.

Select the network connections that this DHCP server will use for servicing clients.

Network Connections:

IP Address	Type
<input checked="" type="checkbox"/> 192.168.30.30	IPv4

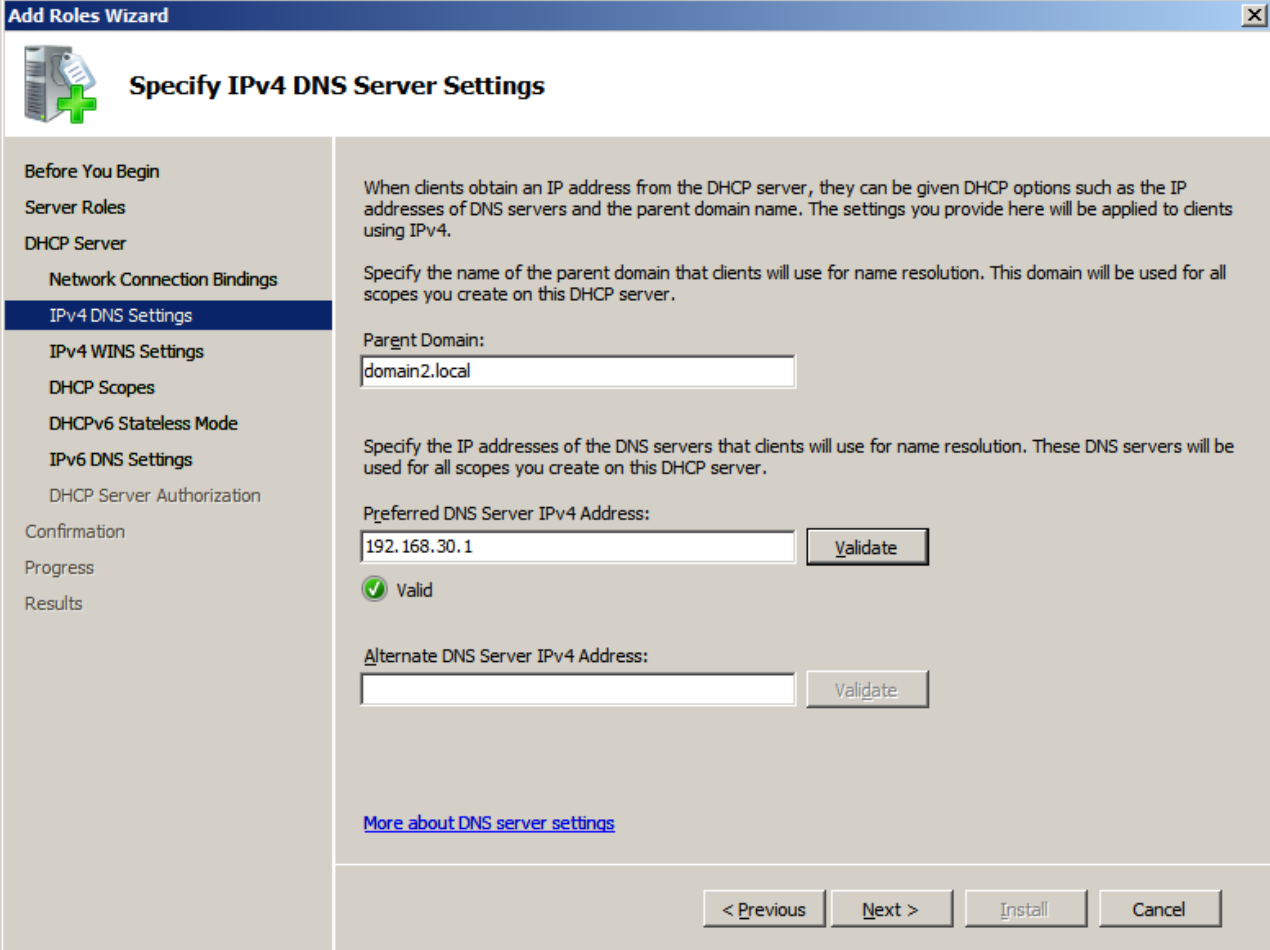
Details

Name: External WAN Connection  
Network Adapter: Broadcom NetLink (TM) Gigabit Ethernet  
Physical Address: B8-AC-6F-42-B9-99

< Previous   Next >   Install   Cancel

# Specify IPv4 DNS Server Settings

Now, we specify the parent domain. Our parent domain is domain2.local. This computer is a DNS server, so the NIC at 192.168.30.1 can be the DNS server address. We select the Validate button and in a few seconds, the green check circle will appear if everything is setup properly.



The screenshot shows the 'Add Roles Wizard' window with the title 'Specify IPv4 DNS Server Settings'. The left sidebar contains a list of steps: 'Before You Begin', 'Server Roles', 'DHCP Server', 'Network Connection Bindings', 'IPv4 DNS Settings' (highlighted), 'IPv4 WINS Settings', 'DHCP Scopes', 'DHCPv6 Stateless Mode', 'IPv6 DNS Settings', 'DHCP Server Authorization', 'Confirmation', 'Progress', and 'Results'. The main area contains the following text and fields:

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.

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.

Parent Domain:

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.

Preferred DNS Server IPv4 Address:

Valid

Alternate DNS Server IPv4 Address:

[More about DNS server settings](#)

At the bottom, there are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

# Specify IPv4 WINS Server Settings

We keep the WINS is not required for applications on this network option and we press the Next button to go on.

**Add Roles Wizard**

**Specify IPv4 WINS Server Settings**

When clients obtain an IP address from the DHCP server, they can be given DHCP options such as the IP addresses of WINS servers. The settings you provide here will be applied to clients using IPv4.

WINS is not required for applications on this network

WINS is required for applications on this network

Specify the IP addresses of the WINS servers that clients will use for name resolution. These WINS servers will be used for all scopes you create on this DHCP server.

Preferred WINS Server IP Address:

Alternate WINS Server IP Address:

[More about WINS server settings](#)

< Previous   Next >   Install   Cancel



# Add DHCP Scope

Our Scope name is RIS Scope 1, the starting IP address is 192.168.30.200 and it will end at 192.168.70.240.

The subnet mask is 255.255.255.0. The gateway is 192.168.30.1 and it is a wired network. We will annotate the active this scope checkbox.

**Add Roles Wizard**

### Add or Edit DHCP Scopes

Before You Begin  
Server Roles  
DHCP Server  
Network Connection Bindings  
IPv4 DNS Settings

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
RIS Scope 1	192.168.30.200 - 192.168.30.240

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: RIS Scope 1

Starting IP Address: 192.168.30.200

Ending IP Address: 192.168.30.240

Subnet Mask: 255.255.255.0

Default Gateway (optional): 192.168.30.1

Subnet Type: Wired (lease duration will be 6 days)

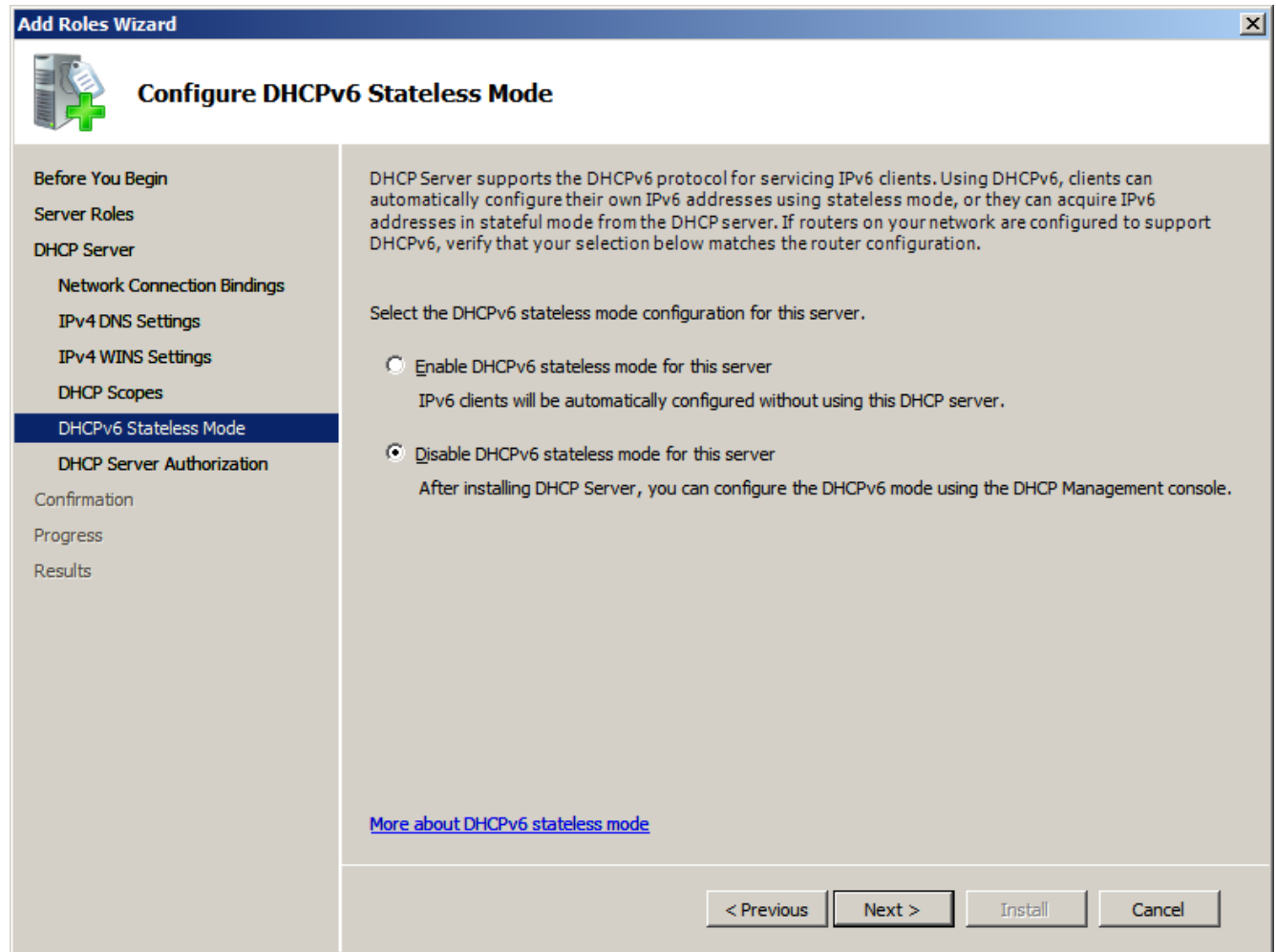
Activate this scope

Buttons: OK, Cancel

Buttons: Next >, Install, Cancel

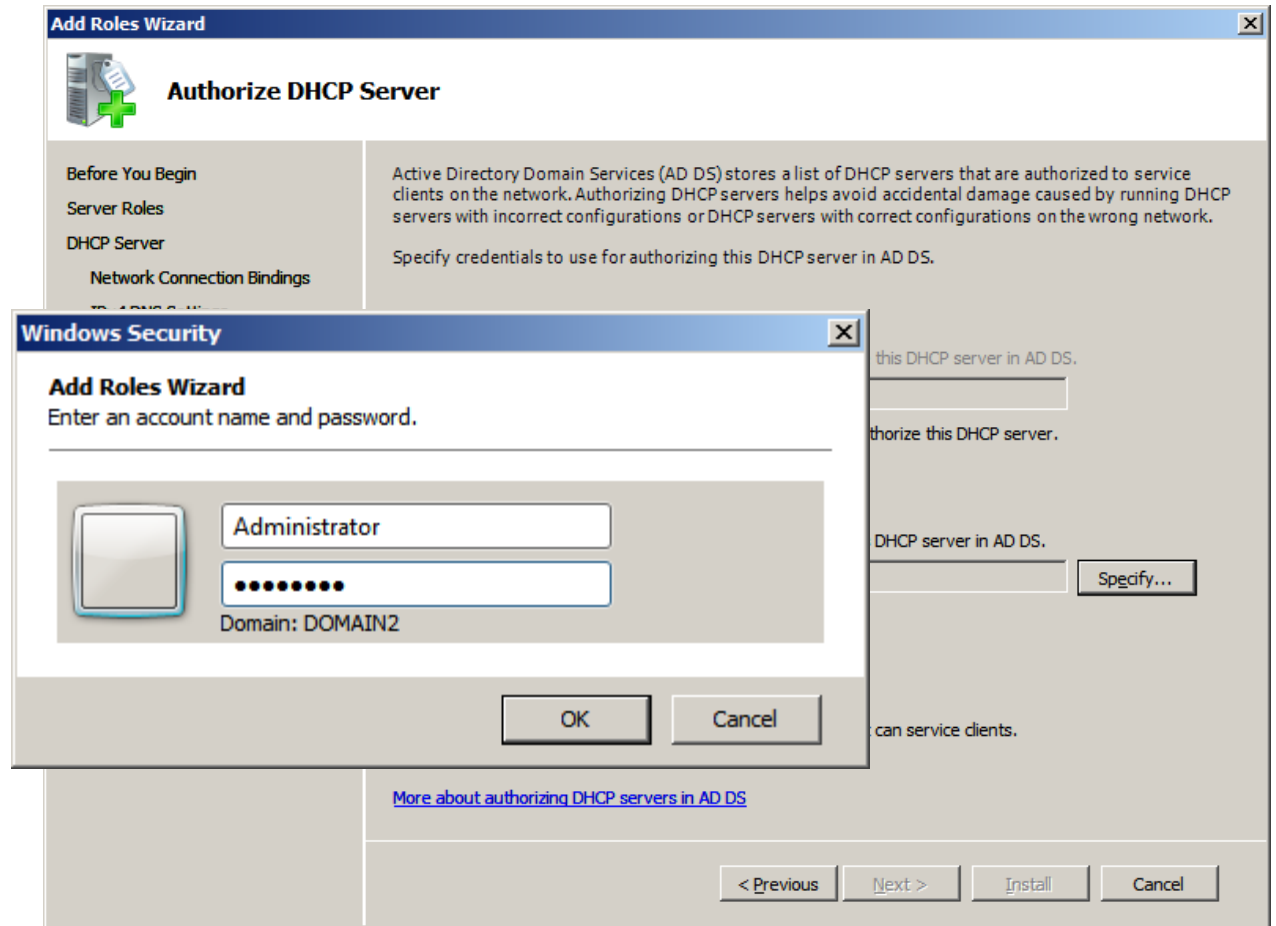
# Configure DHCPv6 Stateless Mode

We will disable the DHCPv6 Stateless Mode since we do not have any TCP/IP version 6 IP addresses on the network.



# Authorize the DHCP Server

The authorization of the DHCP server comes from the Domain Controller. We type the Domain Controller's username as administrator and the DC's password and we pick the OK button. We will see domain2/administrator in the credentials textbox.



# Confirm Installation Selections

Before the installation begins, we can see a summary of our choices and if we need to change anything, we can return to the specific dialogue box using the Previous button. If we agree with all of the settings, we should choose the Install button.

**Add Roles Wizard**

**Confirm Installation Selections**

Before You Begin

Server Roles

DHCP Server

- Network Connection Bindings
- IPv4 DNS Settings
- IPv4 WINS Settings
- DHCP Scopes
- DHCPv6 Stateless Mode
- DHCP Server Authorization

**Confirmation**

Progress

Results

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**

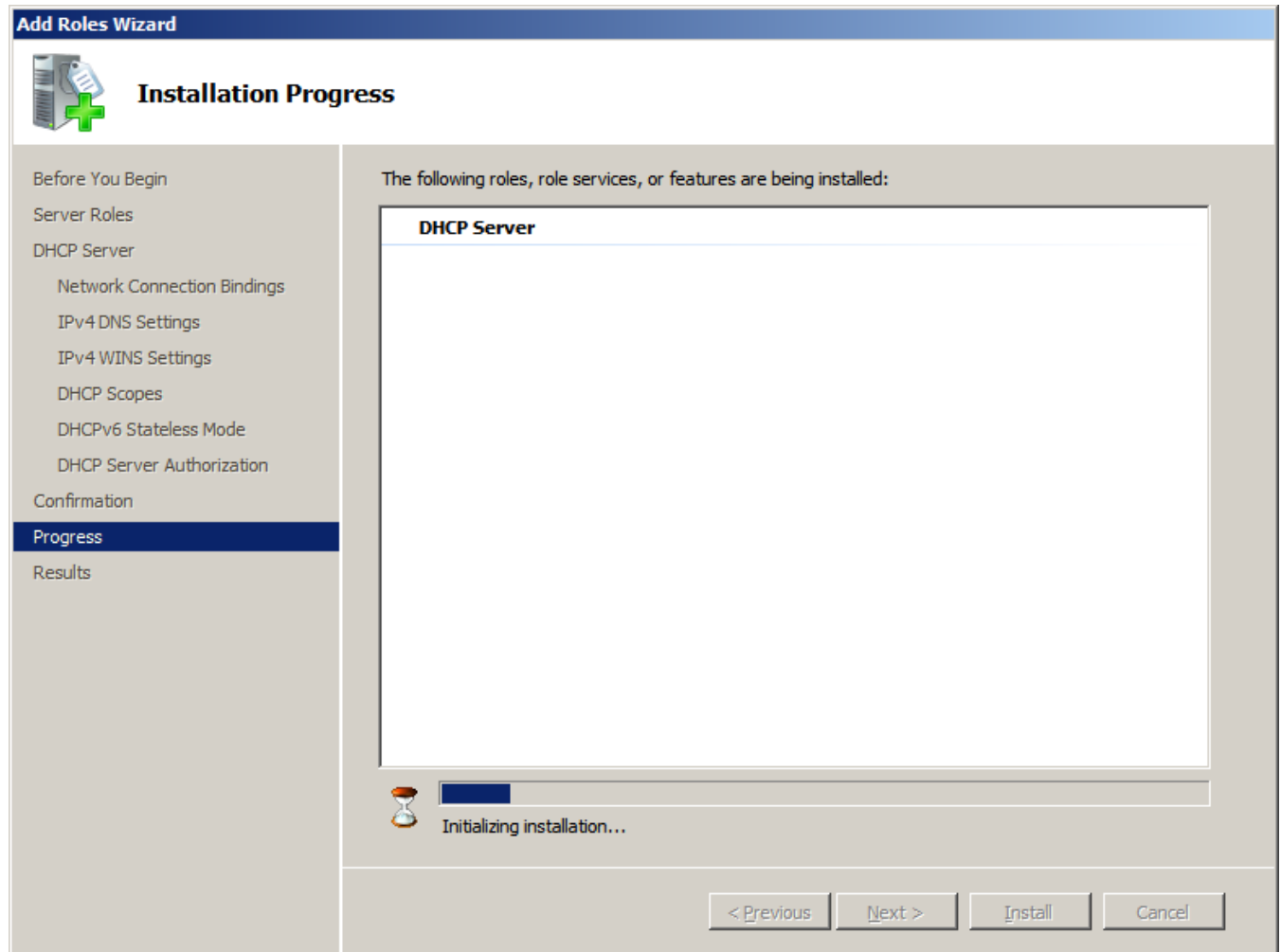
Network Connection Bindings:	192.168.30.30 (IPv4)
IPv4 DNS Settings	
DNS Parent Domain:	domain2.local
DNS Servers:	192.168.30.1
WINS Servers:	None
Scopes	
<b>Name:</b>	<b>RIS Scope 1</b>
Default Gateway:	192.168.30.1
Subnet Mask:	255.255.255.0
IP Address Range:	192.168.30.200 - 192.168.30.240
Subnet Type:	Wired (lease duration will be 6 days)
Activate Scope:	Yes
DHCPv6 Stateless Mode:	Disabled
DHCP Server Authorization:	Authorize using credentials associated with DOMAIN2\Administrator

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

< Previous    Next >    Install    Cancel

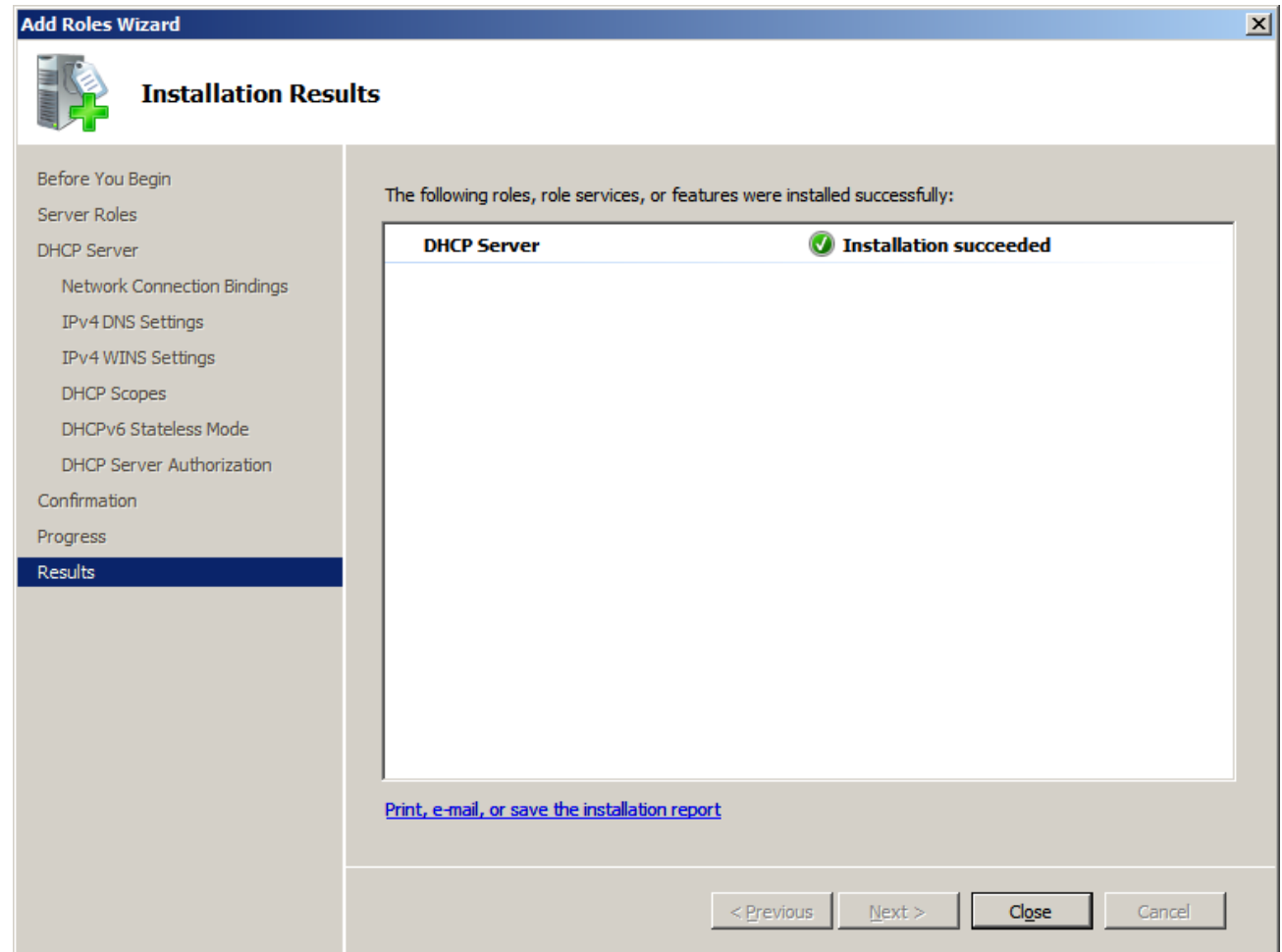
# Install DHCP Server

For several minutes, the DHCP server will be installed and authorized. When the process is complete, we close the Add Roles Wizard and the Server Manager windows.



# Installation Results

When the Add Roles Wizard is complete, the DHCP service is installed. We choose the Close button.



# DHCP Service Installed

We now visit the Server Manager and we can see our DHCP role is installed.

We can continue to setup the RIS server by completing the next lesson.

