

**IEEE-SA STANDARDS BOARD  
FORM FOR SUBMITTAL OF PROPOSED STANDARDS**

**1. PROJECT NUMBER:** P802.16.2a**2. DATE:** 18 Mar 2003**3. TITLE:** Amendment to IEEE Recommended Practice for Local and Metropolitan Area Networks - Coexistence of Fixed Broadband Wireless Access Systems - Amendment 1**4. SPONSOR** (Full name of society/committee): Computer Society/LMSC + Microwave Theory & Techniques Society**5. BALLOTING COMMITTEE:** 802.16 Working Group + Microwave Theory and Techniques Society  
(Include written delegation of balloting authority.)**6. NAME OF WORKING GROUP:** 802.16 Working Group on Broadband Wireless Access**7. NAME AND ADDRESS OF SUBMITTER**

Roger B. Marks  
NIST  
325 Broadway, MC 813.00  
Boulder, CO 80305  
USA

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Fax: +1 509 756 2642

E-Mail: r.b.marks@ieee.org

**8. DESCRIPTION OF DOCUMENT** (Check one from each column.)

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> New | <input type="checkbox"/> Standard  | <input checked="" type="checkbox"/> Full Use (5-year life cycle) |
| <input type="checkbox"/> Revision       | <input type="checkbox"/> Recommended Practice  | <input type="checkbox"/> Trial Use (2-year life cycle)           |
| <input type="checkbox"/> Reaffirmation  | <input type="checkbox"/> Guide   |  |
| <input type="checkbox"/> Withdrawal     | <input checked="" type="checkbox"/> Amendment/Corrigenda to an existing<br>standard (Indicate number and year) <u>IEEE 802.16.2-2001</u> |  |

**8A. REAFFIRMATION ONLY:**

The Sponsor confirms that the balloting group agrees that this standard continues to be useful in its current form and contains no significant obsolete or erroneous information.

Yes       No

**9. BALLOT INFORMATION**

List the interest categories of **eligible** balloters only. Refer to the IEEE-SA Standards Board Operations Manual and the Working Guide for Submittal of Proposed Standards for the rules of balloting committee classification.

User                    16	Producer                12	General Interest        29	Government              5
Interest Category    No.	Interest Category    No.	Interest Category    No.	Interest Category    No.

**SUMMARY OF ELIGIBLE BALLOTS**

	<u>INITIAL BALLOT</u>		<u>RECIRCULATION BALLOT</u> (if applicable)	
	Draft D3 Number	Date Closed: 2003-01-11 Percentage	Draft D5 Number	Date Closed: 2003-03-08 Percentage
Ballots Mailed	<u>62</u>	<u>100%</u>	<u>62</u>	<u>100%</u>
Ballots Returned	<u>49</u>	<u>79</u>	<u>52</u>	<u>83</u>
Affirmatives	<u>41</u>	<u>95</u>	<u>47</u>	<u>100</u>
Negatives	<u>2</u>	<u>N/A</u>	<u>0</u>	<u>N/A</u>
Abstentions	<u>6</u>	<u>12</u>	<u>5</u>	<u>9</u>

SPID 75869990.22241  
Reasons for abstentions:

IEEE-SA Standards Board    Approved Revision 7 December 2000

Lack of time = 3                      Lack of expertise = 2                      Other = 0

**10. RESOLUTION OF COMMENTS AND NEGATIVE VOTES**

All balloting group members, observers, and coordinating groups have been advised of substantive changes made with respect to the balloted draft standard (in response to comments, in resolving negative votes, or for other reasons) and have received copies of all unresolved negative votes with reasons from the negative voter and the rebuttal, and have been advised that they have an opportunity to change their votes.

- A. Have unresolved negative votes been circulated?  Yes  No  No unresolved votes  
*Include unresolved negative comments and rebuttal.*
- B. Have substantive document changes been circulated?  Yes  No  No substantive changes

**11. COORDINATION ACTIVITY (Not required for reaffirmation)**

Using the abbreviations listed below, indicate the response received from each committee/organization required for coordination and include a copy of the response. Include documentation authorizing coordination by common membership, if applicable.

R = Received                      R/C = Received with comment                      NR = Not received

Committee/Organization	Response	Committee/Organization	Response
SCC10 (IEEE Dictionary)	R/C		
SCC14 (Quantities, Units, & Letter Symbols)	R/C		
IEEE Standards Editorial Staff	R/C		

Indicate below any unresolved problems from coordination activities.

None. Sponsor agrees to make changes specified by SCC14.

**12. PATENT/COPYRIGHT and REGISTRATION ISSUES**

- A. Is there any patented material in the proposed standard?  Yes  No  Originally indicated on the PAR, but not included in the final document  
 If yes, include letters(s) of assurance from the patent holder.
- B. Is there any copyrighted material in the proposed standard?  Yes  No  
 If yes, include copyright release(s).
- C. Is the registration of objects and/or numbers a provision of the proposed standard? If yes, include a proposal for review by the IEEE-SA Registration Authority Committee (RAC).  Yes  No  Already approved by RAC

**13. INTERNATIONAL STANDARDS ACTIVITIES (Not required for reaffirmation)**

Is this document intended to be the basis of or included in an international standard?  Yes (Explain)  No

**14. UNIT OF MEASUREMENT (check one)**

- International System of Units (SI) - Metric  Inch/Pound  Both  Not measurement sensitive
- Other \_\_\_\_\_

**15. Source Materials Submitted to IEEE Standards Department**

- A. Have electronic versions of the source documents (text and figures) been provided?  Yes  No      Format: FrameMaker
- B. Will a diskette or other online material be required to accompany the published standard?  Yes  No

**16. Submission checklist**      (X = included in submittal package      N/A = Not applicable)

	Submission Package Item	List URL if online
X	This submittal form	
X	Ballot summary form(s) (1 per ballot cycle)	
N/A	Copies of unresolved negatives & rebuttals	
X	PAR and PAR approval letter	
X	Coordination comments and responses	
X	.pdf of final balloted draft #D5	
X	Permissions & copyright releases	
N/A	Delegation of balloting authority	

*This draft standard has been developed in accordance with the policies and procedures of the Sponsor and I am authorized by those policies and procedures to make this submittal.*

Chair, 802.16 Working Group

Signature of Submitter

Title (role in Sponsor)

=====

**FOR STANDARDS DEPARTMENT USE ONLY**

\_\_\_\_\_  
Signature of IEEE-SA Officer

IEEE-SA Standards Board Chair

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**Return to:**

IEEE Standards Department  
RevCom Secretary  
445 Hoes Lane  
PO Box 1331  
Piscataway, NJ 08855-1331

### Ballot Summary

P802.16.2a  
Closing date: 2003-01-11

**1. This ballot has met the 75% returned ballot requirement.**

62 eligible people in this ballot group.

41 affirmative votes  
2 negative votes  
6 abstention votes

=====  
49 votes received = 79% returned  
12% abstention

**2. The 75% affirmation requirement is being met.**

41 affirmative votes  
2 negative votes

=====  
43 votes = 95% affirmative

### Ballot Details

**Coordination Responses Only**

IEEE/Coord Number	Name	Role	Phone / E-mail	Coordination Ballot Received	Coordination Comment(s) Received
00601054	<a href="#">Bruce Barrow</a>	SCC14	301-493-4374 bbarrow@nist.gov	yes	yes
00001000	<a href="#">Michelle Turner</a>	SCC10	732-562-3825 m.d.turner@ieee.org	yes	yes
00001001	<a href="#">Michelle Turner</a>	Editorial	732-562-3825 m.d.turner@ieee.org	yes	yes

### Balloters

Number	Name	Phone / E-mail	Vote	T	E	Graphics	Status Notes	Interest Category
00095638	<a href="#">Gholamreza ("Reza") Arefi-Anbarani ("Arefi")</a> ArrayComm, Inc. 2300 N Street NW, Suite 700 Washington, D.C., District of Columbia 20037 USA	(202) 383-3346 reza@arraycomm.com	Approve, no comments (Y)	-	-	-		General Interest
06154470	<a href="#">Morris Balamut</a> n/a n/a n/a, NJ 07747 us	732-566-3588 m.balamut@ieee.org	-	-	-	-		User
40357619	<a href="#">John Barnett</a> Beverly Enterprises, Inc. 1000 Beverly Way Fort Smith, AR 72919 USA	4796465415 j.barnett@ieee.org	Approve, no comments (Y)	-	-	-		User
05587654	<a href="#">John Barr</a> Motorola 1303 E. Algonquin Road Schaumburg, IL 60196 USA	847-576-8706 john.barr@motorola.com	Approve, no comments (Y)	-	-	-		Producer
08805236	<a href="#">Mitchell Buchman</a> U.S. Dept of Defense 6261 Patuxent Quarter Road Hanover, MD 21076 USA	(410)796-5461 mitchb@ieee.org	-	-	-	-		Government
41437562	<a href="#">Remi Chayer</a>	1 (514) 421-8360	Approve, no	-	-	-		Producer

	Harris Corporation 3 Hotel de Ville Dollard-des-Ormeaux, Quebec H9B 3G4 Canada	rchayer@harris.com	comments (Y)					
07633407	<a href="#">Steven Crowley</a> Steven J. Crowley, P.E. 1201 Pennsylvania Ave. NW #300 Washington, DC 20004 USA	202 564 8207 scrowley@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
05046479	<a href="#">Dr. GURU DUTT DHINGRA</a> DHINGRA & ASSOCIATES Sapphire Park-1, Opp. K. J. Mehta High School NASIK ROAD -422101, Maharashtra 422101 INDIA	+91 253 461836 dhingragd@sancharnet.in	Approve, no comments (Y)	-	-	-		User
41476060	<a href="#">Santpal Dhillon</a> Duke University 4907 Stephens lane Durham, North Carolina 27712 USA	919-660-5423 santpald@yahoo.com	Approve, no comments (Y)	-	-	-		General Interest
41311588	<a href="#">Vern Dubendorf</a> Dubendorf 228 Summer St. Marshfield, MA 02050 USA	781-953-7752 tdubendorf@ieee.org	-	-	-			Government
08972887	<a href="#">Dr. Sourav Dutta</a> VSNL Internet HQ, 16th Flr, VSB, M G Road, Fort Mumbai, MH 400001 INDIA	+91 22 267-4269 s.dutta@ieee.org	Abstain for lack of time (A1)	-	-	-		General Interest
40263910	<a href="#">Dominic Espejo</a> Caltrans 120 S. Spring St. MS-15 Los Angeles, CA 90012 USA	213-897-6623 despejo@ieee.org	Approve, no comments (Y)	-	-	-		Government
08518995	<a href="#">Avraham Freedman</a> Hexagon System Engineering Ltd. 2 Kaufman st. Tel-Aviv, XX 68012 Israel	+972 3 5101128 avif@hexagonltd.com	Disapprove, comments (N)	1	-	1		General Interest
41441328	<a href="#">Ernesto Garcia</a> n/a loma hermosa 22-b-107 col. irrigacion mexico, df 11200 mexico	555395-2994 garcia@prousa.net	Abstain for lack of expertise (A2)	-	-	-		User
01883768	<a href="#">James Gilb</a> Appairtent Technologies 9921 Carmel Mountain Rd. #247 San Diego, CA 92129 USA	858-229-4822 gilb@ieee.org	Abstain for lack of time (A1)	-	-	-		General Interest
07393143	<a href="#">Robert Grow</a> Intel 13290 Evening Creek Drive San Diego, CA 92128 USA	858-391-4622 bob.grow@ieee.org	-	-	-			General Interest
40057220	<a href="#">Rajugopal Gubbi</a> Broadcom, corp 275, 1st Floor, 27th Cross, 10th Main,	+91-80-207-4069 r_gubbi@ieee.org	-	-	-			Producer

	BSK II Stage Bangalore, Karnataka 560 070 INDIA							
01150382	<a href="#">Jose Gutierrez</a> Eaton Corporation 4201 North 27th Street Milwaukee, WI 53216 USA	414-4496525 josegutierrez@eaton.com	Approve, no comments (Y)	-	-	-		User
08133936	<a href="#">Steve Halford</a> Intersil Corp 937 Haas Ave, NE Palm Bay, FL 32907 USA	321-729-5130 shalford@intersil.com	Approve, no comments (Y)	-	-	-		General Interest
40306847	<a href="#">Simon Harrison</a> Red-M (Communications) Ltd Neptune House, Mercury Park Wycombe Lane, Wooburn Green, Bucks HP10 0HH UK	+441628819604 simon.harrison@red-m.com	Approve, no comments (Y)	-	-	-		General Interest
01670801	<a href="#">Robert F. Heile</a> Appairant 11 Louis Road Attleboro, MA 02703 usa	781-929-4832 bheile@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
01556620	<a href="#">Hamadi Jamali</a> 4009 Miranda Ave. Palo Alto, CA 94304 USA	(650)852-0512 hjamali@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
40357068	<a href="#">STUART KERRY</a> OK-Brit 1020 White Cloud Drive Morgan Hill, CA 95037-6037 United States of America	4083483171 stuart@ok-brit.com	Approve, no comments (Y)	-	-	-		Producer
05995253	<a href="#">Brian Kiernan</a> InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406 USA	1 610 878-5637 brian.kiernan@interdigital.com	Approve, no comments (Y)	-	-	-		Producer
41304605	<a href="#">Pi-Cheng Law</a> Chunghwa Telecom Labs. P.O.Box 6-14 Yang-Mei Yang-Mei, Taoyuan 326 Taiwan	+886 3 4245738 pclaw@ieee.org	Approve, no comments (Y)	-	-	-		User
08108896	<a href="#">Yeou-Song Lee</a> Anritsu 490 Jarvis Drive Morgan Hill, CA 95037 U.S.A.	408-778-2000 ext. 4976 brian.lee@ieee.org	-	-	-	-		User
06754667	<a href="#">Arthur H. Light</a> Coleman Research Corporation 1700 North Moore Street Suite 1100 Rosslyn, VA 22209 USA	703-247-7713 art.light@crc.com	-	-	-	-		General Interest
40255444	<a href="#">Christina Lim</a> Photonics Research Laboratory Dept. of Electrical & Electronic Engineering The University of Melbourne, Victoria 3010	+61-3-8344-4486 c.lim@ee.mu.oz.au	Approve, no comments (Y)	-	-	-		General Interest

	Australia							
01622778	<a href="#">Randolph Little</a> AT&T (retired) 111 Berkeley Circle Basking Ridge, NJ 07920-2009 USA	(908)221-9173 rsl@att.net	Approve, no comments (Y)	-	-	-		General Interest
05845615	<a href="#">Gregory Luri</a> CITY OF ST. CHARLES 2 East Main Street ST. CHARLES, IL 60174-1984 USA	630-377-4475 gluri@ci.st-charles.il.us	Approve, no comments (Y)	-	-	-		User
08122103	<a href="#">Roger Marks</a> NIST 325 Broadway Boulder, CO 80207 USA	1 303 497 3037 r.b.marks@ieee.org	Approve, comments (Y1)	-	1	1		Government
40183512	<a href="#">Kyle Maus</a> AITG 6033 N. Sheridan Rd., #17H Chicago, IL 60660 USA	312-371-9727 sargon@ieee.org	Approve, no comments (Y)	-	-	-		User
41249650	<a href="#">Colleen McGinn</a> Appairent Technologies 150 Lucius Gordon Drive West Henrietta, New York 14586 USA	585-214-2459 mcginn@appairent.com	Approve, no comments (Y)	-	-	-		User
01271899	<a href="#">George Miao</a> 2 Inverness Drive Marlboro, NJ 07746 USA	732-462-7447 g.j.miao@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
00740167	<a href="#">Yinghua Min</a> ICT 6 Ke Xue Yuan Nan Lu, Zhongguancun Beijing, Beijing 100080 China	86-10-82611345 min@ict.ac.cn	Approve, comments (Y1)	-	-	-	Approve, comments without comment	General Interest
40223729	<a href="#">Apurva Mody</a> Georgia Tech 250, 14th Street NW., #549 Atlanta, GA 30318 USA	404-881-8910 apurva@ece.gatech.edu	Approve, no comments (Y)	-	-	-		General Interest
41270317	<a href="#">Ronald Murias</a> Wi-LAN, Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-204-7766 ronm@wi-lan.com	Approve, comments (Y1)	-	3	-		Producer
07446628	<a href="#">Michael Newman</a> CSI Telecommunications Engrs. 1700 California Street San Francisco, CA 94109 USA	415-751-8845 miken@csitele.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	User
41454280	<a href="#">Charles Ngethe</a> KWS-Telecommms Langata Road Nairobi, Nairobi 00400 Kenya	254 722 686442 cngethe@kws.org	Approve, no comments (Y)	-	-	-		General Interest
07858459	<a href="#">Paul Nikolich</a> consultant 18 bishops lane	857.205.0050 p.nikolich@ieee.org	Abstain for lack of time (A1)	-	-	-		User

	lynnfield, ma 01940 usa								
08944704	<a href="#">Bob O'Hara</a> Black Storm Networks, Inc. 110 Nortech Pkwy San Jose, CA 95134 USA	408 941 0500 bob.ohara@ieee.org	Approve, no comments (Y)	-	-	-			User
07022429	<a href="#">Roger Pandanda</a> MCS Corporation Box 20451 Palo Alto, CA 94309 USA	650-618-1786 rogerp@ieee.org	Approve, no comments (Y)	-	-	-			General Interest
00353235	<a href="#">Subbu Ponnuswamy</a> Vivato, Inc. 1005 Blue Ravine Road Folsom, CA 95630 USA	916-984-0868 subbu@acm.org	Approve, no comments (Y)	-	-	-			General Interest
01453273	<a href="#">Vikram Punj</a> Meru Networks 6558 Leyland Park Ct San Jose, CA 95120 USA	408-268-1479 punj@msn.com	Approve, no comments (Y)	-	-	-			Producer
08461584	<a href="#">Moshe Ran</a> MostlyTek 58 Keshet Street RE'UT, Israel 71908 Isarel	+972-8-9265129 ranmoshe@bezeqint.net	-	-	-	-			General Interest
03219375	<a href="#">Terrill Ray</a> U.S. State Department 3006 Furman Lane #103 Alexandria, VA 22306 USA	202-736-4273 rockdoc@telocity.com	Approve, no comments (Y)	-	-	-			General Interest
40266494	<a href="#">Eugene Robinson</a> E. A. Robinson Consulting 1200 Lake Point Circle McKinney, Texas 75070 USA	972 529-6395 rob1200@aol.com	Approve, no comments (Y)	-	-	-			General Interest
41413768	<a href="#">Shane Rogers</a> Wi-LAN Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-207-6355 srogers@wi-lan.com	-	-	-	-			Producer
21770065	<a href="#">Thomas Ruf</a> SysKonnct GmbH Siemensstrasse 23 Ettlingen, BW 76275 Germany	+49 7243 502 324 truf@syskonnct.de	Approve, no comments (Y)	-	-	-			Producer
40156964	<a href="#">Neil Shipp</a> Commsonic Ltd St. Johns Innovation Centre Cambridge, Cambridgeshire CB4 0WS UK	+44 1223 572364 nrs@ieee.org	Abstain for lack of time (A1)	-	-	-			Producer
01109156	<a href="#">Gil Shultz</a> Yazaki 6801 Haggerty Rd Canton, Michigan 48187 USA	248-894-7766 gshultz@yazaki-na.com	Approve, no comments (Y)	-	-	-			User
00720961	<a href="#">Kevin Smart</a>	801-617-2507	Approve, no	-	-	-			General Interest



	Micro Linear 11734 S Election Rd #200 Draper, UT 84020 USA	kevin@keltypack.com	comments (Y)					
41392686	<a href="#">Kenneth Stanwood</a> Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA	(858) 404-6559 kenstanwood@ieee.org	Approve, comments (Y1)	-	1	1		Producer
40224483	<a href="#">Carl Stevenson</a> Agere Systems 4991 Shimerville Road Emmaus, PA 18049 USA	610-570-6168 carlstevenson@agere.com	Approve, no comments (Y)	-	-	-		General Interest
05910849	<a href="#">Lawrence Telle</a> Appairent Tech. Inc. 150 Lucius Gordon Drive W. Henrietta, NY 14586 USA	585-214-0582 telle@appairent.com	-	-	-	-		General Interest
40226419	<a href="#">Jerry Thrasher</a> Lexmark International Inc. 740 West New Circle Road Lexington, KY 40550 USA	859-825-4056 thrasher@lexmark.com	Abstain for lack of expertise (A2)	-	-	-		General Interest
03239332	<a href="#">Joan Viaplana</a> AUNA TELECOMUNICACIONES Josep Pla, 15 Arenys de Munt, Barcelona 08358 Spain	+34.670.22.13.98 jviaplana@acm.org	-	-	-	-		General Interest
40072152	<a href="#">William Watté</a> M-TEC WIRELESS B.P. Damantlaan 15 Lochristi, O-VL B-9080 Belgium	+32 15 632 101 w.watte@ieee.org	-	-	-	-		General Interest
41278416	<a href="#">Hung-yu Wei</a> Columbia Univ. 600, W113th St. Apt8A6 New York, NY 10025 USA	212-531-3814 hw197@columbia.edu	Approve, no comments (Y)	-	-	-		Government
02982643	<a href="#">John Westmoreland</a> LSI Logic Corporation 1778 McCarthy Blvd. Milpitas, CA 95035 USA	(408) 954-3111 john.westmoreland@lsil.com	-	-	-	-		User
05907266	<a href="#">Oren Yuen</a> 1504 Steinhart Ave Redondo Beach, CA 90278 USA	310-372-9334 oren.yuen@ieee.org	Approve, no comments (Y)	-	-	-		User
41249250	<a href="#">Nico van Waes</a> Nokia 313 Fairchild Dr Mountain View, CA 94043 USA	+1(650)625 2201 Nico.vanWaes@Nokia.com	Disapprove, comments (N)	1	-	1		Producer

Comment Totals \* 2 5 4

(\* You have at least these many comments: each unstructured binary file (i.e., Word) is counted as a single G file, which may consist of one or hundreds of individual T and E comments.

Summary of Eligible Voters by Interest Category

<b>Interest Category</b>	<b>Affirmative(s)</b>	<b>Negative(s)</b>	<b>Abstention(s)</b>	<b>Not Returned</b>	<b>Total</b>
User	11	0	2	3	16
Producer	8	1	1	2	12
General Interest	19	1	3	6	29
Government	3	0	0	2	5
<b>Voting Tally</b>	<b>41</b>	<b>2</b>	<b>6</b>	<b>13</b>	<b>62</b>

<b>Abstention details:</b>	4 for lack of time (A1)	2 for lack of expertise (A2)	0 for other reasons (A3)
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### Ballot Summary

P802.16.2a/D4 Recirculation  
 Closing date: 2003-02-08

This is a recirculation ballot. The report collates the results from the following groups: 0000354 0000462.

#### 1. This ballot has met the 75% returned ballot requirement.

62 eligible people in this ballot group.

43 affirmative votes  
 1 negative votes with comments  
 0 negative votes without comments  
 6 abstention votes

=====

50 votes received = 80% returned  
 12% abstention

#### 2. The 75% affirmation requirement is being met.

43 affirmative votes  
 1 negative votes with comments

=====

44 votes = 97% affirmative

### Ballot Details

#### Coordination Responses Only

IEEE/Coord Number	Name	Role	Phone / E-mail	Coordination Ballot Received	Coordination Comment(s) Received
00601054	<a href="#">Bruce Barrow</a>	SCC14	301-493-4374 bbarrow@nist.gov	yes*	yes
00001000	<a href="#">Michelle Turner</a>	SCC10	732-562-3825 m.d.turner@ieee.org	yes	yes
00001001	<a href="#">Michelle Turner</a>	Editorial	732-562-3825 m.d.turner@ieee.org	yes	yes

### Balloters

Number	Name	Phone / E-mail	Vote	T	E	Graphics	Status Notes	Interest Category
00095638	<a href="#">Gholamreza ("Reza") Arefi-Anbarani ("Arefi")</a> ArrayComm, Inc. 2300 N Street NW, Suite 700 Washington, D.C., District of Columbia 20037 USA	(202) 383-3346 reza@arraycomm.com	Approve, no comments (Y)*	-	-	-		General Interest
06154470	<a href="#">Morris Balamut</a> n/a n/a n/a, NJ 07747	732-566-3588 m.balamut@ieee.org	-	-	-	-		User

	us							
40357619	<a href="#">John Barnett</a> Beverly Enterprises, Inc. 1000 Beverly Way Fort Smith, AR 72919 USA	4796465415 j.barnett@ieee.org	Approve, no comments (Y)	-	-	-		User
05587654	<a href="#">John Barr</a> Motorola 1303 E. Algonquin Road Schaumburg, IL 60196 USA	847-576-8706 john.barr@motorola.com	Approve, no comments (Y)	-	-	-		Producer
08805236	<a href="#">Mitchell Buchman</a> U.S. Dept of Defense 6261 Patuxent Quarter Road Hanover, MD 21076 USA	(410)796-5461 mitchb@ieee.org	-	-	-	-		Government
41437562	<a href="#">Remi Chayer</a> Harris Corporation 3 Hotel de Ville Dollard-des-Ormeaux, Quebec H9B 3G4 Canada	1 (514) 421-8360 rchayer@harris.com	Approve, no comments (Y)	-	-	-		Producer
07633407	<a href="#">Steven Crowley</a> Steven J. Crowley, P.E. 1201 Pennsylvania Ave. NW #300 Washington, DC 20004 USA	202 564 8207 scrowley@ieee.org	Approve, no comments (Y)*	-	-	-		General Interest
05046479	<a href="#">Dr. GURU DUTT DHINGRA</a> DHINGRA & ASSOCIATES Sapphire Park-1, Opp. K. J. Mehta High School NASIK ROAD -422101, Maharashtra 422101 INDIA	+91 253 461836 dhingragd@sancharnet.in	Approve, no comments (Y)*	-	-	-		User
41476060	<a href="#">Santpal Dhillon</a> Duke University 4907 Stephens lane Durham, North Carolina 27712 USA	919-660-5423 santpald@yahoo.com	Approve, no comments (Y)	-	-	-		General Interest
41311588	<a href="#">Vern Dubendorf</a> Dubendorf 228 Summer St. Marshfield, MA 02050 USA	781-953-7752 tdubendorf@ieee.org	Approve, no comments (Y)*	-	-	-		Government
08972887	<a href="#">Dr. Sourav Dutta</a> VSNL Internet HQ, 16th Flr, VSB, M G Road, Fort	+91 22 267-4269 s.dutta@ieee.org	Abstain for lack of time (A1)	-	-	-		General Interest

	Mumbai, MH 400001 INDIA								
40263910	<a href="#">Dominic Espejo</a> Caltrans 120 S. Spring St. MS-15 Los Angeles, CA 90012 USA	213-897-6623 despejo@ieee.org	Approve, no comments (Y)	-	-	-			Government
08518995	<a href="#">Avraham Freedman</a> Hexagon System Engineering Ltd. 2 Kaufman st. Tel-Aviv, XX 68012 Israel	+972 3 5101128 avif@hexagonltd.com	Disapprove, comments (N)*	2	-	2			General Interest
41441328	<a href="#">Ernesto Garcia</a> n/a loma hermosa 22-b-107 col. irrigacion mexico, df 11200 mexico	555395-2994 garcia@prousa.net	Abstain for lack of expertise (A2)	-	-	-			User
01883768	<a href="#">James Gilb</a> Appairtent Technologies 9921 Carmel Mountain Rd. #247 San Diego, CA 92129 USA	858-229-4822 gilb@ieee.org	Abstain for lack of time (A1)	-	-	-			General Interest
07393143	<a href="#">Robert Grow</a> Intel 13290 Evening Creek Drive San Diego, CA 92128 USA	858-391-4622 bob.grow@ieee.org	-	-	-	-			General Interest
40057220	<a href="#">Rajugopal Gubbi</a> Broadcom, corp 275, 1st Floor, 27th Cross, 10th Main, BSK II Stage Bangalore, Karnataka 560 070 INDIA	+91-80-207-4069 r_gubbi@ieee.org	-	-	-	-			Producer
01150382	<a href="#">Jose Gutierrez</a> Eaton Corporation 4201 North 27th Street Milwaukee, WI 53216 USA	414-4496525 josegutierrez@eaton.com	Approve, no comments (Y)*	-	-	-			User
08133936	<a href="#">Steve Halford</a> Intersil Corp 937 Haas Ave, NE Palm Bay, FL 32907 USA	321-729-5130 shalford@intersil.com	Approve, no comments (Y)	-	-	-			General Interest
40306847	<a href="#">Simon Harrison</a>	+441628819604	Approve, no	-	-	-			General

	Red-M (Communications) Ltd Neptune House, Mercury Park Wycombe Lane, Wooburn Green, Bucks HP10 0HH UK	simon.harrison@red-m.com	comments (Y)						Interest
01670801	<a href="#">Robert F. Heile</a> Appairant 11 Louis Road Attleboro, MA 02703 usa	781-929-4832 bheile@ieee.org	Approve, no comments (Y)	-	-	-			General Interest
01556620	<a href="#">Hamadi Jamali</a> 4009 Miranda Ave. Palo Alto, CA 94304 USA	(650)852-0512 hjamali@ieee.org	Approve, no comments (Y)	-	-	-			General Interest
40357068	<a href="#">STUART KERRY</a> OK-Brit 1020 White Cloud Drive Morgan Hill, CA 95037-6037 United States of America	4083483171 stuart@ok-brit.com	Approve, no comments (Y)	-	-	-			Producer
05995253	<a href="#">Brian Kiernan</a> InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406 USA	1 610 878-5637 brian.kiernan@interdigital.com	Approve, no comments (Y)	-	-	-			Producer
41304605	<a href="#">Pi-Cheng Law</a> Chunghwa Telecom Labs. P.O.Box 6-14 Yang-Mei Yang-Mei, Taoyuan 326 Taiwan	+886 3 4245738 pclaw@ieee.org	Approve, no comments (Y)	-	-	-			User
08108896	<a href="#">Yeou-Song Lee</a> Anritsu 490 Jarvis Drive Morgan Hill, CA 95037 U.S.A.	408-778-2000 ext. 4976 brian.lee@ieee.org	-	-	-	-			User
06754667	<a href="#">Arthur H. Light</a> Coleman Research Corporation 1700 North Moore Street Suite 1100 Rosslyn, VA 22209 USA	703-247-7713 art.light@crc.com	-	-	-	-			General Interest
40255444	<a href="#">Christina Lim</a> Photonics Research Laboratory Dept. of Electrical & Electronic Engineering The University of Melbourne, Victoria 3010 Australia	+61-3-8344-4486 c.lim@ee.mu.oz.au	Approve, no comments (Y)	-	-	-			General Interest

01622778	<a href="#">Randolph Little</a> AT&T (retired) 111 Berkeley Circle Basking Ridge, NJ 07920-2009 USA	(908)221-9173 rsl@att.net	Approve, no comments (Y)*	-	-	-		General Interest
05845615	<a href="#">Gregory Luri</a> CITY OF ST. CHARLES 2 East Main Street ST. CHARLES, IL 60174-1984 USA	630-377-4475 gluri@ci.st-charles.il.us	Approve, no comments (Y)	-	-	-		User
08122103	<a href="#">Roger Marks</a> NIST 325 Broadway Boulder, CO 80207 USA	1 303 497 3037 r.b.marks@ieee.org	Approve, comments (Y1)	-	1	1		Government
40183512	<a href="#">Kyle Maus</a> AITG 6033 N. Sheridan Rd., #17H Chicago, IL 60660 USA	312-371-9727 sargon@ieee.org	Approve, no comments (Y)	-	-	-		User
41249650	<a href="#">Colleen McGinn</a> Appairant Technologies 150 Lucius Gordon Drive West Henrietta, New York 14586 USA	585-214-2459 mcginn@appairant.com	Approve, no comments (Y)	-	-	-		User
01271899	<a href="#">George Miao</a> 2 Inverness Drive Marlboro, NJ 07746 USA	732-462-7447 g.j.miao@ieee.org	Approve, no comments (Y)*	-	-	-		General Interest
00740167	<a href="#">Yinghua Min</a> ICT 6 Ke Xue Yuan Nan Lu, Zhongguancun Beijing, Beijing 100080 China	86-10-82611345 min@ict.ac.cn	Approve, no comments (Y)*	-	-	-		General Interest
40223729	<a href="#">Apurva Mody</a> Georgia Tech 250, 14th Street NW., #549 Atlanta, GA 30318 USA	404-881-8910 apurva@ece.gatech.edu	Approve, no comments (Y)	-	-	-		General Interest
41270317	<a href="#">Ronald Murias</a> Wi-LAN, Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-204-7766 ronm@wi-lan.com	Approve, comments (Y1)	-	3	-		Producer
07446628	<a href="#">Michael Newman</a> CSI Telecommunications Engrs.	415-751-8845 miken@csitele.com	Approve, comments	-	-	-	Approve, comments	User

	1700 California Street San Francisco, CA 94109 USA		(Y1)					without comment	
41454280	<a href="#">Charles Ngethe</a> KWS-Telecomms Langata Road Nairobi, Nairobi 00400 Kenya	254 722 686442 cngethe@kws.org	Approve, no comments (Y)	-	-	-			General Interest
07858459	<a href="#">Paul Nikolich</a> consultant 18 bishops lane lynnfield, ma 01940 usa	857.205.0050 p.nikolich@ieee.org	Abstain for lack of time (A1)	-	-	-			User
08944704	<a href="#">Bob O'Hara</a> Black Storm Networks, Inc. 110 Nortech Pkwy San Jose, CA 95134 USA	408 941 0500 bob.ohara@ieee.org	Approve, no comments (Y)	-	-	-			User
07022429	<a href="#">Roger Pandanda</a> MCS Corporation Box 20451 Palo Alto, CA 94309 USA	650-618-1786 rogerp@ieee.org	Approve, no comments (Y)	-	-	-			General Interest
00353235	<a href="#">Subbu Ponnuswamy</a> Vivato, Inc. 1005 Blue Ravine Road Folsom, CA 95630 USA	916-984-0868 subbu@acm.org	Approve, no comments (Y)*	-	-	-			General Interest
01453273	<a href="#">Vikram Punj</a> Meru Networks 6558 Leyland Park Ct San Jose, CA 95120 USA	408-268-1479 punj@msn.com	Approve, no comments (Y)*	-	-	-			Producer
08461584	<a href="#">Moshe Ran</a> MostlyTek 58 Keshet Street RE'UT, Israel 71908 Isarel	+972-8-9265129 ranmoshe@bezeqint.net	-	-	-	-			General Interest
03219375	<a href="#">Terrill Ray</a> U.S. State Department 3006 Furman Lane #103 Alexandria, VA 22306 USA	202-736-4273 rockdoc@telocity.com	Approve, no comments (Y)	-	-	-			General Interest
40266494	<a href="#">Eugene Robinson</a> E. A. Robinson Consulting 1200 Lake Point Circle McKinney, Texas	972 529-6395 rob1200@aol.com	Approve, no comments (Y)*	-	-	-			General Interest



	75070 USA								
41413768	<a href="#">Shane Rogers</a> Wi-LAN Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-207-6355 srogers@wi-lan.com	-	-	-			Producer	
21770065	<a href="#">Thomas Ruf</a> SysKonnct GmbH Siemensstrasse 23 Ettlingen, BW 76275 Germany	+49 7243 502 324 truf@syskonnct.de	Approve, no comments (Y)	-	-			Producer	
40156964	<a href="#">Neil Shipp</a> Commsonic Ltd St. Johns Innovation Centre Cambridge, Cambridgeshire CB4 0WS UK	+44 1223 572364 nrs@ieee.org	Abstain for lack of time (A1)*	-	-			Producer	
01109156	<a href="#">Gil Shultz</a> Yazaki 6801 Haggerty Rd Canton, Michigan 48187 USA	248-894-7766 gshultz@yazaki-na.com	Approve, no comments (Y)	-	-			User	
00720961	<a href="#">Kevin Smart</a> Micro Linear 11734 S Election Rd #200 Draper, UT 84020 USA	801-617-2507 kevin@keltypack.com	Approve, no comments (Y)	-	-			General Interest	
41392686	<a href="#">Kenneth Stanwood</a> Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA	(858) 404-6559 kenstanwood@ieee.org	Approve, comments (Y1)	-	1	1		Producer	
40224483	<a href="#">Carl Stevenson</a> Agere Systems 4991 Shimerville Road Emmaus, PA 18049 USA	610-570-6168 carlstevenson@agere.com	Approve, no comments (Y)	-	-			General Interest	
05910849	<a href="#">Lawrence Telle</a> Appairment Tech. Inc. 150 Lucius Gordon Drive W. Henrietta, NY 14586 USA	585-214-0582 telle@appairment.com	-	-	-			General Interest	
40226419	<a href="#">Jerry Thrasher</a> Lexmark International Inc. 740 West New Circle Road Lexington, KY 40550 USA	859-825-4056 thrasher@lexmark.com	Abstain for lack of expertise (A2)	-	-			General Interest	

03239332	<a href="#">Joan Viaplana</a> AUNA TELECOMUNICACIONES Josep Pla, 15 Arenys de Munt, Barcelona 08358 Spain	+34.670.22.13.98 jviaplana@acm.org	-	-	-	-		General Interest
40072152	<a href="#">William Watté</a> M-TEC WIRELESS B.P. Damantlaan 15 Lochristi, O-VL B-9080 Belgium	+32 15 632 101 w.watte@ieee.org	-	-	-	-		General Interest
41278416	<a href="#">Hung-yu Wei</a> Columbia Univ. 600, W113th St. Apt8A6 New York, NY 10025 USA	212-531-3814 hw197@columbia.edu	Approve, no comments (Y)	-	-	-		Government
02982643	<a href="#">John Westmoreland</a> LSI Logic Corporation 1778 McCarthy Blvd. Milpitas, CA 95035 USA	(408) 954-3111 john.westmoreland@lsil.com	-	-	-	-		User
05907266	<a href="#">Oren Yuen</a> 1504 Steinhart Ave Redondo Beach, CA 90278 USA	310-372-9334 oren.yuen@ieee.org	Approve, no comments (Y)	-	-	-		User
41249250	<a href="#">Nico van Waes</a> Nokia 313 Fairchild Dr Mountain View, CA 94043 USA	+1(650)625 2201 Nico.vanWaes@Nokia.com	Approve, no comments (Y)*	1	-	1		Producer
<b>Comment Totals *</b>				3	5	5		
<p>(*) You have at least these many comments: each unstructured binary file (i.e., Word) is counted as a single G file, which may consist of one or hundreds of individual T and E comments.</p> <p>* This ballot cast this ballot in the current circulation of this recirc ballot.</p>								

**Summary of Eligible Voters by Interest Category**

Interest Category	Affirmative(s)	Negative(s) with Comments	Negative(s) without Comments	Abstention(s)	Not Returned	Total
User	11	0	0	2	3	16
Producer	9	0	0	1	2	12
General Interest	19	1	0	3	6	29
Government	4	0	0	0	1	5
<b>Voting Tally</b>	<b>43</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>12</b>	<b>62</b>

<b>Abstention details:</b>	4 for lack of time (A1)	2 for lack of expertise (A2)	0 for other reasons (A3)
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## Ballot Summary

P802.16.2a/D5 2nd Recirculation  
Closing date: 2003-03-08

This is a recirculation ballot. The report collates the results from the following groups: 0000354 0000462 0000475.

### 1. This ballot has met the 75% returned ballot requirement.

62 eligible people in this ballot group.

46 affirmative votes  
1 negative votes with comments  
0 negative votes without comments  
5 abstention votes

=====

52 votes received = 83% returned  
9% abstention

### 2. The 75% affirmation requirement is being met.

46 affirmative votes  
1 negative votes with comments

=====

47 votes = 97% affirmative

## Ballot Details

### Coordination Responses Only

IEEE/Coord Number	Name	Role	Phone / E-mail	Coordination Ballot Received	Coordination Comment(s) Received
00601054	<a href="#">Bruce Barrow</a>	SCC14	301-493-4374 bbarrow@nist.gov	yes	yes
00001000	<a href="#">Michelle Turner</a>	SCC10	732-562-3825 m.d.turner@ieee.org	yes*	yes
00001001	<a href="#">Michelle Turner</a>	Editorial	732-562-3825 m.d.turner@ieee.org	yes*	yes

### Balloters

Number	Name	Phone / E-mail	Vote	T	E	Graphics	Status Notes	Interest Category
00095638	<a href="#">Gholamreza ("Reza") Arefi-Anbarani ("Arefi")</a> ArrayComm, Inc. 2300 N Street NW, Suite 700 Washington, D.C., District of Columbia 20037 USA	(202) 383-3346 reza@arraycomm.com	Approve, no comments (Y)*	-	-	-		General Interest
06154470	<a href="#">Morris Balamut</a> n/a n/a n/a, NJ 07747 us	732-566-3588 m.balamut@ieee.org	-	-	-	-		User
40357619	<a href="#">John Barnett</a> Beverly Enterprises, Inc. 1000 Beverly Way Fort Smith, AR 72919 USA	4796465415 j.barnett@ieee.org	Approve, no comments (Y)	-	-	-		User
05587654	<a href="#">John Barr</a> Motorola 1303 E. Algonquin Road Schaumburg, IL 60196 USA	847-576-8706 john.barr@motorola.com	Approve, no comments (Y)	-	-	-		Producer
08805236	<a href="#">Mitchell Buchman</a> U.S. Dept of Defense 6261 Patuxent Quarter Road Hanover, MD 21076	(410)796-5461 mitchb@ieee.org	-	-	-	-		Government

	USA							
41437562	<a href="#">Remi Chayer</a> Harris Corporation 3 Hotel de Ville Dollard-des-Ormeaux, Quebec H9B 3G4 Canada	1 (514) 421-8360 rchayer@harris.com	Approve, no comments (Y)	-	-	-		Producer
07633407	<a href="#">Steven Crowley</a> Steven J. Crowley, P.E. 1201 Pennsylvania Ave. NW #300 Washington, DC 20004 USA	202 564 8207 scrowley@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
05046479	<a href="#">Dr. GURU DUTT DHINGRA</a> DHINGRA & ASSOCIATES Sapphire Park-1, Opp. K. J. Mehta High School NASIK ROAD -422101, Maharashtra 422101 INDIA	+91 253 461836 dhingragd@sancharnet.in	Approve, no comments (Y)*	-	-	-		User
41476060	<a href="#">Santpal Dhillon</a> Duke University 4907 Stephens lane Durham, North Carolina 27712 USA	919-660-5423 santpald@yahoo.com	Approve, no comments (Y)	-	-	-		General Interest
41311588	<a href="#">Vern Dubendorf</a> Dubendorf 228 Summer St. Marshfield, MA 02050 USA	781-953-7752 tdubendorf@ieee.org	Approve, no comments (Y)*	-	-	-		Government
08972887	<a href="#">Dr. Sourav Dutta</a> VSNL Internet HQ, 16th Flr, VSB, M G Road, Fort Mumbai, MH 400001 INDIA	+91 22 267-4269 s.dutta@ieee.org	Abstain for lack of time (A1)	-	-	-		General Interest
40263910	<a href="#">Dominic Espejo</a> Caltrans 120 S. Spring St. MS-15 Los Angeles, CA 90012 USA	213-897-6623 despejo@ieee.org	Approve, no comments (Y)	-	-	-		Government
08518995	<a href="#">Avraham Freedman</a> Hexagon System Engineering Ltd. 2 Kaufman st. Tel-Aviv, XX 68012 Israel	+972 3 5101128 avif@hexagonltd.com	Approve, no comments (Y)*	2	-	2		General Interest
41441328	<a href="#">Ernesto Garcia</a> n/a loma hermosa 22-b-107 col. irrigacion mexico, df 11200 mexico	555395-2994 garcia@prousa.net	Abstain for lack of expertise (A2)	-	-	-		User
01883768	<a href="#">James Gilb</a> Appairtent Technologies 9921 Carmel Mountain Rd. #247 San Diego, CA 92129 USA	858-229-4822 gilb@ieee.org	Abstain for lack of time (A1)	-	-	-		General Interest
07393143	<a href="#">Robert Grow</a> Intel 13290 Evening Creek Drive San Diego, CA 92128 USA	858-391-4622 bob.grow@ieee.org	-	-	-	-		General Interest
40057220	<a href="#">Rajugopal Gubbi</a> Broadcom, corp	+91-80-207-4069 r_gubbi@ieee.org	-	-	-	-		Producer

	275, 1st Floor, 27th Cross, 10th Main, BSK II Stage Bangalore, Karnataka 560 070 INDIA							
01150382	<a href="#">Jose Gutierrez</a> Eaton Corporation 4201 North 27th Street Milwaukee, WI 53216 USA	414-4496525 josegutierrez@eaton.com	Approve, no comments (Y)	-	-	-		User
08133936	<a href="#">Steve Halford</a> Intersil Corp 937 Haas Ave, NE Palm Bay, FL 32907 USA	321-729-5130 shalford@intersil.com	Approve, no comments (Y)	-	-	-		General Interest
40306847	<a href="#">Simon Harrison</a> Red-M (Communications) Ltd Neptune House, Mercury Park Wycombe Lane, Wooburn Green, Bucks HP10 0HH UK	+441628819604 simon.harrison@red-m.com	Approve, no comments (Y)*	-	-	-		General Interest
01670801	<a href="#">Robert F. Heile</a> Appairent 11 Louis Road Attleboro, MA 02703 usa	781-929-4832 bheile@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
01556620	<a href="#">Hamadi Jamali</a> 4009 Miranda Ave. Palo Alto, CA 94304 USA	(650)852-0512 hjamali@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
40357068	<a href="#">STUART KERRY</a> OK-Brit 1020 White Cloud Drive Morgan Hill, CA 95037-6037 United States of America	4083483171 stuart@ok-brit.com	Approve, no comments (Y)	-	-	-		Producer
05995253	<a href="#">Brian Kiernan</a> InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406 USA	1 610 878-5637 brian.kiernan@interdigital.com	Approve, no comments (Y)*	-	-	-		Producer
41304605	<a href="#">Pi-Cheng Law</a> Chunghwa Telecom Labs. P.O.Box 6-14 Yang-Mei Yang-Mei, Taoyuan 326 Taiwan	+886 3 4245738 pclaw@ieee.org	Approve, no comments (Y)	-	-	-		User
08108896	<a href="#">Yeou-Song Lee</a> Anritsu 490 Jarvis Drive Morgan Hill, CA 95037 U.S.A.	408-778-2000 ext. 4976 brian.lee@ieee.org	-	-	-	-		User
06754667	<a href="#">Arthur H. Light</a> Coleman Research Corporation 1700 North Moore Street Suite 1100 Rosslyn, VA 22209 USA	703-247-7713 art.light@crc.com	Disapprove, comments (N)*	2	3	-		General Interest
40255444	<a href="#">Christina Lim</a> Photonics Research Laboratory Dept. of Electrical & Electronic Engineering The University of Melbourne, Victoria 3010	+61-3-8344-4486 c.lim@ee.mu.oz.au	Approve, no comments (Y)	-	-	-		General Interest

	Australia							
01622778	<a href="#">Randolph Little</a> AT&T (retired) 111 Berkeley Circle Basking Ridge, NJ 07920-2009 USA	(908)221-9173 rsl@att.net	Approve, no comments (Y)*	-	-	-		General Interest
05845615	<a href="#">Gregory Luri</a> CITY OF ST. CHARLES 2 East Main Street ST. CHARLES, IL 60174-1984 USA	630-377-4475 gluri@ci.st-charles.il.us	Approve, no comments (Y)	-	-	-		User
08122103	<a href="#">Roger Marks</a> NIST 325 Broadway Boulder, CO 80207 USA	1 303 497 3037 r.b.marks@ieee.org	Approve, comments (Y1)	-	1	1		Government
40183512	<a href="#">Kyle Maus</a> AITG 6033 N. Sheridan Rd., #17H Chicago, IL 60660 USA	312-371-9727 sargon@ieee.org	Approve, no comments (Y)*	-	-	-		User
41249650	<a href="#">Colleen McGinn</a> Appairent Technologies 150 Lucius Gordon Drive West Henrietta, New York 14586 USA	585-214-2459 mcginn@appairent.com	Approve, no comments (Y)	-	-	-		User
01271899	<a href="#">George Miao</a> 2 Inverness Drive Marlboro, NJ 07746 USA	732-462-7447 g.j.miao@ieee.org	Approve, no comments (Y)*	-	-	-		General Interest
00740167	<a href="#">Yinghua Min</a> ICT 6 Ke Xue Yuan Nan Lu, Zhongguancun Beijing, Beijing 100080 China	86-10-82611345 min@ict.ac.cn	Approve, no comments (Y)	-	-	-		General Interest
40223729	<a href="#">Apurva Mody</a> Georgia Tech 250, 14th Street NW., #549 Atlanta, GA 30318 USA	404-881-8910 apurva@ece.gatech.edu	Approve, no comments (Y)	-	-	-		General Interest
41270317	<a href="#">Ronald Murias</a> Wi-LAN, Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-204-7766 ronm@wi-lan.com	Approve, comments (Y1)	-	3	-		Producer
07446628	<a href="#">Michael Newman</a> CSI Telecommunications Engrs. 1700 California Street San Francisco, CA 94109 USA	415-751-8845 miken@csitele.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	User
41454280	<a href="#">Charles Ngethe</a> KWS-Telecomms Langata Road Nairobi, Nairobi 00400 Kenya	254 722 686442 cngethe@kws.org	Approve, no comments (Y)	-	-	-		General Interest
07858459	<a href="#">Paul Nikolich</a> consultant 18 bishops lane lynnfield, ma	857.205.0050 p.nikolich@ieee.org	Abstain for lack of time (A1)	-	-	-		User

	01940 usa							
08944704	<a href="#">Bob O'Hara</a> Black Storm Networks, Inc. 110 Nortech Pkwy San Jose, CA 95134 USA	408 941 0500 bob.ohara@ieee.org	Approve, no comments (Y)*	-	-	-		User
07022429	<a href="#">Roger Pandanda</a> MCS Corporation Box 20451 Palo Alto, CA 94309 USA	650-618-1786 rogerp@ieee.org	Approve, no comments (Y)	-	-	-		General Interest
00353235	<a href="#">Subbu Ponnuswamy</a> Vivato, Inc. 1005 Blue Ravine Road Folsom, CA 95630 USA	916-984-0868 subbu@acm.org	Approve, no comments (Y)	-	-	-		General Interest
01453273	<a href="#">Vikram Punj</a> Meru Networks 6558 Leyland Park Ct San Jose, CA 95120 USA	408-268-1479 punj@msn.com	Approve, no comments (Y)*	-	-	-		Producer
08461584	<a href="#">Moshe Ran</a> MostlyTek 58 Keshet Street RE'UT, Israel 71908 Isarel	+972-8-9265129 ranmoshe@bezeqint.net	-	-	-	-		General Interest
03219375	<a href="#">Terrill Ray</a> U.S. State Department 3006 Furman Lane #103 Alexandria, VA 22306 USA	202-736-4273 rockdoc@telocity.com	Approve, no comments (Y)	-	-	-		General Interest
40266494	<a href="#">Eugene Robinson</a> E. A. Robinson Consulting 1200 Lake Point Circle McKinney, Texas 75070 USA	972 529-6395 rob1200@aol.com	Approve, no comments (Y)*	-	-	-		General Interest
41413768	<a href="#">Shane Rogers</a> Wi-LAN Inc. 2891 Sunridge Way N.E. Calgary, AB T1Y 7K7 Canada	403-207-6355 srogers@wi-lan.com	Approve, no comments (Y)*	-	-	-		Producer
21770065	<a href="#">Thomas Ruf</a> SysKonnct GmbH Siemensstrasse 23 Ettlingen, BW 76275 Germany	+49 7243 502 324 truf@syskonnct.de	Approve, no comments (Y)	-	-	-		Producer
40156964	<a href="#">Neil Shipp</a> Commsonic Ltd St. Johns Innovation Centre Cambridge, Cambridgeshire CB4 0WS UK	+44 1223 572364 nrs@ieee.org	Approve, no comments (Y)*	-	-	-		Producer
01109156	<a href="#">Gil Shultz</a> Yazaki 6801 Haggerty Rd Canton, Michigan 48187 USA	248-894-7766 gshultz@yazaki-na.com	Approve, no comments (Y)*	-	-	-		User
00720961	<a href="#">Kevin Smart</a> Micro Linear 11734 S Election Rd #200	801-617-2507 kevin@keltypack.com	Approve, no comments (Y)	-	-	-		General Interest



	Draper, UT 84020 USA							
41392686	<a href="#">Kenneth Stanwood</a> Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA	(858) 404-6559 kenstanwood@ieee.org	Approve, comments (Y1)	-	1	1		Producer
40224483	<a href="#">Carl Stevenson</a> Agere Systems 4991 Shimerville Road Emmaus, PA 18049 USA	610-570-6168 carlstevenson@agere.com	Approve, no comments (Y)*	-	-	-		General Interest
05910849	<a href="#">Lawrence Telle</a> Apparent Tech. Inc. 150 Lucius Gordon Drive W. Henrietta, NY 14586 USA	585-214-0582 telle@apparent.com	-	-	-	-		General Interest
40226419	<a href="#">Jerry Thrasher</a> Lexmark International Inc. 740 West New Circle Road Lexington, KY 40550 USA	859-825-4056 thrasher@lexmark.com	Abstain for lack of expertise (A2)	-	-	-		General Interest
03239332	<a href="#">Joan Viaplana</a> AUNA TELECOMUNICACIONES Josep Pla, 15 Arenys de Munt, Barcelona 08358 Spain	+34.670.22.13.98 jviaplana@acm.org	-	-	-	-		General Interest
40072152	<a href="#">William Watté</a> M-TEC WIRELESS B.P. Damantlaan 15 Lochristi, O-VL B-9080 Belgium	+32 15 632 101 w.watte@ieee.org	-	-	-	-		General Interest
41278416	<a href="#">Hung-yu Wei</a> Columbia Univ. 600, W113th St. Apt8A6 New York, NY 10025 USA	212-531-3814 hw197@columbia.edu	Approve, no comments (Y)	-	-	-		Government
02982643	<a href="#">John Westmoreland</a> LSI Logic Corporation 1778 McCarthy Blvd. Milpitas, CA 95035 USA	(408) 954-3111 john.westmoreland@lsil.com	-	-	-	-		User
05907266	<a href="#">Oren Yuen</a> 1504 Steinhart Ave Redondo Beach, CA 90278 USA	310-372-9334 oren.yuen@ieee.org	Approve, no comments (Y)	-	-	-		User
41249250	<a href="#">Nico van Waes</a> Nokia 313 Fairchild Dr Mountain View, CA 94043 USA	+1(650)625 2201 Nico.vanWaes@Nokia.com	Approve, no comments (Y)	1	-	1		Producer
<b>Comment Totals *</b>				5	8	5		
<p>(*) You have at least these many comments: each unstructured binary file (i.e., Word) is counted as a single G file, which may consist of one or hundreds of individual T and E comments.</p> <p>* This ballot cast this ballot in the current circulation of this recirc ballot.</p>								

**Summary of Eligible Voters by Interest Category**

Interest Category	Affirmative(s)	Negative(s) with Comments	Negative(s) without Comments	Abstention(s)	Not Returned	Total
User	11	0	0	2	3	16
Producer	11	0	0	0	1	12
General Interest	20	1	0	3	5	29
Government	4	0	0	0	1	5
<b>Voting Tally</b>	<b>46</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>62</b>

Note: Negative converted to Affirmative (see next page)

<b>Abstention details:</b>	3 for lack of time (A1)	2 for lack of expertise (A2)	0 for other reasons (A3)
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From: Art.Light@SYColeman.com  
To: phil.whitehead@radiantnetworks.co.uk  
Sent: 17/03/2003 15:27  
Subject: RE: comments on bfw recommended practice

Mr. Whitehead

I will reluctantly agree to leaving the document the way it is based on your discussion below. I believe that the document is generally in very good shape and that my little pique should not delay it further.

If possible please consider this e-mail as a change of ballot from NEGATIVE to AFFIRMATIVE.

If I need to submit additional paper work or e-mails to confirm this change, please let me know as soon as possible and I will do so. Hopefully you can still make your deadline for today.

Art Light

Arthur Heath (Art) Light  
Test Director/Senior Engineer  
SYColeman Corporation  
1700 North Moore Street  
Suite 1100  
Rosslyn, VA 22209

Phone 703-247-7713  
Cell 703-220-6612  
FAX 703-527-9640  
e-mail art.light@sycoleman.com

# PAR FORM

08/14/02

**PAR Status:** Revision of Amendment

**PAR Approval Date:** 08/15/2002

**PAR Signature Page on File:** Yes

**Review of Standards Development Process:** No

**1. Assigned Project Number:** 802.16.2a

**2. Sponsor Date of Request:** 07/12/2002

**3. Type of Document:** Recommended Practice for

**4. Title of Document:**

**Draft:** Local and Metropolitan Area Networks - Amendment to Recommended Practice for Coexistence of Fixed Broadband Wireless Access Systems

**5. Life Cycle:** Full Use

**6. Type of Project:**

**6a. Is this an update to an existing PAR?** Yes

**If YES: Indicated PAR number/approval date:** 802.16.2a-08/17/2001

**If YES: Is this project in ballot now?** No

**6b. The project is a:** Amendment to Std. 802.16.2-2001

**7. Contact Information of Working Group:**

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

**Name of Working Group Chair:** Roger B Marks

**Telephone:** (303) 497-3037

**FAX:** (303) 497-3122

**Email:** r.b.marks@ieee.org

**8. Contact Information of Official Reporter (If different than Working Group Chair )**

**Name of Official Reporter:** (if different than WG Contact)

**Telephone:**

**FAX:**

**Email:**

**9. Contact Information of Sponsoring Society or Standards Coordinating Committee**

**Name of Sponsoring Society and Committee:** Computer Society/Local and Metropolitan Area Networks

**Name of Sponsoring Committee Chair:** Paul Nikolich

**Telephone:** 857-205-0050

**FAX:** 781-334-2255

**Email:** p.nikolich@ieee.org

**Name of Liaison Rep.(If different than Sponsor Chair):**

**Telephone:**

**FAX:**

**Email:**

**10. The type of ballot is:** Individual Sponsor Ballot

**Expected Date of Submission for Initial Sponsor Ballot:** 11/15/2002

**11. Fill in Projected Completion Date for Submittal to RevCom:** 3/31/2003

**Explanation for Revised PAR that completion date is being extended past the original four-year life of the PAR:**

**12. Scope of Proposed Project:**

This project specifies extensions and modifications to IEEE Standard 802.16.2-2001 addressing two distinct topics. The first is coexistence between multipoint systems and point-to-point systems in the frequency range 10-66 GHz, with a focus on the range 23.5 to 43.5 GHz. The second topic is coexistence among fixed BWA systems operating in licensed bands within the frequency range 2-11 GHz. Clarifications and updates to the existing standard will also be considered.

**13. Purpose of Proposed Project:**

The purpose of this Amendment is to provide coexistence guidelines to license holders, service providers, deployment groups, and system integrators, covering coexistence with point-to-point systems (primarily from 23.5-43.5 GHz) and coexistence among licensed fixed BWA systems operating in the 2-11 GHz frequency range. The specifications will facilitate the deployment and operation of fixed BWA systems while minimizing the need for case-by-case coordination.

**14. Intellectual Property**

**Sponsor has reviewed the IEEE patent policy with the working group?** Yes

**Sponsor is aware of copyrights relevant to this project?** Yes

**Sponsor is aware of trademarks relevant to this project?** Yes

**Sponsor is aware of possible registration of objects or numbers due to this project?**No

**15. Are you aware of other standards or projects with a similar scope?** Yes

Administrations are developing general coordination criteria and procedures to allow fixed BWA operators to deploy systems. Detailed coexistence guidance, such as described in this PAR, is under development in other regional and international bodies. Studies addressing certain aspects of coexistence are being developed by or have been completed by organizations such as: International Telecommunications Union (ITU): ITU-R JRG 8A/9B and ITU-R 9B; European Telecommunications Standards Institute (ETSI): Technical Committee TM (Transmission and Multiplexing), Working Group TM4 (Fixed Radio Systems); Inter-American Telecommunication Commission (CITEL): Permanent Consultative Committee III: Radiocommunications (PCC-III); Association of Radio Industries and Businesses (ARIB): R&D Group for the Fixed Wireless Access System; National Spectrum Managers Association (NSMA); Radio Advisory Board of Canada (RABC); Conférence Européenne des Postes et Télécommunications (CEPT)

**Similar Scope Project Information:**

**16. Is there potential for this standard (in part or in whole) to be submitted to an international organization for review/ adoption?**

Do Not Know

**If yes, please answer the following question:**

**Which International Organization/Committee?**

**International Contact Information:**

**17. Will this project focus on Health, Safety or Environmental Issues?** No

**18. Additional Explanatory Notes:(Item Number and Explanation)**

(6) The PAR is being revised only to remove the following sentence from the Purpose statement: "A further purpose is to encourage voluntary procedures that facilitate a simpler licensing process for systems operating below 11 GHz, particularly in the 2.5 GHz MMDS/ITFS bands in the USA." RevCom requires that the standard reproduce the Purpose statement verbatim, but the draft does not include sufficient detail on this issue to warrant including such a statement. Other changes are made in order to comply with the current PAR format. The schedule has not changed. (9) Note that the project has two co-sponsors. This project is being sponsored by the Computer Society - LAN/MAN Committee and by the Microwave Theory and Techniques Society. (12) IEEE Standard 802.16.2-2001 concentrates on interference between fixed BWA systems with a multipoint architecture operating in the 23.5 to 43.5 GHz frequency range. In each interference scenario, the victim system has a point-to-multipoint architecture. This project will extend the analysis to include scenarios in which various types of point-to-point system (both those used by fixed BWA operators and those used as individually assigned links, commonly licensed on a "first-come, first-served" basis) are either the interferer or the victim. It will also add scenarios for multipoint systems operating at lower frequencies. New recommendations and guidelines will be developed appropriate to the new scenarios studied.



---

15 August 2002

Mr. Paul Nikolich  
Broadband Access Systems  
18 Bishops Lane  
Lynnfield, MA 01940

Re: P802.16.2a Local and Metropolitan Area Networks - Amendment to  
Recommended Practice for Coexistence of Fixed Broadband Wireless Access  
Systems

P1802.16.1 Standard for Conformance to IEEE Standard 802.16 - Part 1:  
Protocol Implementation Conformance Statement (PICS) Proforma for  
10-66 GHz WirelessMAN-SC Air Interface

Dear Paul:

I am pleased to inform you that on 15 August 2002 the IEEE-SA Standards Board approved the above referenced projects until December 2005 and December 2006, respectively. Copies of the files are attached in .pdf format.

Now that your projects have been approved, please forward a roster of participants involved in the development of these projects. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2f under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

Attached is an Excel spreadsheet for your convenience. Please forward these lists to me via e-mail at [j.haasz@ieee.org](mailto:j.haasz@ieee.org) no later than 1 November 2002.

At the bottom of this e-mail, please find URLs which you may find useful in the development of your proposed standard and in submitting your final draft for approval. We strongly recommend that a copy of your draft be sent to this office for review prior to the final voting by the working group to allow for a quick review by the editorial staff before sponsor balloting.

If you should have any further questions or would like to receive this information in paper, please contact me at 732-562-6367 or by email at [j.haasz@ieee.org](mailto:j.haasz@ieee.org).

Sincerely,

Jodi Haasz  
Senior Administrator  
IEEE-SA Governance and Electronic Processes

From: Stephane Tronchon <Stephane.Tronchon@etsi.fr>  
To: "'marks@nist.gov'" <marks@nist.gov>  
Cc: 'roberto.macchi@aicn.siemens.it'  
<roberto.macchi@icn.siemens.it>,  
Bernt Mattsson  
<Bernt.Mattsson@etsi.fr>,  
Karl Heinz Rosenbrock  
<Karl-Heinz.Rosenbrock@etsi.fr>,  
Jeanne Lancry <Jeanne.Lancry@etsi.fr>,  
Günther Zedler Internet <guenther.zedler@telekom.de>  
Subject: Copyright authorisation to cite Figures 1 & 2 of EN 301-390 V1.1.1  
Date: Mon, 22 Jan 2001 10:03:58 +0100

Dear Sir,

This message is in response to your attached letter addressed to Mr Macchi, Chairman of ETSI WG-TM4.

By the present e-mail and on behalf of Mr Karl Heinz Rosenbrock, the ETSI Director General, I am pleased to grant IEEE (Working Group 802.16) the cited extract of EN 301-390 V1.1.1., from the attached letter.

Due to the fact that ETSI owns the copyright in EN 301-390 V1.1.1., the present copyright authorization is granted to IEEE provided that the following paragraph is inserted: "© ETSI 2000. Further use, modification, redistribution is strictly prohibited. The standards are available from publication@etsi.fr <mailto:publication@etsi.fr>, and <<http://www.etsi.org/eds/eds.htm>>."

This copyright authorisation allows for reproduction only in printed and computer materials of the above-cited standards, on a regional scale and for an unlimited period of time.

Should the above information fall under patent protection, this copyright authorisation is not to be construed as an authorisation to use and/or implement patent information without fulfilling attached obligations.

Yours sincerely.

Mr. Stéphane Tronchon  
Legal Adviser

European Telecommunications Standards Institute  
Tel: +33 (0)4.92.94.42.60.  
Fax: +33 (0)4.93.65.47.16.  
<mailto:stephane.tronchon@etsi.fr>  
<http://www.etsi.org/ipr>

Document under Review: **P802.16.2a/D5-2003**Ballot Number: **0000475**

Comment Date

Comment # **001** Comment submitted by: Savoula Amanatidis

Amanatidis

Other

2003/01/10

Comment	Type	Editorial	Starting Page #	Starting Line #	Fig/Table#	Section

TO: Balloting Center

FROM: Savoula Amanatidis

DATE: 10 January 2003

RE: Editorial Coordination of P802.16a/D3

I have reviewed P802.16a/D3 and I have the following comments:

a) A new copyright statement has been written for drafts. Please replace the current copyright statement with the following. Please use 2003 as the copyright date, and place this statement above the Abstract instead of on the bottom as a footnote.

Copyright © 2003 by the Institute of Electrical and Electronics Engineers, Inc.

Three Park Avenue

New York, New York 10016-5997, USA

All rights reserved. This document is an unapproved draft of a proposed IEEE Standard. As such, this document is subject to change. USE AT YOUR OWN RISK! Because this is an unapproved draft, this document must not be utilized for any

conformance/compliance purposes. Permission is hereby granted for IEEE Standards Committee participants to reproduce this document for purposes of IEEE standardization activities only. Prior to submitting this document to another standards development organization for standardization activities, permission must first be obtained from the Manager, Standards Licensing and Contracts, IEEE Standards Activities Department. Other entities seeking permission to reproduce this document, in whole or in part, must obtain permission from the Manager, Standards Licensing and Contracts, IEEE Standards Activities Department.

IEEE Standards Activities Department

Standards Licensing and Contracts

445 Hoes Lane, P.O. Box 1331

Piscataway, NJ 08855-1331, USA

b) Please change the year to 2003 in the running foot—the copyright line at the bottom of every page.

c) On p. 1. the information above Clause 1 is incorrect. Please delete the NOTE. the second paragraph. and the sentence instructing

- to "Replace Clause 1 through Clause 9 and Annex A through Annex G with the following:".
- d) The last three paragraphs of Clause 1 Overview should be 1.1 Scope; that is, 1.1. Scope should begin with "The scope of this recommended practice. . . ."
  - e) In Clause 2 References, please provide the missing date, and add the footnote for IEEE Std 802.16-2001 stating from where it can be obtained.
  - f) Would you like users to refer to the most recent version of the publications in Clause 2? If yes, then please reword the beginning sentence:

This recommended practice shall be used in conjunction with the following publications. When the following publications are superseded by an approved revision, the revision shall apply.

- g) Clause 4 Abbreviations should be reworded to "Clause 4 Acronyms and abbreviations".
- h) On p. 44 in 5.7.1.1 at the end of the fourth sentence, please add a character space after the period.
- i) Figure C.5, C.7, C.9, and C.10 appear fuzzy. If possible, please provide sharper art figures.
- j) The Working Group will need to provide source information (native application software and platform) for all figures. If possible, please provide the figures separately as well, preferably in TIF, EPS, or WMF format.
- k) Since some of the figures are derived or obtained from sources other than the Working Group itself, please obtain and supply permission from those sources. Please do the same if any tables have been obtained from other sources.
- l) Please begin Annex A, Annex B, Annex C and Annex D on a new page.
- m) At the time of submission to the Board, or just prior to publication, you will need to supply a mailing address for each member of the Working Group that worked on this recommended practice. This will ensure that all members of the Working Group receive a complimentary copy of the published recommended practice.

Please feel free to contact me if you have any questions.

Sincerely,

Savoula Amanatidis  
Managing Editor, IEEE Standards Activities

Voice: +1 732 562 3831

Fax: +1 732 562 1571

Email: [s.amanatidis@ieee.org](mailto:s.amanatidis@ieee.org)

**Resolution of Group****Decision of Group: Accepted-Modified**

- (a) implement as proposed except place copyright statement at bottom of page
- b) Please change the year to 2003 in the running foot—the copyright line at the bottom of every page
- (c) The proposed note and instructions in D3 are part of the the required format for an amendment and should therefore be kept.
- d) The last three paragraphs of Clause 1 Overview should be 1.1 Scope; that is, 1.1. Scope should begin with "The scope of this recommended practice. . . ."
- e) In Clause 2 References, delete date for ETSI standard "(2001-12), and add a footnote for IEEE Std 802.16-2001 stating from where it can be obtained.

**Editor's Actions** [k\) done](#)

Document under Review: **P802.16.2a/D5-2003**Ballot Number: **0000475**

Comment Date

Comment # **002** Comment submitted by: Savoula Amanatidis

Amanatidis

Other

2003/01/10

Comment	Type	Editorial	Starting Page #	Starting Line #	Fig/Table#	Section
MEMO						

MEMO

TO: Balloting Center

FROM: Savoula Amanatidis

DATE: 10 January 2003

RE: SCC10 Coordination of P802.16a/D3

I have reviewed P802.16a/D3 and I have the following comments regarding Clause 3 Definitions.

a) According to 10.4.2 of the *IEEE Standards Style Manual*, when defining terms "the term should not be used in its own definition". Therefore, the following definitions will need to be revised.

- 3.1.7 digital modulation
- 3.1.24 block bandwidth (*B*)
- 3.1.25 Channel bandwidth (*BO*)
- 3.1.32 radiation pattern envelop (**RPE**)
- 3.1.39 terminal equipment

b) Please note that all terms defined in IEEE standards are incorporated into IEEE 100, *The Authoritative Dictionary of IEEE Standards Terms*. For this reason, it is important that terms and definitions have as general an application as possible. Therefore, the following definitions will need to be revised:

- 3.1.13 Frequency Range 1 [Note that this definition is repeated as 3.1.49—please delete.]
- 3.1.14 Frequency Range 2
- 3.1.15 Frequency Range 3

c) Please revise Definition 3.1.51 **Raleigh fading** so that it begins with a complete sentence.

For more information, please see 10.4.2 Construction of the definition clause in the *IEEE Standards Style Manual* (<http://standards.ieee.org/guides/style/section4.html#527>).

Please feel free to contact me if you have any questions.

Sincerely,

Savoula Amanatidis  
Managing Editor, IEEE Standards Activities

Voice: +1 732 562 3831

Fax: +1 732 562 1571

Email: [s.amanatidis@ieee.org](mailto:s.amanatidis@ieee.org)

**Suggested Remedy**

**Resolution of Group**

**Decision of Group: Accepted-Modified**

- (a) delete from 3.1.7 "Digital modulation is"  
delete from 3.1.24 "Block bandwidth B is defined to be"  
In 3.1.25 delete in first sentence "channel bandwidth B0 is defined to be". In second sentence replace "The channel bandwidth" with "This". In second paragraph replace "the channel bandwidth of this composite transmission is defined to be" with ":" and delete "of the channel bandwidths". Delete the whole of NOTE1.  
In 3.1.32 delete "The RPE is"  
In 3.1.39 delete "Terminal equipment encompasses"  
In 3.1.53 delete "Is"
- (b) Delete 3.1.13, 3.1.14, 3.1.15 and 3.1.49 and replace all references to the various frequency ranges with the actual values i.e 2-11GHz, 10-23.5 GHz, 23.5-43.5 GHz, 43.5 - 66 GHz.
- (c) In 3.1.51 change start of sentence to "A propagation phenomenon caused by....."

Document under Review: **P802.16.2a/D5-2003**Ballot Number: **0000475**

Comment Date

Comment # **003**

Comment submitted by: Bruce

Barrow

Other

2003-01-08

Comment	Type	Technical	Starting Page #	?	Starting Line #	Fig/Table#	Section
The expression "-114 (dBW/m <sup>2</sup> )/MHz", which appears in 5.2.5, and similar expressions that appear there, in Table 11, and elsewhere are not correct, because the decibel level cannot be divided. If the expressions were correct, we would have -114 (dBW/m <sup>2</sup> )/MHz = -228 (dBW/m <sup>2</sup> )/(2 MHz), which is clearly nonsense. %%							

**Suggested Remedy**

Avoid the division sign, using phraseology such as%%"The coordination trigger values of -114 dBW for 1 m2 and a bandwidth of 1 MHz (24,26, and 28 GHz bands), and -111 dBW (38 and 42 GHz bands), are employed ...."

**Resolution of Group**Decision of Group: **Accepted-Modified**

Use the standard ITU-R expression "xx dB(W/m<sup>2</sup>) in any 1 MHz band"

Change all entries for psfd in the draft to this format

**Reason for Group's Decision/Resolution**

Although the original recommended practice used the same format as we have proposed in the amendment, it is preferred to use the international convention as used by ITU, as this is now widely recognized. The recommendation ITU-R F.1403 details psfd requirements and uses the new proposed expression format.

Editor's Actions [k\) done](#)



Editor's Actions [k](#) done

Document under Review: **P802.16.2a/D5-2003**

Ballot Number: **0000475**

Comment Date

Comment # **033** Comment submitted by: **Bruce**

**Barrow**

**Other**

**2003-01-08**

Comment Type **Coordination**

Starting Page # **37**

Starting Line #

Fig/Table#

Section **5.5.2.4.1**

Symbol "km/hr" is not correct.

**Suggested Remedy**

Use "km/h" to conform to international and IEEE standards on unit symbols.

Resolution of Group

Decision of Group: **Accepted**

Use "km/h" to conform to international and IEEE standards on unit symbols (Note multiple occurrences)

Editor's Notes

Editor's Actions [k](#) done

2 occurrences corrected

Document under Review: **P802.16.2a/D5-2003**Ballot Number: **0000475**

Comment Date

Comment # **115** Comment submitted by: Bruce

Barrow

Other

2003/02/08

Comment Type **Coordination**

Starting Page #

Starting Line #

Fig/Table#

Section

SCC14 Comments on P802.16.2a/D4

LAN/MAN amendment – coexistence of fixed broadband wireless access systems

February 8, 2003

**DBW/MHz.** I know that "dBW/MHz" is well entrenched in the jargon, but that does not make it correct. If it were correct mathematical notation, then we would have

$$-138 \text{ dBW/MHz} = -276 \text{ dBW}/(2 \text{ MHz})$$

How about using phrases like, "The receiver thermal noise is  $-138 \text{ dBW}$  in  $1 \text{ MHz}$ "?

**Equation 2.** *Italic I.*

**Table 12.** In right column, "Up to 5 per square kilometer"

Bruce B. Barrow

Chair, SCC14

b.barrow@ieee.org

Suggested Remedy

Resolution of Group

Decision of Group: Accepted

Make global change: change occurrences of "dBW/ MHz" to "dBW in 1MHz"

Make other changes as proposed

Document under Review: **P802.16.2a/D5-2003**

Ballot Number: **0000475**

Comment Date

Comment # **121**

Comment submitted by: **Savoula**

**Amanatidis**

Other

2003/03/05

Comment Type **Editorial**

Starting Page #

Starting Line #

Fig/Table#

Section

MEMO

TO: Balloting Center

FROM: Savoula Amanatidis

DATE: 5 March 2003

RE: Editorial Coordination of P802.16.2a/D5

I have reviewed P802.16.2a/D5 and it meets all the requirements for Editorial Coordination.

Sincerely,

Savoula Amanatidis  
Managing Editor, IEEE Standards Activities

Document under Review: **P802.16.2a/D5-2003**

Ballot Number: **0000475**

Comment Date

Comment # **122** Comment submitted by: Savoula Amanatidis

Other

2003/03/05

Type **Editorial**

Starting Page #

Starting Line #

Fig/Table#

Section

MEMO

TO: Balloting Center

FROM: Savoula Amanatidis

DATE: 5 March 2003

RE: SCC10 Coordination of P802.16.2a/D5

I have reviewed Clause 3 Definitions of P802.16.2a/D5 it meets all the requirements for SCC 10 Coordination.

Sincerely,

Savoula Amanatidis  
Managing Editor, IEEE Standards Activities