

**Minutes of DS-PHY (6 May 1996)
Waltham, Massachusetts**

DS meeting called to order by chairman Jan Boer at 3:30

DS PHY Attendees:

Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
Bert Sullam (Seattle Silicon)
Jeff Schwartz (DEC)

Mike Trompower is again secretary

Agenda for this meeting set:

- approval of past minutes
- matters arising from the March minutes
 - multirate DS/FH alignment
- conformance testing
- impact of multirate (Pablo) on DS
- other business

Minutes of March meeting in La Jolla approved by consensus.

review of editorial changes made to section 15 by Mike Trompower.

matters arising from the minutes

a motion was approved in the DS PHY to allow resetting the CCA state machine upon the receipt of an out of spec PLCP (unrecognized RATE field).

This motion was rejected by the full PHY, and the discussion led to the desire that DS and FH handle the receipt of an out spec PLCP in the same manner.

By using energy detect alone does not guarantee that stations will remain silent during the 'intended' duration -- a rate change which uses a modulation that is not detectable by the RSSI mechanism will not cause the station to hold off. There could also be a fade which will false the listening station into thinking it is safe to transmit.

One way to handle this issue, is to interpret the RATE field and hold off (show CCA BUSY) for the intended calculated duration [RATE*LENGTH]

Another is to change the interpretation of the LENGTH field from bytes to microseconds. The interface to the MAC could specify that the number of bytes is passed to the phy and the PHY calculates the number of microseconds. This maintains a uniform interface to the MAC among the PHYs and allows for an accurate CCA BUSY determination.

Discussion of the available options:

IF PLCP cannot be interpreted:

- 1 - PLCP LENGTH field = duration in microseconds. Keep CCA BUSY for received time.
- 2 - keep CCA BUSY based on ED
- 3 - calculate duration from RATE*LENGTH in bytes and keep CCA BUSY for this time.

Straw Poll (4-0-1) in order of above options.

continue discussion tomorrow when other members are known to be present

**Minutes of DS-PHY (7 May 1996)
Waltham, Massachusetts**

Attendees:

Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
Bert Sullam (Seattle Silicon)
Jeff Schwartz (DEC)
John Fakatselis (Harris)
Al Petrick (Harris)
Perry Frogge (Harris)

Meeting started at 8:30

Matters arising from the minutes

recap CCA discussion - continue with the topic

MOTION 1: John Fakatselis/Mike Trompower

Move to adopt a change to the LENGTH field to be interpreted as DURATION time in microseconds of the MPDU. Any fractional microsecond will be rounded to the next greatest integer number of microseconds. The PLCP will indicate to the MAC RXVECTOR (PLCP_OUT_OF_SPEC) and will show CCA BUSY for the intended DURATION.

Vote (5-1-0) **Motion Passes**

action 1 - text will be drafted during lunch to be presented to the DS group in the afternoon and full PHY and the full working groups on Wednesday.

conformance testing

review of documents 96/66 and 96/67 which were presented at the March meeting

comments and test plan ideas are recorded in document 96/66-A.

discussion - is the 802.11 compliant product what is to be tested? There are no means to test individually the PHY or the MAC. Many specs for the PHY like TX/RX turnaround should be deleted and replaced with a time which includes the MAC processing delay and allow for a system level test only.

Currently, several specifications require signals to be exposed. Should these restrictions be removed and tests which specify packet exchanges be used?

The text currently specifies that the following signals be exposed because of the wording describing the test conditions: CCA, PHY_TXSTART.request, chip clock

Also, the following test conditions must be provided: capability to disable the scrambler, capability to generate continuous transmission, capability to disabled chipping (can be avoided by using the FCC jamming margin test to prove processing gain)

We will use the PLME layer interface to define the test mode operations.

action 2: PLME test mode text will be generated before this meeting ends for inclusion in the D4 draft.

Motion 2: guarantee that the PLME test mode text will be generated and reviewed before Wednesday morning for presentation to the full PHY and working group.
(6-0-0) **motion passes**

text was generated and reviewed concerning the length field interpretation change from bytes to microseconds. (**action 1 closed**)

**Minutes of DS-PHY (8 May 1996)
Waltham, Massachusetts**

Attendees:

Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
Bert Sullam (Seattle Silicon)
John Fakatselis (Harris)
Al Petrick (Harris)

meeting called to order at 8:45

Text discussed for conformance test inclusion

ACTION 2 closed

There will be additional text needed to complete the PMD primitive section. Definition of PMD primitives in response to the PLME TEST commands will be defined before or brought to the July meeting.

Motion 3 (Al Petrick / John Fakatselis)

Move to accept text changes to section 15 resulting from multirate and conformance test issues.
(6-0-0) **motion passes**

impact of multirate (Pablo) on DS

the changes made at this meeting agree with the intent of this document. They accomplish the same goals but in a more efficient manner by not having to assume the data rate at 1 Mbps, instead the exact duration is known.

adjourn for full PHY and then plenary

resume Thursday AM for DS final meeting

**Minutes of DS-PHY (9 May 1996)
Waltham, Massachusetts**

Attendees:

Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
Bert Sullam (Seattle Silicon)
John Fakatselis (Harris)
Al Petrick (Harris)

meeting called to order at 8:45

other business

