IEEE P802.11
Wireless LANs

PLCP header structure proposal

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Dear Mr. Victor Hayes,

On the discussion at Ethernet Wireless Access Working Group (EWA WG) of MMAC-PC dated of 23rd of February, We would like to propose a structure of PLCP header.

We felt that the one parity bit is not enough for reliability. We propose to use CRC16 instead of it. While the D3.0 PLCP header consists of one OFDM symbol and service field, we propose a new header structure that is composed by two OFDM symbols described in Fig.1.

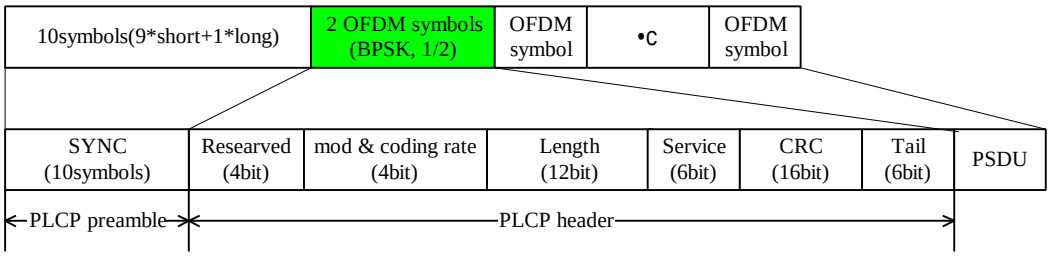

Figure 1 Proposed PLCP header structure

We assigned the following fields for the two OFDM symbols,

4bits for reserved,
4bits for mod & conding rate,
12bits for length,
6bits for service (maybe used for scrambler initialization),
16bits for CRC and
6bits for Tail.

This makes overhead lager. However we think it dose not make a big impact for throughput. We hope that IEEE802.11a will take this proposal into account for a discussion.

The MMAC Ethernet Wireless Access WG again thanks the IEEE802.11 TGa for its activities of standardization.

Yours sincerely

Tomoki Ohsawa, Chairman of 5GHz Ethernet Wireless Access WG, the MMAC-PC