

Chapter 3 Network Physical Components

Chapter 3 Objective

- This chapter will discuss the various physical components of an organization's network.

3.1 Introduction

In a modern organization there will be a significant IT posture, relative to the size of the operation. While modern connectivity has improved an organization's ability to operate in an extended enterprise spanning all corners of the world, as discussed in Chapter 2, it has also put them at risk for theft, fraud, data loss and hacking, as the examples from Chapter 1 established.

To provide the background for the communication, policy and enterprise architecture discussions to follow in later chapters, the next few chapters will discuss the various physical and software-based elements of an organization's IT environment. Chapters 14 and 15 cover network administration and monitoring. As the emphasis of this book is on the policies facilitating a well-structured enterprise, the directly technical aspects of the issues are covered in sufficient depth to provide the reader with an overview of the subject matter.

3.2 Computers

3.2.1 Desktops and Laptops

Virtually everyone with an office job uses a computer for at least parts of their job, even if it is only as a typewriter substitute. The desktop computer (Figure 3.1) is the most common piece of hardware used to perform work and to access the Internet, while the laptop (Figure 3.2) is the choice of consultants, especially those who travel and must work on airplanes, in

hotel rooms and on café tables, often with one or more colleagues sharing the space. Desktops are the more powerful of the two systems, but laptops now have capabilities sufficient to perform all routine work and at the high end have the ability to perform complex and resource-intensive functions such as economic analysis.

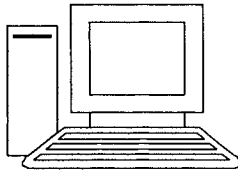


Figure 3.1 A Desktop Computer



Figure 3.2 A Laptop Computer

Laptops, however, are already starting to be replaced by what could still be considered early adopters of handheld computers, of which Personal Digital Assistants (PDAs) are the forerunners. PDAs that have multiple additional functions, such as email, phone and Internet access in addition to their contact management and calendar functionality, are becoming the norm in the office and (perhaps unfortunately) on trains and in restaurants.

3.2.2 Servers

Servers (Figure 3.3) are computers that house programs to be accessed by the workstations (desktops, laptops and handhelds) on the network.



Figure 3.3 A Server