Tentative Minutes of the IEEE P802.11

**Full Working Group
Plenary Meeting
Vancouver, Canada
November 11-14.1996**

Monday 11-11-96

1.0 Opening Meeting called to order by Vic Hayes at 3:30 in the Saturna Room of the Hotel Vancouver. Agenda of 37th session of 802.11 is in doc.:IEEE P802.11 11-96/131. Review of objectives if this meeting. New secretary[1], George Fishel will install later.

Objectives for this meeting, all groups

Process LMSC (Sponsor) ballot result
Prepare comments to Letter Ballot on
CD 8802-11
Conformance testing
Future work

1.0 Secretary: Chair taking notes on PPT files and Bob O'Hara making notes.

---

[1]T The officers of the Working Group are:

Mr. VICTOR **HAYES**	**Mr.** GEORGE **FISHEL**	Mr. BOB **O'HARA**
Chairman IEEE P802.11	Secretary IEEE P802.11	Editor IEEE P802.11
Lucent Technologies	AMP Inc.	Informed Technologies Inc.
Phone: +31 30 609 7528	Phone: +1 717 592 6161	Phone: +1212 645 4317
Fax: +31 30 609 7498	Fax: +1 717 592 6179	Fax: +1 212 645 6719
E-Mail: v.hayes@ieee.org	E-Mail: grfishel@amp.com	E-Mail: bob_ohara@informed-technologies.com

Mr. STUART **KERRY**	Mr. CHRIS **ZEGELIN**	Mr. GREG **ENNIS**
Vice Chairman IEEE P802.11	Vice Chairman IEEE P802.11	Editor IEEE P802.11
Symbol Technologies Inc.	Symbol Technologies Inc.	
Phone: +1 408 369 2634	Phone: +1 408 369 2667	Phone: +1 408 356 4775
Fax: +1 408 446 4630	Fax: +1 408 369 2740	Fax: +1 408 358 8991
E-Mail: stuart@psd.symbol.com	E-Mail: chrisz@psd.symbol.com	E-Mail: gennis@netcom.com

Mr. DAVE **BAGBY**	Mr. DEAN **KAWAGUCHI**	
Chair IEEE P802.11-MAC group	Chair IEEE P802.11-PHY group	
Advanced Micro Devices	Symbol Technologies Inc.	
Phone: +1 408 987 2423	Phone: +1 408 369 2629	
Fax: +1 408 987 2800	Fax: +1 408 369 2740	
E-Mail: david.bagby@amd.com	E-Mail: deank@psd.symbol.com	

1.1 Roll Call: People in the room were invited to introduce themselves. Moment of silence for the passing Chris Zegelin's wife. Dean Kawaguchi had a card to send to Chris. Stuart Kerry indicated that it was Chris' wish to rerplace a group collection by individual donation to local charities.

1.2 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.

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 state of member status:

       64 - Voting members

       28 - Aspiring voting members

       11 - Nearly voting members

1.3 Attendance list, Registration: The attendance list was circulated, Stuart Kerry supervising - 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

1.4 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

Conference fee to be paid through registration office.

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

1.5 IEEE Patent Policy Vic Hayes explained the IEEE Patent Policy as per Clause 5 of the IEEE Standards By-Laws and per Clause 6.3 of the IEEE Standards Operations Manual. He specifically asked for notification from members of patents applicable to the draft standard and that patent holders submit the requested statement.

1.6 Other announcements

1.6.1 General information available on diskette Vic Hayes provided a set of diskettes with general information, during the meeting kept by George Fishel. The diskettes containing:

1 July mailing
2 October mailing (and March 96 tutorials)
3 marked up sections of draft (from ballot)
4 files with report and comments from ballot
 also Part 15 of CFR 47 and spectrum inventory USA (downloaded by Ian Gifford)
5 General info, IEEE, 802, 802.11

1.6.2 Volunteers needed for Thursday evening to prepare mailing Richard Payne, Roy Sebring, Johnny Zweig will help on Thursday night with paper work.

2.   Approval of the minutes of previous meetings

2.1   **Enschede meeting doc.:** 11-96/109

Motion #1 To approve the minutes 96/109

Motion made by Johnny Zweig
Second by Stuart Kerry

Vote 25-0-3   **Motion #1 passes**

3.   Reports

3.1   the Executive Committee ExCom meeting report made by Vic Hayes.

Old USTAG to ISO/IEC JTC1/SC6 was dissolved and a proposal for a new tag was made. The expected cost for LMSC, US$ 10 000 will be deducted form the Iinternatinal Secretariatship Payment.

Reflector for 802 all E-mail will be set-up using the individual reflectors of the WGs.

The controversy about conditional approval to go to Sponsor Ballot or to Standards Board only met with disapprove votes during the e-mail ballot among the ExCom. Meettings will be held this week to resolve the issues.

Proposed rules for e-mail ballots among ExCom met with a lot of comments. Meetings will be held thois week to resolve the issues.

Book distribution. Books will be sent directly to the eligible people; members need to sign up.

In a general rules change of the IEEE Standards Operating Manual, from now on all comments whether from "approve" voters or from coordination must be resolved equally well as on "do not approve" votes.

3.2   **the editors** Report from the editors made by Bob O on revision 5.09 that will become 5.1

3.3   **the LMSC (Sponsor) ballot on draft D5.0** Vic Hayes presented the results of the LMSC (Sponsor Ballot) on draft 5.0 as given in doc.: 11-96/135 part 1. The ballot closure was delayed by a week, the return rate was 77 % and the approval rate was 86 %. Main task is to resolve all comments See Document 11-96/135 (parts 1-6).

3.4 ISO/IEC JTC1/SC6 meeting 11-96/137 The work item for Wireless LANs was approved and our draft 5.0 was adopted as the Committee Document on 8802-11 on the subject. This will be the only document going for standard within this project. If ETSI would like to give an additional document, they have to apply for a new work item first. Vic Hayes was honoured with the project editorship.

3.5   **the ITU-R Working party 8A meeting** Ian Gifford and Vic Hayes attended this meeting on mobile services except FPLMTS. Both US regulations as well as refences to IEEE P802.11 and ISO CD 8802-11 were added to the draft recommendation. It is interesting to note that this Rec encourages further adoption of unlicensed spectrum in 2.4 and 5.2 GHz areas as well as for additional spectrum for public RLANs under licenses.

4. Review of document list by Vic H. IEEE 802.11-96/140 temp Additional documents 142 by Naftali Chayat,, replacement for rules for Regulatory Committee and 96/143 on time stamp Keith Amundson.

5.   Adoption of the Agenda 11-96/131. Vic presents a Rough Graphic of Outline

Motion #2	*to approve the agenda with change to the start time for Wednesday Plenary to 3:30 PM.*

made by Tom Siep
second Johnny Zweig

Vote: 26-0-4   **Motion#2 passes**

5 Unfinished Business

5.1 destiny of the Draft Standard Heavy discussion followed on State Machines (MAC and PHY).

Motion #3	*that 802.11 direct the MAC group to create a formal normative description of the MAC protocol operation for inclusion in the re-circulation ballot.*

Motion made by Johnny Zweig
Second by Bob O'Hara

Discussion Followed

Motion #4	*to postpone motion #3 Vote till Wednesday plenary.*

Moved by Dean Kawaguchi
 Second by Dave Bagby

Additional discussion

Question called by Dave Bagby second by Johnny Zweig

vote: 26-2-2   **Question Called**

Vote:12-11-8   **Motion*#4* PassesMotion #3 postponed**

6.2   **Rules for Reg Com**At the last meeting the committee for interaction with regulatory bodies was dissolved. Naftali C presented .document 96/142. Proposal made by Naftali C to accept document 96/142 with a change of voting rules to 25% response be a committee. Discussion follows. Discision made to come up with guide lines for proposal will be presented later.

7. New Business

7.1 **Nomination for New secretary**Vic announced that George Fishel volunteered to become the secretary of 802.11.

Motion 4A   *to appoint George Fishel as the secretey of 802.11*

Motion made by Dean Kawaguchi
Second by Stuart Kerry

No opposition   **George Fishel appointed as new secretary by acclamation**

7.2   **Preparation of Comment to LB on CD8802-11**This item was left for future resolution.

7.3   **Future work**Vic H opens the floor for proposal for new work items.

Need for a 10 and 20 Mb/s PHY

3 Mb/s FH PHY

Motion # 5   *to establish a study group to draft a PAR for a higher speed PHY in the 2.4 GHz band and PHYs operating in other bands*

Moved by Jan Boer
Second by Johnny Zweig

Naftali Chayat volunteered to be chair .of the group.

Vote 26-2-3   **Motion*# 5 passes**

Study group will meet from 8:00 to 10: 00 this evening.

Discussion on a rugged future PHY William Rodgers from ITT will make future presentation.

8.   **Meeting adjourned at 7:00 PM.**

Wednesday 13-11-96

Meeting reconvened at 3:30 PM on 11-13-96 and called to order by Vic Hayse.

9.1   **Roll Call**

9.2   **Document list update**

9.3   Agenda adjustments No changes. Agenda was approved as is.

9.4   Announcements

9.4.1 Social tonight with lots of food, meeting rooms available **tonight**

9.4.2 Study group future work tonight in Cortes at 8:00 h

   MAC ad-hocs work tonight in Saturna at 7:30 h

9.4.3 process for getting changes from NO into YES We need a written statement that the NO voter changed
        his vote on the LMSC ballot on IEEE 802.11 D5.0 from No into YES. free format, and signed. Make a
        file with the dispositions to be sent to Griffioen and Phinney by e-mail, and printed for people present so
        they can decide

9.4.4 Dave Bagby offered disk of **resolved MAC comments**

9.5   Postponed motion# 3 on state machine Straw poll called by Vic on the following item:

 "If time would be available ,we support informative formal description"

   Strawpoll 10-7-14

"If time would be available support normative formal description"

   Strawpoll: 29-1-6

"I would approve a mandate to a group to add the normative formal description to draft D5.1" This question was
       debated at great length

   Strawpoll: 12-10-14

to add "I would approve a 1 week e-mail ballot after a 1 week comment cycle for the normative formal
       description to draft D5.1"

   Strawpoll: 10-3-23

"I would approve a 1 week mail in ballot after a 1 week comment cycle for the normative formal description to
       draft D5.1

   Strawpoll: 8-15-12

Great deal of debate on this topic followed! Here is the postponed motion:

Motion #3:   *That 802.11 direct the MAC group to create a formal normative description
                                  of the MAC protocol operation for inclusion in the Re-circulation ballot*

Motion made by: Jonny Zweig
Seconded by: Bob O'Hara.

Vote: 21-11-4   Technical motion **fails** by order of chair must pass by 75%.

Appeal 1:

Appealed by Bob O'Hara
Seconded by: ?

Vote 12 for the chair, 14 for appeal, 8 abstained   Ruling by the chair appealed

Motion#3 passes

Draft of document could be available by November 20th Comment period closes November 30th
E-mail ballot December 10th only changes on D5.0

Great deal of debate on this topic followed!

Expert group to update formal description and give mandate to update the broken text

Chair determines if we need a second WG ballot before the Full LSMC Ballot

10. Cross group Issues

Motion #6   *to reject Comment on Clause 12.3.3 made by: KC.*

Motion made by: Wim Diepstraten
Seconded By: Anil Sanwalka

Question called by Tom Siep and Second by Darwin Engwer No Nos question is called

Vote: 20-0-7   **motion #6 passes**

Comment on Clause 12.3.5.1.2 made by: TLP.

Motion #7:   *Adopt XXh as format for hexadecimal numbers through this document.*

Moved by: Carl Andren
Seconded By: Naftali Chayat

Vote: 14-3-13   **Motion #7 passes**

Comment on Clause 13 all by: TLP. To use SI units in all locations in this document

Motion #8   *to continue to use K s rather than ms*

Motion made by: Bob O'Hara
Seconded By: Jonny Zweig

Vote: **Motion #8 passes with 1 opposing**

Comment on Clause 13.1.2

Motion #9   *to delete Annex D*

Motion made by: Jonny Zweig
Seconded By: Michael Fischer

Vote: **Motion #9 passes unanimously**

Comment on Clause 14.8.2.1.2 By TLP

Motion #10   *to change figure….*

Motion made by: Dean Kawaguchi
Seconded By: Carl

Vote: 20-0-5   **Motion #10 passes**

Comment on Clause 13.1.4.10 and 13.1.4.12

Motion #11   *to change as noted.*

Motion made by: Dean Kawaguchi
Seconded By: Jan Boer

Vote: **Motion #11 passes unanimously**

General Comment by Mike Trompower on μs propagation delay.

Motion #12   *to decline changes.*

Motion made by: Dave Bagby
Seconded By: Tim Zimmerman

Vote: 21-2-6   **motion #12 passes**

11.   PHY resolutions: nothing to add

12.   MAC resolutions: nothing to add

13.   Conformance Testing: nothing to add

14.   Adjourn Meeting adjourned at 6:00 PM.

Final Plenary of 802.11
Thursday 11-14-96 at 1:15 PM.

Meeting called to order by Vic Hayes with about 25 members present

15.   Opening   **1:00 pm**

15.1   **Announcements**

15.1.1 Kamerman changed to yes

15.1.2 Housley and Putnins got notice

15.1.3 12 person room with speakerphone available for calling voters

15.2   Document list update

15.3   Agenda adjustments

16. Reports

        PHY group first to permit Dave to finalize his report

16.2   PHY group

Full PHY and FH group report by Dean Kawaguchi

Comment Processing

Addressed all comments on clause 14, FH PHY portions of annex. All text changes completed except correcting primitive names in figures and FH PICS proforma changes. This will be done after the meeting has concluded.

	Total	Accept	Reject	Withdrawn
NO-vote comments	10			
Technical	6	4	1	1
Editorial	4	4	0	0
non-NO-vote comments	37			
Technical	14	12	0	2
Editorial (1 open)	23	22	0	0

        FH Motion: accept REVSEC11 text changes from TLP with the modifications as recorded in the minutes and the comments resolution file.

        FH: Nathan/Naftali 6-0-0

        Motion #13*:*   *Accept the changes to clause 14 and the FH portion of annex A of the D5 draft made by the FH PHY group at the November 96 meeting to resolve sponsor ballot comments.*

        FH: Carl/Ron 5-0-0
        PHY: FH/Naftali 11-0-0

        Moved by Dean Kawaguchi (PHY)
        Seconded by Jan Boer

        Vote: 21-0-0   **Motion #13 passes**

        Two NO votes:
                Ron Mahany - Accepts the changes to the FH section as resolution to his comments.
                Tom Phinney -

16.2   **DS Report** by Jan Boer

Agenda
        secretary - mike
        minutes of march meeting - approved
        comment processing
        technical comments all on DS channel allocation plan
        2 techical NO comments
        conformance testing - no activity
         future work - deferred to PAR study group

DS MOTION#1

Move to accept document SEC12.DOC as distributed in the comments files as the baseline for starting DS phy
  edits for this meeting.
  approved (6-0-0)

DS MOTION#2

Move to accept the changes in REVSEC12.DOC as distributed.
  approved (6-0-0)

DS MOTION#3

Move to add all four additional channels to ETSI (and two for France) and all channels in each domain are
  mandatory to be supported.
  approve (5-0-1)

discussion: a technical NO comment by AK would not be satisfied by this change. A phone call will be placed to
  him to explain the rationale and see if he would withdraw his comment. the tradeoffs of giving up the
  additional frequencies to gain a common product

DS MOTION#4

Move to approve the response to 2nd technical NO vote by AK which rejects the comment to make the first two
  ETSI channels optional.
  approve (5-0-1)

DS MOTION#5

move to approve the response to 1s technical NO vote by AK which rejects the comment to reduce the number of
  channels
  approve (6-0-0)

Jan Boer will contact AK to determine if he will withdraw his comment. Result: AK is convinced by our
  arguments and has changed his no vote into yes

DS MOTION#7

Move to approve the WD technical No comment in 7.2.3.9 response with only the text changes pertaining to the
  current BSS current channel number.

discussion: comment asks for DS Parameter Set information element within Beacon Frames and Probe response
  frames with elements to report current channel number and the list of channels used within a ESS. The
  list is regarded to be not essential to solve the problem and rejected.

  approved (6-0-0)

  WD has agreed that is sufficient to change his NO to a YES on this issue

PHY/Plenary motion

Motion #14   *to accept to changes DS section as presented*

Motion to accept: Jan Boer
Second Mike Trompower

Vote: 26-1-3   **Motion #14 passes**

16.2.2 IR Reportby Francisco Lopez

Motion #15   *to accept report with changes to clause 16 IR section*

Motion made by: Francisco Lopez
Seconded By: Johnny Zweig

Vote: 23-0-4   **Motion #15***p*asses

Dean Kawaguchi makes the point that the IR section is not in the same format as the FH and DS section . He
advises an editorial job.

16.1   MAC groupby David Bagby

Status report for the week
Clause 0 to 4

Motion #16   *to make changes as presented clause 0 to 4. Changes editorial only.*

Made by Dave Bagby
Seconded byJohnny Zweig

Vote: 25-0-2   **motion#16 passes**

Clause 5

Motion #17   *to accept changes to clause 5.*

Made by Dave Bagby
Seconded by Anil Sankalka

Vote: 26-1-2   **Motion #17 passes**

Clause 6

Motion #18   *to accept changes*

Motion made by: Dave Bagby
Second by Jonny Zweig

Vote: 25-0-1   **Motion #18 passes**

Clause 7

Motion #19   *to accept changes to clause 7.*

Moved by David Bagby

Seconded by Jan Boer

Vote: 26-0-2   **Motion #19 Passes**

Clause 8

> **Motion #20**   *to accept cnhanges to clause 8*

> Made by David Bagby
> Seconded by Johnny Zweig

> Vote: 26-0-2   **Motion #20 Passes**

Clause 9

> *Motion #21*   *to accept changes to Clause 9.*

> Made by David Bagby
> Seconded by Michael Fischer

> Vote: 27-0-0   **Motion #21 passes**

Clause 10

> **Motion #22**   *to accept changes to clause 11.*

> Made by Dave Bagby
> Seconded by Johnny Zweig

> Vote: 22-0-5   **Motion #22 passes**

Clause 11

> *Motion #23to accept changes to Clause 11.*

> Made by David Bagby
> Seconded by Simon Black

> Vote: 27-0-3   **Motion #23 passes**

Changes to Annex
Clause A

> Clause 9 changes impacts A4.5 PHY group, appears comment was handled. Also text edit text in clause 9
> **Motion #24**   *to accept changes as described*

> Moved by David Bagby

> Seconded by Johnny Zweig

> Vote: 26-0-2   **Motion #24 passes**

Clause G

> **Motion #25**   *to accept changes to Clause G*

> Moved by David Bagby
> Seconded by Tom Siep

> Vote: 25-0-2   **motion #25 passes**

Vic says he has on his agenda a process for contacting members with NO comments
16.3 Study group by Naftali Chayat

Following the motion accepted on Monday to establish a study group to draft a PAR for a higher speed PHY in the 2.4 GHz band and PHYs operating in other bands and Naftali Chayat volunteered to be chair .of the group, the group conducted two meetings d in the week.

Two PARs are being developed:
extension to 802.11 with higher speeds at 2.4 GHz
a second PAR for even higher speeds at 5 GHz.band

Heavy discussion followed on this topic. Many member feel that the criteria for the PAR in not sufficiently defined to go to the ExCom. Vic encourages the Study Group to go out and develop additional criteria for this PAR.

Straw Poll by Naftali to take request for PAR to ExCom: Straw Poll result: 4-15-5

Motion #26   *Seek approval for higher speed PHY SG and assuming that is approved: that the people interested in higher speed PHYs continue to work as a study group and as soon as they think they have a par that will by accepted by the ExCom and as soon as they have a par that would be accepted by the ExCom*

Made by Dave Bagby
Seconded by Keith Amundsen

Vote: 21-0-3   **motion #26 passes**

Straw Poll by Naftali "Who supports PR statement" A lot opposed to sending a PR statement.

16.4   Assignments for contacting NO voters.

Tom Phinney	Dean will do the PHY portion
	David will do the MAC portion
Housley	David
Putnins	Nein Wei
Seifert	Bob O'Hara
Wim Diepstraten	himself
Clemens	Johnny and Darwin
Giffioen	Wim
Kamerman	Changed already
Fischer	Simon
Mahany	Ron
Sanwalka	Anil

Ask all NO voters send a letter sent to IEEE with the following text: I change my negative vote on the IEEE P802.11 D5.0 LMSC ballot into a positive vote
Name:
sign:
date:

16.5   Regulatory Committee rules

Presentation by Naftali Chayat IEEE P802.11-96/142 Proposition for an IEEE P802.11 Intermeeting Committee on Regulatory Matters and proposed Operating Rules for it

---

Motion #27   *To establish a framework for processing rgeulatory matters in accordance with IEEE P802.11-96/142*

Moved by Naftali Chayat
Seconded by Johnny Zweig

Motion #28   *to amend Motion #27 by deleting last sentence of method of work*

Moved by Dean Kawaguchi
Seconded By Anil Sanwalka

Vote: 0-12-6   **Motion #28 to amend failed**

Motion #29   *Amendment to Motion #27 to change the requirements for valid ballot from 25% to 50 %*

Motion by: Bob O'Hara
Second by: Dean Kawaguchi

Vote: 14-0-7   **Motion #29 to amend passes**

Call The Question on motion #27 Dave Bagby, seconded by Simon Black/ no objection to call the question

Vote: 11-6-8   **Main motion #27 passes as ammended by 29**

17.   Unfinished business

17.1   Recap of output documents

Ballot on Draft Standard

Motion # 30   *To Give the mandate to teleconference on December 16 15:00 to17:00h UTC for deciding what goes into the re-circulation ballot open meeting votes for 11 voters only*

Moved by Johnny Zweig
Seconded by Michael Fischer

Vote: 12-0-8   **Motion # 30 Passes**

Motion #31   *To give the mandate to teleconference on February 3 15:00 - 17:00h UTC for Deciding if and what goes into the proposal to the Standards Board. Open meeting: votes for 11 voters only*

Moved by Johnny Zweig
Seconded by Michael Fischer

Vote: 18-0-4   **Motion #31 passes**

If needed, however, Vic Hayes will call a comment resolution meeting in February

Comments to ISO

Motion #32	*To empower the chair of 802.11 to prepare comments on the ISO/IEC JTC1/SC6 NB for CD 8802-11 to keep the document in line with IEEE P802.11*

Motion made by: Tom Siep
Second by: Ravi Nalamati

Vote: 20-0-3   **Motion #32 passes**

17.3   Next Meeting

* Objectives for next meeting
     process comments
     high rate extensions
     conformance testing
     complete .11
* Mailing Dates: Nov 22

17.5   Future Meetings see list below

17.4   Other Intermediate Meetings required There was no interim meeting required

It was agreed to hold the SDL tutorial after the closure of the plenary 802.11 meeting.

Motion to adjourn. Motion passes by general consent at time 4:30 PM

Note: After the meeting Keith Amundsen indicated to the chair that he would like to withdraw Steve Washakowsky's Raytheon submission 96/143 because of objections that TSE processing can already be done multiple ways with only one long division, because of objections that the submission contains PHY dependancies that should not be in the MAC, and because of objections hat the submission is too FH specific.

Meeting minutes respectfully submitted by

George R Fishel
and extensively edited by Vic hayes, Chair
After the adjournment, Michael Fischer provided a tutorial on the tools he has for SDL

18.   **New business**

  18.1 Tutorial on SDL

19.   **Closure**   **5:00 pm**

Tentative Meeting Schedule

A special Sponsor Ballot Comment Resolution meeting have been scheduled for January 13-15, 1997, close to Melbourne, FL

Date	Month	Year	Place	Type	Location	Host
11-14	March	1997	Irvine, CA	Plenary	Irvine Marriot	
7-11	July	1997	Lahaina, HI	Plenary	Hyatt Regency Maui	
10-14	Nov	1997	Montreal, PQ	Plenary	Queen Elizabeth	
9-13	Mar	1998	Irvine, CA	Plenary	Hyatt Regency	
6-10	Jul	1998	La Jolla, CA	Plenary	Hyatt Regency	
9-13	Nov	1998	Albuquerque, NM	Plenary	Hyatt Regency	

Appendix 1
Attendance list (part 1)

Mr. Keith B.	Amundsen	**voter**	Raytheon Company keith_b_amundsen@raytheon.com	+1 508 470 9483
Mr. Carl F.	Andren	**voter**	HARRIS Corporation candren@harris.com	+1 407 724 7535
Mr. Ludger	Arnoldi		Philips GmbH arnoldi.philips@t-online.de	+49 911 526 6843
Mr. David	Bagby	**voter**	Advanced Micro Devices david.bagby@amd.com	+1 408 749 5425
Mr. Simon	Black	**voter**	Intalk +44 1223 421250 simon@motix.demon.co.uk	
Mr. Jan	Boer	**voter**	Lucent Technologies WCND janboer@lucent.com	+31 30 609 7483
Mr. Ronald	Brockmann	**voter**	No Wires Needed B.V. ronald.brockmann@nwn.nl	+31 20 6222138
Mr. Naftali	Chayat	**voter**	BreezeCom naftalic@mail.breezecom.co.il	+972 3 645 8423
Mr. Wim	Diepstraten	**voter**	Lucent Technologies WCND wdiepstraten@lucent.com	+31 30 609 7482
Mr. Waychi	Doo		3Com Corporation waychi_doo@3mail.3com.com	+1 408 764 6112
Mr. Peter	Ecclesine		Cisco Systems Inc. petere@cisco.com	+1 408 527 0815
Mr. Darwin	Engwer	**voter**	Netwave Technologies Inc. dengwer@netwave-wireless.com	+1 415 691 2500
Mr. John	Fakatselis	**voter**	HARRIS Corporation jfakat01@ccmail.mis.semi.harris.com	+1 407 729 4733
Mr. Matthew	Fischer	**voter**	Advanced Micro Devices ablmatt@brahms.amd.com	+1 408 749 5403
Mr. Michael	Fischer	**voter**	Digital Ocean Inc. mfischer@child.com	+1 210 614 4096
Mr. George	Fishel	**voter**	AMP Inc. grfishel@amp.com	+1 717 592 6161
Mr. Raj	Gawera		Symbionics rsg@symbionics.co.uk	+44 1223 421025
Mr. Victor	Hayes	**voter**	Lucent Technologies WCND vichayes@lucent.com	+31 30 609 7528
Mr. Maarten	Hoeben		No Wires Needed B.V. maarten.hoeben@nwn.nl	+31 20 6222138
Mr. Dean M.	Kawaguchi	**voter**	Symbol Technologies Inc. deank@psd.symbol.com	+1 408 369 2629

Appendix 1
Attendance list (part 2)

Mr. Joseph J.	Kubler	**voter**	Norand Corporation kublerj@norand.com	+1 303 442 1850
Mr. Francisco J.	Lopez-Hernandez	**voter**	E.T.S.I. Telecommunicacion dxtn@tfo.upm.es	+34 1 336 73 41
Mr. Ronald	Mahany	**voter**	Norand Corporation mahanyrl@norand.com	+1 319 369 3552
Dr. Akira	Miura	**voter**	Panasonic Technologies Inc. miura@tadw.research.panasonic.com	+1 415 858 1000
Mr. Ravi P.	Nalamati	**voter**	Digital Equipment Corp. nalamati@irocz.enet.dec.com	+1 508 486 5189
Mr. Bob	O'Hara	**voter**	Advanced Micro Devices bob.ohara@amd.com	+1 408 749 4952
Mr. Richard H.	Paine		The Boeing Company richard.paine@iss-rt.boeing.com	+1 206 865 4921
Ms. Miri	Ratner	**voter**	BreezeCom mirir@breezecom.co.il	+972 3 6459134
Mr. William	Roberts	**voter**	American Microsystems Inc. wroberts@poci.amis.com	+1 208 233 4690 x6514
Mr. Anil K.	Sanwalka	**voter**	Neesus Datacom Consultants anil@interlog.com	+1 416 754 8007
Mr. Roy	Sebring	**voter**	Intermec Corporation rsebring@intermec.com	+1 206 356 1740
Mr. Toshio	Shimizu		Japan Radio Co Ltd shimizu@lab.nihonmusen.co.jp	+81 422 45 9231
Mr. Thomas	Siep	**voter**	Texas Instruments siep@ti.com	+1 214 997 6479
Mr. Mike	Trompower	**voter**	Aironet Wireless Communications Inc. mtrom@aironet.com	+1 330 664 7920
Mr. Tom	Tsoulogiannis	**voter**	+1 416 299 1954 tomt@interlog.com	
Mr. Sarosh	Vesuna	**voter**	Symbol Technologies Inc. saroshv@psd.symbol.com	+1 408 369 2657
Dr. Nien C.	Wei	**voter**	AT&T Laboritories ncw@ustad.att.com	+1 201 386 2053
Mr. Timothy M.	Zimmerman	**voter**	Norand Corporation zimmermt@norand.com	+1 319 369 3471
Mr. Johnny	Zweig	**voter**	Netwave Technologies Inc. zweig@netwave-wireless.com	+1 415 691 2500
Ms. Donna A.	Woznicki	**voter**	Digital Equipment Corp. woznicki@lkg.mts.dec.com	+1 508 486 5085

Appendix 1
Attendance list (part 3)

Mr. Greg	Smith	**voter**	GEC Plessey Semiconductors Inc. greg.smith@gpsemi.com	+44 1522 502476
Mr. Dave	Strohschein	**voter**	University of New Hampshire das@iol.unh.edu	+1 603 862 0203
Mr. Stuart J.	Kerry	**voter**	Symbol Technologies Inc. stuart@psd.symbol.com	+1 408 369 2634
Mr. Ken	Clements	**voter**	Innovation on Demand Ken@InnovationOnDmnd.com	+1 408 353 5027
Mr. Masanori	Shibayama	**voter**	NTT Corporation shibayama.masanori@nsc-host.nsc.cae.ntt.jp	+81 43 211 3352
Mr. Steven	Washakowski		Raytheon Company steven_washakowski@ccmail.ed.ray.com	+1 508 490 1915
Mr. Nathan	Silberman	**voter**	Philips Semiconductors snathan@ix.netcom.com	+1 408 991 4076
Mr. John	Biddick	**voter**	Intermec Corporation jbiddick@intermec.com	+1 206 348 2600 X6647
Mr. David	Fischer		3Com Corp. david-fischer@3mail.3com.com	+1 408 764 7200
Mr. Al	Petrick	**voter**	HARRIS Semiconductor apetrick@ccmail.mis.semi.harris.com	+1 407 729 4944
Mr. Hideyuki	Arimoto		NTT Corporation arimoto.hideyuki@nsc-host.nsc.ntt.jp	+81 43 211 3352
Mr. Robert	Rothenberg		C3 Wireless Corp. c3wireless@aol.com	+1 206 337 4604
Mr. Rich	Seifert		Networks and Communications Consulting seifert@netcom.com	+1 408 395 5700
Mr. Mack	Sullivan	**voter**	Proxim Inc. mack@proxim.com	+1 415 526 3694
Mr. William E.	Rodgers		ITT +1 219 487 6252 werodger@itt.com	
Dr. Paul	Eastman		RF Networks p.eastman@computer.org	+1 602 861 3652
Dr. Bong Hwan	Lee		Taejon University blee@ice.taejon.ac.kr	+82 42 280 2553
Mr. Robert L.	Radkey		Image Systems Inc. rlradkey@ix.netcom.com	+1 415 368 7436
Mr. Greg	Wang		Delta Products Corporation dpc-greg@deltaca.com	+1 510 770 0660 X108
Dr. Ran-Fun	Chiu		Hewlett Packard	+1 415 857 7406
Mr. Daniel	Sze		California Solution Networks Corporation dsze@csnetworks Corporation	+1 619 646 6800