One of the easiest ways to configure a computer to use a TCP/IP network is to use  
DHCP, which enables one computer on a network to manage the settings for many other  
computers. It works like this: When a computer running a DHCP client boots up, it sends  
a broadcast in search of a DHCP server. The server replies (using nothing but the client’s  
hardware address) with the configuration information the client needs to enable it to communicate with other computers on the network—most important, **the client’s IP address  
and netmask and the network’s gateway and DNS server addresses**. The DHCP server may  
also give the client a hostname and provide various other details about the network. The  
client then configures itself with these parameters. **The IP address isn’t assigned permanently; it’s referred to as a *DHCP lease*, and if it’s not renewed, the DHCP server may give  
the lease to another computer. Therefore, from time to time the client checks back with the  
DHCP server to renew its lease.**  
Three DHCP clients are in common use on Linux: pump, dhclient, and dhcpcd (not to  
be confused with the DHCP server, dhcpd). Some Linux distributions ship with just one  
of these, but others ship with two or even all three. All distributions have a default DHCP  
client—the one that’s installed when you tell the system you want to use DHCP at system  
installation time. Those that ship with multiple DHCP clients typically enable you to swap  
out one for another simply by removing the old package and installing the new one.