Tentative Minutes of the IEEE P802.11 Working Group

Plenary meeting
Minneapolis, Minnesota
July 6-9, 1992

Monday, July 6, 1992, PM

The meeting was called to order at 4 PM, Vic Hayes, chairman IEEE P802.11[1] being in the chair. Vic introduced the agenda, 92/65 and the objectives described therein. Carolyn Heide secretary; David Waskevich, Nathan Tobol and Rich Lee managing document copying distribution and pigeon hole organization and handling the attendance list.

[1]The officers of the Working Group are:

Mr. VICTOR **HAYES**	Mr. RICHARD **LEE**	Ms. CAROLYN L. **HEIDE**
Chairman IEEE P802.11	Vice Chairman IEEE P802.11	Secretary IEEE P802.11
NCR Systems Engineering B.V	Spectrix Corporation	Spectrix Corporation
Architecture and Systems Management		
Zadelstede 1-10	214 9th Street	906 University Plaza
3431 JZ Nieuwegein, NL	Wilmette, IL 60091, USA	Evanston, IL 60201-3121, USA
E-Mail: Vic.Hayes@Utrecht.ncr.com	E-Mail: richardlee1@attmail.com	E-Mail: 71041.3262@compuserve.com
Phone: +31 3402 76528	Phone: +1 708 251 5378	Phone: +1 708 491 4543
Fax: +31 3402 39125	Fax: +1 708 251 5318	Fax: +1 708 467 1094

Mr. MICHAEL **MASLEID**	Dr. JONATHON **CHEAH**	Mr. ROBERT **ACHATZ**
Editor IEEE P802.11	Editor IEEE P802.11	Editor IEEE P802.11
Inland Steel Co. MS2-465	HUGHES Network Systems	US Department of Commerce
Process Autom Dept	10790 Roselle Street	NTIA/ITS
3210 Watling St.	San Diego CA 92121, USA	325 Broadway
East Chicago IN 46312, USA	Phone: 619 453 700	Boulder CO 80303, USA
Phone: 219 399 2454	Fax: 619 546 1953	Phone: +1 303 497 3498
Fax: 219 399 5714	E-Mail: jcheah@oscar.hns.com	Fax: +1 303 497 3680

Mr. CHANDOS **RYPINSKI**	Mr. NATHAN **SILBERMAN**	Mr. FRANÇOIS Y. **SIMON**
Editor IEEE P802.11	Editor IEEE P802.11	Editor IEEE P802.11
LACE Inc.	California Microwave Inc	IBM
921 Transport Way	985 Almanor Avenue	P.O. Box 12195 MS E87/B673
Petaluma CA 94952, USA	Sunnyvale CA 94085, USA	Research Triangle Park NC 27709, USA
	E-Mail: nsilberman@mcimail.com	E-Mail: fygs@ralvmg.vnet.ibm.com
Phone: 707 765 9627	Phone: +1 408 720 6462	Phone: +1 919 254 4584
Fax: 707 762 5328	Fax: +1 408 720 6312	Fax: +1 919 254 5410

1. Opening

1.1 Roll Call: All people in the room were invited to mention their names and affiliation.

1.2 Voting rights: Voting tokens were distributed in the attendance book to be picked up by voting members during attendance list circulation. Vic has made a paper describing voting rights and information for new members, IEEE 802.11-92/00, which will be in the pigeon holes tomorrow. Vic briefly explained voting rights anyway.

1.3 Attendance list, Registration: The attendance list was distributed - 75% attendance according to the attendance list is required to qualify for attending a meeting, so make sure to sign the book.

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. Breaks are normally at 10 AM and 3 PM.

1.5 Other announcements: none

2. Approval of the minutes of the previous meeting

2.1 Irvine meeting, Document IEEE P802.1192/45: approved by consensus.

2.2 Leiden meeting, Document IEEE P802.1192/60: approved by consensus.

2.2b Matters arising from the minutes: none

2.2a Financial Statement of Intermediate Meeting, Leiden NL May 1992

	NLG	NLG
Income:		
Conference fees 41 received	4100.00	
One double paid	-100.00	
Three not yet paid	300.00	
Total Income		4300.00
Expenses:		
Meeting rooms	3040.00	
Beverages	1391.50	
Audio-visuals	1060.00	
Copying	609.00	
Printer	210.97	
Total Expenses		-6311.47
Balance		-2011.47
Absorbed by NCR		2011.47
Final balance		0

Followed by a hearty round of applause for NCR and Vic.

Motion #:1   **Approval of financial statement.**

Moved by: Dave Leeson
Seconded by: Chandos Rypinski

Motion Discussion: none

Approved: 26   Opposed: 0   Abstain:0   *Motion #1 passes*

3. Reports

3.1 Reports from the Executive Committee, by Vic Hayes

There are new officers: John Montague is Vice-chairman, treasurer isKirk Preiss. Voting rights - there was a motion to give voting rights only to the chairmen of the working groups. It was considered and tabled until Thursday so it could be discussed by the working groups. The executive committee (excom) members are there because of their expertise, so maybe they should all have voting rights - Vic would like to vote that all excom members retain their voting rights. Asks for comments - there are none. Any objections to Vic's feeling about the vote. If people want to know, it could be explained why the excom is the way it is. Chandos Rypinski wants to know if this cuts Nathan Tobol out of his voting rights, and this is true and that is why Nathan abstains from comment on the subject. There are 18 members and this is considered too many. Dave Leeson asks is there anything that affects 802.11 about this? Vic says no, so Dave says that he has confidence that Vic can vote for us. Vic asks and finds that there are no objections to his voting the way he feels.

Alternative mailing - the mailing list is growing. Voting and aspirant members and attendees and liaisons and regulatory elements must receive minutes. Many other requests are received also. Vic would like to have a service that receives the mailing, and people who subscribe to that service get the copies - Alphagraphics service could do this. The excom agreed and 802.11 will be a pilot for this. Dave Leeson asks will subscribers get the mailing after the members. Vic replies that it will be competitive to the direct mailing from him.

Ballot groups within 802, there are many - there is an intention to make forms available for those who wish to become ballot group members before the ballot group is actually formed. It may be mailed to everyone in the next mailing

4. Registration of contributions

Assigned to Functional Requirements subgroup: 92/68, 92/81

Assigned to the MAC/PHY joint meeting: 92/69, 92/73, 92/78

Assigned to the PHY subgroup: 92/70, 92/80

Assigned to the MAC subgroup: 92/71, 92/72, 92/76, 92/77, 92/78

5. Adoption of Agenda

The agenda item "how to handle options" - Vic doesn't see how we can handle it this time without a contribution. Having seen the number of contributions there are to handle this meeting he would like to skip it because there is so much to do. Larry van der Jagt asks if this item is on the critical path? Francois Simon says that there is still an issue, so if not on the agenda it will not go away.

Motion #2	**To remove "how to handle options" from the agenda.**

Moved by: Jonathon Cheah
Seconded by: Larry Van der Jagt

Motion Discussion:
<u>Simon Black:</u> how can we discuss the MAC/PHY interface without knowing this?
<u>Larry:</u> it's not critical that we know this yet.

Approved: 15 Opposed: 3 Abstain: 5 *Motion #2 - passes*

General Discussion:
<u>Larry and Simon</u> want to know why we have to have document introduction in the plenary. It doesn't gain us anything.

Vic: you want to handle it all in the subgroups?

Larry: the less we do in plenary the better. Other working groups meet only Monday afternoon and Thursday afternoon in plenary.

Simon: the plenary should be decision making only - subgroups do the work.

Vic: ok, identifying where the documents go (subgroups) will be discussed only - no introduction. Will replace introduction of documents in the agenda items with ... ?

Larry: add "assignment of contributions" to this agenda item.

Vic: proposal is to remove items 11, 12 and 13 from the agenda. Any objections? (there are none.) Have we assigned all contributions?

Wim Diepstraten: all MAC/PHY issues are only discused in the MAC/PHY joint group?

Larry: no, but that is the primary forum. You can discuss them in the subgroups too if you want.

Bob Crowder: there might be another presentation in the MAC and PHY subgroups of documents to be presented to the joint group?

Larry: probably only discussed in the subgroups, not presented. To see the presentation, go to the joint group.

Simon: on Wednesday there are a couple of hours set aside for interface discussion, then the subgroups split to detail - that's what we decided to do that last time.

Bob C.: it would be helpful to have those items early in the week. But there must be some common time early.

Larry: by deleting those submission introductions we have bought more time for real work.

Simon (as liaison): liaison reports could be just written.

Simon (as temporary MAC chairman): MAC group items decided on last meeting were time-bounded services and MAC/PHY interface. We also have a host of papers to review at least out of courtesy.

Larry: reports are all that are left for Tuesday morning now, so why not move those to the closing plenary then the entire morning is free.

Vic: move items 8 and 9 to Thursday afternoon? That gives us time to get through the papers?

Dave Leeson: the FCC comments are due on Wednesday.

Vic: but we don't have the paper now, so we will never make that anyway. If the paper comes in, who would like to review it - Bob, Dave, Chan will discuss it in a small group to have it ready for Thursday afternoon. Can the afore mentioned agenda items be moved? (everyone agrees.)

Larry: proposes joint MAC/PHY meeting Tuesday morning instead.

Vic: Functional Requirements subgroup first. How much time should we allow for that?

Larry: Functional Requirements used to be Tuesday PM, so move it to Tuesday AM.

Vic: Tuesday PM becomes joint MAC/PHY. Wednesday AM becomes MAC and PHY separate meetings.

Larry: optionally, Thursday could be joint MAC/PHY.

Vic: Thursday at 2 PM we will start plenary. MAC has more attendees so they need the bigger room. (Vic runs through room assignments.) If you want to have a meeting see me to assign these rooms. Any questions?

Jonathon Cheah: please post meeting room outside

Vic: ok. who is leading meetings: Functional Requirements - plans to ask Paul Eastman, but is there a volunteer? No, so Paul, or Vic if Paul cannot; MAC - Simon Black until Dave Bagby gets here; PHY - regular chairman Larry van der Jagt; joint MAC/PHY- Simon and Larry will arm wrestle for it. Any objections to the updated agenda? There are none - approved by consensus.

Larry: there is no "new business" in the opening plenary. Could it be added? In the future could we keep the opening plenary to Monday afternoon including liaison reports? This is traditional in 802. Could Vic take it as an action item to determine how this could be done in the future.

Vic: ok, I'll try to do that. Is there any other business?

Francois Simon: where is the issue document now?

Larry: do you mean what agenda item?

Francois: wanted to know if the issues document and its update procedure were accepted.

Vic: add agenda item to Thursday afternoon.

Simon: why not do it now? If we want to use the issue process this meeting we need to discuss it before we move on to technical discussion. Is the Functional Requirements subgroup going to take all of Tuesday morning. Could we do it in that subgroup?

Vic: that is a task group and we need to do it in plenary.

Larry: do it now.

Vic: ok, we'll add item 5a, acceptance of issues document and the process (92/64 and 92/75). Is that acceptable to all? (yes it is.)

[sec note: the agenda changes agreed on above automatically removed agenda items 7 and 14, which are the open and close of Tuesday's plenary, which doesn't exit anymore.]

5a. Acceptance of Issues Document and Process (IEEE 802.11-92/64 and -92/75)

Francois introduces document 64 - one of the problems is the size of the document. Instead of copying the document we will provide pages updated at each meeting. For each of the updates there is a description of the document changes and instructions on how to update the document and a summary of all the issues. This is the process.

Motion #3:	**To adopt the Issues Document 'structure' as currently applied to document IEEE P802.11-92/64 - 'IEEE 802.11 Issues Document (Draft)', and the Update procedure as presented.**

Moved by: Francois Simon
Seconded by: Jim Schuessler

Motion Discussion:

Vic Hayes: add to the process that at Alphagraphic there is always the newest revision of the document, under a certain number. If you order that number you will always get the current list.

Jonathon Cheah: the document does not have the originator and the date for each issue. If we adopt this structure each issue must have a champion. Also, issues glean a lot of the argument behind them from the minutes, but only the conclusion gets written down. Could the issue also have a reference for tracking to the argument?

Francois: the names are not there because it was done in ad hoc in a group, there weren't names. But in the future there will be. If you find an issue that is 'yours' tell Francois.

Jonathon: but the paper trail is important - a history of the issue. Perhaps an item in the structure that references documents or minutes so that the history of discussion can be found.

Vic: if you look at the list there is a pro/con argument list. The subgroups have to conduct meetings so that each discussion is for an issue. The pros and cons have to be captured. This will be a self-contained document with no references if possible.

Rich Lee: then don't we need an issues editor at each subgroup?

Vic: we have only one editor and this is a good idea.

Orest Storoshchuk: a condensed version will be in the issues, if you really want the detailed description it wouldn't be there without an issues representative in each group.

Vic: the MAC group has an editor - Francois. The PHY and Functional Requirements groups don't have a representative.

Francois: will distribute the pages if the editors feed me the records.

Rich: a consistent style is needed.

Vic: any more discussion?

Larry: revision history would help and would service Jonathon's problem, because the date indicates which minutes to go to for details.

Approved: 22   Opposed: 0   Abstain: 1   *Motion #3 - passes*

Announcement: pigeon holes will be stuffed by tomorrow morning.

Vic announces that there has been an e-mail reflector set up by Dave Bagby, so make sure to add your e-mail address to the attendance list if you have one. If you don't, get one. Bob Crowder points out the apparent problem that e-mail sent from within MCI doesn't get sent to others on MCI. Vic says yes, MCI filters messages that leave MCI go through the net then come back to MCI. Jonathon Cheah says that the Internet circulation of papers in PostScript format works excellently. But UUENCODE and UUDECODE always works and that is the way e-mail prefers things. He can supply public domain versions of these utilities to anyone who asks.

6.0 Adjourn for Monday - at 5:40 PM

<div align="center">

Tuesday AM, 7 July, 1992
Functional Requirements

Tuesday PM, 7 July, 1992
Joint MAC/PHY

Wednesday AM & PM, 8 July, 1992
MAC and PHY subgroups

Thursday AM, 9 July, 1992
Joint MAC/PHY

Thursday AM after break, 9 July, 1992
MAC and PHY subgroups

Thursday PM, July 9, 1992
Full Working Group

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The meeting was reconvened at 2 PM, by chairman Vic Hayes, with Carolyn Heide secretary.

15. Opening

15.1 Announcements:

David Waskevich - any extra copies of documents available people can take. Please circulate the attendance book quickly; Check your pigeon holes once more today, but they will be emptied at 5 PM.

Vic Hayes: Thanks to document handlers. Please all contributions from this meeting must be given to Vic in hard copies or electronic versions, either way make sure they have the proper headers and footers as described in document 92/00. On this last circulation of the attendance list please review correctness, especially e-mail addresses.

Dave Bagby: the way the e-mail reflectors work is that anything sent to them should get circulated to all. There are 3, which are **@smli.sun.com** plus: for the entire working group, **ieee_802.11**; for just the MAC subgroup, **ieee.802.11_MAC**; for just the PHY subgroup, **ieee.802.11_PHY**; and for just the Functional Requirements subgroup **ieee.802.11_Func_Reqs.**
gotchas: MCI mail refuses messages that originated there; there are size limits on some implementations, such as Apple systems and Compuserv. We have been sending documents as PostScript since it is ASCII, but you can use UUENCODE and UUDECODE. Jonathon Cheah can provide public domain copies of

these for the PC. These reflector circulation lists are not open to the public - voting and aspirant members only.

15.2 Document update: 92/74q added (update to ET NPRM response 92/74).

15.3 Agenda Adjustments - no more needed.

8. Liaison Bodies

8.1 Reports

- ETSI, Simon Black

Read **"Liaison - ETSI STC RES-10", IEEE 802.11-92/79** for the full report.

At the last meeting in Leiden we discussed the liaison role and to have productive liaison there needs to be a two way flow, but 802.11 is a public forum and ETSI is not. At RES-10 they wrote a note to their parent organization saying they want to liaise with 802.11 but can't because they can't make documents available. When TCRES meets in December that will be discused - either they say no, in which case liaison is difficult; or they'll say selective documents, if approved by RES-10, may be made available to 802.11. This would be very constructive - the groups have a lot in common.

Radio LAN specification - 5 GHz. CEPT has identified 3 bands of 150 MHz each, one of which will be chosen: 5.00 - 5.15, 5.25 to 5.40, or 5.47 to 5.56. CEPT has said below 3 GHz is a waste of time -2nd generation cordless PCN DECT have that occupied - the next best offer is a 5 GHz. Just above 5GHz is allocated for the Microwave Landing Systems (MLS), 5.00 - 5.25 GHz, but there are no plans to use the part.

Discussion:
Bob Rosenbaum: issues of 802.11 petitioning the FCC for spectrum. What impact does that have in Europe?
Simon: it doesn't have any. If you get spectrum under the Emerging Technologies NPRM that is purely a US concern. In Europe that range is committed already.
Jonathon Cheah: when is the band official (the 5 GHz)?
Simon: hoping for a decision by the end of the year, on the completion of RES-10.
Vic: you have to conform to the standard to be able to use it though. Footnote 797B of the Radio Regulations of the International Telecommunications Union says this area must be saved for mobile data (Europe and Japan).
Simon: five ETSI full time people write the standard, paid by ETSI. Initial work on HIPERLAN is being done by two working groups: RES-10S is a services and requirements group; and, RES-10R is a radio group.

9. Regulatory bodies

9.1 Reports

- USA

Document **"Reply Comments of IEEE 802", IEEE 802.11-92/74Q**.

On Monday a small group reviewed 92/74. They accepted it as it was. Then it was updated because Payne Freret found important typos. That made document 92/74Q.

Motion #:4   **That the text of contribution 92/74Q be approved by the 802.11 working group for submission to the Executive Committee with the recommendation to file at the FCC and give the 802.11 chair the power to respond to issues required to achieve excom approval.**

Moved by: Dave Leeson
Seconded by: Chandos Rypinski

Motion Discussion:
<u>Dave Leeson:</u> if you think the wording needs to be perfect, remember the comments alone were 400 words.The group that looked at it earlier is satisfied with the document as it is.

Approved: 26   Opposed: 0   Abstain: 2   *Motion #4 passes*

- Japan

no report available

Discussion:
<u>KC Chen:</u> got a letter from the RCR chairman which said there were 3 types of systems under standardization - 10 Meg Internet compatible through air; 5 Meg Motorola type; Spread Spectrum 256k to 1 Meg. Some information is not clear, KC will try to find out more.
<u>Vic:</u> find out and make a written submission.
<u>Simon Black:</u> the press says RCR expected first draft by last month - June.
<u>KC:</u> the letter said July. KC will stop by Tokyo on his way home to try to find out. He is not from Japan, but he will try.

- Australia

no report available

- Europe

no report available

9.2 Determine need for ad-hoc meetings: none

10. How to Handle Options

11. WLAN Requirements

12. PHY Subgroup

13. MAC Subgroup

16. Reports from sub and ad-hoc groups

16.1   Functional Requirements, Vic Hayes

There was a long debate on the last paragraph of the Functional Requirements document. We then voted item by item. We took big items, and when they lost we did line by line. The only reject was the last paragraph, the one that was initially debated about security issues (whether 802.11 goes its own way). So we made an issue about that subject.

Motion #5:   **Whereas the Functional Requirements subgroup deleted the last paragraph "Additional requirements beyond..." of the Draft Functional Requirements version 0.3 document IEEE 802.11-92/57 and whereas the same group opened the issue "Is there additional work on security that needs to be done in 802.11 in addition to the work that is done in 802.10?". Resolves that the document 92/57 be adopted by 802.11 as the Functional Requirements for its standard under development and that it be maintained according to the process for handling issues.**

| Moved by: | Dave Bagby |
| Seconded by: | Simon Black |

Motion Discussion: none

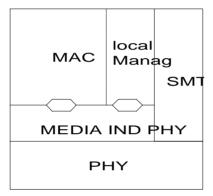Approved: 26   Opposed: 0   Abstain: 4   *Motion #5 passes*

16.2 MAC, Simon Black

1. discussed a model for MAC/PHY/Management entities and flow of information between MAC and PHY.

2. listened to papers from Jonathon Cheah and Yoshihiro Takiyasu (a new protocol).

The MAC subgroup discussed the flow of information across that boundaries in the model. Two questions as far as the MAC group is concerned: what does it manage and how does it know what controls to twiddle? Control and data flow between MAC and the PHY Independent layer: synchronized while passing across two SAPs, or combined in one primitive, or in one SAP. There is a proposal that 802.11 accept this model for further work.

Motion #6:   **That the architecture model is approved as the ~~basis~~ starting point for further work.**

| Moved by: | Jonathon Cheah |
| Seconded by: | Bob Crowder |

Motion Discussion:
Wim Diepstraten: suggest the friendly amendment - "starting point" not "basis".
Larry van der Jagt: PHY group already approved the model and recommends it too.
Dave Bagby: I admit that I was not present for the model discussion. I asked questions about it this morning and got some concensis and some disagreement. This motion asks me to sign a partially blank cheque. What am I being asked to adopt? A written description as well as the picture is necessary. Next meeting there will be disagreement and time will be lost arguing about it. Good work was done here, but we need more description.
Chandos Rypinski: putting "starting point" on the face of the picture could to address your concern.
Larry: all documents should say that they are working documents.
Chan: why not put the whole motion on face of picture?
Simon: this picture and some text were opened as an issue this morning. Under the issue rules that has to remain open until next meeting.
Larry: the issue process shouldn't impede progress.
Orest Storoshchuk: is confused - anyone can open an issue? (Vic says read document 92/00) Orest calls the question, seconded by Bob Crowder (20, 7, 2).

Approved: 22   Opposed: 3   Abstain: 4   *Motion #6 passes*

General Discussion:

Bob Crowder: procedural question - since this is now an adopted technical position - an issue can be raised by new fact or by 2/3 vote. So no issue exists on this point. Asks for chairman's ruling on this?

Vic: which issue are you addressing?

Bob C.: Simon Black's issue.

Francois Simon: that issue reads "is this the procedural model to be adopted by 802.11?".

Vic: since we are just starting to use this issue procedure, I can imagine that there is confusion here. This motion does not close an issue. It is just a motion that has been adopted and immediately we have an issue to further discuss it.

Paul Eastman: warning - we have made a technical decision here and we can reconsider it. A vote to reconsider requires even more than a simple majority. I would hate to see a repeat of the FFDI connector war that languished for 2 years. Take the model and make progress. Let's just move ahead and build something.

Bob C.: similar feeling - I believe we have closed an issue (Simon's issue).

Jonathon Cheah: if you read 92/00 there can be several interpretations. We have made a unanimous (almost) approval on two motions, let's not tear down the progress we have made. If the procedure impinges on progress - don't be lawyers about it. The procedure's intent has been covered by the very difficult meetings that got us to this point.

Larry: personally I don't think there's a real conflict between this motion and the issue open. We can have an open issue on this forever. As lawyers we can go a couple of ways - substantial additions and changes to the issues procedure were made at Leiden and never voted on. But that's not the right approach to take. It is a useful structure to maintain focus if we don't let it stop progress. The group indicates that we approve, so let's move forward. Keep the issues list, its vital, use it, but don't use it as a progress slower. Bring in the lawyers and we can conclude that 802.11 has never adopted this procedure - the Leiden procedure, not the Hilton Head procedure. Let's not waste our time being lawyers.

Vic: I just want to have a good procedure.

Chan: if I heard Bob Crowder correctly the word starting point in the motion has no practical effect. It is possible that changes might be raised under the issue and its final adoption. Things agreed upon should be hard to change but not so hard they can't be changed.

Rich Lee: follow the procedure to close the issue in the spirit that it was made. The issue procedure is good, and those of you that voted for the motion should vote to close the issue.

Motion #7:   **That issue 3.1 "Is this the protocol model to be adopted by 802.11?" be closed.**

Moved by: Rich Lee
Seconded by: Orest Storoshchuk

Motion Discussion:

Jim Schuessler: that you can't open and close an issue at the same meeting is absolutely clear.

Carolyn Heide: I was going to say exactly what Jim said.

Simon Black: we agreed to the period of thinking time for a reason. Already this morning we picked holes in this model. If we still agree next time we can close the issue.

Larry van der Jagt: is against closing the issue. This is a good model, but it should not be closed as the final model right now. We may not even like the names later.

Chairman rules motion #7 out of order because of issue procedure.

Vic: document 92/00 has general rules #3 "all issues will be open for a minimum of the time between 2 802.11 meetings".

David Waskevich: Larry's question is valid, but is it from 92/58r1 or 92/00?

Larry: no document in 1992 regarding issue procedures has *ever* been voted on in plenary.

Vic: we can go back to the Hilton Head document.

Break at 3:15 until 3:45

Motion #8:	**That we make official the modified issue procedure.**

Moved by: Dave Bagby
Seconded by: Simon Black

Motion Discussion:

Vic: issues procedure approval in plenary at Hilton Head was adopted (12,0,4) as a way to deal with issues.

Chan: does that motion and what we passed deal with the one meeting delay?

Carolyn: the motion made at Leiden reads "That 802.11 modify its existing procedure for handling issues by adopting the following changes (already adopted by the MAC, PHY and Functional Requirements subgroups): 1. use of sample issue form in document 92/58R1 instead of IBIS notation; 2. an issue cannot be closed in the meeting at which it was opened".

Larry: let's move and just think on it.

Chairman rules motion #8 out of order until the agenda item "other business".

16.3   PHY, Larry van der Jagt

PHY subgroup was sent away to identify common PHY characteristics. Came up with characteristics common to ALL PHYs:

A) 1 channel - more optional
B) 1 tx level - more optional
C) 1 rx threshold level comparison - more optional.

Adopted the model that was just adopted here a few minutes ago.

To make a proposal (text as in the motion following) to the plenary. The text of this proposal was voted on by the PHY group - the first sentence passed (17,1,5) and the second passed (15,1,6).

Motion #9:	**IEEE 802.11 ~~shall support~~ will pursue at least the two PHYs allowed by FCC in the 2.4 GHz ISM band. It is the intent of the committee to monitor international regulations and accommodate those regulations where possible.**

Moved by: Larry van der Jagt
Seconded by: Dave Leeson

Motion Discussion:

Wim Diepstarten: by doing this you just created your own interferers?

Larry: yes.

Wim: how will you deal with this?

Larry: we eliminated all the people out there who have other application needs - we included more interferers under our umbrella.

Dave L.: same point as Larry. We can't reverse history, products are in the market. We need to extend our concentration in the ET band and do the best job we can to encourage coordination from the PHY group in recognition of reality. Ignoring reality will not create wide acceptance.

Dave Bagby: is it your intent to do these in parallel -do we have enough resources to do that?

Larry: in parallel, this is better use of the limited resources we have.

Paul Eastman: 2 separate technologies?

Larry: frequency hop spread spectrum, and direct sequence spread spectrum.

Paul: wording, not intent is my problem. What if you can't do one due to some technical reason not known now? You get forced to concentrate on other. They word "shall" forces us to do one.

Larry: would "where possible" negate that concern?

Paul: no.

Larry: change "shall" to "will"?

Paul: yes.

Orest Storoshchuk: how about change "support" to "pursue"?

Paul: yes, that is exactly your intention.

Dave L: accept "will" but is not sure about "pursue".

Paul: don't lock yourself into having to do it.

Dave L.: the suggestion was based on a technical impossibility. We can exclude one due to that, but not for political, economic, or commercial reasons. Ok, I accept it.

Paul: "pursue" gives direction but does not mandate.

Chandos Rypinski: "pursue" might make it somehow not so bad. Don't think it's the goal of this committee to support everything marketed. To solve the 802 LAN problem by wireless. No objection to looking closely at FH, but we really have to understand the full consequences of supporting it. The MAC could be so complex and difficult that money, battery drain and development time will suffer. Understand that it is not a casual model to support.

Nathan Silberman calls the question, seconded by Dave Leeson (20, 4, 3)

Approved: 22   Opposed: 2   Abstain: 2   ***Motion #9 passes***

The PHY subgroup intends to form three informal working ad-hoc subgroups one for each technology (2.4 GHz SS, 2.4 GHz FH, and IR), provided we have volunteers to participate.

Reasoning is 2 fold: we need to understand what the ISM bands are - are they are a free for all - 15.247 non-conformant are the users and a lot of people who don' t care about the FCC? There are a lot of things to be dealt with in the use of this band. A FH meeting FCC regulations in this band is ideal for some applications - a DS SS PHY is ideal for others. Fundamentally the reasons aren't going to go away, if we try to negotiate down to a single PHY we are trying to negotiate down to a single set of applications. To try to negotiate down to a single PHY will be counter productive. If we have different application environments we want to go ahead and standardize both under the PHY umbrella. We will be giving the world the option to select the 802.11 standard more often. Give the people who want to implement this stuff a way and they are likely to take it. More interferers who are us are preferable.

PHY group will continue to meet together, but there will be 3 ad hoc groups. Please, looking for DS submissions. Informally, talk to: Roger Samdahl or Rich Lee about the IR effort; Nathan Silberman or Dave Leeson about frequency hop; and there is no representative of the direct sequence effort (maybe Bob Buaas after he knows this has been done).

The PHY subgroup will edit current issues off-line and forward initial issues list to Francois Simon. The idea is to cleanse the list as it now stands.

Discussion:

Dave Bagby: is the intent to take the current issue document and instead of considering it to be a start - to make a pass at it, then start?

Larry: a pass on it is required to a get start for the PHY.

Dave B.: throw away issues that exist now?

Larry: look at all of them and find out what the real issues are. Get rid of non-substantiative issues. Make sure that it's an issue list that we agree on as a group. Issues that we as a group agree about is worth spending our time on. Orest Storoshchuk is our issues list editor. We had trouble using the list this meeting. We want to use it but think this is a first draft and we will get it into form.

Vic: when will you do that?

Larry: probably before the next meeting.

Bob Crowder: do you have dates or times for ad-hoc group meetings?

Larry: most communication will be phone and fax. If there are any real meetings they need to keep me posted.

Francois Simon: I don't know what you meant by getting rid of issues. Re-phrasing will close old issues? They won't just disappear.

Larry: only concensis will make them disappear.

Dave B.: has a bit of a procedural concern. Having adopted this procedure this is difficult, and might make changes to the log. Wholesale changes cannot be made arbitrarily. Be careful.

Larry: we have not adopted a procedure - we have not voted in plenary on it. We can't let a paper adopted off the cuff by a few people in Leiden ...

Dave B.: in the MAC group we will follow the procedure. You may wind up having to follow a separate list if you don't.

Bob C.: Leiden was interim meeting. If this procedure is to be used by this committee or any part of it, it must be adopted in plenary. Maybe we should go back to the Hilton Head procedure. This new procedure may be ok, but we haven't adopted it.

17. Tentative Meeting Schedule

Date	Month	Year	Place	Type	Location	Host
14-17	September	1992	Dayton, OH	Inter	TBD	USAF
09-13	November	1992	La Jolla, CA	Plenary	Hyatt Regency Hotel	
TBD	January	1993	Los Angelos area	Inter	TBD	Xircom
08-12	March	1993	Baltimore, MD	Plenary	Omni, inner harbour	
TBD	May	1993	Baltimore area	Inter	TBD	Ship Star
12-16	July	1993	Denver, CO	Plenary	Sheraton Denver Technology Center	
TBD	September	1993	TBD	Inter	TBD	Open
08-12	November	1993	? W Palm Beach, FL	Plenary	?Ramada Resort	
TBD	January	1994	TBD	Inter	TBD	
07-11	March	1994	Vancouver, BC	Plenary	Hotel Vancouver	
TBD	May	1994	TBD	Inter	TBD	
11-15	July	1994	Minneapolis. MN	Plenary	Radisson South	
TBD	September	1994	TBD	Inter	TBD	
07-11	November	1994	? Irvine, CA	Plenary	? Irvine Marriott	

We received invitations to host a meeting from GM to Oshawa (Ontario, Canada), LXE to Atlanta (GA), DEC to Boston area, and ICIL to Hong Kong.

If you don't get confirmation of the September meeting in Dayton in a month from now, call Vic Hayes or Rich Lee. Dates are fixed but maybe not location.

Note that the fee for the November meeting is $200 not $150 as the previous venue says. Updated venues available at registration until they close.

17.1 Objectives for next meeting

MAC Subgroup, Dave Bagby

25% MAC/PHY interface;
25% time-bounded services;
Rest of time on distributed system services to be provided.

Balance may be changed according to contributions, so if you're interested bring contributions.
Contributions on other subjects will be dealt with only if there is time.

PHY Subgroup, Larry van der Jagt

PHY common objects;
Review straw PHY proposals from ad hoc groups;
Work on channel modeling and how to structure documents to allow conformance testing.

17.2 Last Mailing Date: Monday August 24 to Vic with correct headers and footers, electronic copies if possible.

17.3 Other Intermediate Meetings: no

17.4 Confirmation of November Meeting: yes

18. Review of Document List

18.1 Approval of output documents - the FCC reply comments have been done (92/74Q)

18.2 Destination of input documents - 92/74Q will be published as the version resulting from the ad-hoc group , without the additional Q.

19. Other business

Motion #10:   **That we formally ratify decision made at Leiden regarding issue processing.**

Moved by: Dave Bagby
Seconded by: Simon Black

Motion Discussion:
Carolyn Heide: the motion made at Leiden reads "That 802.11 modify its existing procedure for handling issues by adopting the following changes (already adopted by the MAC, PHY and Functional Requirements subgroups): 1. use of sample issue form in document 92/58R1 instead of IBIS notation; 2. an issue cannot be closed in the meeting at which it was opened". And the motion passed with a vote of (17, 0, 0).

Jonathon Cheah: thinks that in view of today's fiasco about the issue procedure perhaps we adopted it hastily without testing. Speaks against motion. The committee should look at issue procedure carefully because it can be used to stop decisions, and hinder progress. At 4 PM at the end of a plenary, to adopt something so important is unwise.

Larry van der Jagt: Ultimately we need to gain concensis. Once we have that we make attempts to tie things down - once concensis goes away it's gone. Against the motion - thinks we have good concensis on the model and we will discuss and work on it, issue or not. We have made progress, issues or no. The original motion at Hilton Head probably should have been approved by 802 excom because it modified the working rules. The issue procedure certainly failed today - it destroyed the plenary meeting and he hopes that people will vote against this motion.

Bob Crowder: an issues log is a good procedure in a standards process and he has been in committees that kept logs. Never, however, was the log processing the main process of the meeting. This process wasted time and good will today and hung up the meeting on procedure process. Hopes we never repeat it. In several 802 committees Roberts Rules provide clear 2/3 majority for reversing decisions. No need for this committee to have anything beyond Roberts Rules. Supports the issue procedure as a background procedure. No 802 committee has ever adopted a rule that you couldn't take a decision at that meeting - that would mean even if we have concensis we still can't move forward.

Larry: I like the issue list too.

Dave B.: the procedure is not designed to hinder, but to record pros and cons and provide history. To provide tools for bringing new people up to speed. To provide hysteresis so that when a decision is made it will be kept more formally than by concensis. As to the statement that the procedure has not been tested - it was not invented here. It comes from ANSII and is used in ANSII committee work. It was designed so that even without concensis decisions can be reached. It works well - has worked for all ANSII standards. It hasn't worked here because we are not used to it.

Dave Bagby calls the question, seconded by Simon Black (18, 1, 3)

Approved: 9   Opposed: 8   Abstain: 5   *Motion #10 fails*

Vic: majority but not 2/3. Paul what do you think

Paul Eastman: table the issue. It is kind of hot today. What is right and wrong about is procedure ... I'm not sure. I see merit in both opinions. We want to take a stand that says we're not going to hinder progress.

Bob Crowder: point of order - there is a Roberts Rule procedure for vote required to change operating rules of the committee.

Vic: Roberts Rules say a motion must be carried by 75% approval of yes/no votes. So the motion fails.

David Waskevich: the only thing just failed was the Leiden amendment. Right?

Paul Eastman: yes.

Dave Bagby moves to adjourn, Simon Black seconds (16, 2, 5).

20. Meeting closed 4:40

Appendix 1
Attendance list

Name	Company	communications
Mr. ROBERT ACHATZ	US Department of Commerce	+1 303 497 3498 vm
Mr. SVEN OLOF AKERLUND	ELLEMTEL	+46 8 727 30 44 vm
Mr. BOB ALBRECHT	Motorola Inc	+1 708 576 7194
Mr. DAVE BAGBY	Sun Microsystems labs Inc	+1 415 336 1631 vm david.bagby@sun.com
Mr. CHANDAN BANERJEE	NYNEX Science & Technology Corp	+1 914 644 2530 chandan@uschi.nynexst.com
Mr. PHIL BELANGER	Xircom	+1 415 691 2500 pbelang@xircom.com
Mr. MICHAEL J. BERGMAN	ALPS	+1 408 432 6000
Mr. SIMON BLACK	Symbionics	+44 223 421025 vm sab@symbionics.co.uk
Mr. JAN BOER	NCR Systems Engineering B.V.	+31 3402 76483 jan boer@utrecht.ncr.com
Mr. JACK L. BRADBERY	AMP Inc	+1 717 561 6271
Mr. CHARLES BRILL	AMP Inc	+1 717 561 6198 vm
Mr. ROBERT A. BUAAS	The Buaas Corpotation	+1 714 968 0070 vm buaas@nosc.mil
Mr. ROB CARL	Pulse Engineering Inc	+1 619 674 8272
Dr. JONATHON CHEAH	HUGHES Network Systems	+1 619 452 4847 vm jcheah@oscar.hns.com
Dr. KWANG-CHENG CHEN	National Tsing Hua University	+886 35 715131 X4054 vm chenkc@ee.nthu.edu.tw
Mr. STEVE CHEN	Toshiba America Info Systems Inc	+1 714 583 3273
Mr. ROBERT B. CLARKE	National Semiconductor	+1 408 721 6610 cbocsc@tevm2.nsc.com
Mr. PAUL CONGDON	Hewlett Packard	+1 916 785 5753 vm ptc@hprnd.rose.hp.com
Mr. STEPHEN COOPER	ISOTEC	+1 508 428 4910
Ms. CHRISTINE CORDONNIER	Alcatel Busines Systems	+33 88 67 79 21
Mr. IAN CRAYFORD	Advanced Micro Devices	+1 408 987 2363 ian.crayford@amd.com
Mr. ROBERT S. CROWDER	Ship Star Associates Inc	+1 302 738 7782 vm 0002892306@mcimail.com
Dr. JOHN F. DEANE	CSIRO	+61 2 868 0222 jdeane@rp.csiro.au
Mr. WIM DIEPSTRATEN	NCR Systems Engineering B.V.	+31 3402 76482 vm wim.diepstraten@utrecht.ncr.com
Ms. KATHLEEN DOLAN	Department of Defense	+1 410 859 6546
Mr. JOHN M. DOYLE	Alps Electric (USA) Inc	+1 408 432 6000 vm

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Attendance list

Name	Company	communications
Dr. PAUL EASTMAN	Fairchild Data Corporation	+1 602 949 1155 vm p.eastman@compmail.com
Mr. RICHARD ELY	Unisys MS 18-004	+1 408 434 4312 vm
Mr. JOHN W. ENG	Digital	+1 508 486 7734 vm eng@nac.enet.dec.com
Mr. TAKASHI ENOMOTO	NTT Telecomm Networks Lab	+81 468 59 8778 enomoto@nttmhs.ntt.jp
Mr. PAYNE FRERET	Salient Communications	+1 415 948 8192 vm
Mr. RICK GILES	Proxim	+1 415 960 1630
Mr. PATRICK GONIA	Honeywell Inc	+1 612 782 7631 gonia@ssdc.honeywell.com
Mr. JUAN GRAU	Proxim Inc.	+1 415 960 1630 vm
Mr. DEL HANSON	Hewlett Packard	+1 408 435 6246
Mr. VICTOR HAYES	NCR Systems Engineering B.V	+31 3402 76528 vm Vic.Hayes@Utrecht.ncr.com
Ms. CAROLYN L. HEIDE	Spectrix Corp	+1 708 491 4534 vm 71041.3262@compuserve.com
Mr. TING-IH HSU	Martin Marietta Corp	+1 407 356 9652 vm
Mr. BILL HUHN	Motorola Inc	+1 708 576 7207 cinfo3@email.comm.mot.com
Mr. DOUGLAS A. HUTCHINSON	IBM Canada Ltd	+1 416 946 5523
Mr. LARRY van der JAGT	Knowledge Implementations Inc	+1 914 986 3492 vm
Mr. KENNETH KENNEDY	Cabletron Systems	+1 603 332 9400 vm kennedy@ctron.com
Mr. TIMOTHI KOTECKI	NCR	+1 612 638 7532
Mr. THOMAS DOWNS KURATA	Photonics	+1 408 955 7930 vm
Dr. TIMOTHY C. KWOK	Apple Computer Inc	+1 408 974 8311 kwok@apple.com
Mr. PAUL LAMBERT	Motorola Inc	+1 602 441 3646 paul_lambert@poncho.phx.sectel.mot.com
Mr. RICHARD LEE	Spectrix Corporation	+1 708 251 5378 vm richardlee1@attmail.com
Dr. DAVID B. LEESON	California Microwave	+1 408 720 6215 vm
Mr. DANIEL E. LEWIS	Telxon	+1 216 867 3700 vm
Mr. ANDY LUQUE	Open Communications	+1 503 389 6512
Mr. JOHN McKOWN	Motorola	+1 708 632 6551 vm mckown@whitefish.rtsg.mot.com
Mr. RAY MARTINO	Symbol Technologies Inc	+1 408 249 9890 X139
Mr. JOSEPH MAZOR	Intel Israel LTD	+972 4 355075 vm

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Attendance list

Name	Company	communications	
Mr. STEVE MESSENGER	Telesystems SLW inc	+1 416 441 9966	vm
Dr. AKIRA MIURA	Panasonic	+1 415 858 1000	vm
		miura@tadw.panasonic.com	
Mr. ROY MIYANO	ALPS Electric (USA) Inc.	+1 408 432 6458	vm
Mr. YASUAKI MORI	AMD	+1 512 462 4214	
		yasu.mori@amd.com	
Mr. TATSUMI NAKAGAWA	Oki Electric Industry Co	+81 484 31 4650	
Dr. K.S. NATARAJAN	IBM T.J. Watson Research Center	+1 914 784 7844	vm
		nataraj@watson.ibm.com	
Mr. PAUL NIKOLICH	Racal Datacom	+1 508 263 9929	vm
		nikolich@interlan.interlan.com	
Dr. LLOYD M. NIRENBERG	Stanford Telecom	+1 408 980 5607	
Mr. BENJAMIN NISE	Standard Microsystems Corp	+1 714 707 2380	
Mr. KEITH ONODERA	U.C. Berkeley	+1 510 642 7156	
		keitho@diva.berkeley.edu	
Mr. CRAIG OWENS	3COM Corporation	+1 408 764 5218	vm
		craigo@tsd.3com.com	
Mr. FRANK O'NEILL	LXE Inc	+1 404 447 4224	vm
Mr. TONY PARKER	IBM	+1 407 443 5737	
		tonyp@vnet.ibm.com	
Mr. SANJAY POPLI	National Semiconductor	+1 408 721 7796	
		popli@berlioz.nsc.com	
Mr. BILL RANDLE	Tektronix	+1 503 923 4422	
		billr@saab.cna.tek.com	
Mr. J.W. ROMLEIN	Midwest Integrated Systems Labs Inc	+1 414 262 8000	
		364.7433@mci.com	
Mr. ROBERT H. ROSENBAUM	WINDATA	+1 508 393 3330	vm
Mr. MICHAEL ROTHENBERG	LANNET Data Communications LTD	+972 3 5447150	
		mrot@lannet.com	
Mr. CHANDOS RYPINSKI	LACE Inc.	+1 707 765 9627	vm
Mr. ROGER N. SAMDAHL	Photonics Corporation	+1 408 955 7930	vm
Mr. ASHOK SARAF	Fujitsu	+1 214 997 7773	
Mr. JAMES E. SCHUESSLER	National Semiconductor	+1 408 721 6802	vm
		jim@berlioz.nsc.com	
Mr. CHENG-CHUNG SHIH	Allied Telesis Inc	+1 415 964 2994 X148	
Mr. NATHAN SILBERMAN	California Microwave Inc	+1 408 720 6462	vm
		nsilberman@mcimail.com	
Mr. FRANçOIS Y. SIMON	IBM	+1 919 254 4584	vm
		fygs@vnet.ibm.com	

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Attendance list

Name	Company	communications
Mr. OREST L. STOROSHCHUK	General Motors of Canada	+1 416 644 6994 vm
Mr. ANDRE SZCZEPANEK	Texas Instruments	+44 234 223798
Mr. YOSHIHIRO TAKIYASU	Hitachi	+81 423 23 1111 takiyasu@crl.hitachi.co.jp
Mr. KENTA TAKUMI	NEC Corporation	+81 3 3456 5376 vm
Mr. NATHAN TOBOL	Ronan Engineering	+1 818 883 5211 vm
Mr. HIROSHI TOMIZAWA	Stanford University MJH422	+1 415 723 1130 vm tomizawa@pescadero.stanford.edu
Mr. JEFFREY A. TONG	Forte Systems	+1 408 272 2902
Mr. KOICHI KENT TSUNO	Sumitomo Elektric U.S.A. Inc	+1 408 737 8517 tsuno@sumitomo.com
Mr. RYAN H. TZE	Toshiba	+1 714 587 6769 vm rtze@toshiba.com
Mr. NADER VIJEH	Advanced Micro Devices	+1 408 987 2342 vm nader.vijeh@amd.com
Mr. IKUO WAKAYAMA	NEC	+81 3 3453 1111
Mr. DAVID J. WASKEVICH	Spectrix Corporation	+1 708 491 4534 vm
Mr. STEVEN WEISS	DCA	+1 408 432 9111
Mr. JERRY WYATT	American Express Travel related Services Company Inc	+1 602 492 4339
Ms. QING YANG	Diablo Research Corp	+1 408 730 9555 vm mserrone@attmail.com
Mr. YONG WAN YI	Goldstar	+1 408 432 1331 X3307