

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

1. PROJECT NUMBER: P1802.16.1**2. DATE:** 25 Apr 2003**3. TITLE:** Draft Standard for Conformance to IEEE Standard 802.16 - Part 1: Protocol Implementation Conformance Statement (PICS) Proforma for 10-66 GHz WirelessMAN-SC Air Interface**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

Telephone: +1 303 497 3037

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 checked="" 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 type="checkbox"/> Amendment/Corrigenda to an existing
standard (Indicate number and year) _____ | |

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	13	Producer	14	General Interest	23	Government	3
Interest Category	No.	Interest Category	No.	Interest Category	No.	Interest Category	No.

SUMMARY OF ELIGIBLE BALLOTS

	INITIAL BALLOT		RECIRCULATION BALLOT (if applicable)	
	Draft D2 Number	Date Closed: 2003-02-25 Percentage	Draft D3 Number	Date Closed: 2003-04-24 Percentage
Ballots Mailed	<u>53</u>	<u>100%</u>	<u>53</u>	<u>100%</u>
Ballots Returned	<u>42</u>	<u>79</u>	<u>46</u>	<u>86</u>
Affirmatives	<u>41</u>	<u>100</u>	<u>45</u>	<u>100</u>
Negatives	<u>0</u>	<u>N/A</u>	<u>0</u>	<u>N/A</u>
Abstentions	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>

SPID 78610571.29608

IEEE-SA Standards Board Approved Revision 7 December 2000

Reasons for abstentions:

Lack of time = 1

Lack of expertise = 0

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		
SCC14 (Quantities, Units, & Letter Symbols)	R		
IEEE Standards Editorial Staff	R		

Indicate below any unresolved problems from coordination activities.

None. "An Editorial and SCC 10 review was completed for P1802.16.1_D2. This document meets all requirements of coordination."

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	
N/A	Coordination comments and responses	
X	.pdf of final balloted draft #D3	
X	Permissions & copyright releases	
N/A	Delegation of balloting authority	

Ballot Summary

P1802.16.1

Closing date: 2003-02-25

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

53 eligible people in this ballot group.

41 affirmative votes
 0 negative votes with comments
 0 negative votes without comments
 1 abstention votes

=====

42 votes received = 79% returned
 2% abstention

2. The 75% affirmation requirement is being met.

41 affirmative votes
 0 negative votes with comments

=====

41 votes = 100% 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		yes	-
00001000	Michelle Turner	SCC10		yes	yes
00001001	Michelle Turner	Editorial		yes	yes

Balloters

Number	Name	Phone / E-mail	Vote	T	E	Graphics	Status Notes	Interest Categor:
40189595	Selim Aissi Intel		Approve, no comments (Y)	-	-	-		User
40250497	Ralph Baddour University of Toronto		Abstain for lack of time (A1)	-	-	-		General Interest

40357619	John Barnet		-	-	-	-		User
08805236	Mitchell Buchman US Government		-	-	-	-		Governme
04503512	Ed Callaway Motorola		Approve, no comments (Y)	-	-	-		General Interest
41446421	Dean Chang Aperto Networks		Approve, no comments (Y)	-	-	-		Producer
40237493	Keith Chow		Approve, no comments (Y)	-	-	-		General Interest
03210820	Todor Cooklev San Francisco State University		Approve, no comments (Y)	-	-	-		Governme
06503270	Jose M. Costa Nortel Networks		Approve, no comments (Y)	-	-	-		General Interest
07633407	Steven Crowley		Approve, no comments (Y)	-	-	-		General Interest
40199311	Thomas Dineen Dineen Consulting		Approve, no comments (Y)	-	-	-		Producer

41385184	Carl Eklund Nokia		Approve, comments (Y1)	1	-	1		Producer
08518995	Avraham Freedman Hexagon System Engineering Ltd.		Approve, no comments (Y)	-	-	-		General Interest
41348507	Theodore Georgantas Athena Semiconductors		Approve, no comments (Y)	-	-	-		Producer
41414896	Andrew Germano WiDeFi Corporation		-	-	-	-		Producer
07393143	Robert Grow Intel		Approve, no comments (Y)	-	-	-		General Interest
01150382	José A. Gutierrez Eaton Corporation		Approve, no comments (Y)	-	-	-		User
41335410	David Husson		Approve, no comments (Y)	-	-	-		Producer
01556620	Hamadi Jamali ITC Center		Approve, no comments (Y)	-	-	-		General Interest
03343704	Jacob Jorgensen Malibu Networks, Inc.		Approve, no comments (Y)	-	-	-		Producer

40357068	STUART KERRY OK -Brit		-	-	-	-		General Interest
05995253	Brian Kiernan InterDigital Communications Corp.		Approve, no comments (Y)	-	-	-		General Interest
41304605	Pi-Cheng Law Chughwa Telecom Labs.		Approve, no comments (Y)	-	-	-		User
08108896	Yeou-Song Lee Anritsu		-	-	-	-		Producer
40255444	Christina Lim The University of Melbourne		Approve, no comments (Y)	-	-	-		General Interest
01622778	Randolph Little AT&T - retired		Approve, no comments (Y)	-	-	-		General Interest
05845615	Gregory Luri CITY OF ST. CHARLES		Approve, no comments (Y)	-	-	-		User
08122103	Roger Marks NIST		Approve, comments (Y1)	-	1	1		Governme
40219720	Kevin Marquess Hyper Corporation		Approve, no comments (Y)	-	-	-		User

40183512	Kyle Maus AITG		-	-	-			User
40266634	Ingolf Meier		Approve, no comments (Y)	-	-			Producer
01271899	George Miao		Approve, no comments (Y)	-	-			General Interest
40223729	Apurva Mody Georgia Tech		Approve, no comments (Y)	-	-			General Interest
41505402	Rajesh Moorkath State of Maryland		Approve, no comments (Y)	-	-			General Interest
07446628	Michael Newman CSI Telecommunications		Approve, no comments (Y)	-	-			User
07858459	Paul Nikolich		Approve, no comments (Y)	-	-			User
03350758	Chris Osterloh Itron		Approve, no comments (Y)	-	-			User
07022429	Roger Pandanda MCS Corporation		-	-	-			General Interest
40300305	Kenneth Peirce		Approve,	-	-			Producer

	Malibu Networks		no comments (Y)					
00353235	Subbu Ponnuswamy		Approve, no comments (Y)	-	-	-		General Interest
01453273	Vikram Punj Meru Networks		Approve, no comments (Y)	-	-	-		General Interest
40283080	John Sargent Wireless Facilities Inc.		-	-	-	-		User
40156964	Neil Shipp Commsonic Ltd		-	-	-	-		General Interest
01109156	Gil Shultz		Approve, no comments (Y)	-	-	-		User
41392686	Kenneth Stanwood Ensemble Communications		Approve, comments (Y1)	-	1	1		Producer
40224483	Carl Stevenson Agere Systems		Approve, no comments (Y)	-	-	-		Producer
04389243	Mark Sturza 3C Systems Company		Approve, no comments (Y)	-	-	-		General Interest
40324312	Jun Tan		-	-	-	-		General

	Georgia Tech							Interest
03239332	JOAN VIAPLANA AUNA TELECOMUNICACIONES		-	-	-			General Interest
41328136	Lei Wang Wi-LAN Inc.		Approve, comments (Y1)	1	-	1		Producer
41278416	Hung-yu Wei Columbia Univ.		Approve, no comments (Y)	-	-	-		General Interest
05907266	Oren Yuen		Approve, no comments (Y)	-	-	-		User
41249250	Nico van Waes Nokia		Approve, no comments (Y)	-	-	-		Producer
Comment Totals *				2	2	4		
<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>								

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	10	0	0	0	3	13
Producer	12	0	0	0	2	14
General Interest	17	0	0	1	5	23
Government	2	0	0	0	1	3
Voting Tally	41	0	0	1	11	53

Abstention details:	1 for lack of time (A1)	0 for lack of expertise (A2)	0 for other reasons (A3)
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Ballot Summary

P1802.16.1/D3 Recirculation

Closing date: 2003-04-24

This is a recirculation ballot. The report collates the results from the following groups: 0000426 0000508.

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

53 eligible people in this ballot group.

45 affirmative votes
 0 negative votes with comments
 0 negative votes without comments
 1 abstention votes

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46 votes received = 86% returned
 2% abstention

2. The 75% affirmation requirement is being met.

45 affirmative votes
 0 negative votes with comments

=====

45 votes = 100% 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		yes	-
00001000	Michelle Turner	SCC10		yes	yes
00001001	Michelle Turner	Editorial		yes	yes

Balloters

Number	Name	Phone / E-mail	Vote	T	E	Graphics	Status Notes	Interest Categor:
40189595	Selim Aissi Intel		Approve, no comments (Y)*	-	-	-		User
40250497	Ralph Baddour University of Toronto		Abstain for lack of time (A1)*	-	-	-		General Interest

40357619	John Barnett		-	-	-			User
08805236	Mitchell Buchman US Government		-	-	-			Governme
04503512	Ed Callaway Motorola		Approve, no comments (Y)	-	-			General Interest
41446421	Dean Chang Aperto Networks		Approve, no comments (Y)	-	-			Producer
40237493	Keith Chow		Approve, no comments (Y)*	-	-			General Interest
03210820	Todor Cookley San Francisco State University		Approve, no comments (Y)	-	-			Governme
06503270	Jose M. Costa Nortel Networks		Approve, no comments (Y)	-	-			General Interest
07633407	Steven Crowley		Approve, no comments (Y)	-	-			General Interest
40199311	Thomas Dineen Dineen Consulting		Approve, no comments (Y)	-	-			Producer

41385184	Carl Eklund Nokia		Approve, comments (Y1)	1	-	1		Producer
08518995	Avraham Freedman Hexagon System Engineering Ltd.		Approve, no comments (Y)	-	-	-		General Interest
41348507	Theodore Georgantas Athena Semiconductors		Approve, no comments (Y)	-	-	-		Producer
41414896	Andrew Germano WiDeFi Corporation		Approve, no comments (Y)*	-	-	-		Producer
07393143	Robert Grow Intel		Approve, no comments (Y)	-	-	-		General Interest
01150382	José A. Gutierrez Eaton Corporation		Approve, no comments (Y)*	-	-	-		User
41335410	David Husson		Approve, no comments (Y)	-	-	-		Producer
01556620	Hamadi Jamali ITC Center		Approve, no comments (Y)	-	-	-		General Interest
03343704	Jacob Jorgensen Malibu Networks, Inc.		Approve, no comments (Y)	-	-	-		Producer

40357068	STUART KERRY OK -Brit		Approve, no comments (Y)*	-	-	-		General Interest
05995253	Brian Kiernan InterDigital Communications Corp.		Approve, no comments (Y)*	-	-	-		General Interest
41304605	Pi-Cheng Law Chughwa Telecom Labs.		Approve, no comments (Y)	-	-	-		User
08108896	Yeou-Song Lee Anritsu		-	-	-	-		Producer
40255444	Christina Lim Photonics Research Laboratory		Approve, no comments (Y)	-	-	-		General Interest
01622778	Randolph Little AT&T - retired		Approve, no comments (Y)	-	-	-		General Interest
05845615	Gregory Luri CITY OF ST. CHARLES		Approve, no comments (Y)	-	-	-		User
08122103	Roger Marks NIST		Approve, comments (Y1)	-	1	1		Governme
40219720	Kevin Marquess		Approve,	-	-	-		User

	Hyper Corporation		no comments (Y)					
40183512	Kyle Maus AITG		Approve, no comments (Y)*	-	-	-		User
40266634	Ingolf Meier		Approve, no comments (Y)*	-	-	-		Producer
01271899	George Miao		Approve, no comments (Y)	-	-	-		General Interest
40223729	Apurva Mody Georgia Tech		Approve, no comments (Y)	-	-	-		General Interest
41505402	Rajesh Moorkath State of Maryland		Approve, no comments (Y)*	-	-	-		General Interest
07446628	Michael Newman CSI Telecommunications		Approve, no comments (Y)	-	-	-		User
07858459	Paul Nikolich		Approve, no comments (Y)	-	-	-		User
03350758	Chris Osterloh Itron		Approve, no comments (Y)	-	-	-		User
07022429	Roger Pandanda MCS Corporation		-	-	-	-		General Interest

	94309 USA							
40300305	Kenneth Peirce Malibu Networks		Approve, no comments (Y)	-	-	-		Producer
00353235	Subbu Ponnuswamy		Approve, no comments (Y)	-	-	-		General Interest
01453273	Vikram Punj Meru Networks		Approve, no comments (Y)*	-	-	-		General Interest
40283080	John Sargent Wireless Facilities Inc.		-	-	-	-		User
40156964	Neil Shipp Commsonic Ltd		Approve, no comments (Y)*	-	-	-		General Interest
01109156	Gil Shultz		Approve, no comments (Y)*	-	-	-		User
41392686	Kenneth Stanwood Ensemble Communications		Approve, no comments (Y)*	-	1	1		Producer
40224483	Carl Stevenson Agere Systems		Approve, no comments (Y)*	-	-	-		Producer
04389243	Mark Sturza 3C Systems Company		Approve, no comments (Y)	-	-	-		General Interest

	91436 US							
40324312	Jun Tan Georgia Tech		-	-	-			General Interest
03239332	JOAN VIAPLANA AUNA TELECOMUNICACIONES		-	-	-			General Interest
41328136	Lei Wang Wi-LAN Inc.		Approve, comments (Y1)	1	-	1		Producer
41278416	Hung-yu Wei Columbia Univ.		Approve, no comments (Y)	-	-	-		General Interest
05907266	Oren Yuen		Approve, no comments (Y)	-	-	-		User
41249250	Nico van Waes Nokia		Approve, no comments (Y)	-	-	-		Producer
Comment Totals *				2	2	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.								
* This ballot cast this ballot in the current circulation of this recirc ballot.								

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	0	2	13
Producer	13	0	0	0	1	14
General Interest	19	0	0	1	3	23
Government	2	0	0	0	1	3

Voting Tally	45	0	0	1	7	53
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Abstention details:	1 for lack of time (A1)	0 for lack of expertise (A2)	0 for other reasons (A3)
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PAR FORM

08/14/02

PAR Status: New PAR

PAR Approval Date: 08/15/2002

PAR Signature Page on File: Yes

Review of Standards Development Process: No

1. Assigned Project Number: 1802.16.1

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

3. Type of Document: Standard for

4. Title of Document:

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

5. Life Cycle: Full Use

6. Type of Project:

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

6b. The project is a: The project is a new standard

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: 5/2/2003

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 standard represents the Protocol Implementation Conformance Statement (PICS) Proforma, per ISO/IEC Standard 9646-7 (1995) and ITU-T X.296, for conformance specification of base stations and subscriber stations based upon the WirelessMAN-SC (10-66 GHz) air interface specified in IEEE Std 802.16.

13. Purpose of Proposed Project:

This document describes the capabilities and options within the WirelessMAN-SC (10-66 GHz) air interface specified in IEEE Std 802.16. It is to be completed by the supplier of a product claiming to implement the protocol. It indicates which capabilities and options have been implemented and what limitations might prevent interworking. It allows a customer of the product to evaluate its conformance and to determine whether the product meets the customer's requirements.

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? 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)

MTT is also sponsoring this project. The standard will include access to an electronic form that will produce data transferable to another party. The standard will include permission to print completed hard copies of the form for documentation purposes.

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 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.

Sincerely,

Jodi Haasz
Senior Administrator
IEEE-SA Governance and Electronic Processes



May 1, 2003

Dr. Roger B. Marks
IEEE 802.16 Working Group on Broadband Wireless Access Standards
325 Broadway MC 813.00
Boulder, CO 80303
mailto: r.b.marks@ieee.org

Dear Dr. Marks:

On behalf of the WiMAX Forum, I hereby grant permission to the Institute of Electrical and Electronics Engineers, Inc., to modify, distribute, make derivative works of, and print material contained in draft document IEEE P1802.16.1-2003 based upon C1802.16.1-02/01 developed and hereby submitted by the WiMAX Forum. The above permissions are granted for world rights for distribution and apply to all future revisions and editions in all media known or hereinafter known.

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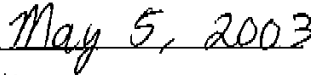
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Margaret LaBrecque

Worldwide Interoperability for Microwave Access Forum, Inc.
President



Date