TIP

Reservations are often better solutions to this problem, as I describe in the next section.

Reservations suggested

In some cases, you may want to assign a specific IP address to a particular host. One way to do this is to configure the host with a static IP address so that the host doesn't use DHCP to obtain its IP configuration. However, two major disadvantages to that approach exist:

- **TCP/IP configuration supplies more than just the IP address.** If you use static configuration, you must manually specify the subnet mask, default gateway address, DNS server address, and other configuration information required by the host. If this information changes, you have to change it not only at the DHCP server, but also at each host that you configured statically.
- **You must remember to exclude the static IP address from the DHCP server's scope.** Otherwise, the DHCP server doesn't know about the static address and may assign it to another host. Then comes the problem: You have two hosts with the same address on your network.

TIP

A better way to assign a fixed IP address to a particular host is to create a DHCP reservation. A *reservation* simply indicates that whenever a particular host requests an IP address from the DHCP server, the server should provide it the address that you specify in the reservation. The host doesn't receive the IP address until the host requests it from the DHCP server, but whenever the host does request IP configuration, it always receives the same address.

To create a reservation, you associate the IP address that you want assigned to the host with the host's MAC address. Accordingly, you need to get the MAC address from the host before you create the reservation:

- Usually, you can get the MAC address by running the command `ipconfig /all` from a command prompt.
- If TCP/IP has not yet been configured on the computer, you can get the MAC address by choosing Start ➪ All Programs ➪ Accessories ➪ System Tools ➪ System Information.

TIP

If you set up more than one DHCP server, be sure to specify the same reservations on each server. If you forget to repeat a reservation on one of the servers, that server may assign the address to another host.