IEEE P802.11
Wireless LANs

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| 802.11 ARC - 802REV 802\_11 AP reference model |
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Abstract

This document presents a proposed replacement for 802REV D1.6 sub-clause B.2 (802.11 Reference Model), specifically to address the model for APs and the Distribution System and Portals. These changes are proposed based on discussions within the 802.11 ARC SC over the last year, and concerns about the AP model originally proposed for the 802 O&A document.

*Replace the contents of sub-clause B.2 with the following:*

**B.2 802.11 RM**

The 802.11 Reference Model is based on the general station (STA) model, as shown in Figure B.5.



**Figure B.5—802.11 STA RM**

The interconnections between 802.11 STAs follow two general models.

Several types of peer-to-peer, direct, pair-wise communication between STAs are defined, each applicable in differing use scenarios. In these direct communications, the pair STAs are symmetrical, with each STA generally matching the simple STA model, although they may take on different behavioral roles for the purpose of establishing and maintaining the interconnection link.

The other interconnection model – the “infrastructure model” - supports multiple STAs, collected into one or more wireless access domains. These access domains are interconnected via the Distribution System, and can interwork with other 802 networks via one or more Portals.

Each access domain in the infrastructure model is established by an Access Point (AP), which extends the basic STA model to include repeating and forwarding functions that allow communications between non-AP STAs which do not directly interconnect. The AP acts as a repeater to enable communications between non-AP STAs within the access domain (intra-BSS relay). The AP performs a forwarding function via the Distribution System, to enable communications between non-AP STAs in different 802.11 wireless access domains (inter-BSS relay). Finally, via Portals, APs support communications between 802.11 STAs and stations attached to other 802 networks.

Figure B.6 illustrates the infrastructure model for APs, the Distribution System and Portals. The arrows indicate the intra-BSS and inter-BSS relay functions for MSDUs as well as interconnection to other 802 networks.



**Figure B.6—802.11 infrastructure model**