2002-10-22 IEEE 802.16-02/55r1

# **IEEE 802.16 Working Group on Broadband Wireless Access**

# http://WirelessMAN.org



Dr. Roger B. Marks 325 Broadway, MC 813.00 Boulder, CO 80305 USA Tel: +1 303 497 3037 Fax: +1 303 497 7828 mailto:r.b.marks@ieee.org 22 October 2002

#### Dear IEEE-SA RevCom:

Enclosed is an application for approval of P802.16c ("Draft Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems - Detailed System Profiles for 10-66 GHz").

Attached to this letter, please find the following:

Page 2-4: IEEE-SA Standards Board Form for Submittal of Proposed Standards

Page 5-11: Summary of initial ballot (37 Approve, 1 Disapprove, 4 Abstain, 6 not voting)

Page 12-18: Summary of recirculation ballot (40 Approve, 1 Disapprove, 4 Abstain, 3 not voting)

No new Disapproves and no comments received.

Page 19: Unresolved negatives & responses (1 non-technical comment from the single Disapprove voter;

recirculated along with response.)

Page 20-24: PAR

Page 25 PAR Approval Letter

Page 26-28: Coordination comments & responses

Should you be interested, the following additional details are available by hyperlink:

- the recirculation cover letter <a href="http://ieee802.org/16/docs/02/80216-02\_46r1.pdf">http://ieee802.org/16/docs/02/80216-02\_46r1.pdf</a>>,
- the recirculated ballot comments <a href="http://ieee802.org/16/docs/02/80216-02\_43r2.pdf">http://ieee802.org/16/docs/02/80216-02\_43r2.pdf</a>
- document C802.16c-02/09 <a href="http://ieee802.org/16/tgc/contrib/C80216c-02\_09.pdf">http://ieee802.org/16/tgc/contrib/C80216c-02\_09.pdf</a>>, as referenced in the ballot recirculation package.
- document C802.16c-02/10 <a href="http://ieee802.org/16/tgc/contrib/C80216c-02\_10.pdf">http://ieee802.org/16/tgc/contrib/C80216c-02\_10.pdf</a>>, as referenced in the ballot recirculation package.

The draft itself (P802.16c/D4-2002) is included separately in PDF format.

The PAR answers "Yes" to the question "Sponsor is aware of trademarks relevant to this project?" The relevant trademarks that stimulated this answer are those belonging to IEEE (including 802® and WirelessMAN<sup>TM</sup>). The editorial staff is aware of these issues.

Please feel free to contact me with any questions or concerns.

Sincerely,

Roger B. Marks

Roge B. Mark

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

1. PROJECT NUMBI	ER: P802.16c			2. DATE: 22	2 Oct 2002		
<b>3. TITLE:</b> Draft Ame Broadband Wireless Ad					tworks - Part	16: Air Interface fo	or Fixed
4. SPONSOR (Full na	me of society/co	ommittee): Co	mputer Societ	y/LMSC + Microv	vave Theory &	& Techniques Socie	ety
5. BALLOTING COM	MMITTEE: 80	2.16 Working (	Group + Micro	owave Theory and	Techniques S	ociety	
(Include written deleg	gation of balloti	ng authority.)					
6. NAME OF WORK	ING GROUP:	802.16 Workin	ng Group on E	Broadband Wireles	s Access		
7. NAME AND ADDI	RESS OF SUB	MITTER					
Roger B. Marks NIST 325 Broadway, MC Boulder, CO 8030: USA							
Telephone: +1 303	497 3037	Fax: +1 5	509 756 2642	E-Mail:	r.b.marks@ie	eee.org	
8. DESCRIPTION OF	F DOCUMEN'	Γ (Check one fr	om each colu	mn.)		<del></del>	
X New ☐ Revision ☐ Reaffirmation ☐ Withdrawal		□ Guide 🏿 Amen	nmended Prac dment/Corrige			ar life cycle)	
8A. REAFFIRMATIO	ON ONLY:		form and con	tains no significan		ontinues to be usefu erroneous informati	
9. BALLOT INFORM List the interest cate Working Guide for S	gories of <b>eligib</b>						d the
User 1		ducer	11	General Interest		Government	3
Interest Category N	Io. Inte	rest Category	No.	Interest Category	No.	Interest Category	No.
		SUMMAR	Y OF ELIGI	BLE BALLOTS			
Dallata Maila d	Draft D3 Number	Date Closed: Percentage		Draft D4 Number	Date C Percent	LLOT (if applicabl losed: 2002-10-19 tage	e)
Ballots Mailed	48	100%		48	100%	_	
Ballots Returned	42	87		45	93	_	
Affirmatives	37	97		40	97	_	
Negatives	01	<u>N/A</u>		01	N/A	_	
Abstentions	04	09		04	08	_	

SPID 62678908.29036 IEEE-SA Standards Board Approved Revision 7 December 2000 Reasons for abstentions: Lack of time =  $\underline{4}$  Lack of expertise =  $\underline{0}$  Other =  $\underline{0}$ 

		UTION OF COMMENTS AN								
		oting group members, observers								
		to the balloted draft standard (in eived copies of all unresolved notes.)								
		that they have an opportunity to			nom me neg	ganve voice	anu	me rebu	ittai, and n	ive been
uc		lave unresolved negative votes by			X Yes	□No		No unre	solved vote	es
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		10 (IEEE Dictionary)		R/C						
		14 (Quantities, Units, & Letter S	Symbols)	R						
	IEEE	E Standards Editorial Staff		R/C						
Indica	te belo	w any unresolved problems from	n coordination	n activities.						
		torial comments were identified			mment reque	ested no c	hange	s.		
		C/COPYRIGHT and REGIST								
		any patented material in the pro			es 🛚 No				d on the PA	
		nclude letters(s) of assurance from			Zan Winia	not 1	nclude	ed in the	e final docu	ment
		any copyrighted material in the nelude copyright release(s).	proposed stan	dard? □ Y	es 🛚 No					
		gistration of objects and/or num	hers a provisi	on of □Y	es 🛚 No	□ Alrea	idv an	nroved l	by RAC	
		osed standard? If yes, include a			.03 24110	_ Ance	idy ap	proved	by KAC	
		EEE-SA Registration Authority								
		IATIONAL STANDARDS AC		_						
Is t	his doc	cument intended to be the basis	of or included	in an interna	tional standa	ard? □	Yes (	Explain	) XN	Ю
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15. Sc	ource I	Materials Submitted to IEEE 3	Standards De	epartment						
A.		electronic versions of the source	e documents (t	ext and figure	es) 🛚 🛚 X Y	es □ No	F	ormat: ]	FrameMak	er
_	-	provided?								
В.		diskette or other online materia	l be required t	o accompany	the $\square Y$	es XINo				
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16 Su	hmice	ion checklist (X = included	in submittal n	ackage N	N/A = Not ap	nlicable)				
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-	X	Ballot summary form(s) (1 pe		)						
	X	Copies of unresolved negative								
	X	PAR and PAR approval letter								
ļ	X	Coordination comments and i								
	X	.pdf of final balloted draft #D	4							

N/A

N/A

Permissions & copyright releases

Delegation of balloting authority

DATE: 22 Oct 2002

*	with the policies and procedures of the Sponsor and I am authorized
by those policies and procedures to make this submitta	l.
Rog. B. Mark	
	Chair, 802.16 Working Group
Signature of Submitter	Title (role in Sponsor)
FOR STANDAR	EDS DEPARTMENT USE ONLY
Signature of IEEE-SA Officer Title	tandards Board Chair  Date

### **Return to:**

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

### **Ballot Summary**

P802.16c/D3

Closing date: 2002-09-11

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

```
48 eligible people in this ballot group.

37 affirmative votes
1 negative votes
4 abstention votes
=====
42 votes received = 87% returned
9% abstention
```

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

```
37 affirmative votes
1 negative votes
=====
38 votes = 97% affirmative
```

#### **Ballot Details**

### **Coordination Responses Only**

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

### **Balloters**

Number	Name	Phone / E-mail	Vote	Т	Е	Graphics	Status Notes	Interest Category
41371999	Gordon Antonello Wi-LAN Inc. 2891 Sunridge Way NE Calgary, Alberta T1Y 7K7 Canada	403 207-6477 gantonello@wi-lan.com	Approve, no comments (Y)	-	-	-		Producer
00095638	Gholamreza ("Reza") Arefi-Anbarani ("Arefi") ArrayComm, Inc. 2300 N Street NW, Suite 700 Washington,, District of Columbia 20037 USA	(202) 383-3346 reza@arraycomm.com	Approve, no comments (Y)	-	-	-		General Interest

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41327250	Eladio Arvelo Mobilian Corporation 12707 High Bluff Drive. Suite 335 San Diego, California 92130 United States	(858) 436-2216 earvelo@mobilian.com	Abstain for lack of time (A1)	-	_	-	General Interest
06154470	Morris Balamut n/a 13 Matawan Green Lane Matawan, NJ 07747 US	732-566-3588 m.balamut@ieee.org	Approve, no comments (Y)	-	-	-	User
05587654	John Barr Motorola 1303 E. Algonquin Road Schaumburg, IL 60010 USA	(847) 576-8706 john.barr@motorola.com	Approve, no comments (Y)	-	-	-	General Interest
41446421	Dean Chang Aperto Networks 1637 S. Main Street Milpitas, CA 95035 USA	408 719-9977 dchang@apertonet.com	Approve, no comments (Y)	-	-	-	Producer
00812131	Naftali Chayat Alvarion HaBarzel 21a Tel Aviv 61131 Israel	+972-54-225549 naftali.chayat@alvarion.com	-	-	_	-	Producer
40252619	Elizabeth Chesnutt 326815 Georgia Tech Station Atlanta, GA 30332 USA	770 801-9249 eliz@ece.gatech.edu	Approve, no comments (Y)	-	_	-	General Interest
40237493	Keith Chow 28 Hawthorn Way Cambridge, Cams CB4 1AX UK	+44 (0)1223518538 chow.keith@computer.org	Approve, no comments (Y)	-	-	-	General Interest
03210820	Todor Cooklev Aware, Inc. 3685 Mt Diablo Blvd suite 395 Lafayette, CA 94549 USA	925-984-5283 tcooklev@ieee.org	Approve, no comments (Y)	-	-	-	General Interest
06503270	Jose M. Costa Nortel Networks P.O. Box C-3511 Ottawa, Ontario K1Y 4H7 Canada	+1 613 763-7574 costa@nortelnetworks.com	Approve, no comments (Y)	-	_	-	Producer
05046479	Prof.(Dr.) GURU DUTT	+91 253 461836	Approve, no	-	-	-	User

	DHINGRA Dhingra & Associates Opp. K. J. Mehta High School NASIK ROAD -422101, Maharashtra 422101 INDIA	dhingragd@sancharnet.in	comments (Y)					
41311588	Vern Dubendorf Lee County / ITG 17500 Pine Ridge Road Ft. Myers Beach, FL 33839 USA	941-335-2678 tdubendorf@ieee.org	Approve, no comments (Y)	-	-	-		Government
08972887	Dr. Sourav Dutta VSNL Internet HQ, 16th Floor, VSB, M G Road Mumbai, MH 400001 INDIA	+91 22 267-4269 s.dutta@ieee.org	Approve, no comments (Y)	-	_	-		General Interest
41385184	Carl Eklund Nokia P.O. Box 407 (Itämerenkatu 11-13) Nokia Group (Helsinki), Not applicable Fin-00045 Finland	+358718036566 carl.eklund@nokia.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	General Interest
08518995	Avraham Freedman Hexagon System Engineering Ltd. 2 Kaufman st. Tel-Aviv, XX 68012 Israel	+972 3 5101128 avif@hexagonltd.com	Approve, no comments (Y)	-	-	-		General Interest
02557874	Brian Gieschen WiLAN 2891 Sunridge Way Calgary, Alberta T1Y7K7 Canada	(403)273-9133 briang@wi-lan.com	Approve, no comments (Y)	-	-	-		Producer
01883768	James Gilb Appairent Technologies 9921 Carmel Mountain Rd. #247 San Diego, CA 92129 USA	858-229-4822 gilb@ieee.org	Approve, no comments (Y)	-	-	-		User
01150382	José A. Gutierrez Eaton Corporation 4201 North 27th Street Milwaukee, WI 53216 USA	414-4496525 josegutierrez@eaton.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	User
02540714	Zion Hadad RUNCOM	+972-3-52560655 zionh@runcom.co.il	Approve, no comments (Y)	-	-	-		Producer

	2 Hachoma St. RISHON LE TZION, ISRAEL 75655 israel						
40306847	Simon Harrison Red-M Communications Ltd Neptune House, Mercury Park Wycombe Lane, Wooburn Green, Bucks HP10 0HH UK	+44 1628 819 604 simon.harrison@red-m.com	Approve, no comments (Y)	-	-	-	General Interest
01670801	Robert Heile Appairent 11 Louis Road Attleboro, MA 02703 USA	781-929-4832 bheile@ieee.org	-	-	-	-	General Interest
01556620	Hamadi Jamali ITC 983 Johnson st Redwood City, CA 94061 usa	(650)520-5824 hjamali@ieee.org	Approve, no comments (Y)	-	-	-	User
41442511	Kevin Karcz University of New Hampshire - IOL 121 Technology Drive, suite 2 Durham, NH 03824 US	603-862-1008 kjk@iol.unh.edu	Abstain for lack of time (A1)	-	-	-	General Interest
05995253	Brian Kiernan InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406 USA	610 878-5637 brian.kiernan@interdigital.com	Approve, no comments (Y)	-	-	-	General Interest
41304605	Pi-Cheng Law Chunghwa Telecom. Labs. P.O. Box 6-14 Yang-Mei Yang-Mei, Taoyuan 326 Taiwan	+886 3 424-5738 pclaw@ieee.org	Approve, no comments (Y)	-	-	-	User
08108896	Yeou-Song Lee Anritsu Company 490 Jarvis Drive Morgan Hill, CA 95037 U.S.A.	408-778-2000 x4976 brian.lee@ieee.org	-	-	-	-	User
40255444	Christina Lim Photonics Research Laboratory	+61-3-8344-4486 c.lim@ee.mu.oz.au	Approve, no comments (Y)	-	-	-	Government

9/12/2002 8:04 AM

	Dept. of Electrical & Electronic Engineering The University of Melbourne, Victoria 3010 Australia						
05845615	Gregory Luri CITY OF ST. CHARLES 2 East Main Street St. Charles, IL 60174-1984 USA	630-377-4475 gluri@ci.st-charles.il.us	-	-	-	-	User
08122103	Roger Marks NIST 325 Broadway, MC 813.00 Boulder, CO 80305 USA	+1 303 497 3037 r.b.marks@ieee.org	Approve, comments (Y1)	1	-	1	Government
40183512	Kyle Maus AITG 6033 N. Sheridan Rd., #17H Chicago, IL 60660 USA	312-371-9727 sargon@ieee.org	Approve, no comments (Y)	-	_	-	User
01271899	George Miao 2 Inverness Drive Marlboro, NJ 07746 USA	732-462-7447 GMiao@msn.com	Approve, no comments (Y)	-	-	-	General Interest
40223729	Apurva Mody Georgia Institute of Technology Department of Electrical and Computer Engineering Atlanta, GA 30332-0250 USA	404-894-9370 apurva@ece.gatech.edu	Approve, no comments (Y)	-	-	-	General Interest
41270317	Ronald Murias Wi-LAN, Inc. 2891 Sunridge Way N.E. Calgary, Alberta T1Y 7K CANADA	403-204-7766 ron@murias.ca	Approve, no comments (Y)	-	-	-	Producer
21087809	Robert Nelson Raze Technologies 2540 E Plano Pkwy Suite 188 Plano, Tx 75074 USA	972-516-1283 bnelson@razetechnologies.com	Approve, no comments (Y)	-	-	-	General Interest
07446628	Michael Newman CSI Telecommunications 1700 California Street San Francisco, CA	415-751-8845 miken@csitele.com	Approve, no comments (Y)	-	-	-	General Interest

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94109 USA							
charles Ngethe Kenya Wildlife service-Telecomms Langata Road Nairobi, Nairobi 00400 Kenya	254 722 686442 cngethe@kws.org	Disapprove, comments (N)		1	-		User
Paul Nikolich 18 Bishops Lane Lynnfield, MA 01940 USA	857.205.0050 p.nikolich@ieee.org	Abstain for lack of time (A1)	-	-	-		User
Subbu Ponnuswamy Sigaram Networks 1005 Blue Ravine Road, #926 Folsom, CA 95630 USA	916-984-0868 subbu@acm.org	Approve, no comments (Y)	-	-	-		General Interest
Vikram Punj Storm Ventures 6558 Leyland Park Ct San Jose, CA 95120 USA	408-268-1479 punj@msn.com	Approve, no comments (Y)	-	-	-		Producer
Jon Rosdahl Micro Linear 11734 South Election Road, Suite 200 Draper, Utah 84020-6432 United States of America	801-617-2508 jrosdahl@ieee.org	Approve, comments (Y1)	_	1	-		General Interest
Neil Shipp Commsonic Ltd St Johns Innovation Center, Cowley Road Cambridge, Cambridgeshire CB4 0WS UK	+44 1223 572364 nrs@ieee.org	Approve, comments (Y1)	2	1	-		General Interest
Kenneth Stanwood Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA	858 404 6559 ken@ensemble.com	Approve, comments (Y1)		-	-	Approve, comments without comment	Producer
LEI WANG Wi-LAN Inc. 2891 Sunridge Way, N.E. Calgary, Alberta T1Y 7K7 Canada	(403)204-3288 leiw@wi-lan.com	-	-	-	-		General Interest
	Charles Ngethe Kenya Wildlife service-Telecomms Langata Road Nairobi, Nairobi 00400 Kenya  Paul Nikolich 18 Bishops Lane Lynnfield, MA 01940 USA  Subbu Ponnuswamy Sigaram Networks 1005 Blue Ravine Road, #926 Folsom, CA 95630 USA  Vikram Punj Storm Ventures 6558 Leyland Park Ct San Jose, CA 95120 USA  Jon Rosdahl Micro Linear 11734 South Election Road, Suite 200 Draper, Utah 84020-6432 United States of America  Neil Shipp Commsonic Ltd St Johns Innovation Center, Cowley Road Cambridge, Cambridgeshire CB4 0WS UK  Kenneth Stanwood Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA  LEI WANG Wi-LAN Inc. 2891 Sunridge Way, N.E. Calgary, Alberta T1Y 7K7	USA	Charles Ngethe   Char	Charles Ngethe   Cengethe   Cen	Charles Ngethe   Capter   C	USA	USA

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	RedDot Wireless, Inc. 1533 California Circle, Suite 200 Milpitas, CA 95035 USA	stanley@reddotwireless.com	comments (Y)				
41446880	Vladimir Yanover Alvarion Ltd. 21 A Habarzel St. Ramat - Hahayal Tel - Aviv, N/A for Israel 61131 Israel	+972-36457834 vladimir.yanover@alvarion.com	-	-	-	-	Producer
40354434	Jung Yee IceFyre Semiconductor 411 Legget Dr., Suite 300 Kanata, ON K2K 3C9 Canada	613.599.3000 jyee@icefyre.com	Abstain for lack of time (A1)	-	-	-	General Interest
05907266	Oren Yuen 1504 Steinhart Ave Redondo Beach, CA 90278 USA	310-372-9334 oren.yuen@ieee.org	Approve, no comments (Y)	-	-	-	User
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# **Summary of Eligible Voters by Interest Category**

Interest Category	Affirmative(s)	Negative(s)	Abstention(s)	Not Returned	Total
User	8	1	1	2	12
Producer	9	0	0	2	11
General Interest	17	0	3	2	22
Government	3	0	0	0	3
Voting Tally	37	1	4	6	48

Abstention details:	4 for lack of time (A1)	0 for lack of expertise (A2)	0 for other reasons (A3)
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### **Ballot Summary**

P802.16c/D4 Recirculation Closing date: 2002-10-19

This is a recirculation ballot. The report collates the results from the following groups: 0000314 0000370.

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

```
48 eligible people in this ballot group.

40 affirmative votes
1 negative votes
4 abstention votes
=====
45 votes received = 93% returned
8% abstention
```

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

```
40 affirmative votes
  1 negative votes
===
41 votes = 97% affirmative
```

#### **Ballot Details**

#### **Coordination Responses Only**

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

#### **Balloters**

Number	Name	Phone / E-mail	Vote	Т	E	Graphics	Status Notes	Interest Category
41371999	Gordon Antonello Wi-LAN Inc. 2891 Sunridge Way NE Calgary, Alberta T1Y 7K7 Canada	403 207-6477 gantonello@wi-lan.com	Approve, no comments (Y)	-	-	-		Producer
00095638	Gholamreza ("Reza") Arefi-Anbarani ("Arefi") ArrayComm, Inc. 2300 N Street NW, Suite 700 Washington,, District of Columbia 20037	(202) 383-3346 reza@arraycomm.com	Approve, no comments (Y)	-	-	-		General Interest

	USA						
41327250	Eladio Arvelo Mobilian Corporation 12707 High Bluff Drive. Suite 335 San Diego, California 92130 United States	(858) 436-2216 earvelo@mobilian.com	Abstain for lack of time (A1)	-	-	-	General Interest
06154470	Morris Balamut n/a 13 Matawan Green Lane Matawan, NJ 07747 US	732-566-3588 m.balamut@ieee.org	Approve, no comments (Y)	-	-	-	User
05587654	John Barr Motorola 1303 E. Algonquin Road Schaumburg, IL 60010 USA	(847) 576-8706 john.barr@motorola.com	Approve, no comments (Y)	-	-	-	General Interest
41446421	Dean Chang Aperto Networks 1637 S. Main Street Milpitas, CA 95035 USA	408 719-9977 dchang@apertonet.com	Approve, no comments (Y)	-	-	-	Producer
00812131	Naftali Chayat Alvarion HaBarzel 21a Tel Aviv 61131 Israel	+972-54-225549 naftali.chayat@alvarion.com	-	-	-	-	Producer
40252619	Elizabeth Chesnutt 326815 Georgia Tech Station Atlanta, GA 30332 USA	770 801-9249 eliz@ece.gatech.edu	Approve, no comments (Y)	-	-	-	General Interest
40237493	Keith Chow 28 Hawthorn Way Cambridge, Cams CB4 1AX UK	+44 (0)1223518538 chow.keith@computer.org	Approve, no comments (Y)	-	-	-	General Interest
03210820	Todor Cooklev Aware, Inc. 3685 Mt Diablo Blvd suite 395 Lafayette, CA 94549 USA	925-984-5283 tcooklev@ieee.org	Approve, no comments (Y)	-	-	-	General Interest
06503270	Jose M. Costa Nortel Networks P.O. Box C-3511 Ottawa, Ontario K1Y 4H7 Canada	+1 613 763-7574 costa@nortelnetworks.com	Approve, no comments (Y)	-	-	-	Producer

05046479	Prof.(Dr.) GURU DUTT DHINGRA Dhingra & Associates Opp. K. J. Mehta High School NASIK ROAD -422101, Maharashtra 422101 INDIA	+91 253 461836 dhingragd@sancharnet.in	Approve, no comments (Y)	-	-	-		User
41311588	Vern Dubendorf Lee County / ITG 17500 Pine Ridge Road Ft. Myers Beach, FL 33839 USA	941-335-2678 tdubendorf@ieee.org	Approve, no comments (Y)	-	-			Government
08972887	Dr. Sourav Dutta VSNL Internet HQ, 16th Floor, VSB, M G Road Mumbai, MH 400001 INDIA	+91 22 267-4269 s.dutta@ieee.org	Approve, no comments (Y)	-	-			General Interest
41385184	Carl Eklund Nokia P.O. Box 407 (Itämerenkatu 11-13) Nokia Group (Helsinki), Not applicable Fin-00045 Finland	+358718036566 carl.eklund@nokia.com	Approve, comments (Y1)	-	-	_	Approve, comments without comment	General Interest
08518995	Avraham Freedman Hexagon System Engineering Ltd. 2 Kaufman st. Tel-Aviv, XX 68012 Israel	+972 3 5101128 avif@hexagonltd.com	Approve, no comments (Y)	-	-	_		General Interest
02557874	Brian Gieschen WiLAN 2891 Sunridge Way Calgary, Alberta T1Y7K7 Canada	(403)273-9133 briang@wi-lan.com	Approve, no comments (Y)	-	-	-		Producer
01883768	James Gilb Appairent Technologies 9921 Carmel Mountain Rd. #247 San Diego, CA 92129 USA	858-229-4822 gilb@ieee.org	Approve, no comments (Y)	-	-			User
01150382	José A. Gutierrez Eaton Corporation 4201 North 27th Street Milwaukee, WI 53216 USA	414-4496525 josegutierrez@eaton.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	User
02540714	Zion Hadad	+972-3-52560655	Approve, no	-	-	-		Producer

	RUNCOM 2 Hachoma St. RISHON LE TZION, ISRAEL 75655 israel	zionh@runcom.co.il	comments (Y)				
40306847	Simon Harrison Red-M Communications Ltd Neptune House, Mercury Park Wycombe Lane, Wooburn Green, Bucks HP10 0HH UK	+44 1628 819 604 simon.harrison@red-m.com	Approve, no comments (Y)*	-	-	-	General Interest
01670801	Robert Heile Appairent 11 Louis Road Attleboro, MA 02703 USA	781-929-4832 bheile@ieee.org	-	-	-	-	General Interest
01556620	Hamadi Jamali ITC 983 Johnson st Redwood City, CA 94061 usa	(650)520-5824 hjamali@ieee.org	Approve, no comments (Y)	-	-	-	User
41442511	Kevin Karcz University of New Hampshire - IOL 121 Technology Drive, suite 2 Durham, NH 03824 US	603-862-1008 kjk@iol.unh.edu	Abstain for lack of time (A1)	-	-	-	General Interest
05995253	Brian Kiernan InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406 USA	610 878-5637 brian.kiernan@interdigital.com	Approve, no comments (Y)	-	-	-	General Interest
41304605	Pi-Cheng Law Chunghwa Telecom. Labs. P.O. Box 6-14 Yang-Mei Yang-Mei, Taoyuan 326 Taiwan	+886 3 424-5738 pclaw@ieee.org	Approve, no comments (Y)	-	-	-	User
08108896	Yeou-Song Lee Anritsu Company 490 Jarvis Drive Morgan Hill, CA 95037 U.S.A.	408-778-2000 x4976 brian.lee@ieee.org	-	-	-	-	User
40255444	Christina Lim Photonics Research	+61-3-8344-4486 c.lim@ee.mu.oz.au	Approve, no comments (Y)	-	-	-	Government

	Laboratory Dept. of Electrical & Electronic Engineering The University of Melbourne, Victoria 3010 Australia						
05845615	Gregory Luri 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	Roger Marks NIST 325 Broadway, MC 813.00 Boulder, CO 80305 USA	+1 303 497 3037 r.b.marks@ieee.org	Approve, comments (Y1)	1	-		Government
40183512	Kyle Maus AITG 6033 N. Sheridan Rd., #17H Chicago, IL 60660 USA	312-371-9727 sargon@ieee.org	Approve, no comments (Y)*	-	-	-	User
01271899	George Miao 2 Inverness Drive Marlboro, NJ 07746 USA	732-462-7447 GMiao@msn.com	Approve, no comments (Y)	-	-	-	General Interest
40223729	Apurva Mody Georgia Institute of Technology Department of Electrical and Computer Engineering Atlanta, GA 30332-0250 USA	404-894-9370 apurva@ece.gatech.edu	Approve, no comments (Y)*	-	-	-	General Interest
41270317	Ronald Murias Wi-LAN, Inc. 2891 Sunridge Way N.E. Calgary, Alberta T1Y 7K CANADA	403-204-7766 ron@murias.ca	Approve, no comments (Y)	-	-	-	Producer
21087809	Robert Nelson Raze Technologies 2540 E Plano Pkwy Suite 188 Plano, Tx 75074 USA	972-516-1283 bnelson@razetechnologies.com	Approve, no comments (Y)	-	-	-	General Interest
07446628	Michael Newman CSI Telecommunications 1700 California Street	415-751-8845 miken@csitele.com	Approve, no comments (Y)*	-	-	-	General Interest

	San Francisco, CA 94109 USA							
41454280	charles Ngethe Kenya Wildlife service-Telecomms Langata Road Nairobi, Nairobi 00400 Kenya	254 722 686442 cngethe@kws.org	Disapprove, comments (N)	-	1	-		User
07858459	Paul Nikolich 18 Bishops Lane Lynnfield, MA 01940 USA	857.205.0050 p.nikolich@ieee.org	Abstain for lack of time (A1)	-	-	-		User
00353235	Subbu Ponnuswamy Sigaram Networks 1005 Blue Ravine Road, #926 Folsom, CA 95630 USA	916-984-0868 subbu@acm.org	Approve, no comments (Y)	-	-	-		General Interest
01453273	Vikram Punj Storm Ventures 6558 Leyland Park Ct San Jose, CA 95120 USA	408-268-1479 punj@msn.com	Approve, no comments (Y)*	-	-	-		Producer
08097867	Jon Rosdahl Micro Linear 11734 South Election Road, Suite 200 Draper, Utah 84020-6432 United States of America	801-617-2508 jrosdahl@ieee.org	Approve, comments (Y1)	-	1	-		General Interest
40156964	Neil Shipp Commsonic Ltd St Johns Innovation Center, Cowley Road Cambridge, Cambridgeshire CB4 0WS UK	+44 1223 572364 nrs@ieee.org	Approve, comments (Y1)	2	1	-		General Interest
41392686	Kenneth Stanwood Ensemble Communications 9890 Towne Centre Dr. San Diego, CA 92121 USA	858 404 6559 ken@ensemble.com	Approve, comments (Y1)	-	-	-	Approve, comments without comment	Producer
41328136	LEI WANG Wi-LAN Inc. 2891 Sunridge Way, N.E. Calgary, Alberta T1Y 7K7 Canada	(403)204-3288 leiw@wi-lan.com	Approve, no comments (Y)*	-	-	-		General Interest

41387608	Stanley Wang RedDot Wireless, Inc. 1533 California Circle, Suite 200 Milpitas, CA 95035 USA	(408) 263-0300 stanley@reddotwireless.com	Approve, no comments (Y)	-	_	-	Producer
41446880	Vladimir Yanover Alvarion Ltd. 21 A Habarzel St. Ramat - Hahayal Tel - Aviv, N/A for Israel 61131 Israel	+972-36457834 vladimir.yanover@alvarion.com	Approve, no comments (Y)*	-	_	-	Producer
40354434	Jung Yee IceFyre Semiconductor 411 Legget Dr., Suite 300 Kanata, ON K2K 3C9 Canada	613.599.3000 jyee@icefyre.com	Abstain for lack of time (A1)	-	-	-	General Interest
05907266	Oren Yuen 1504 Steinhart Ave Redondo Beach, CA 90278 USA	310-372-9334 oren.yuen@ieee.org	Approve, no comments (Y)	-	-	-	User
		Cor	nment Totals *	3	3	1	
		nents: each unstructured binary fil or hundreds of individual T and L		оиг	ıte	d as a	
* This ball	oter cast this ballot in the cu	arrent circulation of this recirc bal	lot.				

# **Summary of Eligible Voters by Interest Category**

<b>Interest Category</b>	Affirmative(s)	Negative(s)	Abstention(s)	Not Returned Total
User	9	1	1	1 12
Producer	10	0	0	1 11
General Interest	18	0	3	1 22
Government	3	0	0	0 3
<b>Voting Tally</b>	40	1	4	3 48

		$\neg$
Abstention details:	4 for lack of time (A1) 0 for lack of expertise (A2) 0 for other reasons (A3	)

2002-10-22 IEEE 802.16-02/55

# **Unresolved negatives & responses**

(1 non-technical comment from the single Disapprove voter)

**Voter:** Charles Ng'ethe

**Comment Type:** *Editorial* (as designated by Voter)

**Comment:** The PDF l downloaded had so many cancellations and repeated numbers which run from 1 to 65

for each page.

**Suggested Remedy:** Please provide a document that is clear without cancellations or empty pages which

imply there is some missing information.

**Decision of Group:** Accepted-Modified

### **Resolution of Group:**

Delete empty page ii, or mark "This page intentionally left blank."

*Set line numbers* (1-65 *on left column) in color to indicate that they are temporary.* 

#### **Reason for Recommendation:**

Line numbers must remain in draft for commenting purposes, but will not be in published standard.

The "cancellations" must remain, since they are a fundamental part of the standard. This standard is an amendment to IEEE Standard 802.16 The marks are used to indicate changes to that standard. This is explained in "Editorial instructions" on Page 5. This editorial procedure is required by IEEE-SA.

# Formal Email Response of Voter to Resolution:

None. Did not participate in recirculation.

### **Informal Email Response of Voter to Resolution:**

Dear Dr. Marks.

Thanks for your cralification. However I do not have any problems with the contents.

For us third world Engineers we have alot of time to scrutinise and study the standards. Work is too routine and easy leaving us with alot of idle time. We only implement/maintain networks designed from the 1st world It's always a priviledge to read upcoming standards and be part of the technology development.

thanks

Ng'ethe

05/15/02

PAR Status: Amendment of Standard
PAR Approval Date: 05/09/2002
PAR Signature Page on File: Yes

Review of Standards Development Process: No

Assigned Project Number: 802.16c
 Sponsor Date of Request: 03/22/2002
 Type of Document: Standard for

4. Title of Document:

Draft: Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface

for Fixed Broadband Wireless Access Systems - Detailed System Profiles for 10-66 GHz

5. Life Cycle: Full Use

6. Type of Project:

6a. Is this an update to an existing PAR? No

6b. The project is a: Amendment to Std. 802.16-2001

7. Contact Information of Working Group:

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

Name of Working Group Chair: Roger B Marks

**Telephone:** (303) 497-3037 **FAX:** (303) 497-7828

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: 08/05/2002

11. Fill in Projected Completion Date for Submittal to RevCom: 2/1/2003

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 Amendment updates and expands Clause 12 of IEEE Std 802.16-2001, which concerns system profiles that list sets of features and functions to be used in typical implementation cases. Errors and inconsistencies in IEEE Std 802.16-2001 will also be corrected. The scope is limited to 10-66 GHz.

### 13. Purpose of Proposed Project:

To aid the deployment of interoperable systems by defining and naming a set of system profiles to which manufacturers can test compliance, and by correcting errors and inconsistencies.

Sponsor has reviewed the IEEE patent policy with the working group? Yes  Sponsor is aware of copyrights relevant to this project? No  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? No
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
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? No
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)

9. Sponsoring Society and Committee: MTT will be a co-sponsor, along with  ${\tt C/LM}$ .



05/09/2002 07:39 AM

To: P.Nikolich@ieee.org

cc: r.b.marks@ieee.org, bheile@ieee.org

Subject: Approved PARs

9 May 2002

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

Re: P802.15.2 Recommended Practice for Information technology - Telecommunications

and information exchange between systems - Local and metropolitan area networks specific requirements - Part 15.2: Coexistence of Wireless Personal Area Networks with Other Wireless Devices Operating in Unlicensed Frequency

Bands

P802.16c Amendment to IEEE Standard for Local and Metropolitan Area Networks -

Part 16: Air Interface for Fixed Broadband Wireless Access Systems -

Detailed System Profiles for 10-66 GHz

Dear Paul:

I am pleased to inform you that on 9 May 2002 the IEEE-SA Standards Board approved the above referenced projects until December 2004 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 no later than 1 August 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.

Sincerely,

Jodi Haasz Senior Administrator IEEE-SA Governance and Electronic Processes

PS - The information in the .pdf file is viewable in Adobe Reader, version 3.0 or higher. If you do not have this

Document under Review: P802.16c/D3 Ballot Number: 0000314 Comment Date

Comment # 06 Comment submitted by: Jennifer Longman Other

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

**MEMO** 

TO: Balloting Center

FROM: Jennifer Longman DATE: 20 August 2002

RE: SCC 10 Coordination of IEEE P802.16c/D3

IEEE P802.16c/D3 meets all phases of SCC 10 coordination.

Suggested Remedy

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: Accepted

Reason for Group's Decision/Resolution

**Group's Notes** 

Group's Action Items

Editor's Notes Editor's Actions I) none needed

**Editor's Questions and Concerns** 

**Editor's Action Items** 

Document under Review: P802.16c/D3 Ballot Number: 0000314 Comment Date

Comment # 07 Comment submitted by: Jennifer Longman Other

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

**MEMO** 

TO: 802.16 Working Group FROM: Jennifer Longman DATE: 20 August 2002

RE: Editorial Review of P802.16c/D3

Upon review of P802.16c/D3, I have the following comments:

1. The information now contained in the Scope and Purpose should be removed and added to the EDITORIAL NOTE. No new information should be added to the Scope and Purpose, unless you are specifically modifying those clauses in the base standard.

#### The following is an example of from 802.1t-2001:

EDITORIAL NOTE—This amendment to IEEE Std 802.1D, 1998 Edition (ISO/IEC 15802-3:1998) defines the changes necessary in order to address maintenance items that have been brought to the attention of the 802.1 Working Group. These changes are defined as a series of additions to, and modifications of, the existing text of ISO/IEC 15802-3:1998; this supplement therefore assumes all material, including references, abbreviations, definitions, procedures, services and protocols defined in the base text. Text shown in *bold italics* in this amendment defines the editing instructions necessary in order to incorporate the modifications and additions into the base text. Three editing instructions are used: *change, delete*, and *insert. Change* is used to make a change to existing material. The editing instruction specifies the location of the change and describes what is being changed either by using strikethrough to remove old material or <u>underscore</u> to add new material.

\*Delete removes existing material.\* Insert adds new material without changing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. Editorial notes will not be carried over into future editions of IEEE Std 802.1D.

The following is an example from 802.11d-2001 showing a slightly different style:

[This amendment is based on the current edition of IEEE Std 802.11, 1999 Edition and the IEEE Std 802.11a-1999 and IEEE Std 802.11b-1999 amendments.]

NOTE—The editing instructions contained in this amendment define how to merge the material contained herein into the existing base standard to form the new comprehensive standard as created by the addition of IEEE Std 802.11-1999.

The editing instructions are shown in **bold italic**. Three editing instructions are used: change, delete, and insert. **Change** is used to make small corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed either by using strikethrough (to remove old material) or <u>underscore</u> (to add new material). **Delete** removes existing material. **Insert** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. Editorial notes will not be carried over into future editions.

If you have any questions, please do not hesitate to contact me at any time.

Best regards,

Jennifer Longman j.Longman@ieee.org (732) 562-6355

Resolution of Group Decision of Group: Accepted

```
From: sa-ballot@ieee.org
To: bbarrow@nist.gov
Reply-To: sa-ballot@ieee.org
Cc: r.b.marks@ieee.org, a.ortiz@ieee.org
X-IEEE-SA-Balloting: courtesy copy, 0000314
Subject: Courtesy copy of ballot for P802.16c/D3
Date: Mon, 19 Aug 2002 16:14:25 -0400 (EDT)
Sender: joe@standards.ieee.org
(Message sent via IEEE Standards webmail)
Here is a courtesy copy of a ballot for P802.16c/D3
just submitted:
# Ballot/Comment Data for 0000314 (P802.16c/D3)
# Submitted Mon Aug 19 16:14:24 EDT 2002
# Type: ballot
# Record Number: 00601054
ballot code = 0000314
form type = ballot
ieee number = 00601054
name = Bruce Barrow
email = bbarrow@nist.gov
phone = 301-493-4374
fax = 301-493-6363
org = IEEE SCC14
vote = Coordination
(End of IEEE Standards webmail message)
```