IEEE 802.11
Wireless Access Method and Physical Specification

Title: **Proposed Revision to PHY_SAP Service Primitives**

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Introduction

The PHY editors jointly propose to modify the PHY_SAP service primitives. The current set of classes defined in section 8 are insufficient to support all PHYs or are not clearly defined. A complete set of classes is proposed below with additions and clarifications of the existing classes.

Proposed Revision

PHY_DATA.request(class, data)

    class=Start_of_Data, data=TXVECTOR

        Starts the transmit state machine. TXVECTOR contains the packet length and other packet control information which are PHY dependent.

    class=Data, data=DATA

        One octet of MPDU data

    class=End_of_Data, data=NULL

        Indicates end of data to transmit.

    class=End_of_Activity, data=NULL

        Resets the PLCP CS/CCA assessment timers to the state appropriate for the end

of a received packet. This is generated by the MAC at the end of a NAV timer. This request is used by some PHY implementations which may synchronize antenna diversity switching with the contention backoff timing. The use of this request in the PHY is optional.

PHY_DATA.indicate(class, data)

> class=Start_of_Activity, data=NULL
>
>> CS/CCA channel busy
>
> class=Start_of_Data, data=RXVECTOR
>
>> Start of the MPDU portion of a packet following a valid SFD and PLCP Header. RXVECTOR contains the packet length and other packet information including RSSI. RXVECTOR is PHY dependent.
>
> class=Data, data=DATA
>
> class=End_of_Data, data=RXERROR
>
>> End of a received packet. RXERROR contains the condition of the received packet with states including no_error, header_violation, format_violation, carrier_lost.
>
> class=End_of_Activity, data=NULL
>
>> CS/CCA channel idle

PHY_DATA.confirm

> After all PHY_DATA.request(Data, DATA), it indicates the PLCP is ready to receive another byte. After the PHY_DATA.request(End_of_Data, NULL), it indicates that transmission is complete.