

AGENDA & MINUTES(Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING

Thursday, July 8, 1999 - 7:00 p.m.

Queen Elizabeth Hotel, Montreal, PQ

5 1. MEETING CALLED TO ORDER

Jim Carlo called the meeting to order at 7:01 PM. Members in attendance were:

	Jim Carlo	- Chair, IEEE 802 LAN / MAN Standards Committee
	Paul Nikolich	- Vice Chair, IEEE 802 LAN / MAN Standards Committee
10	Buzz Rigsbee	- Executive Secretary, IEEE 802 LAN / MAN Standards Committee
	Howard Frazier	- Recording Secretary, IEEE 802 LAN / MAN Standards Committee
	Bill Lidinsky	- Chair, IEEE 802.1 - HILI Working Group
	Dave Carlson	- Chair, IEEE 802.2 - Logical Link Control Working Group
	Geoff Thompson	- Chair, IEEE 802.3 - CSMA/CD Working Group
15	Bob Love	- Chair, IEEE 802.5 - Token Ring Working Group
	Jim Mollenauer	- Chair, IEEE 802.6 - Metro Area Network Working Group
	Chip Benson	- Chair, IEEE 802.8 - Fiber Optic TAG
	Vic Hayes	- Chair, IEEE 802.11 - Wireless LANs Working Group
	Robert Russell	- Chair, IEEE 802.14 - Cable TV Protocol Working Group
20	Bob Heile	- Chair, IEEE 802.15 - WPAN Working Group
	Roger Marks	- Chair, IEEE 802.16 - BWA Working Group

The meeting was attended by approximately 15 IEEE 802 Working Group members and several guests including Sue Vogel and Janet Rutigliano.

25 **2. APPROVE OR MODIFY AGENDA**

FINAL AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING

"

Thursday, July 8, 1999 - 7:00 p.m.

30 "

Queen Elizabeth Hotel, Montreal, PQ

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35	1.	MEETING CALLED TO ORDER	-CARLO	1 07:00 PM
	2.	APPROVE OR MODIFY AGENDA	-CARLO	4 07:01 PM
	3.	TREASURER'S REPORT	-GROW	5 07:05 PM
		Category (* = consent agenda)		
	4.1	ME*802.5w PAR change (from Supplement to C	-LOVE	5 07:10 PM
40	4.2	ME 802.5w Corrigenda to LMSC ballot	-LOVE	5 07:15 PM
	4.3	ME 802.5v (1000 Mb/s) conditional approval	-LOVE	5 07:15 PM
	4.4	ME*802.5y (TR revision) PAR withdrawal	-LOVE	5 07:20 PM
	4.5	ME*802.5aa Source route enhancement PAR wi	-LOVE	5 07:25 PM
	4.6	ME 802.16 Coexistence PAR	-MARKS	10 07:30 PM
45	4.7	ME 802.1x Port Based Network Access PAR Ap	-LIDINSKY	5 07:40 PM
	4.8	ME Process for SC6/802 Co-operation	-JEFFREE	15 07:45 PM
	4.9	ME IEEE-SA Support	-LIDINSKY	10 08:00 PM
	4.10	ME Letter to CableLabs	-RUSSELL	5 08:10 PM
	4.11	ME Liaison letters to TR41 and TR42	-THOMPSON	10 08:15 PM
50	4.12	ME Liaison letter to FCC re: RF Lighting	-HAYES	5 08:25 PM
	4.13	ME Liaison letter to FCC re: Wideband FH	-HAYES	20 08:30 PM

	4.14	ME	802.11a conditional approval for submit	-HAYES	5	08:50	PM
	4.15	ME	802.11b conditional approval for submit	-HAYES	5	08:55	PM
	4.16	ME	Liaison letter to ETSI Board from IEEE	-HAYES	5	09:00	PM
			BREAK	-	15	09:05	PM
5	4.17	MI	802.11 Study Group on 802.11 enhancemen	-HAYES	5	09:20	PM
	4.18	MI*	802.3 HSSG Renewal	-THOMPSON	5	09:25	PM
	4.19	MI*	802.3 DTE Power Study Group formation	-THOMPSON	5	09:30	PM
	4.20	MI	802.15 Coexistence Study Group formatio	-HEILE	5	09:35	PM
	4.21	MI	802.15 WG officers confirmation	-HEILE	5	09:40	PM
10	4.22	MI	802.16 WG officers confirmation	-MARKS	5	09:45	PM
	4.23	MI	Rules change proposal	-LIDINSKY	10	09:50	PM
	4.24	MI	802.10 Hibernation	-NIKOLICH	5	10:00	PM
	4.25	MI	CDROM update (november or march)	-FRAZIER	5	10:05	PM
	4.26	MI	Meeting fee policy change	-GROW	10	10:10	PM
15	4.27	MI	Meeting AV requirements	-THOMPSON	5	10:20	PM
	4.28	MI	Equipment and software purchase	-RIGSBEE	5	10:25	PM
	4.29	MI	LAN access for SEC members	-FRAZIER	10	11:00	PM
	4.30	DT	Chair's guidelines on RevCom submittals	-CARLO	10	10:30	PM
	4.31	DT	Report from project numbering ad hoc	-CARLO	10	10:40	PM
20	4.32	DT	Report from WG strategy ad hoc	-CARLO	10	10:50	PM
	4.33	II	Liaison letter to ETSI/BRAN/MMAC	-HAYES	5	11:10	PM
	4.34	II	802.8 project status	-BENSON	10	11:15	PM
	4.35	II	ISO update	-CARLSON	10	11:25	PM
	4.36	II	SEC/802 opening plenary schedule change	-CARLO	5	11:35	PM
25	4.37	II	PFS DB conversion to Access status repo	-RIGSBEE	5	11:40	PM
	4.38	II	Future meeting schedule	-RIGSBEE	5	11:45	PM
	4.39	II	Meeting in Enschede	-HAYES	5	11:50	PM
		ME	- Motion, External	MI	- Motion, Internal		
		DT-	Discussion Topic	II	- Information Item		

30

Hayes requests to remove item 4.20 from consent agenda

Approve agenda as modified, including consent agenda

M: Love

S: Hayes

35 **passed 11/0/0 @ 7:08 PM, including items 4.1, 4.4, 4.5, 4.18, 4.19.**

3.0 Treasurer's report

(insert file thutreasrep.pdf)

75% pre-registered. Total body count 467, predicted 488. Costs were low. Healthy profit of \$5,610 even after accounting for projector expense.

40 Nikolich feels that we are under supplying morning munchies. We should make sure that there are adequate morning refreshments, particularly pastries.

Marks states that a unanimous motion in 802.16 was passed to provide cookies in the afternoon.

Thompson feels that pastries in the morning are more important than cookies in the afternoon.

45 Carlo states that since there is a feeling that refreshments were inadequate, and budget has surplus, we should increase allocation for refreshments. Nikolich proposes an increase of \$2000 in refreshment budget. We will have to wait for Dr. Rigsbee to join the meeting before taking action.

IEEE Project 802
Estimated Statement of Operations
July 1999 Meeting

open	4 Jul 1999 Operating Reserve	47,926	
Jul 1999 Meeting Income:		Actual	Budget
	146 Registrations@ \$300	43,800	
	321 Registrations@ \$250	80,250	
	0 Registrations@ \$100	0	
	Subtotal	124,050	101,250
	Deadbeat Registrations	300	
	A/G Copy Comissions	0	
	Bank Interest	0	
	Copying Income	0	
	Other	0	
plus	TOTAL Income	124,350	101,250
Jul 1999 Meeting Expenses:		Estimate	Budget
	Audio Visual Rentals	6,000	5,000
	Bank Charges		20
	FTF Jul 99 Meeting Administration	24,500	30,200 *
	Copying	2,700	6,000
	Credit Card Discounts	3,610	2,946 *
	International Program Fee	42,030	33,750 *
	Phone & Electrical	600	600
	Refreshments	14,100	13,000
	Shipping	3,000	2,500
	Social	7,200	9,000
	Supplies		
	Other		
minus	TOTAL Meeting Expense	103,740	103,016
minus	Equipment Expense	15,000	21,000
equals	July 99 Operating Reserve	53,536	
	Net Change in Operating Reserve	5,610	(1,766)

* Actual charges are based on registration, budget is based on registration forecast.

Carlo asks Grow to project budget for next meeting, and add this to the Thursday evening treasurer's report. Carlo will send the page that Pat Thaler used to present to Grow.

4.1 ME 802.5w PAR change (approved as part of consent agenda 11/0/0)

5 **4.2 ME 802.5w Corrigenda to LMSC ballot - Bob Love**

L M S C RESOLUTION

AGENDA #: 4.2

Date: July 8, 1999

Time:

10 Mover: R. D. Love

Seconded: Vic Hayes

15 Motion:

Approve forwarding of 802.5w 802.5 Corrigenda for LMSC Ballot

20 -----For Information -----

802.5 voting on this issue

Straw Poll or Vote?	Vote	Number:	07-06
Moved by:	Andy Fierman	Date:	8 th July
Seconded by:	Karl Reinke	Status:	PASS
Move that:			
802.5 requests the SEC to forward IEEE 802.5w/d1.2 to LMSC for balloting.			
Yes:	5	No:	0
Abstain:	0		

25

Voting on 802.5w

Voting Members	Approve	Disapprove	Abstain
23	10	0	4

30

Motion: Approve forwarding of 802.5w Corrigenda for LMSC ballot

M: Love

35 **S: Hayes**

Love: Sponsor ballot pool has been formed.

SEC Vote: 12/0/0 Approved 7:29 PM

Chair notes that vote tally in 802.5 is very low. Looks forward to either growth in group or hibernation of group. Love does not expect growth. Carlo asks for plan for hibernation. Love agrees to investigate.

4.3 ME 802.5v (1000 Mb/s Token Ring) - Bob Love

5 Conducting another WG recirculation ballot. Not asking for conditional approval. Will ask for approval to go to LMSC ballot via electronic ballot.

4.4 ME 802.5y TR revision PAR withdrawal (approved as part of consent agenda 11/0/0)

4.5 ME 802.5aa Source route enhancement APR withdrawal (approved as part of consent agenda 11/0/0)

4.6 ME 802.16 coexistence PAR

Deferred, will come back to this item

10 **Motion: To approve the 802.16 PAR on Coexistence of Broadband Wireless Access Systems" with project number 802.16.2.**

M: Marks

S: Mollenauer

This motion was unanimously approved in the 802.16 WG, 8-July-1999. Y: 64 N: 0, A:4

15 Nikolich asks for brief explanation of what the PAR is.

Marks: This is a Recommended Practice. Regulatory agencies are backing out of producing such guidance. They are pleased that industry groups are stepping in to provide the details.

Russell: Thinks this is a good and proactive step, even if it is outside of our normal tradition.

Thompson: How are we going to provide users with information about the relationship of 802.16 standards?

20 Russell: He had a similar concern when he first heard about this PAR, but his concern was allayed.

Carlson: What is the meaning of this numbering process (802.16.2)? We should have a consistent numbering method.

Carlo: IEEE staff reports that other WGs and subcommittees have double dots.

SEC Vote: 13/0/0

Motion: To approve change to PAR 802.16 , renumbering it as 802.16.1

25

M: Marks

S: Mollenauer

Approved by 802.16, 8 July 1999, by unanimous consent.

Russell: would like to see this PAR change follow normal process

30 Carlo asks if it is critical to approve this motion at this meeting. Marks says no, not critical.

Carlo asks Marks to withdraw motion, Marks agrees.

Motion withdrawn

4.7 ME 802.1x Port Based Network Access PAR Approval - Bill Lidinsky

Resolution

Resolve to forward the PAR for 802.1x to the IEEE Standards Board for approval as a project.

- 5 802.1x: Supplement to ISO/IEC 15802-3 (802.1D): Information Technology - Telecommunications and information exchange between systems - Local and Metropolitan Area networks - common specifications - Part 3: media access control (MAC) bridges - Port based Network Access Control

WG vote M: Seaman, S: Jeffree approved 12/0/2 5-Jul-1999

M: Lidinsky

10 **S: Russell**

SEC vote 13/0/0 Approved.

4.8 ME Process for SC6/802 Cooperation - Tony Jeffree

Report from ad hoc committee which met yesterday.

- 15 Last week at SC6 meeting in Berlin, there was a paper produced by Robin Tasker documenting approach SC6 would like to take, which is broadly in agreement with the conclusions 802 came to at the Austin meeting in March. 802 feels that there are some minor adjustments needed. Procedure has been initiated to make 802 a "Class C" liaison to SC6 and SC25.

Need minor changes to 802 and IEEE actions.

802 actions

- 1. Ballot document is sent to SC6 specified (single) email address in addition to normal WG distribution
- 20 2. Comments from SC6 participants (received by ballot close) treated as "observer" status ballots
- 3. Ballot resolution documentation, subsequent recirculation ballots, etc. sent to same SC6 specified email address.

IEEE actions at ballot stage:

- 1. Add SC6 as coordination organization for all sponsor ballots (N.B., must also identify SC6 coordination on PARs)
- 2. Comments from SC6 participants (received by ballot close) treated as "observer" status ballots.
- 25 3. Ballot resolution documentation, subsequent recirculation ballots, etc, sent to SC6.

IEEE actions at publication stage:

- 1. Publish under IEEE covers only
- 2. Do not include any ANSI designation
- 3. Include text (2 para's) in front matter, indicating that SC6 was included in the development process.
- 30 4. Notify SC6 when any standards are reaffirmed or retired.

Need to clarify whether anything special needs to be done on reaffirmation, since coordinations identified on PAR are carried forward on reaffirmation.

Actions where ISO label needed

1. If WG considers ISO label is needed it makes explicit request to SEC, with reasons
- 5 2. IF SEC approves, requests ISO fast-track submission via a friendly National Body, also requests IEEE to release copyright
3. Fast-track, and copyright release, can be requested by a National Body, but ONLY permitted with explicit SEC approval

Thompson is concerned that we are inverting the priority of internationalization, making it the exception.

10 Jeffree states that this is a redefinition of what we consider internationalization

Question may need to be put to the IEEE SA standards board. Carlo has done so informally. Thompson asks for a SA standards board motion approving this process.

Action Item: Carlo has action to figure out which board (SA Standards or Computer Society) must approve this process.

15 Marks asks whether there is any inconsistency between removal of ANSI label, and submission to ISO via National Body. Jeffree thinks this is not an issue, believes we would never invoke that procedure.

Changes to SC6 N11235 (from Robin Tasker)

1. Add explicit statements in the process that IEEE will inform SC6 of any reaffirmations on retirement of 802 standards.
- 20 2. Note 5 should make it clear that fast-track by a NB only permitted following approval by 802 SEC and copyright release by IEEE

Motion: Approve response to SC6 N11235 per Tony Jeffree's presentation, and submit to US TAG.

M: Lidinsky

S: Hayes

SEC Vote: 13/0/0 Approved 7:59 PM

25 **4.9 ME IEEE-SA Support - Bill Lidinsky**

Resolution:

30 **In order to further the goal of making P802 standards free and electronically available to the public worldwide, IEEE P802 resolved that all P802 funds now used to support ISO secretariats be immediately diverted to supporting the IEEE - SA in achieving the above goal.**

802.1 vote M: Slager, S: Jeffree Y: 14, N: 0, A: 0

35 **M: Lidinsky**

S: Love

Marks asks whether this would amount to enough to replace the revenue stream that the SA receives?

40 Lidinsky: Not know.

How much money is involved?

\$100 per person, per meeting.

5 Carlo observes that 802.14 and 802.16 may have no need or desire to move their standards through ISO, and may prefer to go through the ITU instead. Observes that we don't have a good forecast for future meeting budgets. Carlo proposes that motion should be tabled. Carlo will come back with a proposal, by November, for how to allocate funds that are currently going to IPF.

10 Hayes: For 802.11, international recognition is very important.

Thompson: Ask closely as I can tell, our new liaison relationship with SC6 puts us in same category as ATM Forum, which doesn't pay an IPF, and has direct access. Would like to see some figures from the IEEE about revenue from 802 standards, so that we can figure out what it would take to replace the lost profit from sale of standards.

15 Mollenauer, suggests doing things in two stages: 1) cut off the money to IPF, 2) Figure out where to put the money
Marks: 802.16 is definitely against sending the money towards IPF.

20 Lidinsky accepts as a friendly amendment the striking of the word "immediately". Carlo allows this to be a friendly amendment. Love accepts amendment. Carlo explains that friendly amendments are allowed.

Nikolich is in favor of cutting off the ISO funding, building up a pool of funds, and then decide what to do with it later.

25 Carlo warns that it is dangerous to build up a pool.

Thompson: Is there anything in the rules which allows the chair to delay action on a motion?

Carlo: To make a motion which affects our fiscal responsibility without a clear interpretation of the treasurer is inappropriate.

30 **Motion to postpone until November, 1999 meeting**

M: Marks

S: Nikolich

35 Russell calls question.

Carlo asks if there is objection to calling the question.

Lidinsky objects to calling the question.

40 **Vote on calling the question: Y: 7, N: 4 motion to call the question fails**

Marks asks for financial data, Lidinsky says it is hard to come by

45 **Vote on motion to postpone: 9/3/1 Approved 8:20 PM**

Grow asks how expeditious he should be about sending the IPF fee in? He can carry the obligation in the books.

Thompson observes that action in November would be too late to affect payment from this meeting.

Carlo agrees that fee for this meeting should be paid.

50

4.10 ME Letter to CableLabs - Robert Russell

Russell presents draft of liaison letter to DOCSIS committee chairman, David Fellows, which will also be sent to CableLabs.

55 DOCSIS 1.1 is a document put forward by cable industry to provide data services across cable system. Somewhat lacking in structure. 802.14 proposes to make MAC and PHY 802.14 specifications with well defined layers. Expects proposal to be well received.

SEC Motion: Move to approve 802.14's requested liaison with DOCSIS Data over cable committee.

802.14 WG approved the liaison unanimously Y:39 N: 0 A: 0

M: Russell

S: Nikolich

5 **SEC vote 11/0/1 Approved @ 7:36 PM.**

4.11 ME Liaison letters to TR41 and TR42 Geoff Thompson

(insert file 802-3_LiaisonTIACat6.pdf)

10 Thompson recaps discussion in 802.3 and presents draft of letter to TR41 and TR42. States that call for interest in gigabit over cat 6 failed to garner sufficient support to form a study group. Another call for interest for higher speeds on category 6 will be performed at the November, 1999 meeting.

Carlo states that letter should be jointly authored by himself and Thompson. Thompson agrees.

**Motion: Approve liaison letters to:
TR-42 and TR-41 regarding Cat 6 cabling**

15 **Approve liaison letter to:
TR-41.3.4**

M: Thompson

S: Heile

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Y: 13 N: 0 Ab:0 Passed at 8:43 PM

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IEEE 802.3

Geoff Thompson, Chair

To: TR41 Charles Berestecky, Chair, Paul Kish, Chair TR-42
To: TR42.1 John Siemon, Chair, Paul Kish, Chair TR-42
From: IEEE 802.3 Chair, Geoff Thompson
Subject: Category 6 Cabling Projects in IEEE 802.3
Date: July 8, 1999

Gentlemen:

Thank you for your letters encouraging IEEE 802.3 to consider and take advantage of Category 6 cabling in our new standards work. We monitor progress on new cabling developments in TIA quite closely and have a long history of working with TR-42 and its predecessor groups on mutual definition of cabling specifications and the requirements of applications that are intended to operate on that cabling.

There was a call for interest conducted at the July meeting of 802.3 with regard to 1 Gb/s operation over Category 6 cabling. While there was significant interest in Category 6 cabling many participants felt that operation at only 1 Gb/s was not of sufficient distinct identity from existing standards to warrant a standards project in 802.3 at this time. This topic was discussed quite extensively during our closing plenary and the proposal for a new 1 Gb/s Study Group did not meet the required level of support from the 802.3 Working Group. There was interest in operation at higher speeds however.

Because of the interest in higher speed operation utilizing Category 6 cabling there will be another call for interest at our next plenary meeting which is to be held November 8-12 at the Hyatt Regency Kauai, in, Hawaii. The topic of this call for interest is Higher Speed operation utilizing Category 6 cabling. This group is being called by Chris Di Minico of CDT.

I believe that this effort has the potential to outline a project that will make appropriate use of the potential that Category 6 cabling has to offer to Ethernet in the volume horizontal cabling context.

Sincerely yours,

Geoffrey O. Thompson M/S SC01-05
Chairman, IEEE 802.3
Bay Networks, Inc
4401 Great America Parkway
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Santa Clara, CA 95052-8185

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5 **4.12 Liaison letter to FCC re: RF Lighting Vic Hayes**

(insert file 4-12FCCfusionlighting.pdf)

10 **Motion: to approve the submission of the letter to the FCC regarding RF lighting subject to approval by the US Activity board**

M: Hayes

S: Heile

15 **SEC VOTE 11/0/2 Approved @ 9:05 PM**

Presentation regarding levels and frequencies of concern from Jim Zyren.

Letter is read into the record.

20 **Robert Russell calls question. Marks objects. Vote on calling the question fails 4/6.**

Marks asks if any comments were received from FCC.

Nikolich asks how critical it is to make a determination tonight? Could this be delayed a month to allow 802.16 to review.

Jim Zyren answers: We would like to get a letter approved tonight.

25 Marks states that 802.16 is not particularly concerned about this issue, but is concerned about our philosophy for communicating with the FCC

Russell calls question again. No objection.

30 submission of letter was approved by 802.11 WG 29/0/0

submission of letter was approved by 802.15 WG 30/1/1

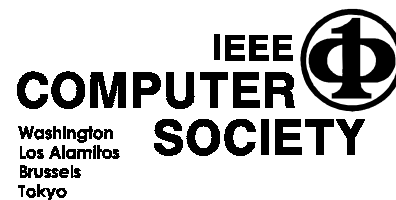
35

40

Standards Working Group IEEE 802

Local and Metropolitan Area Network Standards Committee

Homepage at <http://grouper.ieee.org/groups/802/>



Reply to: Vic Hayes, Chair, IEEE P802.11
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July 8, 1999

Magalie R. Salas, Esquire
Secretary
Federal Communications Commission
445 12th St. SW
Washington DC 20554

Re: ET Docket No. 98-42 --- Ex Parte Communication

Dear Ms. Salas:

IEEE 802, the LAN/MAN Standards Committee ("the Committee"), is writing in regard to ET Docket No. 98-42: 1998 Biennial Regulatory Review, Amendment of Part 18 of the Commission's Rules to Update Regulations for RF Lighting Devices. The Committee has already submitted comments in the Commission's Notice of Proposed Rulemaking ("the Notice"), FCC 98-42 on several previous occasions. The Committee respectfully submits this further statement in the matter specifically regarding the comments from Fusion Lighting in their letter of May 28th, and to the subsequently revised proposal for a limit on in-band emissions for RF lighting devices as proposed by the Part 15/Mobile Satellite Services (MSS) Interests.

Regarding Fusion Lighting's Correspondence of May 28, 1999, we would like to make the following points:

- a. Data shown in Figure 3 shows many spikes of energy in the spectrum on the order of 10 dB in magnitude. These spikes are consistent with a spectral "splatter" effect which is commonly noted when magnetrons undergo on/off and off/on transients. This is precisely the type of effect which will be eliminated by the use of DC power supplies.
- b. Fusion noted that the level of background noise at the independent test facility is approximately 1 mV/m. We note that the spectrum analyzer settings in Figure 11 of Fusion's May 28th correspondence indicate that the analysis bandwidth of the spectrum analyzer was 1 MHz. If this is accurate, it would indicate that the noise level at the test facility is extraordinarily high. An equivalent point source at a distance of 3 meters would require an EIRP of -35 dBm to generate a field strength of this magnitude. It would also indicate that this test facility is completely incapable of testing for compliance with Section 15.209 of the Commission's Rules, which requires field strength measurements of 500 $\mu\text{V}/\text{m}$ @ 3m (ie half of the proposed 1 mV/m limit described by Fusion) for spurious emissions from intentional radiators operating above 960 MHz. We submit that either the test set up lacks sufficient sensitivity, or the background level of RF emissions are too high to permit accurate measurement.



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In addition, we have carefully reviewed the 3rd proposal by the Part 15/MSS Interests (dated June 21, 1999) for a limit on in-band emissions. Based on that review, we offer the following comments:

- a. We support expansion of region of peak emissions from 5 MHz to 20 MHz. We further support the location of this band in the 2460 to 2480 MHz region, as this will minimize adverse impact on existing FHSS and DSSS Part 15 systems, and promote joint use of the 2.45 GHz ISM band by both RF lighting devices and Part 15/MSS communications equipment.
- b. We are of the opinion that the limit for emissions in the 2400 - 2460 MHz and 2480 - 2500 MHz bands should remain at 1mV/m @ 3m as previously stated in the second proposal. The measurement method described in the March 15, 1999 letter from Mr. Ray LaForge to Mr. Michael Ury indicates a video bandwidth setting of 10 Hz. For magnetrons displaying the type of spectral splatter described above, a limit of 10 mV/m is not sufficiently low to preclude the use of half-wave or full-wave rectified power supplies which have inadequate ripple suppression to prevent significant and harmful frequency transients of the magnetrons.

Based on these considerations, we recommend the current Part 15/MSS proposed limitation on in-band emissions be revised as follows:

Region I (2400 - 2460 MHz): Emissions shall be limited to 1 mV/m @ 3 m (avg)

Region II (2460 - 2480 MHz): Emissions shall be limited to 330 mV/m @ 3m (avg)

Region III (2480 - 2500 MHz): Emissions shall be limited to 1 mV/m @ 3 m (avg)

We thank you for your continued attention in this matter. We remain hopeful that a solution which is mutually agreeable to all parties in this matter can be reached.

Respectfully,

James T. Carlo (jcarlo@ti.com)
Chair, IEEE 802 LAN/MAN Standards
Texas Instruments
9208 Heatherdale Drive
Dallas TX 75234

Vic Hayes (vichayes@lucent.com)
Chair, IEEE 802.11, Wireless LANs
Lucent Technology
Zadelstede 1-10
3431 JZ Nieuwegein, the Netherlands

cc:

Chairman William E. Kennard
Commissioner Susan Ness
Commissioner Harold Furchgott-Roth
Commissioner Michael K. Powell
Commissioner Gloria Trastani
Dale Hatfield
Julius P. Knapp
Karen Rackley
John A. Reed
Anthony Serafini

4.13 ME Liaison letter to FCC re: Wideband FH Vic Hayes

(insert file 916218W-FCCLetterOnWBFHREVISED.pdf)

5 submission of letter was approved by 802.11 WG 21/1/5

802.15 WG voted to abstain on submission of letter 23/8/2

Motion: To approve the submission of comments on the Wideband FH proposal in FCC Docket 99-321, subject to approval by the US Activity board.

M: Hayes

10 **S: Carlson**

Jim Zyren presents summary of WBFH proposals. Increasing the hop rate will pose an interference problem with current systems, including 802.11. The reduction in power is misleading. 802.11 is opposed to the proposed changes.

Naftali Chayat presents "critics of IEEE P802.11 response to FCC NPRM 99-149". He prefers that letter not be sent, but if it is sent, it should be modified.

15 The response in document P802.11-99/162 tries to protect the 802.1 investment, which is OK

The 802.11 response contains speculative arguments which are inappropriate for IEEE sponsored response

The response blocks new innovative uses of the ISM band

the response fails to address...

20 Love interrupts, stating that Naftali Chayat is raising technical issues, which the SEC is not in a position to judge. What is the procedural issue?

Heile states that 13/3/17 voted for the same motion 802.11 adopted.

Lidinsky says he would have to abstain

Russell says it appears that the proper procedures were followed by the WGs

Carlo asks if 802.11 and 802.15 devoted sufficient time to studying this issue. Hayes and Heile assured the SEC that there was.

25 Marks says it sounds like a squabble between industry interests, would prefer to see that the SEC not takes sides.

Thompson observes that squabble was resolved by consensus of WG.

SEC vote on motion 9/1/2 Approved at 9:22 PM

Carlo suggests that we made need a tutorial at some point on how to deal with regulatory issues.

Lidinsky points out that this includes regulatory bodies outside the US.

30 **4.14 802.11a conditional approval for submittal to RevCom Vic Hayes**

WG motion passed in 802.11

**IEEE P802.11
Wireless LANs**

**Letter to Secretary of FCC on Wide Band Frequency Hopping
Proposed Rule Changes****Date:** July 8, 1998**Authors:** Jim Zyren, Harris Semiconductor

Abstract

Based on a petition from the HomeRF Working Group in November of 1998, the FCC has issued a Notice of Proposed Rule Making (NPRM) containing changes to the operating rules for FHSS radios in the 2.45 GHz ISM band. The changes include provisions for wider occupied channel widths (3 MHz and 5 MHz), overlapped FHSS channels, reduced transmit power levels, and mandatory higher hopping rates. A study group was formed to discuss the proposed rule changes.

The study group concluded that the use of multiply overlapped channels is not based on sound engineering analysis. This practice will increase self interference among WBFH systems, will increase interference with standard FHSS systems and impair the use of Clear Channel Assessment (CCA) as a means of spectrum sharing among standard FHSS networks. The study group also concluded that the proposed increase in the hop rate for FHSS systems using 3 MHz and 5 MHz wide channels will actually increase interference to existing FHSS and DSSS systems.

Finally, the study group found that the proposed reductions in transmit power for WBFH systems are misleading, since almost all existing WLAN systems today typically transmit 100 mW RF, well below the 1 W maximum allowed by the FCC. Further, it is very likely that WBFH systems will transmit at the maximum allowed power level in order to provide the spectral efficiency (2 bits/Hertz) and the degree of reliability required to support the audio and video applications cited by the HomeRF Working Group in their letter of Nov. 15, 1999. Therefore, WBFH systems employing 3 MHz wide channels operating at +25 dBm and 5 MHz wide channels transmitting at +23 dBm will have the practical effect of increasing interference to existing systems, or forcing those systems to operate at higher power levels. Neither result is desirable from the standpoint of facilitating high speed wireless networking.

The findings of the study group are described in the draft text of a letter to the Secretary of the FCC. The letter explains each of the points mentioned above, stipulates that IEEE 802.11 is opposed to the proposed WBFH rules changes contained in the NPRM (ET Docket No. 99-231), and recommends that the FCC reject the proposed WBFH rules changes.

Draft Text

July 8, 1999

Magalie R. Salas, Esquire
Secretary
Federal Communications Commission
445 12th St. SW
Washington DC 20554

Re: ET Docket No. 99-231

Dear Ms. Salas:

IEEE 802, the LAN/MAN Standards Committee ("the Committee"), is writing in regard to ET Docket No. 99-231: Amendment of Part 15 of the Commission's Rules for Spread Spectrum Devices. The Committee has studied the proposed changes regarding operating rules for Frequency Hopping Spread Spectrum (FHSS) devices. The Committee respectfully submits this statement in opposition to the proposed rules changes which would allow wider multiply overlapped (5 times) channels for FHSS systems.

The Institute of Electrical and Electronics Engineers, Inc. (IEEE) is a USA-based international professional organization with more than 325,000 members representing a broad segment of the computer and communications industries. The IEEE 802.11 Working Group has developed a standard for Wireless Local Area Networking (WLAN) in the 2400-2483.5 MHz band ("the 2450 MHz band"). The number of individuals and corresponding company sponsorships in the IEEE 802.11 Working Group evidences the strong interest in wireless local area networking. The Working Group currently has **XXX** voting members employed by **YYY** companies.

The Committee has reviewed the proposed changes in the Notice of Proposed Rule Making released by the Commission on June 24, 1999 (document FCC 99-149). We make the following comments:

- a. The use of heavily overlapped channels for FHSS systems will result in significantly increased interference between systems employing this method of channel selection. This is due primarily to two side effects of overlapped channels. First, nearly all commercially available FHSS systems employ non-coherent FSK modulation. Studies on the effect of partially overlapped channels on systems employing FSK modulation have concluded that the interference from a partially overlapped channel is more severe than either co-channel or adjacent channel interference. Secondly, regardless of the modulation method employed, spectrum sharing etiquette will be inhibited by the use of overlapping channels. Specifically, the effectiveness of Clear Channel Assessment (CCA) mechanisms is reduced. CCA will be reduced to simple energy detection, as opposed to carrier sense/code lock mechanisms which are far more effective means of facilitating spectrum sharing when two FHSS networks share the same frequency band.
- b. The Committee concludes that the proposed rules changes will result in systems which cause increased levels of interference to existing FHSS and DSSS systems. In general, a faster hop rate for FHSS systems represents a more severe interference threat than does an FHSS system employing a slower hop rate. We note that there is no regulatory prohibition against the use of systems which have higher hopping frequencies, but we are of the opinion that the Commission should not make higher hop rates mandatory. The higher hopping rates appear to be an attempt to mitigate the increased interference of the proposed wider channels. However, this measure actually increases the probability of interference to more channels of existing standard FHSS and DSSS systems.
- c. In addition, we find that the proposed reductions in transmitted RF power for systems using 3 MHz or 5 MHz channels (collectively referred to as Wide Band Frequency Hopping, or WBFH systems) will not effectively offset the impact of wider occupied channels. This is true because nearly all WLAN systems sold today operate well below the allowable FCC limit of 1 W for transmitted power. Current systems typically transmit about 100 mW. However, we note that in its letter of November 11, 1998 to the Commission, the HomeRF Working Group indicated that it envisions systems having high spectral efficiency (2 bits/Hertz) which will be suitable for transmission of high quality audio and video streams. In order to achieve reliable operation, such systems will very likely be required to operate at

the proposed maximum allowable power levels. This will have the practical effect of either forcing systems based on current spread spectrum rules to operate at higher power levels, or to accept reduced range due to interference from WBFH devices. Neither outcome will promote the effective use of the spectrum for high speed wireless data networking.

- d. We further note that the resulting increase in interference described above will hinder market acceptance of high speed wireless networking product which operate in the 2.45 GHz ISM band. IEEE 802.11 already has developed a standard for high speed wireless networking which will meet all of the objectives expressed in the HomeRF Working Group's letter of November 11, 1998. We therefore are of the opinion that no changes in the Commission's rules for spread spectrum operation in the 2.45 GHz ISM band are required.

In summary, we find that the proposed rule changes for WBFH systems will result in high levels of self interference among systems employing these measures due to the increased level of interference resulting from the use of 5x multiply overlapped channels and the impairment of CCA mechanisms. Further, WBFH systems pose an interference threat to existing FHSS and DSSS systems due to a mandatory increase in hop rate and the higher transmitted power levels which will be required for reliable operation of these systems. We are therefore opposed to the proposed rule changes for FHSS systems and urge the Commission to reject these measures.

Respectfully,

James T. Carlo (jcarlo@ti.com)
Chair, IEEE 802 LAN/MAN Standards
Texas Instruments
9208 Heatherdale Drive
Dallas TX 75234

Vic Hayes (vichayes@lucent.com)
Chair, IEEE 802.11, Wireless LANs
Lucent Technology
Zadelstede 1-10
3431 JZ Nieuwegein, the Netherlands

cc:

Chairman William E. Kennard
Commissioner Susan Ness
Commissioner Harold Furchgott-Roth
Commissioner Michael K. Powell
Commissioner Gloria Trastani
Dale Hatfield
Julius P. Knapp
Karen Rackley
John A. Reed
Anthony Serafini

Motion: to forward draft standard 802.11a to RevCom subject to compliance with the conditional approval process.

M: Hayes

S: Nikolich

Report by Naftali Chayat

5 92 in ballot group

86 votes received

return ratio 93%

Approve w/o comments 66

Approve w/ comments 11

10 Disapprove w/ comments 1

8 abstentions

1 old comment remained unsatisfied.

The unsatisfied NO vote addresses an information statement in the draft. Balloter is not likely to change his vote based on the disposition of his comment, which was received on initial WG ballot.

15 **SEC Vote on motion: 13/0/0 approved 9:36 PM**

4.15 802.11b conditional approval for submittal to RevCom

802.11 vote on motion 29/0/0

Motion: to forward draft standard 802.11b to RevCom subject to compliance with the conditional approval procedure.

M: Hayes

20 **S: Nikolich**

Presentation by John Fakatselis

Eligible voters 93

Votes received 86 = 92%

Approval rate was 91%.

25 total of 24 unresolved comments from 7 voters.

SEC Vote on motion: 13/0/0

4.16 Liaison letter to ETSI Board from IEEE SA Board - Vic Hayes

(91737A-IEEE_2_ETSI_request-July99.pdf)

802.11 vote on submission of letter 22/0/3.

Motion: To request the LMSC Chair to ensure that the proposed letter to the ETSI board will be approved by the IEEE SA.

M: Hayes

S: Russell

5 Russell calls the question. Marks objects to calling the question.

Vote on calling the question 7/2/0. Question is called.

SEC Vote on the motion 11/1/1. Approved 9:55 PM.

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IEEE P802.11
Wireless LANs

To: ETSI Board

Cc: Jamshid Khun-Jush, ETSI BRAN Chairman and PHY WG Rapporteur
Mr. M. Koga, MMAC
Jim Carlo, IEEE P802, Chairman
Vic Hayes, IEEE P802.11 Chairman
Naftali Chayat, IEEE P802.11 TGa Chairman
Howard Frazier, IEEE P802, Recording Secretary
Mary Shepherd, IEEE Standards Department, Intellectual Property Manager

Date: July 8, 1999

Subject: Request for considering adopting the IEEE P802.11 Wireless WAN standard in conjunction with the P802.11a 5 GHz Physical Layer as a member of HIPERLAN family of standards

Dear ETSI Board Members,

The Institute of Electrical and Electronics Engineers, Inc. (IEEE) is a USA-based international professional organization with more than 325,000 members representing a broad segment of the computer and communications industries. The IEEE P802.11 Working Group has developed a standard for Wireless Local Area Networking (WLAN) in the 2400-2483.5 MHz band ("the 2450 MHz ISM band"). The number of individuals and corresponding company sponsorships in the IEEE 802.11 Working Group evidences the strong interest in wireless local area networking. The Working Group currently has **XXX** voting members employed by **YYY** companies. The 802.11 Wireless LAN Standard in the 2.4 GHz band enjoys significant success worldwide, and in particular in Europe. The 802.11 standard was adopted in January 1999 as an ISO 8802-11 International Standard.

In 1997 the 802.11 established a Task Group to develop a high-speed physical layer to work in conjunction with the 802.11 MAC. The physical layer developed by the 802.11a is in its final approval stages. The development of the 802.11a High Speed Physical Layer for the 5 GHz band is tightly coordinated with ETSI BRAN Standards Committee. The coordination effort intensified since September 1998, after both standards committees have chosen OFDM as the basis modulation. We were able to reach agreement on all basic parameters of the modulation. We held joint meetings in September 1997 in London, UK, and in January 1999 in Orlando, Florida. Comments by BRAN as a whole and by individual BRAN members were considered during the 802.11a Working Group ballots. Several significant changes made to 802.11a are a result of adopting BRAN's comments. We would like to thank the BRAN members and in particular the PHY chair, Jamshid Khun-Jush, for the participation in the process and for the expertise they brought.

The 802.11a high-speed WLAN standard, developed for the 5 GHz band, faces an obstacle in Europe, since the license exempt bands at 5 GHz in Europe are designated by CEPT for the HIPERLAN project.

We are asking ETSI, as a body which continues to develop the HIPERLAN family of standards within the BRAN working group, to consider adopting the IEEE 802.11 with the 802.11a Physical Layer as a member of the HIPERLAN family. We are aware of the market overlap between the 802.11a and the HIPERLAN/1. To support our request, we would like to stress the significantly higher level of compatibility between the BRAN's HIPERLAN/2 project and the 802.11a. In particular, several points are worth mentioning. The channelization structure of 802.11a is compatible with HIPERLAN/2. The extreme similarity of the Physical Layers will facilitate reuse of technology and production of dual mode equipment. We would like to mention the precedence of the Direct Sequence and Frequency Hopping physical layers in 802.11, which coexist in the market and each found it's range of applications, and we believe that 802.11a devices can coexist in the market with HIPERLAN/1 devices in the same manner.

The agreement signed between IEEE and ETSI on 21 April, 1999, mentions the possibility that ETSI publishes the 802.11 as a PAS (Publicly Available Specification). We are asking specifically for a stronger status of a membership in the HIPERLAN family because of the regulatory implications of it.

The Wireless Ethernet Working Group of MMAC-PC in Japan decided to adopt the combination of the 802.11 MAC and the 802.11a PHY layers as the Wireless LAN standard for the 5 GHz band. We are asking your support for introduction of the 802.11 MAC and the 802.11a PHY as a Wireless LAN standard in the 5 GHz band, which is available both in Europe and worldwide. We hope that the close cooperation between the 802.11, the ETSI BRAN and the MMAC will result in a suite of highly aligned standards for high rate Wireless Access and WLAN, which are applicable worldwide.

Sincerely,

IEEE-SA Official

Jim Carlo

Vic Hayes, Chairman IEEE P802.11,
Standards Working Group for Wireless LANs
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Wireless Communications and Networking Division
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3431 JZ Nieuwegein
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Naftali Chayat, 802.11 TGa Chairman
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e-mail: naftalic@breezecom.co.il

4.17 802.11 Study Group on 802.11 Enhancement - Vic Hayes

5 802.11 passed motion to start the study group on isochronous service and other enhancements. 20/0/0 Appoint John F. as chair of the study group by acclimation.

**Motion: Approve 802.11 Study Group on isochronous service and other enhancements.
For information, the chair is John F.**

M: Hayes

10 **S: Mollenauer**

Love asks if it is up to the SEC to appoint or affirm the chair? Asks that motion be changed to read "For information, the chair is John F.".

SEC Vote 12/0/0 Approved at 9:10 PM

4.18 802.3 HSSG renewal (approved as part of consent agenda 11/0/0)

15 4.19 MI 802.3 DTE Power study group formation (approved as part of consent agenda 11/0/0)

4.20 MI 802.15 Coexistence Study Group formation (Heile)

Motion: to approve the formation of a study group within 802.15 to determine the need and if warranted, develop a PAR on coexistence/interoperability for submission to the SEC by the November, 1999 Plenary.

M: Heile

20 **S: Nikolich**

Hayes does not see the need for a separate standard for coexistence. When 802.15 PAR was approved, coexistence with 802.11 was included in the PAR.

Thompson, this may not be appropriate to do within 802.15, we made need coexistence in 2.4 GHz band across all of 802.

25 Carlo, this recommended practice should cover all groups which use 2.4 GHz band. How would 802.15 coordinate this study group to ensure that other groups working in 2.4 GHz band are served by this project.

Heile: 802.15 has a very immediate issue, would take 802.11 into account via liaisons.

Love: Should include volunteers from other groups.

Marks: Why do you need a separate project for interoperability.

Heile: There are many issues to interoperability which would be investigated by Study Group.

30 Marks: what aspect of interoperability is not addressed by PAR.

Heile: Study group will investigate

Hayes: Not in favor of motion

Thompson would like to see, by November, specific recommendations as to why this should stay within 802.15, or come out of 802.15.

Russell offers amendment to strike "interoperability" from the motion.

Heile says that SEC will have an opportunity to review recommendation in 4 months.

5 Russell: PAR is left vague deliberately in regard to interoperability.

Marks: seconds motion to strike "interoperability"

Motion to amend: Strike "interoperability"

M: Russell

S: Marks

10 **SEC Vote on Motion to Amend 6/3/4 Approved 10:21**

Motion: to approve the formation of a study group within 802.15 to determine the need and if warranted, develop a PAR on coexistence for submission to the SEC by the November, 1999 Plenary.

SEC Vote on Motion as amended: 12/1/0 Approved 10:22

4.21 802.15 WG Officers confirmation

15 **Motion to affirm Bob Heile as Chair of 802.15 through the March, 2000 Plenary of 802**

M: Nikolich

S: Lidinsky

SEC Vote on motion 12/0/0 Approved 10:24

Motion to affirm Ian Gifford as Vice Chair of 802.15 through the March 2000 plenary meeting of 802

20 **M: Heile**

S: Nikolich

SEC Vote on Motion 13/0/0 Approved 10:25

Carlo notes that Heile and Gifford both need to obtain letters of support from their employers and send them to the recording secretary of 802.

25 **4.22 MI 802.16 WG Officers confirmation**

Marks gives brief report on progress of WG during the week. WG will make a recommendation regarding patent policy, will produce a policy proposal for presentation to PatCom in September.

Thompson objects to 801.16 presenting a proposal to PatCom without it coming through the SEC.

30 Russell states that differences that exist may be in implementation, and that SEC needs to be informed of any changes in procedure.

Mollenauer: Whenever we want to propose a change in policy, it must be presented here first.

Frazier: Don't like hearing an item added to agenda in this matter when there are other items on the agenda.

Carlo: There is a fine line between WG learning about patent policy, and proposing a new policy. The SEC wants to hear about proposals before they are implemented.

Motion: That the 802.16 elections of Roger Marks as chair and Lou Olsen as Vice Chair be confirmed.

5 Marks elected by WG 82/0/0

Olsen elected by WG 79/0/2

M: Lidinsky

S: Nikolich

SEC Motion 12/0/0 10:35

10 Carlo notes that Roger Marks needs a letter of support from his employer sent to the LMSC recording secretary.

4.23 MI Rules Change proposal - Bill Lidinsky

(insert file PropRuleChange5.1.4.1-2.pdf)

Motion: The P802 SEC resolves to conduct an electronic letter ballot on the rule change for clauses 5.1.4.1 and 5.1.4.2 as described in the attached two pages.

15 Lidinsky reviews proposed rules change.

M: Lidinsky

S: Nikolich

SEC vote on motion: 12/1/0 Approved 10:44

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SEC RESOLUTION

The P802 SEC resolves to conduct a letter ballot on the rule change for clauses 5.1.4.1 and 5.1.4.2 as described in the attached two pages.

Note:

At the Thursday night SEC meeting in March 1999, it was agreed to circulate a rules change that was a counter proposal to the one that had originally been written, but which did not pass a motion to go to P802 SEC ballot.

Attached is that rule change showing the relevant clauses of the latest P802 Operating Rules (November 1998) with the changes indicated. ~~Strikethrough~~ text is deleted. Underlined text is added. All other text is as it exists in the current rules document. This text was presented and discussed at a P802 Operating Rules meeting on Sunday night, 4 July 1999 in Montreal. This proposed rule change represents the output of this meeting.

802.0 VOTE:

Date: 8 July 1999

Agenda Item No. _____

Moved: Lidinsky 2nd: _____

Yes: _____

No: _____

Abstain: _____

5.1.4.1 Chair's Function

Issues are of two types: procedural and technical. The Chair of the Working Group decides procedural issues. The Working Group members and the Chair decide technical issues by vote. The Working Group Chair decides what is procedural and what is technical.

5.1.4.2 Voting on Technical Issues

~~There are two types of votes in the Working Group. These are votes at meetings and votes by letter ballot.~~

Technical issues are further divided into *draft standard* and *non-draft standard*. *Draft standard* technical issues involve the draft standard as a whole or specific part thereof. *Non-draft standard* technical issues are those arising that are possibly related to the development of draft standards but not specific to the wording or intent of the drafts themselves.

5.1.4.2.1 Voting at Meeting on Draft Standards

~~A vote is carried by a 75% approval of those members voting "Approve" and "Do Not Approve". No quorum is required at meetings held in conjunction with the Plenary session since the Plenary session time and place is established well in advance. A quorum is required at other Working Group meetings. The Working Group Chair may vote at meetings. A quorum is at least one half of the Working Group members.~~

Votes on *draft standards* must be conducted by letter ballot. A vote is carried by a 75% approval of the sum of those members voting "Approve" and "Do Not Approve". A valid ballot exists if 50% of the balloting group returns ballots.

If a letter ballot is conducted using paper ballots and postal services, the letter ballot response time must be at least 40 days from the time of sending postmark to the postmark of the returned ballot. If the letter ballot is conducted by electronic means over electronic networks, the ballot response time is 35 days as calculated from the sending and response timestamps.

If a recirculation ballot is required, the times are 20 days for paper ballots and 15 days for electronic ballots. The means of calculating the times is the same as that for letter ballots.

Working Group chairs may vote on *draft standards*.

5.1.4.2.2 Voting by Letter Ballots

~~The decision to submit a draft standard or a revised standard to the Sponsor Ballot Group must be ratified by a letter ballot. Other matters may also be decided by a letter ballot at the discretion of the Working Group Chair. The Working Group Chair may vote in letter ballots.~~

~~The letter ballot response time must be at least forty days from the time of "sending" postmark to the postmark of the returned ballot.~~

The ballot on a *draft standard* shall contains three choices:

- Approve. (May attach non-binding comments.)

- Do Not Approve. (Must attach specific comments on what must be done to the draft to change the vote to “Approve”.)
- Abstain. (Must include reasons for abstention.)

To forward a draft standard or a revised standard to the Executive Committee for approval for Sponsor Ballot Group voting, a letter ballot (or confirmation letter ballot) must be done first within the Working Group. A 75 percent approval of the Working Group confirmation letter ballot is necessary with at least 50 percent of the members voting. The 75 percent figure is computed only from the “Approve” and “Do Not Approve” votes. Subsequent confirmation ballots to the Sponsor Ballot Group do not require Executive Committee approval.

The Working Group Chair determines if and how negative votes in an otherwise affirmative letter ballot are to be resolved. Normally, the Working Group meets to resolve the negatives or assigns the task to a ballot resolution group.

There is a recirculation requirement. For guidance on the recirculation process see Section 5.4.3.2 Resolution of comments, objections, and negative votes in the IEEE Standards Operating Manual.

Submission of a draft standard or a revised standard to the Executive Committee must be accompanied by any outstanding negative votes and a statement of why these unresolved negative votes could not be resolved.

5.1.4.2.2 Voting on *Non-Draft Standard* Technical Issues

Votes on *non-draft standard* technical issues can be conducted at meetings held in conjunction with an 802 Plenary, at interim meetings or in between meetings. Votes in between meetings can use a letter ballot or not as determined by the Working Group chair. Under any of these conditions a vote is carried by a 75% approval of the sum of those members voting “Approve” and “Do Not Approve”.

At meetings held in conjunction with an 802 Plenary no quorum is required since the Plenary time and place is established well in advance. A quorum is required at other Working Group meetings or in between meetings. A quorum is at least 50% of the voting membership of the Working Group.

Votes on *non-draft standard* technical issues in between meetings can be conducted using paper ballots and postal services or by electronic means over electronic networks. The Working Group chair determines the time constraints as part of the procedure for conducting the vote if it is not declared a letter ballot by the chair. If explicitly declared a letter ballot, then letter ballot rules apply just as they do for *draft standard* letter ballots.

Working Group chairs may vote on *non-draft standard* technical issues.

4.24 MI 802.10 Hibernation - Paul Nikolich

5 Ken Alonge has requested that 802.10 be hibernated. Group of experts has been formed including Ken Alonge, Russ Housley, Joe Maley, and Dick McAllister.

Moved that 802.10 be hibernated (per the message below). Ken Alonge has missed the previous 3 SEC meetings and will not have SEC voting rights, although all other items per the SEC rules will apply.

M: Nikolich

S: Benson

10 **SEC Vote on motion 13/0/0 Approved 10:47**

4.25 CDROM update (November or march) Howard Frazier

Motion: Update IEEE 802 Standards CDROM for distribution at the March, 2000 meeting. Authorize funds to make 500 copies (approximately \$1500).

15 **M: Frazier**

S: Grow

Thompson proposes amendment to publish CD in November. Accepted by Frazier and Grow.

Motion: Update IEEE 802 Standards CDROM for distribution at the November, 1999 meeting. Authorize funds to make 500 copies (approximately \$1500).

20 **SEC vote on motion 12/0/1 approved 10:52**

4.26 Meeting registration policy change Grow

Nothing to report

4.27 Meeting AV requirements Thompson

25 Thompson: Wants wireless microphone. Received request from SG chair to purchase wireless mikes.

Frazier: Just make a request (to meeting planners) at the time you ask for your meeting room space. Wireless and floor mikes can be rented for cheap. No problem getting them.

4.28 Equipment and Software purchases - Rigsbee

30 Didn't buy projectors. Demand at this meeting was higher than purchase would have covered. Rented several smaller projectors. They appeared to be adequate.

Propose that we acquire one large, high brightness projector, and use remaining allocation to buy 4 smaller projectors.

Motion: substitute 4 inexpensive projectors for the TLP-511A already approved

M: Rigsbee

S: Marks

SEC Vote 12/0/1 Approved 11:12 PM.

Motion: Authorize Exec Secretary to acquire 3 copies of Adobe Acrobat 4.0 for support of production of *.pdf files for posting meeting information on the 802 website. Current HTML forms are very high maintenance, and unmanageable. Cost ~\$750.

5 **M: Rigsbee**

S: Nikolich

Allocation. 1 for Buzz, 1 for Dawn, 1 for Howard.

SEC vote on motion 14/0/0 Approved 11:15

4.29 LAN Access for SEC members - Frazier

10 introduces Stuart Kerry. Stuart provides and overview of the LAN which was deployed at this meeting.

Frazier makes motion:

Motion: Form an SEC subcommittee to develop a proposal for equipping the LMSC (starting with the SEC) with wireless network access. Appoint Stuart Kerry chairman of this subcommittee (without SEC voting rights). Proposal will be ready for SEC review and email ballot by 30-Sept-1999.

15

M: Frazier

S: Rigsbee

Lidinsky: objects to "wireless", believes that 10BASE-T would be preferable.

Frazier: Agrees to remove "wireless" from motion. Acceptable to Rigsbee.

20 Motion as amended:

Form an SEC subcommittee to develop a proposal for equipping the LMSC (starting with the SEC) with network access and related services. Appoint Stuart Kerry chairman of this subcommittee (without SEC voting rights). Proposal will be ready for SEC review and email ballot by 30-Sept-1999.

25 **SEC vote For: 14 Against: 0 Abstain 0 passed 11:07**

4.30 Chairs guidelines on RevCom submittals

postponed.

4.31 Report from Project Numbering ad hoc

Carlo, IEEE staff, Lidinsky, Heile, Hayes, Thompson attended.

30 We now have corrigenda, which fix "errors" in a standard. You can do corrigenda on Amendments.

You can do Revisions against the entire standard and its amendments. When you do a revision, the whole document is under review.

Revisions should be designated as 802.xRev, unless the chair and IEEE staff negotiate otherwise because of a good reason.

4.32 Report from WG Strategy ad hoc

IEEE 802.x LAN Infrastructure **A Suggested Logical Network Configuration**

WLAN Configuration

AP Ethernet Speed: 10 Mbps
AP Types: DS (plus FH for 802.11 and as required)
DS Channels: 1, 6 & 11 as appropriate
Network Type: Infrastructure
SSID: "Default SSID" [or SSID for each Committee]
Translation Mode: 802.1h + NTI STT

Windows Networking

Server Settings

NIC: 100 Mbps.
OS: Windows NT4.0 SP3 (at least)
Services: DHCP, WINS
Protocols: TCP/IP (server address 192.168.168.5)
DHCP Scope 192.168.168.20 - 192.168.168.200

Client Settings

Client for MS Networking: Logon to Windows NT Domain
Domain: P802.11
Protocols: TCP/IP
IP Addresses: Dynamic (DHCP)
NetBIOS Name Resolution: "Use DHCP for WINS Resolution"

Login Settings

User name: Guest – or as allocated.
Password: none – or as allocated.
Domain: P802.11

Drive Mappings

Computer: Venus
Root Directory: As appropriate / allocated

External Connectivity ?

Router with NAT Gateway on T1 line ?

Carlo, staff, Heile, marks, Lidinsky, Hayes attended.

Can WGs have multiple MACs?

Yes,

MACs should have some relationship in application space.

5 Can WGs have multiple separate standards?

Yes

Need to be careful on too many separate standards.

Number the separate standards 802.16.1, 802.16.2, 802.16.3, etc.

Multiple base standards in a WG

10 Use 802.16.1, 802.16.2, etc (Do not change current standard)

Use lower case for corrigenda and amendments: 802.16.1a, etc.

Thompson states that removing restriction of one MAC per WG is a dramatic change.

Lidinsky presents foils on dots. 802.1 doesn't want to change it's numbering system. It thinks that some of the proposals for new numbering schemes are stupid (i.e. sucks big time).

15 **4.33 802.11 Liaison letter to ETSI/BRAN/MMAC Vic Hayes**

(insert file 91717A-Liaison-to-MMAC&BRAN-July99.pdf)

Vic to send letter to SEC by email

20

25

IEEE P802.11
Wireless LANs

To: Mr. Jamshid Khun-Jush, Chairman, ETSI Project BRAN
Mr. Masaaki Mitani, Chairman, MMAC 5 GHz Project

Cc: Mr. Tomoki Ohsawa, Chairman of MMAC Wireless Ethernet WG
Jim Carlo, IEEE P802, Chairman
Howard Frazier, IEEE P802, Recording Secretary
Mary Shepherd, IEEE Standards Department, Intellectual Property Manager

Date: July 8, 1999

Enclosures: Draft Standard P802.11a/D6.2

Subject: An update on 802.11 OFDM PHY status after July 1999 meeting

Dear BRAN and MMAC officers and members,

We would like to bring you an update on the status of the 802.11a physical layer and on the changes, which were incorporated or discussed during the July 1999 meetings.

- 1) Following a request from BRAN, we adopted a different short training sequence carrier values. Those were brought initially to BRAN's attention by Masahiro Morikura from NTT and adopted by BRAN. In addition, we implemented BRAN's recommendation to increase the amplitude of those subcarriers in order to reflect the exact number of subcarriers in the short preamble. The second change was implemented by changing the $\sqrt{2}$ factor in equation 6 of our draft to $\sqrt{13/6}$.
- 2) We discussed a comment submitted by BRAN regarding the harmonization of bit patterns used for signalling the data rate used for the payload part of the packet. After discussing the issue with Jamshid Khun-Jush and the MMAC members present at the meeting we came to the conclusion that this harmonization is of a minor importance. The bit combinations are used in the different standards in different layers. In 802.11a the bit patterns are used in the PHY layer, while in BRAN and MMAC/WATM this bit patterns are used in the MAC/DLC layer. In addition, we had specific technical reasons for our current patterns. In particular, two of the bits R1-R2 are indicative of the modulation type used (this rule was not followed in the proposal brought to us), the bit R3 is indicative of the coding rate and the bit R4 is set to 1 in order to improve the peak-to-average ratio properties of the SIGNAL OFDM symbol. Given all those considerations we decided not to change the bit combinations used to describe the rate. We would like to propose BRAN and MMAC to consider adopting our values of those bit fields. In addition we would like you to consider allocating an additional reserved bit, just as 802.11a has in its SIGNAL field, so that future enhancements can be coordinated between the committees.

We received a letter from BRAN informing us of adoption of some of the changes we introduced, notably the pilot carrier scrambling, the interleaver structure and aligning the BPSK along the I axis. Together with the suggestions from BRAN which we adopted in this meeting, we feel that we are in an excellent state regarding the coordination of the 802.11a, BRAN and MMAC physical layers. As 802.11a nears its completion, we would like to thank the BRAN and MMAC members for their participation and their contributions along the process.

You will find all these changes incorporated in the draft standard 802.11a/D6.2, which is enclosed. This draft will be sent to a second recirculation ballot shortly after the meeting, and given that no objections arise, to the approval of the Revision Committee of the IEEE Standards Activities Board.

With the adoption of 802.11a by the MMAC Wireless Ethernet Working Group we would like to restate our hope that we will gain the support of BRAN and of ETSI for introduction of 802.11 networks, based on 802.11a PHY, in Europe, as well as throughout the rest of the world.

Sincerely,

Vic Hayes, Chairman IEEE P802.11,
Standards Working Group for Wireless LANs
Lucent Technologies Nederland B.V.
Wireless Communications and Networking Division
Zadelstede 1-10
3431 JZ Nieuwegein
The Netherlands
Tel: +31 30 609 7528
Fax: +31 30 609 7556
e-mail: vichayes@lucent.com

Naftali Chayat, 802.11 TGa Chairman
BreezeCom Ltd.
Atidim Technology Park, Bldg. 1
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ISRAEL
Tel: +972-3-645-6262
Fax: +972-3-645-6290
e-mail: naftalic@breezecom.co.il

4.34 802.8 Project status - Chip Benson

Responses to comments received on sponsor ballot will be sent out next week. Once responses have been reviewed by balloters, recirculation will be issued. Sponsor ballot pool has 50 voters.

- 5 Carlo states that if there is no further work in 802.8, it would appropriate to put the group in hibernation.

4.35 ISO update - Carlson

Has received some comments. Will distribute by email to SEC.

4.36 SEC/802 Opening Plenary meeting change - Carlo

SEC meeting will be held from 8:00 to 10:30 am on Monday in Hawaii

- 10 802 Opening plenary will be held from 11:00 am to 12:00 noon

WG's start at 1:00 PM until 5:00 PM

4.37 PFS DB conversion to Access status report - Buzz Rigsbee

On track to have something operable for the November meeting.

Thompson: This is a good opportunity to harmonize DB formats across WGs.

- 15 **4.38 Future meeting schedule - Buzz Rigsbee**

Buzz conducts a poll on future meeting sites for March, 2002, November 2002.

4.39 Meeting in Enschede Vic Hayes

Motion in 802.11 to hold meeting in Enschede in July, 2003. 23/0/4.

- 20 Rigsbee says that if we hold another meeting in Enschede, we can cut down to two hotels (Dish hotel downtown, Guest hotel on campus).

Straw poll of exec: Should we pursue Enschede? 7 Y, 4 N, 2 A

We are open to proposals for other sites in Europe.

Carlo: It comes down to dollars.

Chayat: makes an interesting pitch for Israel.

- 25 General consensus that we should hold a July, 2003 meeting in Europe.

The meeting was adjourned at 12:00pm.

AGENDA & MINUTES(Unconfirmed) - IEEE 802 LMSC CLOSING PLENARY MEETING

Friday, July 9, 1999 - 8:00 am

Queen Elizabeth Hotel, Montreal, PQ

8:02. MEETING CALLED TO ORDER

5 **(insert file 799closplenagenda.pdf)**

Paul Nikolich called the meeting to order at 8:02 am. There were approximately 45 members were in attendance.

Nikolich summarized the results of the Thursday evening SEC meeting (see above).

8:10 Rules Change

Bill Lidinsky describes proposed Rule Change concerning electronic balloting. This will be posted to the 802 web site.

10 8:15 Treasurer's report Bob Grow

See file (fritreasrep.pdf)


467 registered attendees this meeting. Increase in operating reserve of \$5,610.

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IEEE 802 Friday Plenary Agenda

- 8:00 Review of Agenda Nikolich
- 8:05 Review of Thursday Evening Executive Meeting Nikolich
- 8:10 Rules Changes Lidinsky
- 8:15 Treasurer's Report Grow
- 8:20 802.1 Management/VLANs Lidinsky
- 8:25 802.3 CSMA/CD Thompson
- 8:30 802.5 Token Ring Love
- 8:35 802.8 Fiber Optic TAG Benson
- 8:40 802.11 Wireless Hayes
- 8:45 802.14 Cable Modem Russell
- 8:50 802.15 Wireless PAN Heile
- 8:55 802.16 BWA Marks
- 9:00 November 1999 Plenary Schedule Nikolich
- 9:05 Future Meeting Arrangements Rigsbee
- 9:10 Adjourn
-
- 10:15 Plenary Foils Available Outside Office Frazier
-  <http://grouper.ieee.org/groups/802/>
Jim Carlo - Texas Instruments July-1999 Plenary

IEEE Project 802
Estimated Statement of Operations
July 1999 Meeting

open	4 Jul 1999 Operating Reserve	47,926	
Jul 1999 Meeting Income:		Actual	Budget
	146 Registrations@ \$300	43,800	
	321 Registrations@ \$250	80,250	
	0 Registrations@ \$100	0	
	Subtotal	124,050	101,250
	Deadbeat Registrations	300	
	A/G Copy Comissions	0	
	Bank Interest	0	
	Copying Income	0	
	Other	0	
plus	TOTAL Income	124,350	101,250
Jul 1999 Meeting Expenses:		Estimate	Budget
	Audio Visual Rentals	6,000	5,000
	Bank Charges		20
	FTF Jul 99 Meeting Administration	24,500	30,200 *
	Copying	2,700	6,000
	Credit Card Discounts	3,610	2,946 *
	International Program Fee	42,030	33,750 *
	Phone & Electrical	600	600
	Refreshments	14,100	13,000
	Shipping	3,000	2,500
	Social	7,200	9,000
	Supplies		
	Other		
minus	TOTAL Meeting Expense	103,740	103,016
minus	Equipment Expense	15,000	21,000
equals	July 99 Operating Reserve	53,536	
	Net Change in Operating Reserve	5,610	(1,766)

* Actual charges are based on registration, budget is based on registration forecast.

8:20 802.1 Management/VLANs Bill Lidinsky

See file (dot1closplen.pdf)

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802.1 Status

802: Overview & Architecture

IEEE-SA says that sponsor ballot on D27 will go out next week

Approved PARs - work in progress

*802.1r: GARP Proprietary Attribute Registration Protocol (GPRP)
for 802.1d bridges*

Contributions have not been forthcoming.

Might pull PAR after November 1999 meeting

802.1s: Supplement to 802.1q; Support for multiple spanning trees

802.1t: Maintenance for 802.1d

802.1u: Maintenance for 802.1q

802.1v: VLAN Classification by Protocol and Port

802.1w: Rapid Reconfiguration

802.3ad: Link Aggregation

802.1 voting members that have attended adequate 802.3ad mtgs. will vote

PAR approved by SEC to go to NESCOM

802.1x Port Based Network Access Control

802.1 Status

New Numbering Scheme for P802 Standards

802.1 voted not to adopt. Will keep old numbering scheme

Relevance of ISO to LAN/MAN Standards

*New procedure proposed makes P802 a Category C liaison to SC6
SC6 would have observer ballot status on both WG & sponsor
ballots*

Free and Electronically Available 802 Standards

*802.1 debated and then proposed to SEC that current funds going to
support ISO secretariats be diverted to support IEEE-SA for the
stated purpose. (Motion postponed to Nov. 802 meeting.)*

Interim Meeting and Pre-Meeting

Interim Mtg: 28,29 Sept 1999 in York UK

In conjunction with 802.3ad (Sept 30, Oct 1, 1999)

Pre-Mtg.: Monday 8 November 1999, Kauai, 8:30am - 10:30am

8:25 802.3 CSMA/CD WG - Geoff Thompson

See file (dot3closplen.pdf)

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802.3 CSMA/CD Working Group Status

Major Activities:

802.3ab/1000BASE-T APPROVED by Stds Board on 26 June. Will be published 26 July.

802.3ad/Link Aggregation

Voted to WG Ballot w/o changes to the draft

802.3 HSSG (10 Gigabit Ethernet)

More work on objectives, 10.00 or 9.58...?

Call for Interest DTE Power via MDI

Study Group created. Steve Carlson chair

Call for Interest Gigabit Ethernet over Cat 6 UTP

Study Group not created, more next time

Maintenance met

Liaison letters to: TR-41, TR-42,

802.3 CSMA/CD Working Group Officers

802.3 Chair: Geoff Thompson

(Geoff_Thompson@baynetworks.com)

802.3 Vice Chair: David Law (davel@pdd.3Com.com)

802.3 Secretary: Bob Grow (bob.grow@intel.com)

802.3ad, Link Aggregation: Steve Haddock

(shaddock@extremenetworks.com)

10 Gigabit Ethernet: Jonathan Thatcher

(jonathan@picolight.com)

DTE Power via MDI SG: Steve Carlson

(scarlson@hspdesign.com)

Call For Interest contacts:

Higher Speed over Cu (11/99 CFI): Chris Di Minico

(cd@mohawk-cdt.com), Dan Dove (dan_dove@hp.com)

802.3 CSMA/CD Web site

Information is always available on our web site

<http://grouper.ieee.org/groups/802/3/index.html>

**Interim meetings, all groups are in York England
September 27 – October 1**

8:30 802.5 Token Ring WG - Bob Love

See file (dot5closplen.pdf)

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IEEE 802.5
Token Ring Working Group

Closing Plenary Presentation
For Meeting JJ
July 5-8, 1999

Chair: Robert D. Love
(rdlove@us.ibm.com)

Prepared by Karl Reinke

Active Task Groups

- *High Speed Token Ring (HSTR)*
 - *802.5t 100 Mbit/s HSTR*
 - *Conditional approval received*
 - *Work is underway to address patent letter issue gating final approval*

Active Task Groups

- *802.5v 1000 Mbit/s HSTR*
 - *Draft d1.0 and d1.1 ballots closed with no open disapprove votes*
 - *Draft d1.2 to be prepared for working group recirculation ballot*
 - *Once the requirements for initiating LMSC balloting are met the 802.5 chair will request SEC approval to forward 802.5v for LMSC balloting*

Active Task Groups

- *802.5w Corrigenda*
 - *IEEE Editor requested name change*
 - *PAR Corrected to reflect change*
 - *802.5w/d1.2 will contain IEEE editorial changes*
 - *Request to forward to LMSC*
- *802.5x Source Routing over VLANs*
- *802.5z Link Aggregation*
 - *Working towards a first draft*

Request to Withdraw PARs

- *802.5y Token Ring Revision*
- *802.5aa Source Routing Enhancement*

802.5 Officers (with contact info)

■ *Chair*

- *Robert D. Love (rdlove@us.ibm.com)*

■ *Vice-chair*

- *John Messenger*
(John.Messenger@8025.org)

■ *Recording Secretary*

- *Simon Harrison*
(Simon.Harrison@madge.com)

E-Mail and WWW

■ *802.5 E-Mail Reflector*

- `stds-802-5@mail.ieee.org` for messages
- `majordomo@majordomo.ieee.org` for subscription
 - `subscribe stds-802-5 <your e-mail address>`
 - `unsubscribe stds-802-5 <your e-mail address>`

■ *802.5 WWW Site*

<http://grouper.ieee.org/groups/802/5/>

which links to

<http://www.8025.org/>

8:35 802.8 Fiber Optic Tag - Chip Benson

No slides. Paul Nikolich gives report. Tag has developed responses to comments received during sponsor ballot. Expects to issue recirculation ballot in near future.

8:40 802.11 Wireless Vic Hayes

5 (see file dot11closplen.pdf)

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IEEE P802.11, Wireless LANs

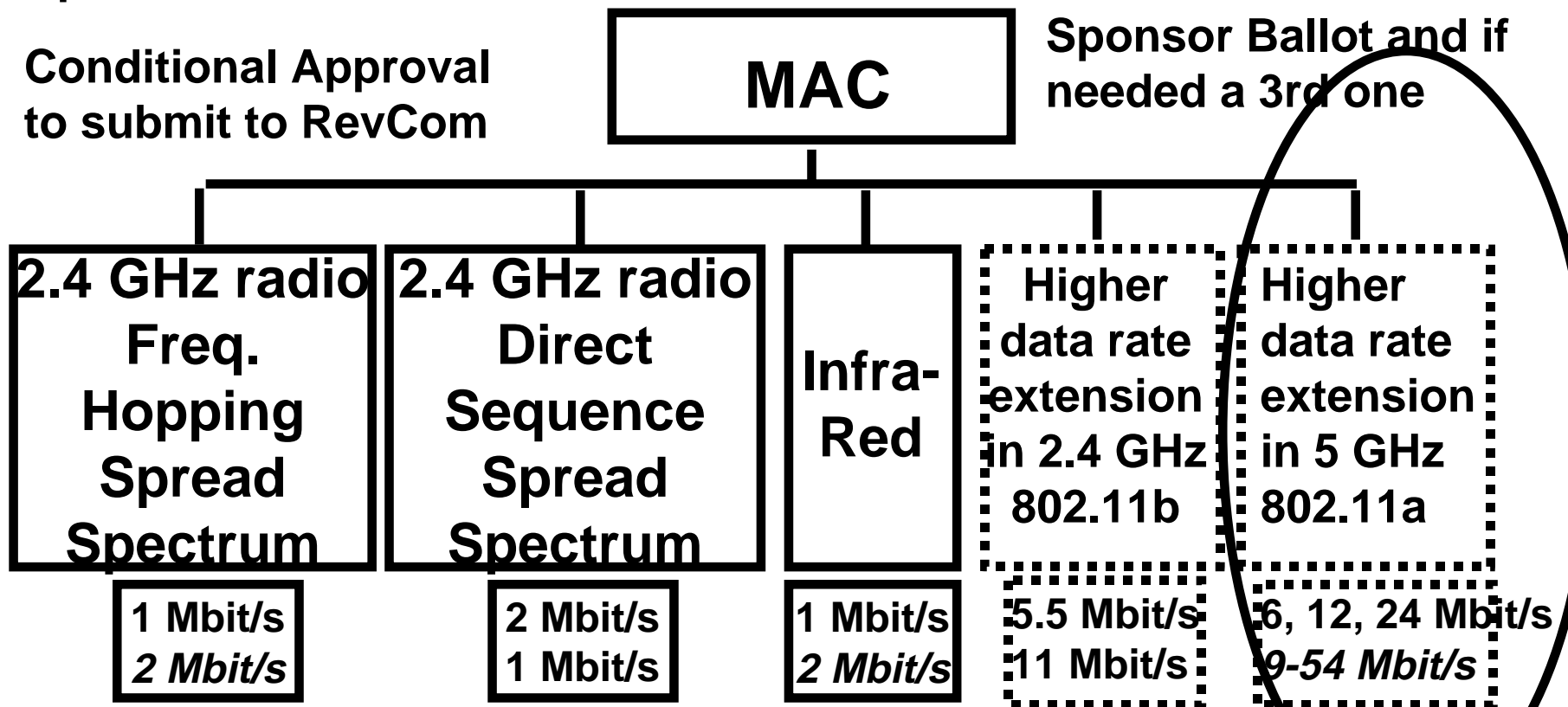
IEEE Std 802.11-1997 (1999)

98 % approval in
Sponsor Ballot

Conditional Approval
to submit to RevCom

Scheduled 2nd
Recirculation

Sponsor Ballot and if
needed a 3rd one



Legend: italic (and red) = optional

IEEE P802.11, Wireless LANs

IEEE Std 802.11-1997 (1999)

Started work as TGd

WG Study Group for
enhancements of 802.11

Regulatory domains

MAC

WG SG Chair: John
Fakatselis

2.4 GHz radio
Freq.
Hopping
Spread
Spectrum

1 Mbit/s
2 Mbit/s

2.4 GHz radio
Direct
Sequence
Spread
Spectrum

2 Mbit/s
1 Mbit/s

Infra-
Red

1 Mbit/s
2 Mbit/s

Higher
data rate
extension
in 2.4 GHz
802.11b

5.5 Mbit/s
11 Mbit/s

Higher
data rate
extension
in 5 GHz
802.11a

6, 12, 24 Mbit/s
9-54 Mbit/s

Legend: italic (and red) = optional

IEEE P802.11, Wireless LANs

Regulatory issues

- **Microwave Lighting in the 2.45 GHz band**
 - Approved another position for the regulatory subcommittee in 802.11 in negotiations
 - Will be filed at FCC after approval by US Activity Board
- **Changes in the Spreading rules of Spread Spectrum**
 - Approved Response to Notice of Proposed RuleMaking
 - Opposes the WideBand Frequency Hopping proposal
 - In between meeting generation of further comments on the test specification for Direct Sequence devices and e-mail approval in WG and in SEC

IEEE P802.11, Wireless LANs

Liaison issues

- **ETSI-BRAN and MMAC/PC**
 - Update of changes made to 802.11a
 - Differences between HIPERLAN family and 802.11 only related to differing requirements of MAC
 - MMAC/PC, Ethernet Working Group, has adopted both 802.11 MAC and 802.11a
- **ETSI Board**
 - 5 GHz spectrum in Europe is reserved for “HIPERLAN” devices
 - Exploiting just approved ETSI-IEEE agreement
 - Proposal to adopt 802.11 + 802.11a as a member of the HIPERLAN family

IEEE P802.11, Wireless LANs

Interim Meetings

- **Tele-conference on TBD date**
 - Resolution of outcome of 2nd Sponsor recirculation ballot for 11a and 11b
- **Full Working Group on September 13-17, 1999**
 - Hilton Hotel, Sonoma County, California, USA
 - **Host:** Alantro Communications
 - **Contact and reservations:** Matthew B. Shoemake
 - » **Phone:** +1 707-521-3060, **FAX:** +1 707-521-3066
 - » **Email:** shoemake@alantro.com
- **Deadline July 28, 1999!!!!!!!**
 - (Resolve Sponsor Ballot comments on 11a and 11b)
 - to work in TGd on regulatory domains
 - to start the work of the study group 802.11 enhancement
- **<http://grouper.ieee.org/groups/802/11>**

8:45 802.14 Cable Modem - Robert Russell

see file (dot14closplen.pdf)

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8:50 802.15 Wireless PAN - Bob Heile

see file (dot15closplen.pdf)

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Working Group Report

Presentation to IEEE 802

July 9, 1999

Bob Heile, Chair

Daily Objectives for July Plenary

- Monday- set the stage, review the gameplan for the week, point attendees to the web or flash card for copies of draft rules and other documents for review ahead of time.
- Tuesday- detailed presentations on WG objectives, proposed operating rules and liaison activities
- Wednesday- Review project action plan and call for proposals, joint meeting with .11, review draft standard outline, organize committees for first draft, review BT spec
- Thursday- Begin formal voting on Officers, rules, etc. Hear submissions, if any, in response to the CFP.

Kick-off Process

- To obtain voting rights at the Thursday morning session of this meeting, you must attend at least 5 of the six sessions Monday, Tuesday, and Wednesday and the session on Thursday morning.
- If you are planning on attending at least 75% of the sessions and becoming a voting member, please declare it during sign-in on Monday or Tuesday morning. You will be eligible to receive the Standards CD on Wednesday after 2pm.
- Formal voting will begin on Thursday morning. At sign-in you will receive a voting token.

Official Voter Count 39

Things We Voted On

- Elect Slate of Officers-Term is through 802 Plenary Meeting, March 00
- Adopt Proposed WG Rules doc #802.15-99/001r6
- Adopt 802.11 Inter-meeting Regulatory Rules doc #802.11-96/142-r1
- Establish TG1 to develop standard against existing PAR
- Form Study Group for Coexistence/Interoperability
- Formalize a position relative to NPRM on WBFH and RF Lighting

Slate of Officers for 802.15

- Bob Heile, GTE Chair
- Ian Gifford, M/A COM Vice Chair
- Pat Kinney, Intermecc Secretary
- Tom Siep, TI Technical Editor
- Mike McInnis, Boeing Asst Tech Ed/Sec

Vote on the Officers

Motion: To approve the recommended slate of officers for 802.15 to serve the remainder of the current term which ends in March 00.

Requires 75%

Moved:Ivan Reede

Second:Parviz Kermani

All in Favor:34

All Opposed:0

Abstaining:0

Passed

Vote on the Rules

Motion: To approve 802.15 document number 99/001r6 as the rules of operation for the Working Group.

Requires 50%

Moved:Ivan Reede

Second:Dick Eckard

All in Favor:34

All Opposed:0

Abstaining:0

Passed

Vote on Intermeeting Regulatory Rules

Motion: To approve 802.11 document number 96/142-r1 as the regulatory rules of operation for the Working Group.

Requires 50%

Moved: Bruce Kraemer

Second: Dick Eckard

All in Favor: 34

All Opposed: 0

Abstaining: 0

Passed

Vote on TG1

Motion: To form a Task Group designated TG1 develop a draft standard against the current Working Group PAR #802.15 3/18/99

Requires 75%

Moved:Tom Siep

Second:Bruce Kraemer

All in Favor:35

All Opposed:0

Abstaining:0

Passed

Vote on TG1 Chair

Motion: To affirm Ian Gifford as the Chair of TG1

Requires 75%

Moved: Allen Heberling

Second: Ivan Reede

All in Favor: 35

All Opposed: 0

Abstaining: 0

Passed

Vote on Formation of SG for Coexistence/Interoperability

Motion: To form a Coexistence/Interoperability
Study Group to determine the need for a PAR
and develop if necessary.

Requires 75%

Moved:Dick Eckard

Second:Ivan Reede

All in Favor:35

All Opposed:0

Abstaining:0

Passed

Motion to the SEC for a Study Group

Motion: To approve the formation of a Study Group within 802.15 to determine the need and if warranted, develop a PAR on coexistence/interoperability for submission to the SEC by the November 1999 Plenary.

Moved:Bob Heile
Second:paul

Move to strike interop
move russell/marks 6-3-4

All in Favor:12
All Opposed:1
Abstaining:0

Study Group as Approved by SEC

Motion: To approve the formation of a Study Group within 802.15 to determine the need and if warranted, develop a PAR on coexistence for submission to the SEC by the November 1999 Plenary.

Vote on Formation of SG for Coexistence/Interoperability

Motion: To affirm Steve Shellhammer as Study Group Chair

Requires 75%

Moved:Ivan Reede

Second:Allen Heberling

All in Favor:35

All Opposed:0

Abstaining:0

Passed

Votes on Regulatory Issues

Review and vote on motions in 802.11 doc 99/151

Item 10.4 ad-hoc TG Regulations RF lighting

Jim Zyren read a draft letter text to the FCC and Fusion Lighting (doc.: IEEE P802.11-99/164) on in-band emission levels.

Motion 99/57P10 Submit a revised letter (doc.: IEEE P802.11-99/164) to the FCC and Fusion Lighting on in-band emission levels, for approval by ExCom

Moved: Jim Zyren Dick Eckard 802.15

Seconded: Harry Worstel John Jones 802.15

Discussion: none

Motion passes: 29-0-0

Motion Passes 802.15 30-1-1

Negative vote was more for lack of understanding rather than disagreement

Votes on Regulatory Issues

Review and vote on motions in 802.11 doc 99/151

Item 10.5 ad-hoc TG Regulations NPRM

A. Wide Band FHSS: Jim Zyren read a draft text for a letter to the FCC regarding the adoption of wideband channels for FHSS systems

Motion 99/57P11 (id#89) To approve the submission of the draft text in doc.: 99/162 to ExCom for a ratification and submission to the FCC. To include clause D as made by Jim Zyren. Phil Belanger/Chris Zegelin call the question.

Moved: Jim Zyren Bruce Kraemer 802.15

Seconded: Phil Belanger Steve Shellhammer 802.15

Discussion: Discussion led to the addition of clause d.

Motion passes: 21-1-5 13-3-17

Instructions for vote: yes=support for letter, no=against letter, abstain=neutral on issue

Neutral position reaffirmed in separate vote:

Motion: To stay neutral at this time on the subject of 802.11 letter to FCC re WBFH.

Moved: Ivan Reede

Seconded: Houman Alborzi

Motion passes 23-8-2

8:55 802.16 BWA - Roger Marks

no slides.

133 attendees. 107 voting members.

Coexistence PAR approved by SEC.

5 Interim meeting scheduled for August 4-6. Second meeting in September 13-15.

9:00 November 1999 Plenary Schedule - Paul Nikolich

SEC meeting from 8:00 to 10:30 am.

LMSC opening plenary meeting from 11:00 am to 12:00 noon.

9:05 Future meeting arrangements - Buzz Rigsbee

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Respectfully Submitted,
Howard Frazier
Recording Secretary