
**IEEE P802.11
Wireless LANs
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PLCP preamble and system identification proposals

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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 couple of things regarding to a co-existence among standards. The following result should be valid in the condition that we have a common description among the standards. We understand that our proposal will provide a beneficial changes to realize a global standard and a common physical layer of 5Ghz band in the world, which are IEEE802.11a, ETSI BRAN and Ethernet Wireless and Wireless ATM Working Groups of MMAC-PC.

- 1) In order to have a common preamble structure, we have received a request from Wireless ATM working group of MMAC-PC. They basically agreed on having a same preamble structure with IEEE802.11. However, in order to realize a simple way for processing for their MAC frame structure, they proposed to add one short training preamble symbol.

Therefore, the preamble will become as 10 repetitions of "short training symbol" instead of that of 9 repetitions in the draft.

We have basically accepted this proposal for Ethernet Wireless Access working group though it will generate a little bit lager overhead.

The WATM working group has already submitted this proposal to ETSI BRAN. The Ethernet Wireless Access working group would like to propose it to change the IEEE802.11a draft.

- 2) As it is clear, those standards take different MAC mechanisms. IEEE802.11 and Ethernet Wireless Access working group of MMAC-PC takes a CSMA/CA based algorithm. ETSI BRAN and Wireless ATM working group of MMAC-PC chose a TDMA/TDD type of access method. They can recognize each other what kind of system is being operated in an area of a channel.

We thought that it will be nice to have a recognition mechanism on PHY layer among the standards. From this point of view, we would like propose to have a common field on

physical layer level of header. In this sense, we would like to propose to insert system ID field in the PLCP header by using a service field of the PLCP header.

This makes a benefit for co-existence in terms of avoidance of interference to an operated system. Therefore, we are requesting the same proposal to WATM WG of MMAC-PC and ETSI BRAN.

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

Yours sincerely