

16.9 Overlap, Association, And 802.11 Frame Format

In practice, many details complicate an infrastructure architecture. On the one hand, if access points are geographically too far apart, a *dead zone* will exist between them (i.e., a physical location with no wireless connectivity). On the other hand, if a pair of access points is too close together, an overlap will exist in which a wireless host can reach both access points. Furthermore, most wireless LANs connect to the Internet. Thus, the interconnect mechanism usually has an additional wired connection to an Internet router. Figure 16.8 illustrates the architecture.

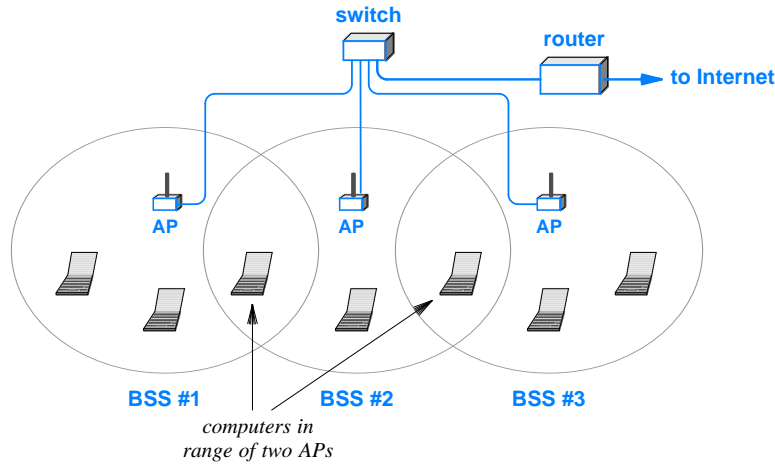


Figure 16.8 Illustration of an infrastructure with overlapping regions.

To handle overlap, 802.11 networks require a wireless host to *associate* with a single access point. That is, a wireless host sends frames to a particular access point, which forwards the frames across the network. Figure 16.9 illustrates the 802.11 frame format, and shows that when used with an infrastructure architecture, the frame carries the MAC address of an access point as well as the address of an Internet router.

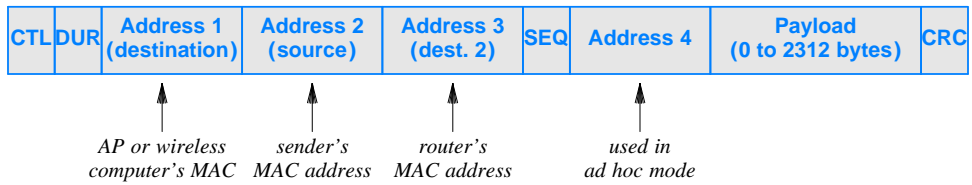


Figure 16.9 The frame format used with an 802.11 wireless LAN.