Implementing Sites and Subnets

Now that you have a good idea of the goals of replication, take a look at the following quick overview of the various Active Directory objects, which are related to physical network topology.

The basic objects that are used for managing replication include the following:

Subnets A *subnet* is a partition of a network. As I started to discuss earlier, subnets are logical IP blocks usually connected to other IP blocks through the use of routers and other network devices.

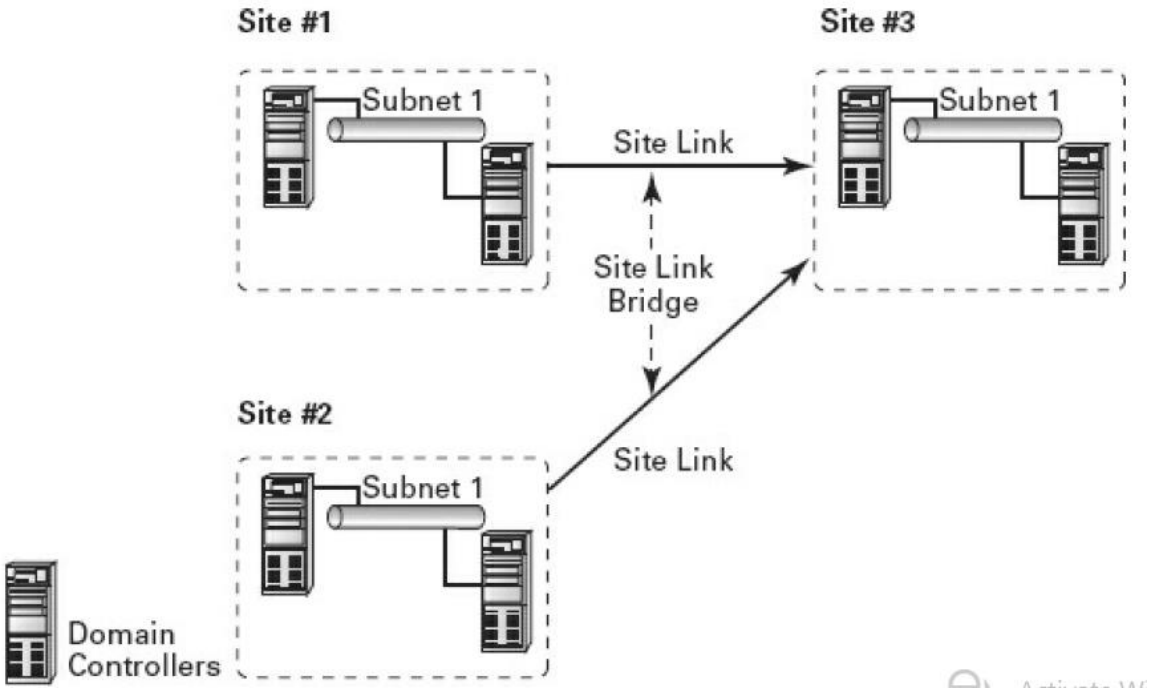
All of the computers that are located on a given subnet are generally well connected with each other.

Sites An Active Directory site is a logical object that can contain servers and other objects related to Active Directory replication. Specifically, a *site* is a grouping of related subnets. Sites are created to match the physical network structure of an organization. Sites are primarily used for slow WAN links. If your network is well connected (using fiber optics, Category 5 Ethernet, and so on), then sites are not needed.

Site Links A *site link* is created to define the types of connections that are available between the components of a site. Site links can reflect a relative cost for a network connection and can reflect the bandwidth that is available for communications.

All of these components work together to determine how information is used to replicate data between domain controllers. Figure 6.3 provides an example of the physical components of Active Directory.

FIGURE 6.3 Active Directory replication objects



Using sites allows you to control the behavior of Active Directory replication between domain controllers.