Minutes of DS-PHY (11 Mar 1996)
La Jolla, California

No DS PHY meeting was held

Minutes of DS-PHY (12 Mar 1996)
La Jolla, California

Full PHY meeting conviened at 8:30 AM ended at 10:15 to reconvene Thursday at 10:30

DS meeting called to order by Jan Boer at 10:

DS PHY Attendees:
Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
John Fakatselis (Harris)
Al Petrick (Harris)
Jonathon Cheah (Solectek)
Michael Laudon (Cypress Semiconductor) - present in AM
Bill Huhn (Aironet) - present in PM

Mike Trompower is again secretary

Agenda for this meeting set:

- approval of past minutes
- review editorial changes to section 12 text
- processing of D3.0 letter ballot comments
- discussion of transmission rate to 'fix' MAC concerns about NAV update
- conformance testing discussion by Harris

Minutes of January meeting in San Diego approved by consensus.

Current status of section 12 edits was reviewed by Mike Trompower. Main changes were the incorporation of proper clause referencing.

start with comment 11 of document R12-16.doc

Comment 11:
comments pertaining to country specific regulatory rules will be handled in later revisions of the draft as the ripple effects are too great for this version

MOTION 1:
moved Jonathon Cheah, second Mike Trompower
Due to the severe impact on the current standard, Japanese compliance will be defered to a subgroup for study at a time after the initial approval of the current draft.

6-0-0 Passes

Comment 12:
refer to comment 11

Comment 14:
recommend to ignore the comment with the explanation that the CRC calculation is not a critical time dependent wheras the scrambler must be done with in a single bit time in order to avoid delays. (example - - The CRC can be calculated after the receipt of a packet, and as long as the the calculation is completed before the completion of the ACK transmission, the ACK can be sent correctly or not.)

Comment 20: already fixed editorial change
Comment 50: refer to comment 20

Comment 52:
Comment 53: refer to comment 11

Comment 54:
(Jan Boer) problem with coexistence with future PHYs because the receive state machine resets upon the RATE field not being recognized and the selection of the CCA algorithm. Should change the LENGTH field to a DURATION field to allow the CCA algorithm to indicate busy for the proper duration to allow coexistence of future PHYs.
(Mike Trompower) BY using the RSSI CCA scheme, there is a method which allow the capability to hold off during times of other non recognized RF activity.
(Jan Boer) The RSSI scheme is not mandatory.
(John Fakatselis) The current draft specifies a bit rate and a length in number of bytes. Therefore, it is possible to calculate the desired duration.
(Mike Trompwer) This comment does not address the duration issues brought forward at previous meetings to correct multiple packet transfers (RTS - CTS reservations) which reserve the time for multiple packets in the MAC duration field.
(Jan Boer) This proposal will eliminate some calculation circuitry to define the duration of a packet using a nonsupported rate.
(Mike Trompower)There is a problem with faster rates which require more bandwidth in that the adjacent channels will not see the data coming and the benefits to a single channel holding off will largely be negated.
(John Fakastelis) We are too far into the standard process to dictate changes of this magnitude. This issue should be defered until higher rates are implemented.
(Jan Boer) The plan is to prepare for the future at this time.

straw poll - to indicate acceptance of this comment as provided -
for section 15.2.7 changes the straw poll vote is 2-1-3

MOTION 2:
John Fakastelis moves (second Jan Boer) to except change to motion be making the receive state machine requirement to reset upon the receipt of an out of spec PLCP header.
5-1-1 Passes

MOTION 3:
John Fakastelis moves (second William Roberts) to that there be no change at this meeting to alter the current definition of the PLCP LENGTH field.
Jan Boer opposed to this motion
2-1-4 motion fails

Comment #55:
as a result of a previous vote not to change the interpretation of the LENGTH field, this comment is rejected

MOTION 4:
Motion to reject this comment based on the earlier motion not to change the LENGTH field
5-1-0 motion passes

comment 56:
duplicate motion

comment 57:
rejected for same reason as comment 54

comment 58,59:
rejected - in order to have any hope of interoperability, 802.11 must specify a frequency of operation. (all current specs are within the Japanese Ministry rules)

comment 60, 61:
rejected - in order to have interoperability, 802.11 must specify all chipping parameters. (all current specs are within the Japanese Ministry rules)

comment 62, 63:
as result of this comment, the text ... in the USA and Europe will be deleted from clause 15.4.6.5.

comment 64:
(Mike Trompower) the PHY specifies the maximum allowed RX to TX turnaround time. If the MAC does not know exactly how long the PHY will take, why would it use anything but the maximum time.
(Jan Boer) if a particular implementation requires less time to turnaround, it will begin transmitting, and it will meet the requirements to begin transmitting before the end of the current slot, therefore the maximum time is all that it is required to be specified.
(Mike Trompower) further, unless there is facility in the infrastructure to dictate to each station, what the current slot time is, there will be more problems created by some stations not adhering to a common SIFS and slot times.

comment rejected

comment 65,66,67,68:
editorial change accepted

comment 69, 70:
see section 15.4.7.1 which refers the implementor to the regulatory bodies

Minutes of DS-PHY (13 Mar 1996)
La Jolla, California

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

Meeting started at 8:30

continue with comment resolution

Comment 71:
(Al Petrick) Harris recommends that 3 or 10 KHz video bandwidth be used with a 100 KHz resolution bandwidth to average the effects of the short PN code and scrambler.
(Roy Sebring) Intermec says that the FCC recommended to them that a 30 KHz resolution bandwidth be used for 2.4 GHz frequencies. Intermec also says that a video bandwidth of less than the resolution bandwidth is not a good idea to do.
(Jan Boer) thinks that the FCC specifies that 100 KHz resolution bandwidth be used.

discussion deferred until after the plenary and time given to converse with appropriate technical experts.

Comment 72,73:
this specification is more restrictive than the Japanese Ministerial requirements.

Comment 74:
(Mike Trompower) during the SIFS period, a station that is going to transmit, will transmit regardless of any RF activity, so we should have the entire SIFS period of 10 usec in which to ramp down to near zero power
(Jan Boer) another issue is that the TX to RX turnaround time is specified to be 10 usec. also, if you are not down enough you will have trouble receiving.

comment rejected

discussion on conformance testing by John Fakatselis (Harris)
reference document 96/67

Minutes of DS-PHY (14 Mar 1996)
La Jolla, California

Attendees:
Jan Boer (Lucent Technologies) chair
Mike Trompower (Aironet) editor, secretary
Roy Sebring (Intermec)
William Roberts (AMI)
John Fakatselis (Harris)
Jonathon Cheah (Solectek)

meeting called to order at 8:45

discussion of the new proposal from the multirate task force.

addition of 'smart IFS' functionality was added to the specification.
text will be provided at a later time

comment 71 discussion:

Lucent Technologies allows the spectrum analyzer to remain at default (30KHz) for their measurements. Using a narrower video bandwidth will increase the measurement time.
(Jonathon Cheah) FCC wants to use the widest bandwidth available on the analyzer.
MOTION:
Jonathon Cheah, second by to keep the video bandwidth at 30KHz
5-0-0
text will be added to state video bandwidth of 30 Khz

comment 75:

same as comment 54, refer to resolution of comment of 54

discussion of Japanese callid

(Mike Trompower) the hook is already in the MIB variable list which identifies to the PHY which regulatory domain it is currently operating in. This will allow for the specification of different PLCPs which can easily and readily allow for individual country specifications.

general agreement that this facility will allow the Japanese callid to added to the current specification with a minimal difficulty.

further discussion tabled, until it is know exactly what the Japanese Ministry is going to require.

discussion of slot time and IFS boundary restrictions

(Mike Trompower) The MAC would like to see a region of 'sloppiness' specified. Propagation delay will by itself create an uncertainty
(William Roberts) In the case that the values which make up the IFS times do not add to exactly 10 usec, then the MAC is required to make up the difference with infinity accuracy.
(Jan Boer) A maximum time is all that is needed to be specified.

additional discussion

result - we must bring the issue to the MAC and ask for reasoning and specification of the values