IEEE 802.11 ARCHITECTURE AND PROTOCOL

Important Terminologies of IEEE 802.11 Architecture

Station: Stations (STA):- Comprise all devices and equipment that are connected to the wireless LAN. Examples are computers, laptops, printers, and smartphones.

Access Point:- The stations are connected to access point. It is a device that can be classified as a station because of its functionalities and acts as a connection between wireless medium and distributed systems.

Basic Service Set(BSS):-Station and access point with same radio coverage form. BSS consist of station and access point.

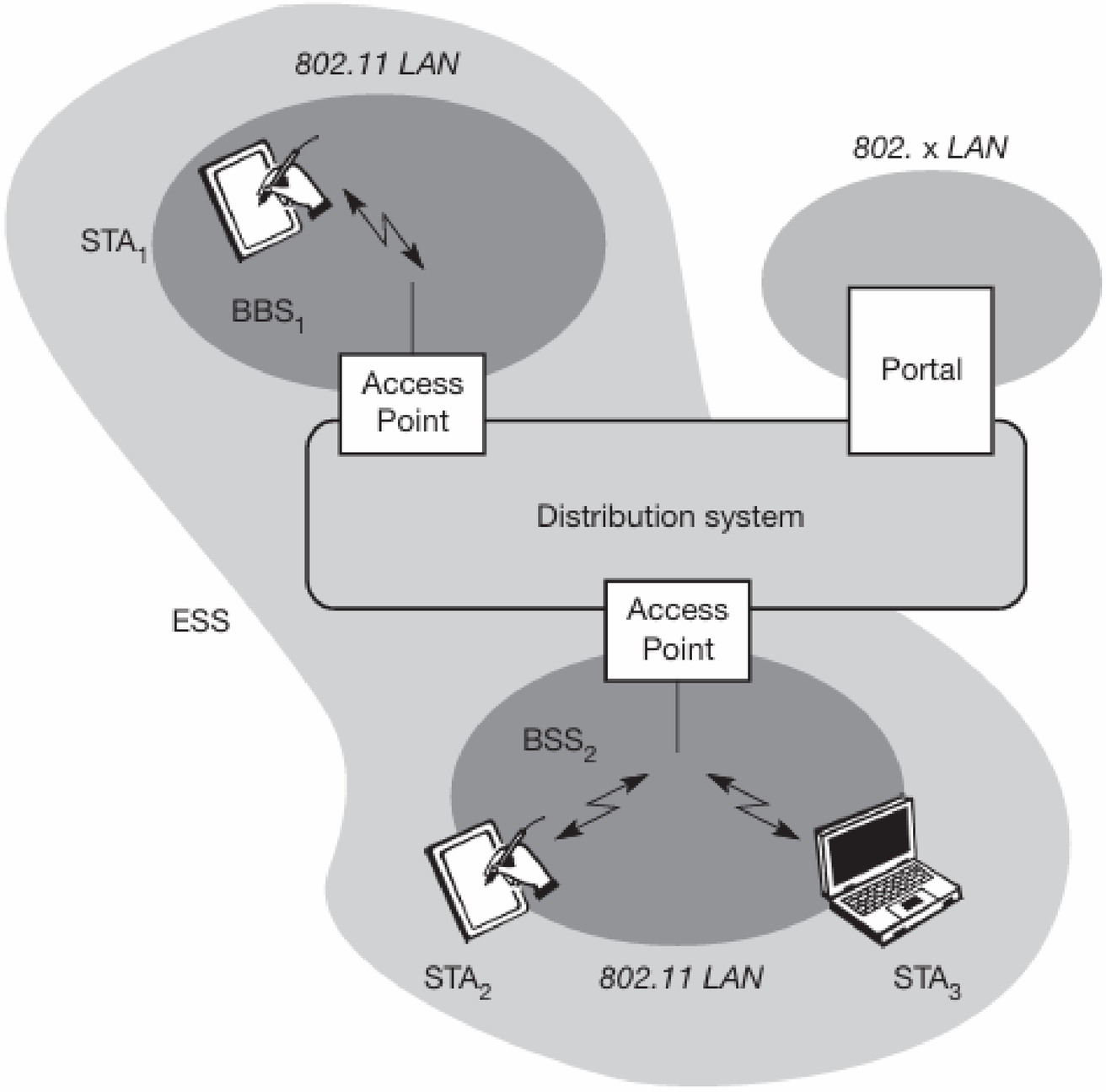
Extended Service Set(ESS):- ESS connects several BSS cells through access point which can be interlinked through wired or wireless backbones known as a distributed system.

Wireless Access Point (WAP):- WAPs or simply access points (AP) are wireless routers that bridge connections for base stations.

Distribution System:- A system used to interconnect a set of BSSs and integrated LANs to create an ESS.

Portal:- Serves as a gateway to other wired networks.

Figure 7.3
Architecture of an infrastructure-based IEEE 802.11



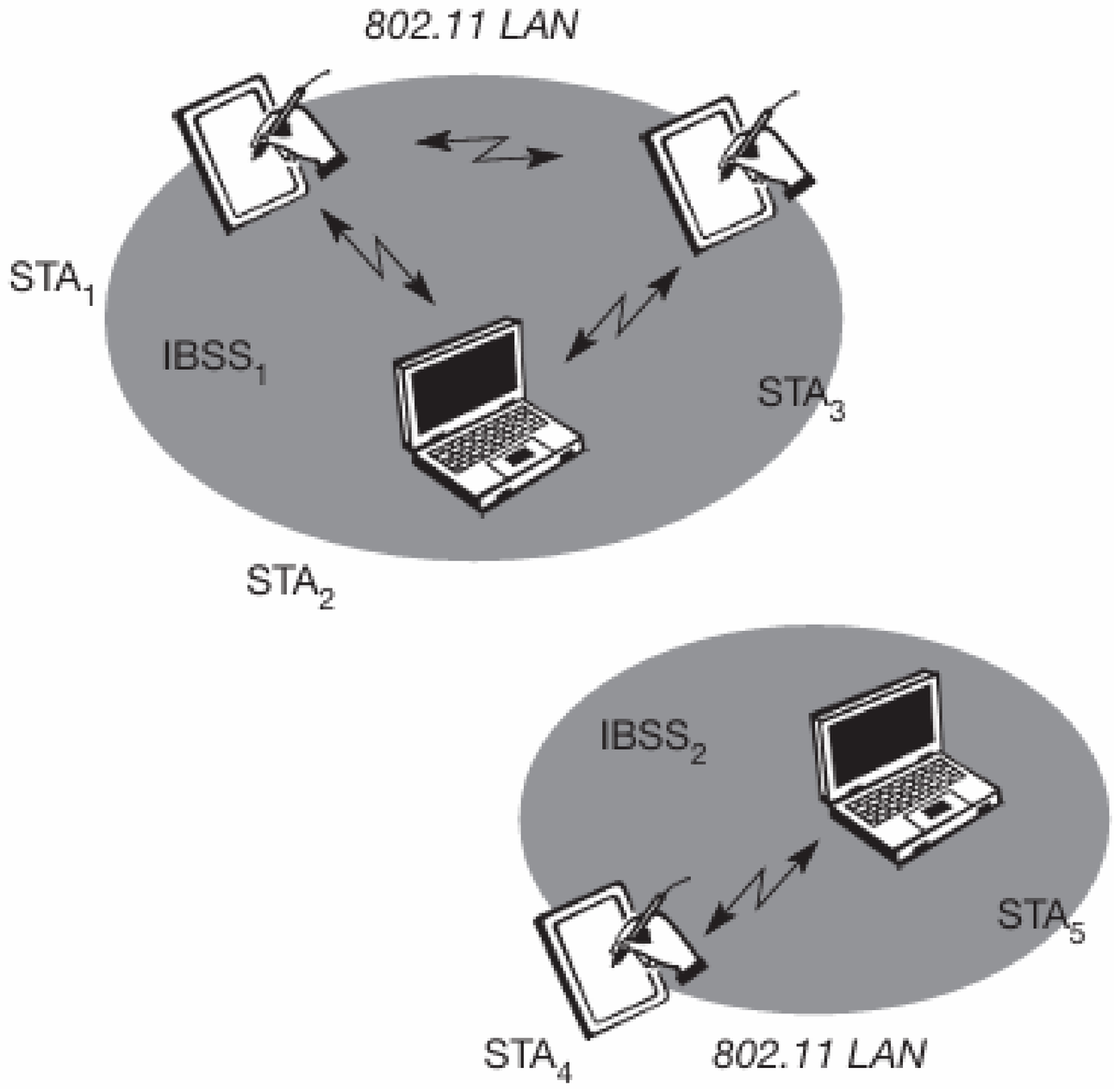
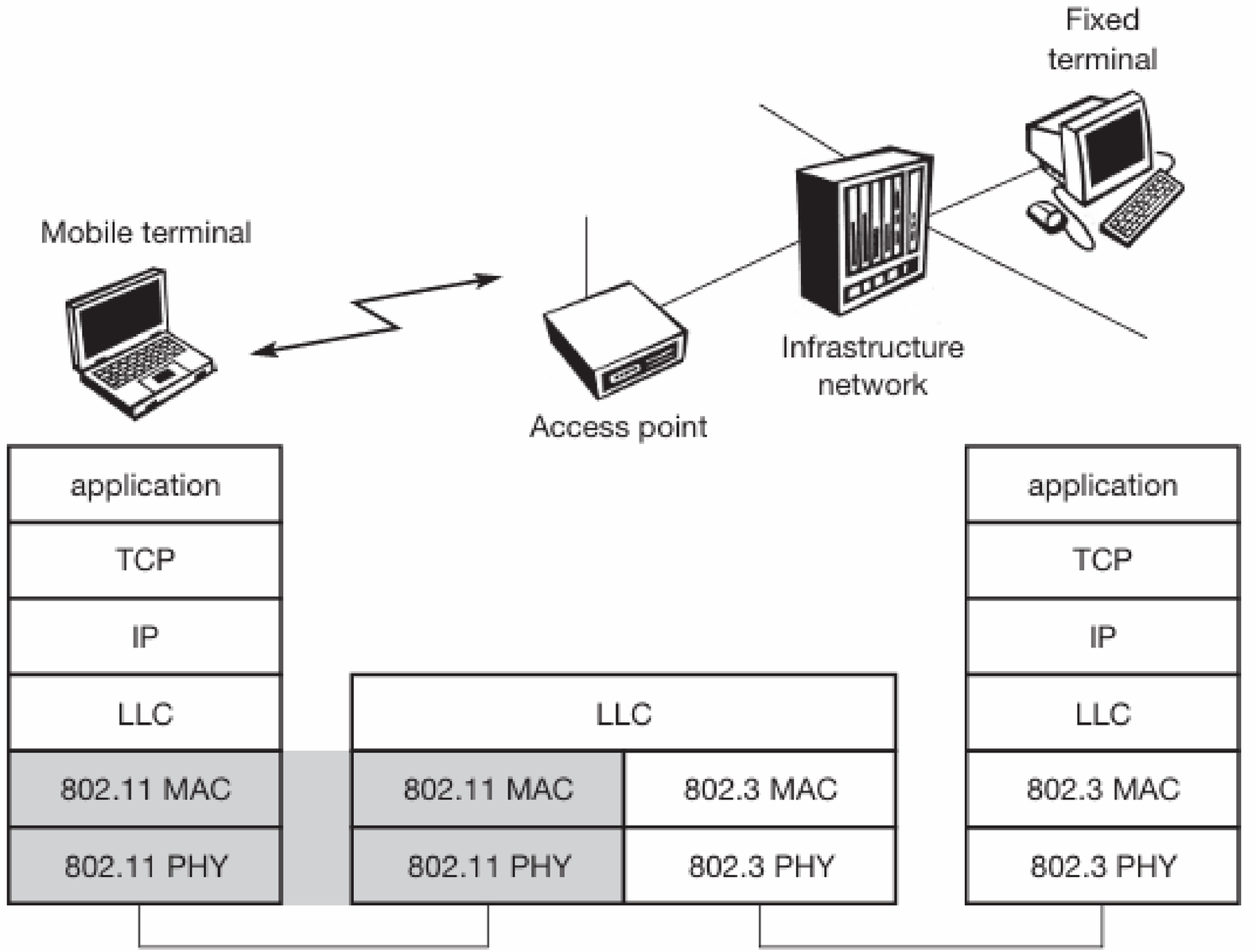


Figure 7.4
Architecture of IEEE 802.11 ad-hoc wireless LANs

PROTOCOL ARCHITECTURE

Figure 7.5
IEEE 802.11 protocol architecture and bridging



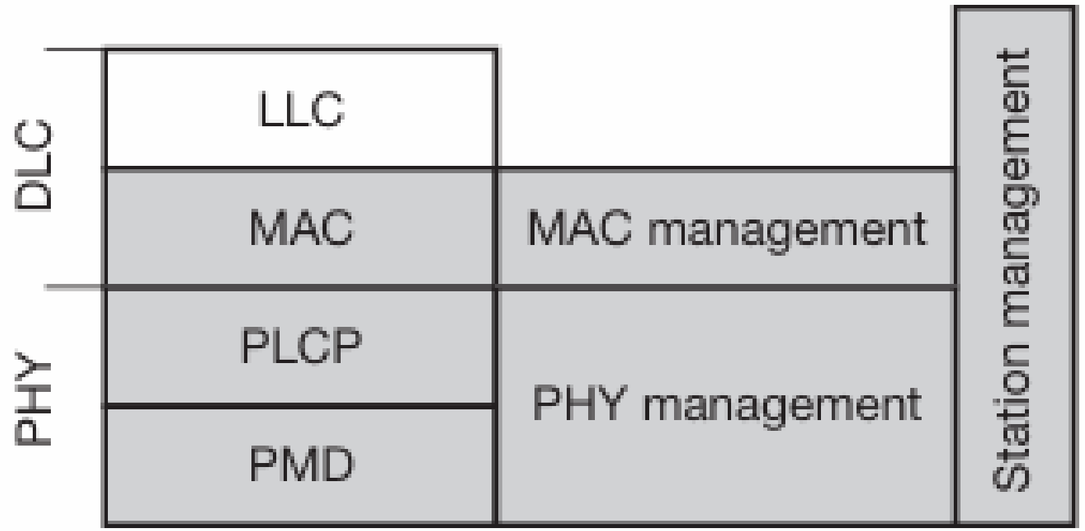


Figure 7.6
Detailed IEEE 802.11 protocol architecture and management

BSS-Basic service set

ESS-Extended service set

LLC-logical link control

PLCP-physical layer convergence protocol

PMD-physicalmedium dependent PMD

MIB-MAC management information base

THANK YOU