

AGENDA & MINUTES (Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE and IEEE-SA STANDARDS BOARD JOINT MEETING

Thursday March 15th, 2001 7:00 pm

Marriot Golf Resort, Hilton Head, SC

5 1. MEETING CALLED TO ORDER

Jim Carlo called the meeting to order at 7:00pm. Members in attendance were:

- | | |
|-----------------|--|
| Jim Carlo | - Chair, IEEE 802 LAN / MAN Standards Committee, Vice Chair, IEEE-SA Standards Board |
| Don Heirman | - Chair, IEEE-SA Standards Board |
| 10 Judy Gorman | - Managing Director, IEEE-SA |
| Paul Nikolich | - Vice Chair, IEEE 802 LAN / MAN Standards Committee |
| Buzz Rigsbee | - Executive Secretary, IEEE 802 LAN / MAN Standards Committee |
| Howard Frazier | - Recording Secretary, IEEE 802 LAN / MAN Standards Committee, Chair IEEE-SA RevCom |
| Robert Grow | - Treasurer, IEEE 802 LAN/MAN Standards Committee |
| 15 Tony Jeffree | - Chair, IEEE 802.1 – HILI Working Group |
| Geoff Thompson | - Chair, IEEE 802.3 – CSMA/CD Working Group |
| Bob Love | - Chair, IEEE 802.5 – Token Ring Working Group |
| Stuart Kerry | - Chair, IEEE 802.11 – Wireless LANs Working Group |
| Bob Heile | - Chair, IEEE 802.15 – Wireless PAN Working Group |
| 20 Roger Marks | - Chair, IEEE 802.16 – Broadband Wireless Access Working Group |
| Mike Takefman | - Chair, IEEE 802.17 – Resilient Packet Ring Working Group |
| Vic Hayes | - Regulatory Ombudsman |
| Pat Thaler | - Chair, IEEE P802.12 – DPAM Working Group (in hibernation) |

- 25 The meeting was attended by approximately 10 IEEE 802 Working Group members and several guests including Malcom Thaden, Jerry Walker, Jennifer Longman, Yvette Ho Sang, Jim Gurney, Jodi Haaz, Terry Steenweg, Karen Rupp, Bob Pritchard, David Ringle, Kip Ayers, Joe Koepfinger, Mary Lynn Neilsen, Lowell Johnson.

Jim Carlo introduced the members of IEEE 802 to the IEEE-SA Standards Board members, and the overall agenda of the evening's meeting.

- 30 Judy Gorman introduced herself to the group.

Don Heirman introduced himself and the members of the board and provided an overview of the IEEE-SA Standards Board.

Jim Carlo summarizes feedback from 802 members to IEEE-SA and IEEE Standards Department Staff:

Positive Feedback

- Good personal knowledge and willing to listen
- 35
- Move to electronic process and better publishing support

Needs improvement

- Non-predictability of functions
 - o Balloting service, editorial and publishing actions
 - Need single "champion" in IEEE-SA staff
- 40
- o Co-ordination with other staff

- Meeting presence for conflict resolution and support

Strategic Issue

- IEEE 802 process is based on individuals with companies paying their attendance at meetings. IEEE-SA strategy promotion of “corporate” as the future.
- 5
- IEEE-ISTO and IEEE 802 project conflict on “standards” confuses industry.

The joint IEEE 802 SEC/IEEE-SA Stb meeting concluded at 7:59 pm.

Joint IEEE 802/StdBd Leadership Meeting

- 7:00 - Introductions of IEEE 802 – Carlo
- 7:05 - Summary of IEEE-SASB directions – Heirman
- 7:30 - IEEE 802 Feedback to Standards Board
 - Summary – Jim Carlo
 - Chair's Inputs – IEEE 802
- 7:50 - Discussion

IEEE 802 ORGANIZATION

SPONSOR EXECUTIVE COMMITTEE (SEC)

CHAIR
Jim Carlo

WORKING GROUP CHAIRS

802.1
BRIDGING/ARCH
Tony Jeffree

802.3
CSMA/CD
Geoff Thompson

802.17
ResPackRing
Mike Takefman

802.11
WLAN
Stuart J. Kerry

802.15
WPAN
Bob Heile

802.16
BWA
Roger Marks

APPOINTED OFFICERS

VICE CHAIR
Paul Nikolich

RECORDING SEC
Howard Frazier

EXECUTIVE SEC
Buzz Rigsbee

TREASURER
Bob Grow

REGULATORY
Vic Hayes

HIBERNATION

802.2 LLC (Dave Carlson)

802.5 Token Ring (Bob Love*)

802.4 Token Bus (Paul Eastman)

802.6 DQDB (Jim Mollenauer)

802.7 Broadband TAG (P Nikolich)

802.9 ISLAN (D. Vaman)

802.10 Security (Ken Alonge)

802.12 Demand Priority (Pat Thaler)

* SEC Voting Member until Mar2001

DISBANDED

802.8 Fiber Optic TAG (C. Benson)

802.14 CATV (Robert Russell)



Jim Carlo - IEEE 802 Chair

Mar-2001

Jim Carlo called the IEEE 802 SEC meeting to order at 8:00 pm.

2.00 APPROVE OR MODIFY AGENDA

DRAFT AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING

Thursday, March 15, 2001 - 8:00 pm

Marriot Golf Resort, Hilton Head, SC

1.00	MEETING CALLED TO ORDER	- Carlo	1	08:30 PM
2.00	APPROVE OR MODIFY AGENDA	- Carlo	4	08:31 PM
3.00	TREASURER'S REPORT	- Grow	10	08:35 PM
	Category (* = consent agenda)			
4.00	ME* Cond app 802.1w Rapid Spanning Tree to RevCom	- Jeffree	5	08:45 PM
4.01	ME Cond app 802.1X Port Based Access Control to RevCom	- Jeffree	5	08:50 PM
4.02	ME Cond app 802 Overview and Architecture to RevCom	- Jeffree	5	08:55 PM
4.03	ME Cond app 1802.3Rev to RevCom	- Thompson	5	09:00 PM
4.04	ME Cond app 802.3ag to LMSC Sponsor Ballot	- Thompson	5	09:05 PM
4.05	ME Approve transmittal of response to Jumbo Frame RFC	Thompson	5	09:10 PM
4.06	ME Approve transmittal of liaison statement re: X.86 to ITU-T	- Thompson	5	09:15 PM
4.07	ME 802.11e MAC Enhancements (QoS) revised PAR to NesCom	- Kerry	5	09:20 PM
4.08	ME 802.11i MAC Enhancements (Security) new PAR to NesCom	- Kerry	5	09:25 PM
4.09	ME Cond App 802.11d International Roaming to RevCom	- Kerry	5	09:30 PM
4.10	ME Revised PARs 802.16,.16a, .16b, .16.2 to NesCom	- Marks	15	09:35 PM
4.11	ME Cond App 802.16 to LMSC Sponsor ballot	- Marks	10	09:50 PM
4.12	ME 802.16 Press Release	- Marks	5	10:00 PM
4.13	ME Cond App 802.15.1 (BlueTooth) to LMSC Sponsor Ballot	- Heile	5	10:05 PM
4.14	802.16 Liaison Letters	- Marks	10	10:10 PM
4.15	MI* Initiate 30 day SEC letter ballot re: RIP FRD	- Jeffree	5	10:25 PM
4.16	MI Formation of Sponsor Ballot Pool for 802.3ae 10 GigE	- Thompson	5	10:30 PM
4.17	MI Renewal of 802.3 EFM Study Group Charter	- Thompson	5	10:35 PM
4.18	MI 802.11 5 GHz Study Group renewal	- Kerry	5	10:40 PM
4.19	MI Procedure 1 Rules Change	- Nikolich	5	10:45 PM
4.20	MI Section 5.1.3 Rules Change	- Nikolich	10	10:50 PM
4.21	MI Appointment of 802.17 Officers	- Carlo	5	11:00 PM
4.22	MI Appointment of 802 LMSC Recording Secretary	- Carlo	5	11:05 PM
4.23	MI 802.16 Study Group on amendment to 802.16.2	- Marks	10	11:10 PM
4.24	MI Formation of Wireless Coexistence EC Study Group	- Heile	5	11:20 PM
4.25	MI Network Services Feedback	- Nikolich	5	11:25 PM
4.26	DT	-	0	11:30 PM
4.27	DT	-	0	11:30 PM
4.28	ME 802 Standards Distribution	- Carlo	5	11:30 PM
4.29	MI July Closing SEC meeting	- Carlo	5	11:35 PM
4.30	MI 802.11/15/16/17 Interim Meeting	- Nikolich	5	11:40 PM
4.31	II 802.3 Interpretation Requests	- Thompson	5	11:45 PM

4.32	II	Portland Meeting arrangements	-	Jeffree	5	11:50 PM
4.14a	ME	SC6 Response to IEEE 802	-	Carlo	5	11:55 PM
		ME - Motion, External		MI - Motion, Internal		
		DT- Discussion Topic		II - Information Item		

Motion to approve agenda

Nikolich/Jeffree

10/0/0 Approved at 8:20 pm

5 **3.00 Treasurer's Report – Grow**

1096 Registrants! Wow. Approaching \$300K budget per meeting. Can't produce a deadbeat list on the same day a meeting ends.

It was an expensive meeting. Had to rent projectors because of large number of breakouts. Copy charges were low. Escrowing another 82K for free standards. The "other" included \$4000 for audit, \$9000 for database conversion, \$2500 for shuttle between hotels.

10 \$5700 deficit for this meeting, expect ~\$4K surplus for Portland July meeting. Will have to raise fees or cut cookies to provide networking at July meeting.

Nikolich observes that attendance estimates from WG chairs looking forward are approximately 200 people higher than Treasurer is projecting at each meeting.

15 Grow's response is that economic climate in industry may have affect on future attendance, which is one reason his numbers are conservative. At these attendance levels, each additional head would add approx \$20 extra to surplus.

(see file thutreasrep.pdf)

IEEE Project 802
Estimated Statement of Operations
March 2001 Meeting

open	28 February Operating Reserve	52,896		**
March 2001 Meeting Income:				
		Actual	Budget	
	336 Registrations@ \$300	100,800		
	760 Registrations@ \$250	190,000		
	0 Registrations@ \$100	0		
	Subtotal	290,800	243,000	
	Deadbeat Registrations	600	0	
	Bank Interest	400	200	
	Other	1,025	400	
plus	TOTAL Income	292,825	243,600	
March 2001 Meeting Expenses:				
		Estimate	Budget	
	Audio Visual Rentals	13,800	8,000	
	Bank Charges	25	25	
	Copying	3,000	7,000	*
	Credit Card Discounts	8,462	5,096	*
	IEEE 802 Free Standards Escrow	82,200	67,500	
	Meeting Administration	45,000	48,200	*
	Network	15,000	15,000	
	Phone & Electrical	4,700	1,500	
	Refreshments	69,000	22,500	
	Shipping	3,500	4,000	
	Social	32,250	27,000	
	Supplies	500	100	
	Other	15,500	3,000	
minus	TOTAL Meeting Expense	292,937	208,921	
minus	Equipment Expense	5,000	5,000	
equals	March 2001 Operating Reserve	47,784		
	Total Free Standards Escrow	215,100		
	Net Change in Operating Reserve	(5,112)	34,679	

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

	2000			2000	2001			2001	2002			2002
	Albq. <i>Actual</i> <i>March</i>	LaJolla <i>Actual</i> <i>July</i>	Tampa <i>Actual</i> <i>Nov</i>		Hilton Head <i>Estimate</i> <i>March</i>	Portland <i>Estimate</i> <i>July</i>	Austin <i>Estimate</i> <i>Nov</i>		St. Louis <i>Budget</i> <i>March</i>	Vancouver <i>Budget</i> <i>July</i>	Kauai <i>Budget</i> <i>Nov</i>	
Meeting Income:												
Registrations	598	851	921		1,096	950	900		850	800	800	
Preregistration fee	250	250	250		250	250	250		250	250	250	
On-site registration fee	300	300	300		300	300	300		300	300	300	
Average Fee	270	267	269	0	265	265	260		255	255	255	
Subtotal	161,700	227,450	247,500	636,650	290,800	251,750	234,000	776,550	216,750	204,000	204,000	624,750
Bank Interest	200	200	607	1,007	400	150	150	700	150	150	150	450
Other	450	850	950		1,025	375	375		375	375	375	
TOTAL Income	162,350	228,500	249,057	637,657	292,225	252,275	234,525	777,250	216,900	204,150	204,150	625,200
Meeting Expenses:	March	July	Nov	2000	March	July	Nov	2001	March	July	Nov	2001
Audio Visual Rentals	4,577	4,914	8,793	18,284	13,800	8,000	7,000	28,800	8,000	8,000	8,000	24,000
Bank Charges	0	0	0	0	25	30	30	85	35	35	35	105
Copying	6,721	2,925	2,441	12,087	3,000	7,600	7,200	17,800	6,800	6,400	6,400	19,600
Credit Card Discounts	4,145	5,945	6,546	16,636	8,462	7,049	6,552	22,063	6,069	5,712	5,712	17,493
IPF/Escrow	22,200	22,200	69,075	113,475	82,200	71,250	67,500	220,950	63,750	60,000	60,000	183,750
Meeting Planners	39,397	48,777	52,563	140,737	45,000	55,250	53,100	153,350	53,250	51,000	51,000	155,250
Network	0	0	0	0	15,000	0	0	15,000	0	0	0	0
Phone & Electrical	556	1,697	1,702	3,955	4,700	3,000	2,500	10,200	3,000	3,000	3,000	9,000
Refreshments	22,610	48,112	38,608	109,329	69,000	42,750	35,100	146,850	35,700	30,400	40,000	106,100
Shipping	1,631	1,048	2,546	5,225	3,500	3,500	3,500	10,500	3,700	3,700	3,700	11,100
Social	18,426	42,326	0	60,753	32,250	40,850	36,000	109,100	34,000	31,200	40,000	105,200
Supplies	22	0	0	22	500	500	500	1,500	500	500	500	1,500
Other	223	3,170	5,326	8,720	15,500	500	2,000	18,000	5,000	500	2,000	7,500
Meeting Equipment	5,796	5,796	30,390	41,982	5,000	8,000	8,000	21,000	8,000	8,000	8,000	24,000
TOTAL Meeting Expense	126,305	186,911	217,989	531,205	297,937	248,279	228,982	775,198	227,804	208,447	228,347	664,598
NET to Operating Reserve	36,045	41,589	31,068	106,452	(5,712)	3,996	5,543	2,052	(10,904)	(4,297)	(24,197)	(39,398)
Opening Reserve	39,293	39,293	75,287		52,896	47,184	51,180		56,723	45,819	41,522	
Projected Closing Reserve	75,338	80,882	106,356		47,184	51,180	56,723		45,819	41,522	17,325	
Projected Closing Cash	64,138	69,682	95,156		35,984	39,980	45,523		34,619	30,322	6,125	

4.00 ME* Cond app 802.1w Rapid Spanning Tree to RevCom - Jeffree

Approved as part of the consent agenda

5

4.01 ME Cond app 802.1X Port Based Access Control to RevCom - Jeffree

Frazier (at the request of O'Hara) requests that the comments from the negative balloter along with the rebuttals be reviewed. Jeffree reviews three comments from Don Wright.

10

- 1) reference to Internet Draft – WG agrees to change the refence to simply point to IETF.
- 2) Checking of protocol versions – WG accepts in principle
- 3) Concern about inclusion of patented material – WG believes that there is no patent issue.

WG believes that rebuttals will satisfy commenter, but has not been able to communicate with commenter this week to confirm.

15

(See file dot1motions.pdf)

Motion: Conditionally approve forwarding 802.1X to RevCom pending successful completion of Sponsor Recirculation Ballot.

20

**Jeffree/Frazier
10/0/0 Approved**

4.02 ME Cond app 802 Overview and Architecture to RevCom - Jeffree

25

4 negative ballots. No comments have been rejected by WG, no voter has rejected resolution.

- 1) Carlo – problem with lower bound of 1 Mbps – WG addresses, Carlo accepts resolution.
- 2) Byham – Definitions at odds with common use in 802 stds – WG accepts in principle
Carlo interrupts the summary of the negative comments, confirms that proper process will be followed on recirc.
Jeffree states intention to get the project onto the June RevCom agenda, thus the request for conditional approval.

30

Motion: Conditionally approve forwarding P802 to RevCom pending successful completion of Sponsor recirculation Ballot

35

**Jeffree/Frazier
9/0/1 Approved**

802.1 Consent Agenda items

SEC Motion

- SEC conditionally approves forwarding P802.1w - rapid spanning tree - to RevCom pending successful completion of Sponsor recirculation ballot.
- The 802.1 WG plenary voted 11-0-0 in favour of this action.
- The Sponsor ballot closed on 27 February 2001. The results at close of ballot were:
 - Approve: 46 (100%), Disapprove: 0, Abstain: 3
 - Response rate: 80%
- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:

SEC Motion

- SEC conditionally approves forwarding P802.1X – Port based network access control - to RevCom pending successful completion of Sponsor recirculation ballot.
- The 802.1 WG plenary voted 11-0-0 in favour of this action.
- The Sponsor ballot closed on 28 February 2001. The results at close of ballot were:
 - Approve: 50 (98%), Disapprove: 1, Abstain: 1
 - Response rate: 85%
- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:

SEC Motion

- SEC conditionally approves forwarding P802 – Overview & Architecture - to RevCom pending successful completion of Sponsor recirculation ballot.
- The 802.1 WG plenary voted 11-0-0 in favour of this action.
- The Sponsor ballot closed March 2000. The results at close of ballot were:
 - Approve: 58 (93%), Disapprove: 4, Abstain: 6
 - Response rate: 78%
- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:

SEC Motion

- Initiate a 30-day SEC letter ballot as follows:
 - The SEC considers that ongoing maintenance of the 802 Functional Requirements document is no longer required, given that its useful content has now been documented elsewhere. Therefore, the SEC no longer considers the FRD to be an 802 standing document, and deprecates its use. The FRD is to be archived on the IEEE 802 website for the next five years, along with a record of this motion; after that time, the document is to be deleted.
- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:

4.03 ME Cond app 1802.3Rev to RevCom

- Thompson

5 Draft currently has no negatives after first sponsor ballot.

Motion: Conditionally approve forwarding P1802.3Rev to RevCom upon successful completion of Sponsor recirc Ballot.

**Thompson/Grow
10/0/0 Approved**

4.04 ME Cond app 802.3ag to LMSC Sponsor Ballot

- Thompson

No outstanding negatives.

Motion: Conditionally approve forwarding P802.3ag Rev to Sponsor Ballot upon successful completion of WG Recirculation Ballot.

**Thompson/Grow
10/0/0 Approved**

4.05 ME Approve transmittal of response to Jumbo Frame RFC

Thompson

802.3 WG feels that Jumbo frames are a bad idea. Formulating a response from dot3 and dot1 to be sent to Scott Bradner.

Motion: Approve transmittal of response from 802.3 and 802.1 to informational RFC about to be posted.

**Thompson/Frazier
9/0/0**

4.06 ME Approve transmittal of liaison statement re: X.86 to ITU-T

- Thompson

(see file dot3ITU.pdf)

Mick Seaman advises against encouraging use of 802.3x flow control. Suggests removing last paragraph from response. Accepted by Thompson/Grow.

Hayes wants liaison statement to reflect pro forma specified in SEC Procedure 3. Accepted by Thompson/Grow.

Motion: Approve transmittal of informational liaison statement and recommendation as response from 802.3.

**Thompson/Grow
10/0/0 Approved.**

ITU-T Text

Thank you for informing us of the approval of your specification X.86 which seems to conform to our interface specification of the MII/GMII in ISO/IEC 8802-3.

You describe this as a new PHY for Ethernet. Because X.86 makes changes to the Ethernet frame transfer rate, and uses a store and forward functionality in LAPS, we believe that it is more appropriate to describe this device as a simple 2 port bridge to connect an MII/GMII to a SDH transmission payload.

In addition, in order to provide full functionality for rate adaptation to lower as well as higher payload rates from Ethernet frame transfer rates, we advise that you should consider the addition of 802.3x flow control capability to your Ethernet side interface.”

4.07 ME 802.11e MAC Enhancements (QoS) revised PAR to NesCom - Kerry

The goal is to split the current 802.11e into two: 802.11e and 802.11i.

5 Marks reads 802 Rules regarding division of PARs. 48 hour notice is required.
Jodi Haasz would like a more detailed cover letter.

Carlo says that on the basis of the rules, the motion is out of order. Asks if SEC will agree to conduct a 20 day letter ballot.

10 Jodi Haasz points out that PARs as drafted do not match current PAR form.

Motion to conduct a 14 day SEC email ballot to decide whether to:
forward 802.11e PAR to NesCom
forward 802.11i PAR to NesCom
15 **forward covering letter regarding 802.11e and 802.11i to NesCom.**

Kerry/Heile
8/0/2 Approved

20 **4.08 ME 802.11i MAC Enhancements (Security) new PAR to NesCom - Kerry**

Disposed under item 4.08.

25 **4.09 ME Cond App 802.11d International Roaming to RevCom - Kerry**

No outstanding No votes.

Motion to forward 802.11d draft to RevCom, after successful completion of the procedure for conditional approval to forward a draft standard.

30

Kerry/Hayes
10/0/0 Approved

35 **4.10 ME Revised PARs 802.16,.16a, .16b, .16.2 to NesCom - Marks**

Motion:

1. to approve revised PAR 802.16, as represented in IEEE 802.16-01/10.
2. to approve PAR 802.16a, as represented in IEEE 802.16-01/10, as a revision of PAR 802.16.3
3. to approve PAR 802.16b, as represented in IEEE 802.16-01/10, as a revision of PAR 802.16.1b
- 40 4. to approve revised PAR 802.16.2, as represented in IEEE 802.16-01/10.

Marks presents as 4 motions, Thompson makes motion to join into one motion.

Marks/Thompson
9/0/0 Approved

45

4.11 ME Cond App 802.16 to LMSC Sponsor ballot - Marks

WG letter ballot closed on Tuesday. Anticipate 2 to 3 recirculations at WG ballot. Currently have 69 approve votes, 17 disapprove, 80.2% approval.

50

Have not yet formed a sponsor ballot pool. Anticipate being able to request forward to Sponsor ballot before July meeting.

Carlo thinks that SEC will be able to consider this issue by email ballot.

55 On the advice of the SEC, Marks declines to make motion asking for conditional approval.

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Update of 802.16 PARs
Date Submitted	2001-03-08
Source(s)	Roger Marks, 802.16 Chair
Re:	IEEE 802.16-01/03r2 (Plan to Update 802.16 PARs)
Abstract	This document includes revised versions of the four PARs overseen by IEEE Working Group 802.16. The changes were proposed in document IEEE 802.16-01/03r2 (Plan to Update 802.16 PARs), which was unanimously approved at 802.16 Session #11 after being placed on the Session #11 agenda by a decision at Session #10. These revised PARs were submitted to the 802 LMSC Sponsor Executive Committee for 15 March 2001 approval and to the IEEE-SA Standards Board s New Standards Committee (NesCom) for 16 March 2001 approval.
Purpose	To record the implementation of a Working Group decision.
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate text contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE s name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE s sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.
Patent Policy and Procedures	<p>The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, including the statement IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard.</p> <p>Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <mailto:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.</p>

IEEE-SA Standards Board Project Authorization Request (PAR) Form

(2001-Rev 1)

1. Sponsor Date of Request	2. Assigned Project Number	3. PAR Approval Date (to be completed by staff)
2001 Feb 09	P802.16	

Copyright release must be submitted with appropriate signatures by FAX (1-732-562-1571)}

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title: {Place an X in only one option below}

- Standard for**{document stressing the verb "shall" }
- Recommended Practice for**{document stressing the verb "should" }
- Guide for** {document in which good practices are suggested, stressing the verb "may" }

Title: **Local and Metropolitan Area Networks - Part 16: Standard Air Interface for Fixed Broadband Wireless Access Systems**

Name of Working Group (WG): **IEEE 802.16 Working Group on Broadband Wireless Access**

Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE and/or Affiliate Member: **Roger B. Marks**

IEEE Standards Staff has verified that the Official Reporter (or Working Group Chair) is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone: **+1 303 497 3037** FAX: **+1 303 497 7828**
E-mail: **r.b.marks@ieee.org**

Name of Working Group Chair (if different than Reporter):

IEEE Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone: [...] FAX: [...]
E-mail: [...]

Name of Sponsoring Society and Committee: **Computer Society, LAN/MAN Standards Committee; Microwave Theory and Techniques Society**

Name of Committee Sponsor Chair: **Jim Carlo, Chair, LAN/MAN Standards Committee**

IEEE Standards Staff has verified that the Sponsor [] (Staff to check box)
Chair is an IEEE and an IEEE-SA member:

Contact Information:

Telephone +1 214 340 8837 FAX: +1 214 853 5274

E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [Yes]

If YES, indicate PAR Number/Approval Date [P802.16.1-2000]

If YES, is this project in ballot now? [No]

[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:

[x] New standard

[...] Revision of existing standard {number and year} [...]

[...] Amendment to an existing standard {number and year} [...]

[...] Corrigendum to an existing standard {number and year} [...]

6. Life Cycle

[x] Full Use (5-year life cycle)

[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

[x] Individual Sponsor Balloting

[...] Entity Sponsor Balloting

[...] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: [2001 June 01]

8. Fill in Projected Completion Date for Submittal to RevCom: 2001 Aug 03

9. Scope of Proposed Project:

This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems. The specification enables transport of data, video, and voice services. It applies to systems operating in the vicinity of 30 GHz but is broadly applicable to systems operating between 10 and 66 GHz.

10. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products. To facilitate competition in broadband access by providing alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum.

11. Intellectual Property {Answer each of the questions below}

Has the sponsor reviewed the IEEE patent policy with the group? **Yes**

Are you aware of the possibility of any copyrights relevant to this project? **Yes**

Are you aware of the possibility of any trademarks relevant to this project? **Yes**

Are you aware of possible registration of objects or numbers due to this project? **Yes**

12. Are you aware of any other standards or projects with a similar scope?

Yes

Explanation: **The Broadband Radio Access Networks (BRAN) Committee of the European Telecommunications Standards Institute (ETSI) has a project known as HIPERACCESS which is attempting to standardize broadband wireless access in Europe. This is a regional standards effort with limited participation by the rest of the world. Furthermore, the project addresses regional markets with specific regulatory conditions distinct from those of other areas. We have held a joint meeting with this group and appointed a liaison. We plan to coordinate with them and will seek harmony where possible.**

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption?

Yes

If Yes, please answer the following questions:

Which International Organization/Committee **ITU-R**

International Contact Information:

Name: **Dr. José M. Costa**

Address: **P.O. Box 3511, Station C, Ottawa, ON K1Y 4H7 Canada**

Phone: **+1 613 763 7574**

FAX: **+1 613 763 1225**

Email: **costa@nortelnetworks.com**

14. Is this project intended to focus on health, safety or environmental issues? **No**

15. Mandatory Coordination

SCC 10 (IEEE Dictionary) by **DR** {Circulation of **DR**afts}

IEEE Staff Editorial Review by **DR**

SCC 14 (Quantities, Units and Letter symbols) by **DR**

Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the balloting pool.

16. Additional Explanatory Notes: {Item Number and Explanation}

5a) This revision rennumbers the PAR from “802.16.1” to “802.16” and simplifies the title. The PAR is also brought into the current format.

IEEE-SA Standards Board Project Authorization Request (PAR) Form

(2001-Rev 1)

1. Sponsor Date of Request 2001 Feb 09	2. Assigned Project Number P802.16a	3. PAR Approval Date (to be completed by staff)
---	--	--

Copyright release must be submitted with appropriate signatures by FAX (1-732-562-1571)

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title: {Place an X in only one option below}

- Standard for**{document stressing the verb "shall" }
- Recommended Practice for**{document stressing the verb "should" }
- Guide for** {document in which good practices are suggested, stressing the verb "may" }

Title: **Local and Metropolitan Area Networks — Amendment to Standard Air Interface for Fixed Broadband Wireless Access Systems —Media Access Control Modifications and Additional Physical Layer for 2-11 GHz**

Name of Working Group (WG): **IEEE 802.16 Working Group on Broadband Wireless Access**

Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE and/or Affiliate Member: **Roger B. Marks**

IEEE Standards Staff has verified that the Official Reporter (or Working Group Chair) is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone **+1 303 497 3037** FAX: **+1 303 497 7828**

E-mail: **r.b.marks@ieee.org**

Name of Working Group Chair (if different than Reporter):

IEEE Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone [...] FAX: [...]

E-mail: [...]

Name of Sponsoring Society and Committee: **Computer Society, LAN/MAN Standards Committee; Microwave Theory and Techniques Society**

Name of Committee Sponsor Chair: **Jim Carlo, Chair, LAN/MAN Standards Committee**

IEEE Standards Staff has verified that the Sponsor [] (Staff to check box)
Chair is an IEEE and an IEEE-SA member:

Contact Information:

Telephone +1 214 340 8837 FAX: +1 214 853 5274

E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [Yes]

If YES, indicate PAR Number/Approval Date [P802.16.3-2000]

If YES, is this project in ballot now? [No]

[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:

[...] New standard

[...] Revision of existing standard {number and year} [...]

[x] Amendment to an existing standard {number and year} [P802.16-2001]

[...] Corrigendum to an existing standard {number and year} [...]

6. Life Cycle

[x] Full Use (5-year life cycle)

[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

[x] Individual Sponsor Balloting

[...] Entity Sponsor Balloting

[...] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: 2001 Nov 30

8. Fill in Projected Completion Date for Submittal to RevCom: 2002 Mar 31

9. Scope of Proposed Project:

This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems (e.g., those supporting data rates of DS1/E1 or greater). The specification enables access to data, video, and voice services with a specified quality of service in licensed bands designated for public network access. It applies to systems operating between 2 and 11 GHz.

10. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective and interoperable multi-vendor broadband wireless access products. To facilitate competition in broadband access by providing wireless alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum. Utilization of frequencies from 2 to 11

GHz will address a market that includes residences, Small Office-Home Office (SOHO), telecommuters and Small and Medium Enterprises (SME).

11. Intellectual Property {Answer each of the questions below}

Has the sponsor reviewed the IEEE patent policy with the group? **Yes**

Are you aware of the possibility of any copyrights relevant to this project? **Yes**

Are you aware of the possibility of any trademarks relevant to this project? **Yes**

Are you aware of possible registration of objects or numbers due to this project? **Yes**

12. Are you aware of any other standards or projects with a similar scope?

Yes

Explanation:

- T1P1.4 is currently developing air interface standards for Fixed Wireless Access to the PSTN Network. The primary focus of the group is wireless access to POTS, ISDN and Fractional T1/E1 services delivered via the public circuit switched telephone network, although their charter does include packet data services. The individual user data rates currently contemplated by this group range from 8 Kb/s to 2 Mb/s.
- The ETSI BRAN Project is currently focusing on frequencies around 40 GHz but may evolve to frequencies below 11 GHz.
- IEEE 802.11 and 802.15 address primarily short range WLAN and WPAN applications, respectively. The 802.16.3 standard is specifically directed towards longer-range wireless point to multipoint MAN/WAN systems that provide access to core public networks. These systems typically serve large numbers of dispersed subscribers.
- ITU-R Working Party 8F is developing air interfaces for IMT-2000 and access systems beyond IMT-2000 for both mobile and fixed applications.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption?

Yes

If Yes, please answer the following questions:

Which International Organization/Committee **ITU-R**

International Contact Information:

Name: **Dr. José M. Costa**

Address: **P.O. Box 3511, Station C, Ottawa, ON K1Y 4H7 Canada**

Phone: **+1 613 763 7574**

FAX: **+1 613 763 1225**

Email: **costa@nortelnetworks.com**

14. Is this project intended to focus on health, safety or environmental issues?

No

15. Mandatory Coordination

SCC 10 (IEEE Dictionary) by **DR** {Circulation of **DR**afts}

IEEE Staff Editorial Review by **DR**

SCC 14 (Quantities, Units and Letter symbols) by **DR**

Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the balloting pool.

16. Additional Explanatory Notes: {Item Number and Explanation}

5a) This revision makes the project an Amendment to P802.16-2001 rather than a standalone document. The title is modified accordingly. The PAR is also brought into the current format.

IEEE-SA Standards Board Project Authorization Request (PAR) Form

(2001-Rev 1)

**1. Sponsor Date
of Request**

2001 Feb 09

**2. Assigned Project
Number**

P802.16b

3. PAR Approval

Date (to be completed by staff)

Copyright release must be submitted with appropriate signatures by FAX (1-732-562-1571)

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title: {Place an X in only one option below}

- **Standard for**{document stressing the verb "shall" }
- **Recommended Practice for**{document stressing the verb "should" }
- **Guide for** {document in which good practices are suggested, stressing the verb "may" }

Title: **Local and Metropolitan Area Networks — Amendment to Standard Air Interface for Fixed Broadband Wireless Access Systems — Media Access Control Modifications and Additional Physical Layer for License-Exempt Frequencies**

Name of Working Group (WG): **IEEE 802.16 Working Group on Broadband Wireless Access**

Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE and/or Affiliate Member: **Roger B. Marks**

IEEE Standards Staff has verified that the Official Reporter (or Working Group Chair) is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone **+1 303 497 3037** FAX: **+1 303 497 7828**

E-mail: **r.b.marks@ieee.org**

Name of Working Group Chair (if different than Reporter):

IEEE Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone [...] FAX: [...]

E-mail: [...]

Name of Sponsoring Society and Committee:

**Computer Society, LAN/MAN Standards Committee;
Microwave Theory and Techniques Society**

Name of Committee Sponsor Chair:

Jim Carlo, Chair, LAN/MAN Standards Committee

IEEE Standards Staff has verified that the Sponsor [] (Staff to check box)
Chair is an IEEE and an IEEE-SA member:

Contact Information:

Telephone +1 214 340 8837 FAX: +1 214 853 5274

E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [Yes]

If YES, indicate PAR Number/Approval Date [P802.16.1b-2000]

If YES, is this project in ballot now? [No]

[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:

[...] New standard

[...] Revision of existing standard {number and year} [...]

[x] Amendment to an existing standard {number and year} [P802.16-2001]

[...] Corrigendum to an existing standard {number and year} [...]

6. Life Cycle

[x] Full Use (5-year life cycle)

[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

[x] Individual Sponsor Balloting

[...] Entity Sponsor Balloting

[...] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: 2001 Nov 30

8. Fill in Projected Completion Date for Submittal to RevCom: 2002 Mar 31

9. Scope of Proposed Project:

This standard specifies the medium access control layer and physical layers of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems. The specification enables transport of data, video, and voice services. Physical layers are specified for both licensed and license-exempt bands.

This Amendment expands the scope of the original project by extending it to license-exempt bands (thereby defining the Wireless High-Speed Unlicensed Metropolitan Area Network [WirelessHUMAN™] Standard). It specifies the physical layer and medium access control layer of the air interface of interoperable fixed broadband wireless metropolitan area network systems, including point-to-multipoint. The standard enables access to data, video, and voice services with quality of service in unlicensed (i.e., license-exempt) bands designated for public network access. It will focus on the 5-6 GHz range and may be applied to unlicensed bands between 2 and 11 GHz. It will address strategies for coexistence with other unlicensed applications. The

project will utilize or modify applicable elements from the following:

- MAC: IEEE 802.16
- PHY: IEEE 802.11a; ETSI BRAN HIPERLAN/2

10. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products. To facilitate competition in broadband access by providing alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum.

This Amendment enhances the original project by extending it to license-exempt bands. It will identify techniques to tolerate interference in the unlicensed bands and facilitate strategies for coexistence with other unlicensed band systems such as 802.11 and 802.15. It will encourage consistent worldwide spectrum allocation and accelerate the commercialization of unlicensed broadband wireless access spectrum. Utilization of unlicensed frequencies will address a market that includes residences, small office-home office (SOHO), telecommuters, and small and medium enterprises (SME).

11. Intellectual Property {Answer each of the questions below}

Has the sponsor reviewed the IEEE patent policy with the group? **Yes**

Are you aware of the possibility of any copyrights relevant to this project? **Yes**

Are you aware of the possibility of any trademarks relevant to this project? **Yes**

Are you aware of possible registration of objects or numbers due to this project? **Yes**

12. Are you aware of any other standards or projects with a similar scope?

Yes

Explanation:

IEEE 802.11, ETSI HIPERLAN/2, and IEEE 802.15 standards and projects address primarily short range WLAN and WPAN applications, respectively. PACS-UA and PACS-UB address unlicensed operation in the unlicensed personal communication services (UPCS) bands at 1910-1930MHz and 2390-2400MHz. This Amendment is specifically directed towards wireless point-to-multipoint MAN/WAN systems that provide access to core public networks using the unlicensed band spectrum. These systems typically serve large numbers of dispersed subscribers.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption?

Yes

If Yes, please answer the following questions:

Which International Organization/Committee **ITU-R**

International Contact Information:

Name: **Dr. José M. Costa**

Address: **P.O. Box 3511, Station C, Ottawa, ON K1Y 4H7 Canada**

Phone: **+1 613 763 7574**

FAX: **+1 613 763 1225**

Email: **costa@nortelnetworks.com**

14. Is this project intended to focus on health, safety or environmental issues?

No

15. Mandatory Coordination

SCC 10 (IEEE Dictionary)	by DR {Circulation of DR afts}
IEEE Staff Editorial Review by	by DR
SCC 14 (Quantities, Units and Letter symbols)	by DR

Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the balloting pool.

16. Additional Explanatory Notes: {Item Number and Explanation}

8) The intended timetable is:

Nov 2000:	Issue Call for Proposals for PHY and MAC <ul style="list-style-type: none">• PHY: Modifications of 802.11a and/or HIPERLAN/2• MAC: Modifications of 802.16
Jan 2001:	Review proposals
Feb 2001:	Select Candidate Proposals at Interim Meeting
Mar 2001:	Decision on specific modifications
May 2001:	First Tentative Draft Standard submitted for review
July 2001:	Comment Resolutions
Sep 2001:	Second Tentative Draft Standard submitted for Letter Ballot
Nov 2001:	Initiate Sponsor Ballot
Mar 2002:	Submit to RevCom

5a) This revision renumbers the PAR from “802.16.1b” to “802.16b” to reflect renumbering of the base project from 802.16.1 to 802.16. The title is also simplified, and the PAR is also brought into the current format.

IEEE-SA Standards Board Project Authorization Request (PAR) Form

(2001-Rev 1)

**1. Sponsor Date
of Request**

2001 Feb 09

**2. Assigned Project
Number**

P802.16.2

3. PAR Approval

Date (to be completed by staff)

Copyright release must be submitted with appropriate signatures by FAX (1-732-562-1571)

4. Project Title, Recorder and Working Group/Sponsor for this Project

Document type and title: {Place an X in only one option below}

- Standard for**{document stressing the verb "shall"}
- Recommended Practice for**{document stressing the verb "should"}
- Guide for** {document in which good practices are suggested, stressing the verb "may"}

Title: **Local and Metropolitan Area Networks — Recommended Practice for Coexistence of Fixed Broadband Wireless Access Systems**

Name of Working Group (WG): **IEEE 802.16 Working Group on Broadband Wireless Access**

Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE and/or Affiliate Member: **Roger B. Marks**

IEEE Standards Staff has verified that the Official Reporter (or Working Group Chair) is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone: **+1 303 497 3037** FAX: **+1 303 497 7828**

E-mail: **r.b.marks@ieee.org**

Name of Working Group Chair (if different than Reporter):

IEEE Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone: [...] FAX: [...]

E-mail: [...]

Name of Sponsoring Society and Committee:

**Computer Society, LAN/MAN Standards Committee;
Microwave Theory and Techniques Society**

Name of Committee Sponsor Chair:

Jim Carlo, Chair, LAN/MAN Standards Committee

IEEE Standards Staff has verified that the Sponsor Chair is an IEEE and an IEEE-SA member: (Staff to check box)

Contact Information:

Telephone +1 214 340 8837 FAX: +1 214 853 5274
E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [**Yes**]

If YES, indicate PAR Number/Approval Date [**P802.16.2-1999**]

If YES, is this project in ballot now? [**No (but anticipated to begin on 2001 Feb 27)**]

[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:

New standard

[...] Revision of existing standard {number and year} [...]

[...] Amendment to an existing standard {number and year} [...]

[...] Corrigendum to an existing standard {number and year} [...]

6. Life Cycle

Full Use (5-year life cycle)

[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

Individual Sponsor Balloting

[...] Entity Sponsor Balloting

[...] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: [**2001 Feb 27**]

8. Fill in Projected Completion Date for Submittal to RevCom: **2001 May 04**

9. Scope of Proposed Project:

This project covers development of a Recommended Practice for the design and coordinated deployment of fixed broadband wireless access (BWA) systems operating from 10-66 GHz (with a focus on 23.5-43.5 GHz) in order to minimize interference so as to maximize system performance and/or service quality. This practice will provide for coexistence using frequency and spatial separation and will cover three areas. First, it will recommend limits of in-band and out-of-band emissions from BWA transmitters through parameters including radiated power, spectral masks and antenna patterns. Second, it will recommend receiver tolerance parameters, including noise floor degradation performance, for interference received from other BWA systems. Third, it will provide coordination parameters, including separation distances, and power flux density limits, to enable successful deployment of BWA systems with tolerable interference. The scope includes interference between systems deployed across geographic boundaries in the same frequency band and systems deployed in the same geographic area in different frequency bands (including different systems deployed by a single license-holder in sub-bands of the licensee's authorized bandwidth). The scope does not cover coexistence issues due to intrasystem frequency re-use within the operator's licensed band, and it does not consider the impact of

interference created by BWA systems on non-BWA terrestrial and satellite systems.

10. Purpose of Proposed Project:

The purpose of this recommended practice is to provide coexistence guidelines to license holders, service providers, deployment groups, and system integrators. The equipment parameters contained within this practice will benefit equipment and component vendors and industry associations by providing design targets. The benefits of this practice will include:

- Coexistence of different systems with higher assurance that system performance objectives will be met.
- Minimal need for case-by-case interference studies and coordination between operators to resolve interference issues.
- Preservation of a favorable electromagnetic environment for deployment and operation of BWA systems, including future systems compliant to IEEE 802.16 interoperability standards.
- Improved spectrum utilization.
- Cost-effective system deployment.

11. Intellectual Property {Answer each of the questions below}

Has the sponsor reviewed the IEEE patent policy with the group? **Yes**

Are you aware of the possibility of any copyrights relevant to this project? **Yes**

Are you aware of the possibility of any trademarks relevant to this project? **Yes**

Are you aware of possible registration of objects or numbers due to this project? **No**

12. Are you aware of any other standards or projects with a similar scope?

Yes

Explanation: Administrations are developing general coordination criteria and procedures to allow BWA operators to deploy systems. Detailed co-existence guidance, such as described in this PAR, is in its early stages of development in other regional and international standards bodies. Studies addressing certain aspects of the coexistence issues are being developed by or have been completed by organizations such as:

1. International Telecommunications Union (ITU): ITU-R JRG 8A/9B and ITU-R 9B
2. European Telecommunications Standards Institute (ETSI): Technical Committee TM (Transmission and Multiplexing), Working Group TM4 (Fixed Radio Systems)
3. Inter-American Telecommunication Commission (CITEL): Permanent Consultative Committee III: Radiocommunications (PCC-III)
4. Association of Radio Industries and Businesses (ARIB): R&D Group for the Fixed Wireless Access System
5. National Spectrum Managers Association (NSMA)
6. Radio Advisory Board of Canada (RABC)

We will coordinate with these groups as appropriate.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption?

Yes

If Yes, please answer the following questions:

Which International Organization/Committee **ITU-R**

International Contact Information:

Name: **Dr. José M. Costa**

Address: P.O. Box 3511, Station C, Ottawa, ON K1Y 4H7 Canada
Phone: +1 613 763 7574
FAX: +1 613 763 1225
Email: costa@nortelnetworks.com

14. Is this project intended to focus on health, safety or environmental issues?

No

15. Mandatory Coordination

SCC 10 (IEEE Dictionary)	by DR	{Circulation of DR afts}
IEEE Staff Editorial Review by	by DR	
SCC 14 (Quantities, Units and Letter symbols)	by DR	

Additional communication and input from other organizations or other IEEE Standards Sponsors should be encouraged through participation in the working group or the balloting pool.

16. Additional Explanatory Notes: {Item Number and Explanation}

5a) This revision simplifies the title and slightly reduces the scope. The PAR is also brought into the current format.

4.12 ME 802.16 Press Release

- Marks

Marks presents draft of press release describing progress in 802.16 WG.

5 SEC members and the audience offer several improvements to the press release draft.

Motion: Approve in principle press release

Marks/Nikolich

10

5/0/4

4.13 ME Cond App 802.15.1 (BlueTooth) to LMSC Sponsor Ballot

- Heile

15 **Motion:**

Forward IEEE Draft 802.15.1/D1.0 to Sponsor ballot, based on a successful completion Of a WG recirculation ballot. Conditional approval to expire at the beginning of the Portland Plenary meeting.

20 **Heile/Kerry**

11/0/0

4.14 ME 802.16 Liaison Letters (2)

- Marks

25

Marks presents liaison letter to ETSI BRAN. SEC members offer several improvements. The letter to ETSI BRAN is from the 802.16 WG.

Motion to approve IEEE 802-16I-01/09 as a communication from the 802.16.

30

Marks/Nikolich

6/0/5 Approved

Motion to approve in principle IEEE802.16I-01/10 as a Working Group position statement to a government body.

35

Marks/Nikolich

6/0/5 Approved

4.14a ME SC6 TAG Response to IEEE

- Carlo

40

Motion

IEEE 802 believes that it is no longer necessary to participate in the US Technical Advisory Group (TAG) for ISO/IEC JTC1/SC6 and recommends that steps be taken to disband the SC6 IEEE TAG (which in the past has provided US inputs to the JTC1/SC6 working groups WG1 and WG3 via the U.S. National Body [USNB])

45

Thompson/Frazier

10/0/0 Approved

50

**4.15 MI* Initiate 30 day SEC letter ballot re: RIP FRD
Approved as part of the consent agenda.**

- Jeffree

4.16 MI Formation of Sponsor Ballot Pool for 802.3ae 10 Gige - Thompson

Motion: Approve formation of sponsor ballot pool for P802.3ae (10 Gigabit Ethernet)

5 **Thompson/Grow**

Withdrawn by Thompson because it is not necessary to have SEC approval to form a sponsor ballot pool.

4.17 MI Renewal of 802.3 EFM Study Group Charter - Thompson

10 **Request renewal of EFM Study Group Authorization for another plenary cycle.**

(see file objectives.pdf)

15 **Frazier/Thompson**
11/0/0

SG Objectives

Support subscriber access network topologies:

- 84-3-12 Point to multipoint on optical fiber
- 86-0-10 Point to point on optical fiber
- 64-1-33 Point to point on copper

Provide a family of physical layer specifications:

- 87-0-11 1000BASE-X extended temperature range optics
- 84-4-13 1000BASE-X long distance over single SM fiber
- 68-0-27 PHY for copper
- 59-3-19 PHY for long distance over PON
- 79-0-12 Support OAM&P for subscriber access networks

4.18 MI 802.11 5 GHz Study Group renewal - Kerry

Motion Request renewal of 802.11 5 Ghz Study Group authorization for an additional plenary cycle. Expect presubmission of PAR and 5 Criteria for the July 2001 plenary.

Kerry/Heile
11/0/0

4.19 MI Procedure 1 Rules Change - Nikolich

Frazier indicates willingness to remove his disapproval on Rules Change to Procedure 1.

Motion to approve the addition of statement allowing the treasury to support the publication of standards to Procedure 1 Use of LMSC Funds of the LMCS operating rules as presented in the March 15,2001 Nikolich memo.

Nikolich/Thompson

11/0/0

4.20 MI Section 5.1.3 Rules Change - Nikolich

Motion: Approve the modifications to section 5.1.3 of the 802 operating rules to resolve the ambiguity with respect to the definition and use of the terms members and observers as presented in the March 15,2001 Nikolich memo.

Marks asks to delete "level" from "sponsor level ballot".

Nikolich/Thompson
11/0/0

4.21 MI Appointment of 802.17 Officers - Carlo

Motion: Approve the 802.17 selection of Mike Takefman for 802.17 WG chair. Note he was approved by acclamation by over 100 voting members of 802.17.

Love/Hayes
11/0/0

Motion: Approve as 802.17 Vice Chair selected by the Working group Robert Love

Marks/Hayes
9/0/1

4.22 MI Appointment of 802 LMSC Recording Secretary - Carlo

Affirm Bob O'Hara as the recording secretary of IEEE 802 effective at the end of the March plenary meeting

Frazier/Hayes
11/0/0

O'Hara will supply a letter to the recording secretary.

4.23 MI 802.16 Study Group on amendment to 802.16.2 - Marks

Motion to affirm IEEE 802.16's decision to create a Working Group Study Group on Coexistence of a Fixed Broadband Wireless Access Systems, chartering it to draft a PAR for an amendment to 802.16.2

Marks/Nikolich

10/1/0

4.24 MI Wireless Coexistence EC Study Group - Heile

Motion to form an EC SG on wireless coexistence to develop a recommendation on how best to deal with the issues of wireless coexistence within 802.

**Heile/Kerry
11/0/0**

4.25 MI Network Services Feedback - Nikolich

Authorize expenditure of up to \$15K, \$2K for a PC and \$13K for wired and wireless networking services and internet access for the July 2001 meeting, including instructions for use and announcement 1 month before the start of the meeting. Mr. Heile and Mr Kerry being the SEC contacts.

Hayes/Nikolich

Grow expresses opinion that the motion would be fiscally irresponsible, given that it is unbudgeted, and would result in a \$11K deficit for the July meeting.

Motion withdrawn. Will be discussed via email ballot.

4.26 DT -

4.27 DT -

4.28 ME 802 Standards Distribution - Carlo

Launch a 3 year pilot program that provides for the public availability of individual IEEE 802 standards in PDF format via the IEEE-SA web site effective 15 May 2001.

- IEEE 802 contribution of \$75 per person per plenary meeting since July 2000
- Individual IEEE 802 PDFs available 6 months after publication
- IEEE-SA socialize corporate solicitation
- Program labeled as "Underwritten by Industry"
- Program to be reviewed yearly for viability
- IEEE 802 chair provide a plenary report with 3 year workload projections

Motion: Approve the above plan and authorize Treasurer to "cut a check" within two weeks after each plenary meeting, including \$215,100 within two weeks after this meeting to cover the obligation since July 2000.

**Thompson/Frazier
10/1/0 Approved**

Jeffrey states that 802.1 has asked that IEEE Standards staff provide itemization of costs associated with editing and publication of 802 standards as part of the yearly review.

Rigsbee asks if the CDROM is affected by this program.
Answer is no.

What is meaning of this being identified as a 3 year pilot program?

Intent is to have a yearly review to make adjustments if necessary, and to keep program in place for 3 years.

4.29 II July Closing SEC meeting - Carlo

**Move the SEC meeting to 4-8pm on Friday in July.
Marks/Hayes
9/2/0**

4.30 II 802.11/15/16/17 Interim Meeting

- Nikolich

Approve Paul Nikolich, on behalf of the SEC to manage the May, 2001 Orlando Interim meeting.

Kerry/Heile

5 **11/0/0**

4.31 II 802.3 Interpretation Requests

- Thompson

4.32 II Meeting Arrangements for Portland

- Jeffree

10 802.1 expects to meet only on Monday through Wednesday in July.

12:00 Adjourn

The meeting was adjourned at 12:00pm.

15

Respectfully Submitted,

Howard Frazier

Recording Secretary

802.1 - Activities & status

Tony Jeffree, WG Chair

15th March 2000

Areas of work

- 802 Architecture
- Interworking between 802 technologies
 - “Technical Plenary” if needed
- MAC Bridging
 - “traditional” bridging
 - VLAN bridging
- LAN management
- Website: <http://www.ieee802.org/1/>

Status of current projects - (1)

- Standard 802 revision (Overview & Architecture)
 - Draft 28 Sponsor Ballot has passed; comments resolved this week
 - Will be submitted to June RevCom after recirc ballot
- P802.1s - Multiple Spanning Tree support in VLANs
 - Draft 10 expected to be circulated in next few weeks

Status of current projects - (2)

- P802.1t - Tech & ed corrections to 802.1D MAC Bridges
 - Draft 10 to RevCom on 16th March
- P802.1u - Tech & ed corrections to 802.1Q VLANs
 - Draft 9 to RevCom on 16th March

Status of current projects - (3)

- P802.1v - VLAN classification by protocol and port
 - Draft 6 to RevCom on 16th March
- P802.1w - Rapid Spanning Tree reconfiguration
 - Draft 9 Sponsor Ballot has passed; comments resolved this week
 - Will be submitted to June RevCom after recirc ballot

Status of current projects - (4)

- P802.1X - Port based network access control
 - Draft 10 Sponsor Ballot has passed; comments resolved this week
 - Will be submitted to June RevCom after recirc ballot

IEEE 802.3 CSMA/CD

- Feedback to Exec on Network
- Feedback to Exec on Free Standards
- P1802.3Rev conditionally to Standards Board
- P802.3ag Rev to Sponsor Ballot
- Interpretation Requests, 1 Appd, 1 to WG Ball
- P802.3ae to WG ballot, form Sponsor Pool
- EFM: Renew Study Group, PAR/5 preview in June
- Comments of X.86 to ITU-T
- Comments on Jumbo Frame RFC to IETF

- STRAW POLL - 802.3 MON/H-HEAD
re: At Meeting Networks

Issues/Concerns:

- Cost: ~\$15/head/meeting
- Meeting distraction (Web surfing during mtg)
- Security/viruses

STRAW POLL RESULTS:

- 1) Internet Access
 - FOR 34 AGAINST 89
- 2) Access to servers @ mtg only
 - FOR 66 AGAINST 66
- 3) Nothing (e.g. 5 more cookies for same \$)
 - FOR 73 AGAINST 34

IEEE 802 Standards We've Got a Deal !

Launch a 3-year pilot program that provides for the public availability of individual IEEE 802 Standards in PDF format via the IEEE-SA web site effective 15 May 2001.

- IEEE 802 contribution of \$75 per person per meeting since July 2000
- Individual IEEE 802 PDFs available 6 months after publication
- IEEE-SA socialize corporate solicitation and a

Whoopee !!!

P1802.3 Rev

IEEE 802.3 Motion

IEEE 802.3 authorises the IEEE P1802.3Rev Task Force to conduct meetings and recirculation ballots as necessary to resolve the comments received during the Sponsor ballot process.

IEEE 802.3 requests that the P802 LMSC Executive Committee forward P1802.3Rev/D3.1 to RevCom (by 05/01) based on successful Sponsor ballot with no new technical disapprove votes.

M: David Law S: Tom Dineen Tech 75%/

PASSED Date: 15th Mar 2001

Y: 96 N: 0 A: 2 Time: 8:58

=====
802 EXEC MOTION:

Conditionally approve forwarding P1802.3Rev to REVCOM upon successful completion of Sponsor Ballot

M: G.Thompson/ S: B.Grow

Y____ N____ Ab ____

IEEE Std. 802.3 Interpretation Requests

Information Item to 802 EXEC

1 Interpretation Request was approved by 802.3 in session on Thursday

1 Interpretation Request was sent to 30 day letter ballot by 802.3 in session on Thursday

P802.3ae 10 Gigabit Ethernet

Draft 2.3 reviewed today for approval by 802.3 for Working Group Ballot and request formation of Sponsor Ballot Pool. Approved 99/0/0

Will have editorial updates (spell-check, link updates and clause renumber) before opening of ballot.

=====

802 EXEC Motion:

Approve formation of Sponsor Ballot Pool for P802.3ae

M: G.Thompson /S: B. Grow Y___ N___ Ab___

Time: ___

Ethernet in the First Mile Study Group

802 EXEC Motion:

Request renewal of Study Group Authorization for another
Plenary cycle

Expect to presubmit PAR + 5 Criteria for July Mtg

M: H. Frazier /S: G.Thompson Y___ N___ Ab___

Time: ___

Comments of X.86 to ITU-T

Request Exec approve transmittal of informational
Liaison statement and recommendation.

M: G.Thompson / B. Grow Y____ N____ Abs____

Comments on Jumbo Frame RFC to IETF

Request Exec approve transmittal of opinion regarding
information RFC about to be posted.

M: G.Thompson / H. Frazier Y____ N____ Abs____

802.11 Report to SEC

- 468 participants are on record in the 802.11 database.
- 168 participants were at the opening plenary.
 - 169 Voting Members, 211 potential voting members, 179 aspirant voters.
- Over 200 documents have been published in 802.11 so far this year.

802.11 Report from Task Groups

- 802.11b-cor1 Corrigendum for 802.11b
 - 802.11b-cor1 is ready to go to sponsor ballot, but did not initiate the ballot before this meeting.

802.11 Report from Task Groups

- 802.11d Regulatory Domains
 - TGd resolved 55 comments. 32 were technical: 31 were resolved, 1 was withdrawn. All editorial comments were accepted.
 - TGd forwarded and passed motions in the 802.11 plenary to adopt the comment resolutions, and forward the revised 802.11d Draft 3 to sponsor recirculation ballot.

802.11 Report from Task Groups

- Task Group E Security
 - TGe-Security forwarded revised PARs to the Standards Board to separate TGe-Security into a new task group.
 - TGe-Security adopted document 01/018r4 as the TGe-Security Draft Text D1.0, and forwarded it to Letter Ballot, and to Sponsor Ballot under the new PAR, subject to approval of the new PAR.

802.11 Report from Task Groups

- Task Group E QoS
 - TGe-QoS adopted the Hybrid Coordination Function (HCR, document 110r1) and the Enhanced Distributed Coordination Function (EDCF, document 131r1) into the baseline QoS draft D0.1.
 - The TGe-QoS Draft, with the updates from the previous motions, was approved for WG letter ballot, and forwarding to Sponsor Ballot.

802.11 Report from Task Groups

- Task Group F: Inter Access Point Protocol.
 - Adopted document 01/102r2 as the initial draft of TGf.
 - The draft was approved to conduct a working group letter ballot to forward the draft to Sponsor Ballot.

802.11 Report from Task Groups

- Task Group G
 - Completed the first down-selection vote between three proposals. The vote was 48%, 46%, and 6%. The proposal with 6% was eliminated. Since the remaining two proposals did not have sufficient support to reach 75%, the session was adjourned for the week to seek compromise.

802.11 Report from Task Groups

- Task Group H
 - Has been taking proposals, and discussed them this week. Currently three proposals have been accepted. TGh passed a motion to close proposals on April 14, 2001.

802.11 Report from Task Groups

- 5GSG
 - Passed a motion to extend the study group until the July 2001 Plenary.
 - Approved and forwarded the PAR and 5 criteria documents to executive committee for approval.



IEEE 802.16 Session #12 Report

Session #12 of the IEEE 802.16 Working Group on Broadband Wireless Access took place on 12-15 March 2001 at the Hilton Oceanfront Resort in Hilton Head, South Carolina, USA. Attendance at Session #12 was 178.

Note: This report (updated 26 March) is essentially complete but will be edited as final information become available.

Summary

The session was marked by final agreement (as defined in IEEE 802.16-01/10) to create a unified Working Group air interface document with a common, flexible medium access control (MAC) platform supporting multiple physical layers (PHYs). The first stage (the base MAC and a 10-66 GHz physical layer) was approved in a Working Group Letter Ballot, subject to comment resolution. In the development of the 2-11 GHz physical layer, a dual approach (both OFDM and single-carrier) was selected. The WirelessHUMAN™ Task Group made progress in draft development. A Recommended Practice on Coexistence began Sponsor Ballot (its final round of balloting), and a Study Group to consider its enhancement was created.

P802.16: Standard Air Interface for Fixed Broadband Wireless Access Systems [10-66 GHz]

A draft was approved, with comments, in a Working Group Letter Ballot. Comments were resolved (as documented in the database IEEE 802.16-01/19) and a recirculation ballot will begin soon. Publication is still anticipated in the fourth quarter of 2001. In a joint meeting, a new flexible header was worked out to support the needs of 802.16a and 802.16b.

P802.16a: MAC Modifications and Additional Physical Layer for 2-11 GHz

The 802.16a group agreed to incorporate both a single-carrier mode (based on 802.16.3c-01/32) and an OFDM mode (based on 802.16.3c-01/33r2). Drafting has been initiated on both PHY and MAC documents.

P802.16b: MAC Modifications and Additional Physical Layer for License-Exempt Frequencies (WirelessHUMAN™)

MAC and PHY teams made progress in draft development. The project remains on schedule.

P802.16.2: Recommended Practice for Coexistence of Fixed Broadband Wireless Access Systems

Following completion of its Working Group Letter Ballot, with 100% approval, on 17 February, P802.16.2 began its Sponsor Ballot (its final ballot stage) on 14 March. June approval is anticipated. A Study Group, chaired by Phil Whitehead, was created to consider amendments to enhance the document by consideration of point-to-point systems and 2-11 GHz issues.

Working Group Activities

Regulatory and Coexistence

A ninety-minute Working Group session was held to discuss regulatory issues with Julius Knapp,

Chief of the Policy and Rules Division of the Office of Engineering and Technology (OET) at the U.S. Federal Communications Commission (FCC) (see the [agenda](#)). David Chauncey was appointed as the Working Group's Regulatory Liaison.

Liaison

Liaison letters to [ETSI BRAN](#) and [ITU-R](#) were approved.

Membership

Working Group membership rose from 124 to 137.

Secretary

Carl Bushue served as Acting Secretary of the Working Group.

Documents

The [Session #12 document list](#) indexes the session documents (at least 97 of them).

Complete Minutes

Full minutes are forthcoming. Some draft minutes are available:

- [Working Group Minutes](#)
- [TG1 MAC Minutes](#)
- [TG3 Minutes](#)

Press Release

A [press release](#) entitled "IEEE 802.16 Group Achieves Key Milestones" was approved in [draft form](#).

Future Meetings

IEEE 802.16 will meet at [Session #13](#) in Orlando, Florida, USA on 14-18 May 2001 along with 802's other Wireless Working Groups (802.11 and 802.15). Session #14, an 802 Plenary, is 9-13 July 2001 in Portland, Oregon, USA. The site of Session #15 (September 10-14, 2001) is undecided, but San Jose, California, USA is under consideration.

About IEEE 802.16

The IEEE 802.16 Working Group on Broadband Wireless Access Standards is creating the WirelessMAN™ family of standards for wireless metropolitan area networks. 802.16 is a unit of the [802 LAN/MAN Standards Committee](#), the premier transnational forum for wired and wireless networking standardization.

This report was drafted on 15 March and edited by:

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