Tentative Minutes of the IEEE P802.11 Working Group

Plenary meeting
Montreal, Quebec, Canada
November 6-9, 1995

Monday, November 6, 1995, 3:35 PM

The meeting was called to order at 3:35 PM Vic Hayes, chairman IEEE P802.11[1], in the chair. Carolyn Heide secretary. Stuart Kerry managing document originals and copying, Jon Rosdahl managing distribution and pigeon hole organization. Leon Scaldeferri handling the attendance list. The agenda document for this meeting is 802.11-95/220.

Objectives for this meeting, all groups

- MAC: quick votes on letter ballot reference papers
- handle all letter ballots comments
- MAC PICS proforma
- conformance testing

1. Opening

1.0 Roll Call: People in the room were invited to introduce themselves.

1.1 Voting rights:

Participation in debates, moving and seconding is only permitted by voting members, in all 802.11 meetings (at all levels). The subgroup chairs may permit observers to participate in debates.

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Voting at the working group level is by voting members only. Chair may permit observers to participate in debate. To become a voting member:
  - participate in at least 2 out of 4 consecutive plenary meetings. Voting rights start at
        third meeting
  - participation in at least 75% in meetings, in the room
  - one interim may be exchanged for a plenary
  - Voting members will get a token to be used at votes

Voting rights can be maintained:
  - by participation in 2 plenary meetings within 4 consecutive plenary meetings
  - one interim may be substituted for a plenary

Voting rights may be lost:
  - after failing to pay the conference fee
  - after missing two out of three consecutive letter ballots

Current membership status:
  - 81 Voting members
  - 10 nearly members
  - 33 aspirant members

1.2 Attendance list, Registration: The attendance list was distributed - 75% attendance according to the attendance list is required to qualify for attending the meeting as a whole, so make sure to sign the book. Copies of the attendance list are handed out before the end of each meeting.
      - important for administration of voting rights that the attendance book is used properly.
      - sign per meeting (morning, afternoon, evening). Do not sign ahead.
      - place initials. Do not cross or underline.
      - circle the letter corresponding to the meeting you attend when signing (F=full 802.11,
  P=PHY, M=MAC group).

Check e-mail addresses in the book:
  - some addresses have been struck, or have a $-sign added to the right - those received complaints
from the reflector
  - please strike your e-mail address if you do not use it
  - if you do not disagree to receiving very long files, mark bulk e-mail with yes

1.3 Registration: Conference fee has to be paid at the registration desk.

1.4 Logistics: Document distribution is done using pigeon holes - you will find your copies and messages in the referenced location in the expanding file folders in the slot *in front of* your name.

Document distribution:
  - sign in for a slot, remember the letter and number
  - pigeon holes are file folders with a letter id on each folder and a number on each slot
  - in each folder are numbered slots, each of which is 'owned' by a person
  - each person owns slot in front of number

Coffee breaks at 10 AM and 3 PM. Noon to 1:00 PM lunch

1.5 Other announcements

1.5.1 Patent Policy

IEEE standards may include patented technology if there is no equivalent, noninfringing way of achieving the objectives of the standard, if it is justified for technical reasons, and if the patent holder agrees to nondiscriminatory licensing at reasonable rates.

Request all participants to indicate if they know patent on which 802.11 may infringe.

1.5.2 Copyright of material taken from submissions and added into the standard, is automatically transferred to IEEE based on the PAR.

1.5.3 Chairpersons requested for PHY and PHY-FH

A warm thank you to Jim McDonald for all of his efforts as chair of those groups.

Jim nominates Dean Kawaguchi as chair of the PHY group. Jim nominates Dean as chair of the FH-PHY group too. By unanimous consent Dean Kawaguchi is elected chair of the PHY group, that group will determine the chair of the FH-PHY group.

1.5.4 Help needed on Thursday evening to prepare next mailing: Stuart Kerry, Jon Rosdahl and Leon Scaldeferri.

1.5.5 Other Announcements: none

2. Approval of the minutes of the previous meeting

2.1 Salt Lake City meeting, Document IEEE P802.11-95/88 and amendment in 88a: approved by consensus

2.2 Maui meeting, Document IEEE P802.11-95/159: approved by consensus

2.3 Shaumburg meeting, Document IEEE P802.11-95/219: approved by consensus

2.4 Matters arising from the minutes: none.

3. Reports

3.1 The Executive Committee, by Vic Hayes

Strategic Study Group
  - To keep abreast of technology progress
  - Representative of all WGs required on Wednesday PM - Jon Rosdahl will attend

Standards distribution
  - 802.1H MAC Bridging of Ethernet V2.0
  - 802.6j Connection oriented service for DQDB MAN
  - 802.3u MAU and repeater 100 Mbit/s
  - 802.12 Demand Priority MAC 100 Mbit/s

Wed 1 registered voters
Thu 9 all registered, if available

3.2 The Editors, by Bob O'Hara:

There must be a single point of documentation for each section - edits on one section by separate people, in separate files, cannot be merged. So each section must be edited by a single person, or must be cut into pieces and put back together - different copies of a full section cannot be merged.

There is a specific MS Word virus now that virus scanners may not catch. If you get a dialog box with the numeral "1" and an "ok" box, you are infected. Don't continue at that point, as it will spread from there.

3.3 Draft2 Letter Ballot Response:

47.5 % approval of draft 2 (draft 1 was 20.5 %)
  31 approving (draft 1: 17)

33 disapproving (draft 1: 66)
 5 abstaining (draft 1: 11)

75 % required, unanimous preferred by the excomm

Full report in 95/227 with 95/228 containing editorials from Bagby
95/227 has no comment numbers yet, left to groups to order according to their needs.

3.4 San Jose Meeting Finances: documentation not received, balance not transferred

3.5 Shaumburg Meeting Finances: delayed to Thursday afternoon

3.6 IPR letters:

- received general letters from IBM, Xircom and AT&T
- received reference to letters with specific numbers from Spectrix

3.7 Letters from IEEE on Conformance claims:

Sent to RadioLAN, Lannair, Symbol Technologies

If conformance claims are seen, bring them to Vic Hayes.

In a short dissertation by Stuart Kerry regarding Symbol Technologies - Symbol Technology has not claimed conformance, and has always abided by the specification that says do not claim conformance to a non-existing standard. Any such claims were made by the press without permission.

Is it acceptable to claim conformance to the draft? Absolutely not. The front of draft 2 says "Do not claim conformance to this unapproved draft" in bold type.

3.8 Interim Meetings: will be included in Thursday's report with the plenary work.

4. Registration of Contributions and assignments to subgroups

5. Adoption of Agenda: shown in the agenda document 95/220.

Wed afternoon joint meeting amended to only half of the afternoon. Agenda item 6.1 added. New business: FH hopping patterns added to Wednesday afternoon joint session. Move full PHY group to first thing Tuesday AM. There will be MAC and PHY meetings Tuesday night.

Agenda as amended adopted by unanimous consent.

6. Unfinished Business:

6.1 Roadmap to Letter Ballot

Run Working Group Letter Ballots to approve the draft standard for Sponsor Letter Ballot

Official requirement 75% approval

Objective to come to Unanimous approval

After Sufficient support reached, (75 % approval): Send out confirmation ballot, 15 days, for those Voters that voted, only respond if you have a problem and want to revert your Yes into a No due to changes, and those that want to continue their No vote.
- ExCom needs to give approval to go to Sponsor Ballot based on the results of the WG ballot
- Sponsor ballot:
- IEEE sends invitations to 802 and all those on the 802.11 list, for voting on 802.11 draft.

Open only for IEEE or CS members.
- IEEE will send out the ballot and do the administration. 40 days.
- Working on adding an electronic Distribution through SPA System download and
  announcement via e-mail

7. New Business: none

8. Adjourn for subgroups - 5:05 PM

Tuesday AM & PM, 7 November, 1995
MAC & PHY subgroups

Wednesday AM, 8 November, 1995
MAC & PHY subgroups

Wednesday PM, 8 November, 1995
Full Working Group

The meeting was reconvened at 1:15 PM, by chairman Vic Hayes, Carolyn Heide secretary.

9. Opening

9.1 Role Call - People in the room were invited to introduce themselves.

9.2 Document List Update: none

9.3 Agenda Adjustments: Agenda discussed and approved

9.4 Announcements

9.4.1 Stricter letter to conformance claims

A letter was drafted by the IEEE, but it is not considered strict enough, and Vic has drafted a new one. Vic read both the old and new. There is a suggestion that since you can't stop the press from doing what they will do, there should be a specific mention of giving correct information to the press. There are no objections from the group to Vic submitting the new draft.

9.4.2 ISO/IEC meeting

- Submission to support NWI/802.11 draft
- 802.11 participant: none

There is a discussion of whether this action starts ISO working on a standard based on our uncompleted draft. There is a possibility that this could occur.

9.4.3 Liaison person to 802.1

Used to be Paul Eastman, but he has moved on. No one volunteers.

9.4.4 Distribution of draft standard

Current disposition documents by floppy now

Final disposition and updated sections of draft by floppy Thursday 1 PM

There ensues a discussion as to whether this is a good idea or even possible.

Plan to have D2.1 containing revision marks and D3.0 clean copy on the reflector by November 20/21

9.4.5 Hotel rating: a straw poll indicates

A poll indicates that some people would come back, a few do not.

We are paying more and getting less, and it would be nice to have that fixed. That may be due to 802 or to the hotel. One way or the other, a lot of people are upset about it.

9.4.6 Registration for balloting pool: forms handed out

10. Cross group Issues

10.1 PICS PROFORMA

DS - didn't do any work on this week

IR - didn't do any work on this week

FH - will attempt to approve in the PHY group

MAC - didn't do any work on this week

10.2 Duration information propagation, Johnny Zweig, P802.11-95/247

Single change, far spreading across MAC and PHYs - moving the duration field from the MAC header into the PLCP header.

Discussion:

Right now the MAC passes length to PHY, the duration is quite different and other would have to be passed to the PHY by the MAC to allow the PHY to determine duration.

A side effect of this is that it is possible that control frames may not have to be always sent at the lower rate, the only reason for that is because all stations need to get the duration from them. Stations that couldn't get the duration information from high speed data frames would be able to with this change.

Also allows removing the PLCP header duration from the duration.

Negatives: possible delay to draft release for editing; more possibility of unsuccessful PLCP header because there are more bits in it. Valid carrier detect may be harder to achieve.

Motion #1:   **To adopt 95/247 and the letter ballot comments that reflect the contents.**

Moved by: Dave Bagby
Seconded by: Jan Boer

Motion 1 Discussion:

There is quite a bit work to do - a lot of changes and new primitives. But it's worth it to impact the schedule for a true improvement.

There is concern that there is no measure of the merit of the suggestion. It sounds good, but we have only gut feel, no simulations.

There is a feeling expressed the letter ballot comments should be looked at by the whole group and be taken as a whole, rather than in small groups.

Call the question: Dave Bagby, seconded by Tom Baumgartner (no nays)

Approved: 26   Opposed: 8   Abstain: 5   *Motion #1 passes*

11. PHY resolutions, Dean Kawaguchi

(1) The FH PHY group addressed issue of hopping patterns because the FCC rejected the patterns that were in the draft. Proposed were 95/246 and 95/231, which were quite similar. The change in 95/246 was selected as the hopping pattern for the USA and Europe. Japanese patterns left the same because this new sequence is not as good as the old one, so because there are fewer frequencies available there it was thought best to stay with the better pattern.

> *Motion #2:*   **To adopt the changes from 95/246 for USA and Europe.**

Moved by: The FH PHY subgroup
Seconded by: Stuart Kerry

Motion 2 Discussion:
Brief technical clarification on the difference between the two proposed algorithms (which the secretary didn't understand).

Approved: 28   Opposed: 0   Abstain: 5   *Motion #2 passes*

(2) There was an FH PHY letter ballot comment that CCA should indicate busy during a hop. The FH PHY group feeling is that the MAC needs to calculate this based on MIB information. Also worried that a CCA busy indication might trigger events in the MAC that shouldn't be happening because its not really busy. But the MAC does want backoff forced after the hop time, or every station will be contending at once after the hop without it. It is not difficult for the PHY to indicate busy during the dwell, it just doesn't seem to them to be their responsibility.

> *Motion #3:*   **That the FH PHY provides the busy signal while hopping, to the MAC.**

Moved by: Tom Baumgartner
Seconded by: Anil Sanwalka

Motion 3 Discussion:
There is a discussion of whether an transmission abort signal from the PHY would do just as well, if a transmission is aborted due to dwell boundary. With things the way there are now, the answer is no.
The other function this provides is a definitive indication from the PHY that the channel is available again after a hop. As it stands now, it is a timed event.
One view is that this another architectural change to the standard without written evidence. Another is that this is imply asking the PHY to provide a busy indicate when it is busy. Also, there is a sentiment that the standard doesn't work without this, so it must be fixed.

Approved: 13   Opposed: 5   Abstain: 24   *Motion #3 passes*

(The original vote was 13,4,24. The chair voted against, changing the opposition to 5 due to the high abstention percentage.)

(3) Unused FH PHY parameters (unused by the MAC), which have been removed or made optional: removed synthesizer lock indicator; made optional RSSI, antenna select, power control.

12. MAC resolutions, Dave Bagby

Disk passed out with current status of comment files with answers so far. There are 1286 comments on clauses 1 through 8. 93% of technical processed so far and maybe 75% of editorial. Tomorrow MAC group will be asking for ratification. Dave has the draft sections on disk for anyone who wants to see them (except clause 4, and last about 70 comments of clause 6) come and get them.

13. Conformance Testing: none

9.4.7 Announcements (revisited)

FCC has disapproved one part of our standard, maybe the standard should be taken to the FCC prior to the January meeting. Perhaps other countries are of concern too.

There will be a small group working on fixing things they think are broken about moving the duration field (such as bias suppression because of longer PLCP header) this afternoon and this evening.

The strategic study group (SSG), attended by Jon Rosdahl, asks for feedback to provide direction for where 802 is going to go in the future. Does the group feel the SSG is needed to look at the future direction 802?

One opinion is no. If it has work, proposals brought to it, it will continue. If not, it won't. There is a question as to why the excomm isn't doing it - the answer could be, to get the decisions down to the member level.

Straw Poll, in support of such a group (0 in favor; about 15 against, about 6 abstain). This means that at least half the room was asleep.

14. Adjourn: 3:15 PM

Wednesday PM, 8 November, 1995
MAC & PHY subgroups

Thursday AM, 9 November, 1995
MAC & PHY subgroups

Thursday PM, 9 November, 1995
Full Working Group

The meeting was reconvened at 1:10 PM, by chairman Vic Hayes, Carolyn Heide secretary.

15. Opening

15.1 Announcements

1. LLC Type 4 available
2. Strategic Planning Group
3. Attendance list updates
   Add Francisco Lopez
   Add fax no for Bert Sullam: +1 206 957 4550
4. Request for early reservations for January meeting and poll

15.2   **Document list update:** no changes since passed out in pigeon holes

15.3   **Agenda adjustments:** none. Agenda adopted without objection.

16. Reports

Motion #4:	**5 minute recess**

Moved by: Jon Rosdahl
Seconded by: Dean Kawaguchi

Motion 4 Discussion: none

No Objections   *Motion #4 passes*

16.1 MAC Group, by Dave Bagby

Document 95/241 is the report from this group.

Aug '95 Goals for Nov '95 meeting

Quick votes on LB reference papers
No extended discussion, < 5 min. each subject.
Process all D2 LB comments.
Review initial MAC PICS Proforma

Misc. Subjects

August MAC minutes approved unanimously

This Week's Work Summary.

Really good progress on LB comments!

The MAC chair would like to personally thank all involved for the long hours and extra effort that enabled us to accomplish this -

Everyone did a Great Job!

Alas, despite the best laid plain of mice and men...We do have a few (6) unresolved comments.

LB reference papers summary

The MAC group will not be asking the plenary to approve each paper individually. The papers have been incorporated into the revised draft clauses. The MAC group report summarizes each paper and the MAC vote results.

D2 Letter Ballot Comment Resolutions

Clause 1
Total comments: 122, Technical comments: 32, Unresolved subjects: 2
Highlights:
      - Missing pics proforma
      - References to other standards
      - Comment and Draft text files available: c1cmts.doc, c1draft.doc
Motion to adopt Comment and Draft text files: MAC vote: 10, 0, 2

Motion #5:	**To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Tom Baumgartner

Motion 5 Discussion: none

Approved: 31   Opposed: 0   Abstain: 1   *Motion #5 passes*

Clause 2

Total comments: 241, Technical comments: 58, Unresolved subjects: 0

Highlights:

      - Comment 81, 107 re restricting ESS to MAC layer components and creating a MESS.

      - moved to not adopt comment 81/107 proposals: vote: 11, 0, 7

      - Comment 119, 140 re must define IAPP

      - moved to not adopt comment 119 & 140: vote: 9, 0, 7

      - Comments 238-241 - Layer model incorrect, needs updating (missing top. multiple
        same name SAPs). Instructions from MAC group re adding data sap etc. vote: unanimous

Comment and Draft text files available: c2cmts.doc, c2draft.doc

Motion to adopt Comment and Draft text files: MAC vote: 9, 0, 4

Motion #6: **To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Leon Scaldeferri

Motion 6 Discussion: none

Approved: 34   Opposed: 0   Abstain: 1   *Motion #6 passes*

Clause 3

Total comments: 61, Technical comments: 29, Unresolved subjects: 0

Highlights:

      - Service primitives corrected to match 802.2 1994.

      - Declined: Include encapsulated LLC info, declined by sec 4 group as not needed.

Comment and Draft text files available: c3cmts.doc, c3draft.doc

Motion to adopt Comment and Draft text files: MAC vote: 9, 0, 6

Motion #7: **To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Jon Rosdahl

Motion 7 Discussion: none

Approved: 29   Opposed: 0   Abstain: 3   *Motion #7 passes*

Clause 4

Total comments: 244 ,Technical comments: 153, Unresolved subjects: 1

How to encode duration info for multirate

      Using Plenary guidance from Wed.

      Text did not et incorporated due to lack of time.

      Editor referral:

MAC vote 10,1,5 to remove clause 1.5 - editors to accomplish after meeting.

Figures need editing by someone who has visio to complete text edits.

Highlights:

      - Declined proposal to encapsulate non-802 link layer info

      - Split Power Field into power bit / more bit

      - Kept Existing to/from DS bits

      - Removed vestiges of connection management

      - Changed IBSS BSSID from MAC address to TSF derived BSSID

      - Clarified bit & octet ordering

- Incorporated 95/137R1 (IBSS power management)
- Incorporated 95/209R1 (tim compression)
- Removed regulatory domain field.
- Specified status and reason codes
- Updated and clarified frame sequences

Comment and Draft text files available: c4cmts.doc, c4draft.doc
Motion to adopt Comment and Draft text files: MAC vote: 16, 0, 2

Motion #8:   **To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Leon Scaldeferri

Motion 8 Discussion:
What is the plan for getting the rest of the changes in, where we have comment answers and not text in the section? The answer is no one knows.
Why didn't the changes related to 95/247 didn't get edited? Not enough time

Approved: 30   Opposed: 2   Abstain: 2   *Motion #8 passes*

Clause 5
Total comments: 93, Technical comments: 42, Unresolved subjects: 0
Highlights:
- Incorporated papers:
- 196 (WEP on MPDU)
- 198 (exclude unencrypted MPDU)
- 211 (Key ID field)
- 212 (WEP edits missed from D2)
- Declined: Make WEP mandatory. WEP CRC 32->16
- Declined: Combine Reassoc and Auth, Proposed deletion of shared key authentication.

Comment and Draft text files available: c5cmts.doc, c5draft.doc
Motion to adopt Comment and Draft text files:
Adopt all but resolution related to 95/248: MAC vote: 13, 0, 4
Adopt 95/248 recommendation (to decline 95/248): MAC vote: 8, 2, 9

Motion #9:   **To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Tom Baumgartner

Motion 9 Discussion: none

Approved: 27   Opposed: 1   Abstain: *Motion #9 passes*

Clause 6
Total comments: 335, Technical comments: 203, Unresolved subjects: one deferred
Highlights:
- Approved documents included: 201, 206, 207 & 174 & 196
- Excepting the above papers, no functionality has been changed by the comments resolved The text has been changed/clarified to reflect the current function.
- Deleted subclause 6.1.5 (suggested by many comments) which repeated Data Service information
- Pretty much re-wrote wording of subclause 6.2 because of many comments
- Specifying references to MIB variables a lot.

- Clarified NAV setting and clearing (not changed, just clarified)
- Bounded CF period for max length

Refereed to MAC group:

#197 - Matt, increasing the reliability of broadcast
- motion to decline adoption of clause 6 comment 198:
- move to lay motion on table: 6, 4, 4 - tabled

#49 - Apple patent issue - defer to Vic
- Apple patent comment from Ed Geiger.
- Motion to decline comment to remove RTS/CTS or approach Apple for patent license.
- vote: 11, 2, 3

Clause 6 editing not quite completed:

- 95/247 motion from Wed plenary "duration into PLCP header" text not edited to
   reflect this action.
- clause 6.7 re correcting state machine errors, comments to fix accepted, but text not
   edited yet.
- impact of sec 4 change of last fragment to more fragments causes ripple edit in
   state machines.
- Figure 6.3 edit needed due to lack of visio.

Comment and Draft text files available: c6cmts.doc, c6draft.doc

Motion to adopt Comment and Draft text files: MAC vote: 12, 0, 2

Motion #10:   **To accept comment and draft text files.**

Moved by: The MAC Group
Seconded by: Tom Baumgartner

Motion 10 Discussion:
What is the plan for getting the rest of the changes in, where we have comment answer and not text in the section? The answer is no one knows.

Approved: 28   Opposed: 1   Abstain: 0   *Motion #10 passes*

Clause 7
Total comments: 6, Technical comments: 2, Unresolved subjects: none
Highlights:
   All change editorial
   Both tech comments withdrawn by authors.
Comment and Draft text files available: c7cmts.doc, c7draft.doc
Motion to adopt Comment and Draft text files: vote: none needed as all changes editorial in this section.

Clause 8
Total comments: 184, Technical comments: 107, Unresolved subjects: none
Highlights:
   Mostly minor clarifications
   Consistency updates to support other clauses
   Power management for PCF improved
Comment and Draft text files available: c8cmts.doc, c8draft.doc
Motion to adopt Comment and Draft text files: MAC vote: 12, 0, 2

Motion #11:   **To accept comment and draft text files.**

Moved by: The MAC group
Seconded by: Johnny Zweig

Motion 11 Discussion: none

Approved: 31   Opposed: 0   Abstain: 1   *Motion #11 passes*

Plenary motions:

The MAC group moved: That the resolution of D2 LB comments adopted during this week be reflected in the contents of Draft D2.1 (with change bars). MAC vote: 13, 0, 2

> *Motion #12:*   **That the resolution of D2 LB comments adopted during this week be reflected in the contents of Draft D2.1 (with change bars)**

Moved by: The MAC Group
Seconded by: Tom Baumgartner

Motion 12 Discussion: none

Approved: 31   Opposed: 1   Abstain: 1   *Motion #12 passes*

Goals for Jan 96

Complete unresolved LB comments:
Clause 1: Finish MAC pics proforma
Clause 4: How to encode duration info for multirate editing
Clause 6:
> - tabled clause 6 comment 197
> - 95/247 motion from wed plenary "duration into PLCP header" text not edited to reflect this action.
> - clause 6.7 re correcting state machine errors, comments to fix accepted, but text not edited yet.
> - impact of sec 4 change of last frag to more fragments causes ripple edit in state machines.
> - Figure 6.3 edit needed due to lack of visio.

General comments - did anyone process these?
Discussion:
No one did these, so they will have to be left for January. They don't have many serious issues. Also no one addressed clauses 9 and 10, so they will have to wait for January.

Complete D2 draft editing using D2.1 as base.
Use output of this meeting (D2.1) to complete D2 LB comment processing resulting in D2.2 (D3.0?).

16.2 PHY Group, by Dean Kawaguchi

DS PHY, by Jan Boer

- Technical Changes
  - CCA busy at carrier loss but length field clear, not expired
  - Rx state machine changed to reflect.

- Editorial/Technical
  - CCA operation clarified
  - Rx/Tx procedure description
  - Adding missing MIB variables
  - Adding missing PLME primitives and parameters and PMD SAP service.

- Duration Field Change
  - no problems (functionally)
  - tagged section to edit (text can be available on short terms)

- Text
  - processed comments. Chapter 12 resolution file available. DS group vote to adopt (12,0,0)

Motion #12: **To ratify the new text of chapter 12.**

Moved by: Jan Boer
Seconded by: Mike Trompower

Motion 12 Discussion: none

Approved: 25 Opposed: 0 Abstain: 4 *Motion #12 passes*

IR PHY, by Tom Baumgartner

- 22 comments, resolved all, no significant technical change.
- added another transmit mask
- didn't add change resulting from duration field, or analyze the impact yet.
- text available except for two drawings. Also new bit/byte ordering changes need adding in.
- ratified in the PHY group (14,0,1)

Motion #13: **To adopt the clause 13 text as modified**

Moved by: The IR Group
Seconded by: Dean Kawaguchi

Motion 13 Discussion: none

Approved: 26 Opposed: 0 Abstain: 2 *Motion #13 passes*

FH PHY Group, by Dean Kawaguchi

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The FH PHY ad hoc group achieved the following:
1) Appointment of FH PHY co-editor.
    Jim Renfro was confirmed as FH PHY co-editor.  Ed GeigerÕs
contribution            is            limited            due
        to other commitments.  Jim will not be available for
the first week after this meeting.
2) Resolution of FH Group issues.
    Frequency hopping patterns.  FCC rejected 802.11 sequences.
Two                                              submissions
        proposing new sequences were presented: 95/231 by D.
Kawaguchi,            and            95/246            by
        Y. Shalom.
    Motion:  Accept new hopping patterns in 95/246 for USA. FH
PHY:  13-1-3
    Motion:  The European and US hop patterns shall be identical.
FH PHY:  11-1-5
    Motion:  The Japanese hop patterns remain unchanged from
D2.0. FH PHY:  6-0-6
    Plenary for all three above:  Motion:  Accept text in
95/246r1. FH PHY:  8-0-2
3) Resolution of Section 11 comments on Draft D2.0 of the
Standard.
    Motion:  Where amendments are made that do not have
associated            text,            the            proposer
```

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            of such amendment should produce text, and where text is
not                 submitted                 by                 close
            of PHY meeting on Thursday, the amendment fails.  The
judgment                 of                 the                 Chair
            of the FH Group be the final arbiter of the applicability
of the proposed text.
            FH PHY: 9 - 0 - 5.
      It was AGREED that the Editors be empowered to deal with
those                 comments                 designated
            as editorial.
      We addressed all technical issues except the ones relating to
duration         field         in         the         PLCP
            header and the temperature range.
```

4) Duration field change

      Discussion on the Duration field. Motion to dismiss due to lack of sufficient text.
Motion tabled until full PHY meeting (14/1/3).

5) Review of a PICS pro-forma.

      Did not get to.

6) Any Other Business.

      Did not get to.

Full PHY Group, by Dean Kawaguchi

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The PHY sub group achieved the following:
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1) FH PHY Chair election.

      Jim MacDonald nominated Dean Kawaguchi, elected by acclamation.

2) Submissions.

      There were no joint PHY submissions.

3) PHY level comments

      Discussion; changes incorporated into individual PHY sections.

4) Duration field

      There was a motion in the FH PHY group to dismiss the matter because of lack of text, which was tabled to the full PHY group. The full PHY group tabled the whole matter to 802.11.

      Motion: Table further discussion of the matter to the full 802.11 meeting.

      Full PHY: 10 - 5 - 3.

      Reopen in full WG

      Working Group Chair Postpones discussion of the tabled motion to a later agenda item.

5) PICS Proforma

      Motion: that the unreviewed FH PICS proforma (95/232), and the DS PICS Proforma (95/200) be added to the Draft D2.1.

      PHY vote: 12-0-0

Motion #15:   **That the unreviewed FH PICS proforma (95/232) and the DS PICS proforma (95/200) be added to draft D2.1.**

Moved by: The PHY Group
Seconded by: Stuart Kerry

Motion 15 Discussion: none

Approved: 21   Opposed: 0   Abstain: 2   *Motion #15 passes*

6) Comment resolution on the MIB and PHY primitives.

      Discussion but no motions passed.

7) Agenda for January 1996 meeting discussed.

Motion: Accept the changes to Section 11 of the draft contained in Resolution File
          95/227-11-16. Full PHY: 14 - 0 - 0.

Motion #14:   **Accept the recommendation of the PHY group and include in draft
                             2.1.**

Moved by: The PHY Group
Seconded by: Peter Chadwick

Motion 14 Discussion: none

Approved: 25   Opposed: 0   Abstain: 4   *Motion #14 passes*

17. Unfinished Business

17.0 Miscellaneous

NAV, Chris Zegelin

Moving the duration field to the PLCP header - the basic idea is sound, and addresses a real problem
with the NAV and multirate support. There is a bunch of work that should be done on this to fully
research it.

What Chris feels needs to happen is a good discussion on the FH multirate should work, then revisit
this issue. If a group, mostly email, worked between meetings on how to fix multirate how many
people would like to work (a lot).

There is the suggestion of tabling the issue of moving the duration field.

Motion #16:   **To reconsider motion #1.**

Moved by: Dave Bagby
Seconded by: Peter Chadwick

Motion 16 Discussion:
Note that both the mover and seconder voted on the winning side of the motion yesterday

Approved: 21   Opposed: 2   Abstain: 6   *Motion #16 passes*

Motion 1 Discussion (returned to):
This allows the discussion of whether or not to do this to take place off line and for the motion to
come off the table when it has been considered thoroughly.

Motion #17:   **To lay motion 1 on the table**

Moved by: Dave Bagby
Seconded by: Tom Baumgartner

Approved: 20   Opposed: 4   Abstain: 4   *Motion #17 passes*

                                                                    Motion #1 tabled

Clarifications:
        - The text which applies to this subject shouldn't be added to the standard until this
                comes off the table.

- There was a statement made by the FH PHY group that text was not provided to
implement the duration field change. Johnny Zweig states for the record that
that is patently untrue. Possibly the text he provided had technical issues
because he is not an FH PHY expert, but he certainly would have been willing
and available to provide clarification (had he been asked) to the text provided.
- Some comment in clause 6 were responded to as accepted and implemented by the
changes resulting from the adoption of 95/247). The resolution of those
comments will be revisited when this comes off the table

802.11 representative to SPAG

Jon Rosdahl is not in a position to take that responsibility. Having attended the one meeting on behalf of the 802.11 group, Jon's sentiments are that (a) the group would be doing what the excom should do, and (b) the statement was made that the excom did not have time, yet most of the group members were excom members.

Motion #18:	**That the position of 802.11 is that the SPAG not be charter.**

Moved by: Jon Rosdahl
Seconded by: Tom Baumgartner

Motion 18 Discussion: none

Approved: 22	Opposed: 1	Abstain: 2	*Motion #18 passes*

Motion #19:	**It is the position of 802.11 that if the SPAG is chartered that its membership not include 802.0 members.**

Moved by: Jon Rosdahl
Seconded by: Chris Zegelin

Motion 19 Discussion: none

Approved: 20	Opposed: 0	Abstain: 4	*Motion #19 passes*

17.1 Recap of Output Documents:

- Draft 2.1. There is no desire to letter ballot this draft.

Motion #20:	**To authorize the working group at the January 1996 interim meeting to perform any work necessary to create Draft 3.0 and send out a letter ballot to approve to forward the draft to sponsor ballot if the working group so vote at that meeting, whether or not there is a quorum at the January meeting.**

Moved by: Dean Kawaguchi
Seconded by: Tom Baumgartner

Motion 20 Discussion:
There is some opposition to the motion on the basis that it does not specifically charter the meeting to work on issues arising only from letter ballot comments. Other say, have some faith and trust the members to work towards their goal. This week should have proved how hard they are willing to work to achieve that goal.

Approved: 25	Opposed: 1	Abstain: 0	*Motion #20 passes*

17.2 Recap of Document Distribution

17.3 Next Meeting

Objectives for next meeting

- MAC group report
- PHY groups will meet with Vic about their objectives.

People have comments on the not yet produced 2.1 draft. Can papers be brought for consideration on those subjects - i.e. not related to existing letter ballot comments? The answer is yes, but the work being done is "any work necessary to create Draft 3.0 and send out a letter ballot to approve to forward the draft to sponsor ballot if the working group so vote at that meeting" as passed in the motion above.

However there is a sentiment that not limiting the subjects for consideration to letter ballot comments is opening up the field dangerously, and not carrying out the spirit of the motion which empowered the interim meeting. There is a concern that we will be allowing the process to stretch out and features to creep in by not limiting the scope of things discussed.

Chair says the that January meeting attendees are capable of determining, and responsible enough to determine, whether issues brought to that meeting are relevant to releasing the draft and deal with only those issues.

Mailing Dates: Today is the first mailing date. December 1, 1995 is the second date.

17.4 Future Meetings: see chart. Cookies at the afternoon break are desired.

17.5 Other Intermediate Meetings: none

18. New Business:

18.1 Regulatory Review

Motion 21#:	**To send the draft standard D2.1 to relevant regulatory agencies in Japan, ETSI and the USA, Canada, Mexico, with the objective to request proof of compliance of the SS rules.** **To approve to send a delegate of the PHY group lead and/or approved by the 802.1 chair to these agencies to present the case and have discussions.**
Moved by:	Leon Scaldeferri
Seconded by:	Jan Boer

Motion 21 Discussion: none

Approved: 12   Opposed: 0   Abstain: 9   *Motion #21*

19. Closure - meeting adjourned at 4:10 PM.

Tentative Meeting Schedule

Date	Month	Year	Place	Type	Location	Host
8-11	Jan	1996	San Diego, CA	Inter	Westgate Hotel	MA/COM
11-15	March	1996	La Jolla, CA	Plenary	Hyatt Regency	
TBD	May	1996	TBD	Inter	TBD	
8-12	July	1996	Netherlands	Plenary		
TBD	Sept	1996	TBD	Inter	TBD	
11-15	Nov	1996	Vancouver, BC	Plenary	Hotel Vancouver	
11-15	March	1997	Irvine, CA ?	Plenary	Irvine Marriot?	
7-11	July	1997	Lahaina, HI	Plenary	Hyatt Regency Maui	
10-14	Nov	1997	Vancouver, BC ?	Plenary	Hotel Vancouver?	

Appendix 1
Attendence list

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Appendix 1

Attendence list (continuation)

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Appendix 1

Attendence list (continuation)

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