



Unit 4: Connecting to the Internet Through an ISP

7-14
Days

“Connecting to the Internet Through an ISP,” introduces ISP services, options for connecting to the Internet, and components of an ISP Network Operations Center (NOC). This chapter discusses the Internet Protocol (IP) and how information is sent across the Internet through an ISP. Other major areas covered by this chapter are the cabling and connectors used for connecting network devices, with focus on Ethernet UTP cables and how they are constructed. You will build Ethernet cables and test them.



Unit 5: Network Addressing

7-15
Days

“Network Addressing,” examines the IP address and subnet mask and how they are used on a network. Unicast, multicast, and broadcast IP addresses are introduced as well as the three classes of assignable IP addresses. This chapter covers how IP addresses are obtained, the differences between public and a private addresses, and how network address translation(NAT) functions.



Unit 6: Network Services

7-16
Days

“Network Services,” builds on the client/server model as it relates to common network services. This chapter describes the TCP and UDP transport protocols, the function of port numbers, and the protocols and applications that use them. Focus is on major Internet services, applications, and protocols including DNS, e-mail, WWW, FTP, and IM. The concept of a protocol stack and how protocols interact on a host when sending and receiving a message are introduced. The purpose of a layered networking model is discussed as are the two major models in use, the Open Systems Interconnect (OSI) and the TCP/IP model description of unit content (i.e. a "tweet")



Unit 7: Wireless Technologies

8-16
Days

“Wireless Technologies,” explores the benefits and limitations of wireless technology and where it is used. This chapter compares the wireless personal-area network (WPAN), wireless local-area network (WLAN), and wireless wide-area network (WWAN). It describes components required to build a WLAN and their functions as well as the current standards for WLANs and how they compare. In this chapter, you will configure parameters on a wireless access point (AP) to allow a wireless client to access network resources. You will also explore techniques available to help secure the WLAN.



Unit 8: Basic Security

7-10
Days

“Basic Security,” introduces networking threats, their characteristics, and different methods of attack. This chapter also describes security procedures and applications that can help prevent attacks and focuses on firewalls, their capabilities, and how a DMZ is structured. You will configure a DMZ and port forwarding with an integrated router device. You will also learn about vulnerability analysis software and how can it help to prevent attacks.



Unit 9: Toubleshooting Your Network

7-14
Days

“Troubleshooting Your Network,” identifies the steps involved in the troubleshooting process and some of the common troubleshooting techniques. Utilities available for troubleshooting connectivity issues are explored. This chapter also covers some of the more common issues with wired and wireless LANs and suggests some possible sources of help when troubleshooting



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Curriculum Snapshot/Cover Page for Computer Systems



Unit 10:		learn ed about t com puter	prot ocols and appli cations		
7- 21	Chapter 10, "Putting It All Together." In this summary activity, you use what you have	hard ware and soft ware , wire d and wirel ess	ns, and tech niques for secur ing a netw ork to	tech nical soluti on for a small busin ess.	

