Part I

Wireless LANs

CCNA 200-301 Official Cert Guide, Volume 2, Second Edition, moves through a wide variety of topic areas, with major transitions occurring with each book part. The book works through wireless LANs, network security, network services, network architecture, and finally, network automation.

In this first part of this volume, we turn our attention to the LAN…not to wired Ethernet LANs, but to IEEE 802.11 wireless LANs—in other words, Wi-Fi. The four chapters in this part of the book lay down the foundations of how wireless LANs work and then show how to implement wireless LANs using Cisco devices.

Building wireless LANs requires some thought because the endpoints that use the LAN do not sit in one place and connect via a known cable and known switch port. To explain those details, Chapter 1 begins with the

basics of how a wireless client can connect to the wireless network through a wireless access point (AP). After you learn the foundations in Chapter 1, Chapter 2 takes an architectural view of wireless LANs to discuss how you might build a wireless LAN for an enterprise, which requires much different thinking than, for instance, building a wireless LAN for your home.

Chapter 3 completes the three concepts-focused wireless LAN chapters by working through the alphabet soup that is wireless LAN security. The fact that wireless LAN clients come and go means that the LAN may be under constant attack as an easy place for attackers to gain access to the network, so wireless LANs must use effective security. Finally, Chapter 4 closes by showing how to configure an enterprise wireless LAN using Cisco APs and the Cisco Wireless LAN Controller (WLC) from the WLC's graphical interface.