connect to the server. When you purchase Windows Server, you ordinarily purchase a server license plus some number of CALs.

To complicate matters, there are two distinct types of CALs: per-user and per-device. *Per-user* CALs limit the number of users who can access a server simultaneously, regardless of the number of devices (such as client computers) in your organization. By contrast, *per-device* CALs limit the number of unique devices that can access the server, regardless of the number of users in your organization.

Note that you can download a six-month evaluation version of Windows Server 2019 from Microsoft's website at `www.microsoft.com/en-us/evalcenter/evaluate-windows-server-2019`.


TIP

If you want to follow along with the steps to install Windows Server onto a Hyper-V virtual machine as outlined later in this chapter, download the ISO version of the evaluation. Then you'll be able to mount the ISO to a DVD/CD drive in the virtual machine and install the server from the DVD.

Deciding your TCP/IP configuration

Before you install the operating system, you should have a plan for implementing TCP/IP on the network. Here are some of the things you need to decide or find out:

- The IP subnet address and mask for your network.
- The domain name for the network.
- The host name for the server.
- The static IP for the server. (All servers should have static IPs.)
- Whether the server will be a DHCP server.
- The Default Gateway for the server (that is, the IP address of the network's Internet router).
- Whether the server will be a DNS server.

For more information about planning your TCP/IP configuration, see Chapter 5.

Choosing workgroups or domains

A *domain* is a method of placing user accounts and various network resources under the control of a single directory database. Domains ensure that security policies are applied consistently throughout a network and greatly simplify the task of managing user accounts on large networks.