

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

Friday November 18, 2005 1:00 PM – 6:00 PM

Vancouver, B.C., Canada

1.00 MEETING CALLED TO ORDER - Nikolich 1 01:00 PM

Paul Nikolich called the meeting to order at 1:00 PM Members in attendance were:

- Paul Nikolich - Chair, IEEE 802 LAN / MAN Standards Committee
- Mat Sherman - Vice Chair, IEEE 802 LAN / MAN Standards Committee
- Pat Thaler - Vice Chair, IEEE 802 LAN / MAN Standards Committee
- Bob O'Hara - Recording Secretary, IEEE 802 LAN / MAN Standards Committee
- Buzz Rigsbee - Executive Secretary, IEEE 802 LAN / MAN Standards Committee
- John Hawkins - Treasurer, IEEE 802 LAN/MAN Standards Committee (absent)
- Tony Jeffree - Chair, IEEE 802.1 - HILI Working Group
- Bob Grow - Chair, IEEE 802.3 - CSMA/CD Working Group
- Stuart Kerry - Chair, IEEE 802.11 - Wireless LANs Working Group
- Bob Heile - Chair, IEEE 802.15 – Wireless PAN Working Group
- Roger Marks - Chair, IEEE 802.16 – Broadband Wireless Access Working Group
- Mike Takefman - Chair, IEEE 802.17 – Resilient Packet Ring Working Group
- Mike Lynch - Chair, IEEE 802.18 – Regulatory TAG
- Steve Shellhammer - Chair, IEEE 802.19 – Wireless Coexistence TAG
- Jerry Upton - Chair, IEEE 802.20 – Mobile Broadband Wireless Access
- Ajay Rajkumar - Chair, IEEE 802.21 – Media Independent Handover
- Carl Stevenson - Chair, IEEE 802.22 – Wireless Regional Area Networks
- Geoff Thompson - Member Emeritus (non-voting)

2.00 MI APPROVE OR MODIFY AGENDA - Nikolich 9 01:12 PM

r04 AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING
Friday, November 18, 2005 - 1:00PM -6:00PM

1.00 MEETING CALLED TO ORDER - Nikolich 1 01:00 PM
2.00 MI APPROVE OR MODIFY AGENDA - Nikolich 9 01:01 PM
3.00 - 01:10 PM
3.01 - 01:10 PM
3.02 - 01:10 PM
4.00 II TREASURER'S REPORT - Rigsbee 10 01:10 PM
4.01 II Announcements from the Chair - Nikolich 5 01:20 PM

Category (* = consent agenda) -

5.00 IEEE Standards Board Items - 01:25 PM
5.01 ME 802.11y CBP PAR to Nescom - Kerry 5 01:25 PM
5.02 ME 802.15.4REVb to sponsor Ballot - Heile 5 01:30 PM
5.03 ME 802.15.3b to RevCom - Heile 5 01:35 PM
5.04 ME 802.22.1 PAR to NesCom - Stevenson 15 01:40 PM
5.05 ME 802.16i PAR to NesCom - Marks 5 01:55 PM
5.06 ME Conditional approval of 802.1AE to RevCom - Jeffree 10 02:00 PM

5.07	ME	Withdrawal of Trial Use Recommended Practice 802.11F	-	Kerry	10	02:10 PM
5.08	ME	802.3an Sponsor ballot	-	Grow	4	02:20 PM
5.09	ME	Conditional approval of 802.3aq sponsor ballot	-	Grow	5	02:24 PM
5.10	ME	Conditional approval of 802.3as sponsor ballot	-	Grow	3	02:29 PM
5.11	ME	Conditional approval of 802.16/Conformance04 to sponsor ballot	-	Marks	10	02:32 PM
5.12	ME		-			02:42 PM
5.13	ME		-			02:42 PM
5.14	ME		-			02:42 PM
5.15	ME		-			02:42 PM
5.16	ME		-			02:42 PM
5.17			-			02:42 PM
6.00		Executive Committee Study Groups & Working Groups	-			02:42 PM
6.01			-			02:42 PM
6.02			-			02:42 PM
7.00		Break	-		10	02:42 PM
8.00		IEEE-SA Items	-			02:52 PM
8.01	II	802 Task Force update	-	Kipness	5	02:52 PM
8.02	ME	IEEE Bylaws 300-I on electronic voting	-	Grow	3	02:57 PM
8.03			-			03:00 PM
9.00		LMSC Liaisons & External Interface	-			03:00 PM
9.01	ME	Approve Online Training SOW	-	Thaler	10	03:00 PM
9.02	ME	Coordination letter to ISO	-	Kerry	5	03:10 PM
9.03	ME	Response to EC Committee draft decision on UWB	-	Lynch	5	03:15 PM
9.04	ME	EPO access to archival LMSC material	-	Grow	3	03:20 PM
9.05	ME	802.16 Liaison statement to ITU-R	-	Marks	5	03:23 PM
9.06	ME	Approve the press release on 802.11k	-	Kerry	2	03:28 PM
9.07			-			03:30 PM
			-			03:30 PM
			-			03:30 PM
10.00		LMSC Internal Business	-			03:30 PM
10.01	MI*	802.11 CBP SG extension	-	Kerry	0	03:30 PM
10.02	MI	Document and attendance server	-	Hiele	10	03:30 PM
10.03	MI	802.22 Protection of low power (Part 74) devices SG extension	-	Stevenson	5	03:40 PM
10.04	MI	802.19 SG formation on predicting coexistence in wireless networks	-	Shellhammer	5	03:45 PM
10.05	MI	Payment for services in support of LMSC P&P revisions	-	Sherman	5	03:50 PM
10.06	MI	Approval of LMSC P&P revision on LMSC Organization	-	Sherman	5	03:55 PM
10.07	MI	Approval of LMSC P&P revision on WG Membership and Meetings	-	Sherman	10	04:00 PM
10.08	MI	Approval to ballot LMSC P&P revision on WG Plenary	-	Sherman	5	04:10 PM
10.09	MI	Approval to ballot LMSC P&P revision on Editorial changes	-	Sherman	5	04:15 PM
10.10	DT	Meeting fee increase	-	Rigsbee	10	04:20 PM
10.11			-			04:30 PM
10.12	MI*	802.11 ISO/IEC JTC1/SC6 comment receiving SG extension	-	Kerry	0	04:30 PM
10.13	MI	Approval of payment to Arent-Fox	-	Nikolich	5	04:30 PM
10.14	MI	Approval of payment to Avilar	-	Thaler	5	04:35 PM
10.15	MI	802.16 Multihop relay SG extension	-	Marks	5	04:40 PM
10.16	MI	Equity of distribution of tickets at the social	-	Kerry	10	04:45 PM
10.17	DT	Access to WG materials and websites	-	Jeffree	5	04:55 PM
10.18	MI	Vote of confidence in Geoff Thompson and Floyd Backes	-	Stevenson	2	05:00 PM
10.19	DT	802.20 participation credit	-	Nikolich	5	05:02 PM
10.20			-			05:07 PM
10.21			-			05:07 PM
10.22			-			05:07 PM

10.23			-			05:07 PM
11.00		Information Items	-			05:07 PM
11.01	II	Open office hours feedback	-	Nikolich	5	05:07 PM
11.02	II	interactive opening plenary meeting format proposal	-	Nikolich	10	05:12 PM
11.03	II	P&P change for representation when a chair is absent	-	Kerry	2	05:22 PM
11.04	II	Liaisons to ITU/T	-	Jeffree	2	05:24 PM
11.05	II	Integration of ResE activity into 802.1	-	Jeffree	2	05:26 PM
11.06	II	Creation of 10 GbE short-haul Cu study group	-	Grow	2	05:28 PM
11.07	II	Summary of Tuesday "Process Improvement" meeting	-	Sherman	5	05:30 PM
11.08	II	Mr. Law exempted from term limits for March 2006 elections	-	Grow	0	05:35 PM
11.09	II	P802.3-2005/Cor1 to WG ballot	-	Grow	1	05:35 PM
11.10	II	Network services report	-	Verilan	10	05:36 PM
11.11	II	Network RFQ/Contract Status Report	-	Rigsbee	15	05:46 PM
11.12	II	Non-North-American Venues Report and Action Item	-	Rigsbee	2	06:01 PM
11.13	II	Future Plenary Session Venue Options	-	Rigsbee	5	06:03 PM
11.14	II	Appeal status and next steps	-	O'Hara	1	06:08 PM
11.15	II	802.11r to WG ballot	-	Kerry	1	06:09 PM
11.16	II	RAC Report	-	Thompson	5	06:10 PM
11.17			-			06:15 PM
11.18			-			06:15 PM
11.19			-			06:15 PM
11.20			-			06:15 PM
11.21			-			06:15 PM
		ADJOURN SEC MEETING	-	Nikolich		06:00 PM
		ME - Motion, External		MI - Motion, Internal		
		DT- Discussion Topic		II - Information Item		

Moved: To adopt the agenda as modified.

Moved: Stuart Kerry/Carl Stevenson

Passes: 14/0/0

4.00	II	TREASURER'S REPORT	-	Rigsbee	10	01:10 PM
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This report given by Buzz Rigsbee, in the absence of John Hawkins.

IEEE Project 802
Estimated Statement of Operations
Nov 2005 Plenary Session
Vancouver, BC
As of Nov 14, 2005

Meeting Income	<i>Estimate</i>	<i>Budget</i>	<i>Variance</i>
Registrations	1,449	1,200	249
Registration income	474,000	384,000	90,000
Cancellation refunds	(9,200)		
Deadbeat collections	0	0	0
Bank interest	150	150	0
Other income	0	0	0
TOTAL Meeting Income	464,950	384,150	80,800
Meeting Expenses	<i>Estimate</i>	<i>Budget</i>	<i>Variance</i>
Audio Visual Rentals	23,000	23,000	0
Audit			0
Bank Charges	450	230	(220)
Copying	3,400	3,500	100
Credit Card Discount	13,272	10,752	(2,520)
Equipment Expenses	4,500	9,000	4,500
Get IEEE 802 Contribution	108,675	90,000	(18,675)
Insurance	0	0	0
Meeting Administration	65,000	75,064	10,064
Misc Expenses	4,800	500	(4,300)
Network	57,672	34,388	(23,284)
Phone & Electrical	2,500	2,100	(400)
Refreshments	130,000	130,000	0
Shipping	16,000	6,500	(9,500)
Social	44,253	40,000	(4,253)
Supplies	500	500	0
Other Discounts		0	0
TOTAL Meeting Expense	474,022	425,534	(48,488)
NET Meeting Income/Expense	(9,072)	(41,384)	32,312
Analysis			
Refreshments per registration	90	108	19
Social per registration	31	33	3
Meeting Administration per registration	45	63	18
Networking per registration	40	29	(11)
Get IEEE 802 Contribution per registratio	75	75	0

4.01	II	Announcements from the Chair	-	Nikolich	5	01:15 PM
		Category (* = consent agenda)	-			
			-			
5.00		IEEE Standards Board Items	-			01:15 PM
5.01	ME	802.11y CBP PAR to NesCom	-	Kerry	5	01:15 PM

IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: MARKS

- *Believing the PAR & 5 Criteria contained in the documents below meet IEEE-SA guidelines,*
 - **Move To submit draft
PAR 05/565r4 and Five Criteria
Draft 05/351r5 to ExCom and forward to
NesCom.**
 - WG Moved by: Peter Eccelsine
 - WG 2nd: Garth Hilman
 - **WG Results: Passed: 108/0/11**
-

**IEEE P802.11
Wireless LANs**

CBP-SG draft PAR

Date: 2005-05-30

Author(s):

Name	Company	Address	Phone	email
Peter Ecclesine	Cisco Systems	MS SJ-10-5 170 W. Tasman Dr., San Jose, CA 95134-1706	408-527-0815	petere@cisco.com

Abstract

**IEEE 802.11 US 3650-3700 MHz amendment PAR which goes with Five
Criteria draft 802.11-05/351r5**

Notice: This document has been prepared to assist IEEE 802.11. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

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Patent Policy and Procedures: The contributor is familiar with the IEEE 802 Patent Policy and Procedures <http://ieee802.org/guides/bylaws/sb-bylaws.pdf>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair stuart.kerry@philips.com as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.11 Working Group. **If you have questions, contact the IEEE Patent Committee Administrator at patcom@ieee.org.**

PAR FORM

PAR Status: Amendment of Standard

PAR Approval Date:

PAR Signature Page on File:

1. Assigned Project Number: P802.11y

2. Sponsor Date of Request:

3. Type of Document: Standard for

4. Title of Document:

Draft: Amendment to Standard [FOR] Information Technology-Telecommunications and Information Exchange between systems-Local and Metropolitan networks-Specific requirements-Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: 3650-3700 MHz Operation in USA

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 802.11

7. Working Group Information:

Name of Working Group: IEEE P802.11, Working Group for Wireless LANS

Approximate Number of Expected Working Group Members: 500

8. Contact information for Working Group Chair:

Name of Working Group Chair: Stuart J Kerry

Telephone: 408-348-3171 **FAX:** 408-474-5343

Email: stuart@ok-brit.com

9. Contact information for Co-Chair/Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair:

Name of Co-Chair/Official Reporter, Project Editor or Document Custodian:

Telephone: FAX:

Email:

10. Contact information for 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: paul.nikolich@ieee.org

Name of Liaison Rep. (if different from the Sponsor Chair):

Telephone: FAX:

Email:

Name of Co-Sponsoring Society and Committee:

Name of Co-Sponsoring Committee Chair:

Telephone: FAX:

Email:

Name of Liaison Rep. (if different from the Sponsor Chair):

Telephone: FAX:

Email:**11. The Type of ballot is:** Individual Sponsor Ballot**Expected Date of Submission for Initial Sponsor Ballot:** 2007-12-31**12. Projected Completion Date for Submittal to RevCom:** 2008-12-31**Target Extension Request Information for a Modified PAR whose completion date is being extended past the original four-year life of the PAR:****13. Scope of Proposed Project:**

Application of 802.11 based systems to the 3650-3700 MHz band in the USA.

Is the completion of this document contingent upon the completion of another document?

No

14. Purpose of Proposed Project:

The purpose of this project is to standardise the mechanisms required to allow shared 802.11 operation with other users in the 3650-3700 MHz band in the USA. Likely required mechanisms include:

- Specification of new regulatory classes (extending 802.11j)
- Sensing of other transmitters (extending 802.11a)
- Transmit Power Control (extending 802.11h)
- Dynamic Frequency Selection (extending 802.11h)

15. Reason for the Proposed Project:

The existing 802.11 standard and the proposed amendments from currently operating 802.11 Task Groups do not address in detail the rules specified by the FCC for operation in the 3650-3700 MHz band in the USA.

16. Intellectual Property:**a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR?** Yes 2005-06-01**b. Is the sponsor aware of copyright permissions needed for this project?** No**c. Is the sponsor aware of trademarks that apply to this project?** No**d. Is the sponsor aware of possible registration activity related to this project?** No**17. Are there other documents or projects with a similar scope?** Yes

Similar Scope Project Information: The current ETSI HiperMAN and IEEE 802.16-2004 standards do not specifically address the rules specified by the FCC for a Contention-Based Protocol for operation in the 3650-3700 MHz band, nor do they address coexistence with IEEE 802.11 projects, but they do address operation in 3400-3800 MHz bands in other regulatory domains. A coexistence protocol for 802.16 systems, currently being addressed in the P802.16h project, could be employed by devices operating in the US 3650-3700 MHz band.

18. Is there potential for this document (in part or in whole) to be adopted by another national, regional or international organization? Yes**If yes, the following questions must be answered:****Organization Name?** ISO/IEC JTC1 SC6 WG1**Technical Committee**

**International
Contact
Information?**

Robin Tasker
CLRC
+44-1925-603758
R.Tasker@dl.ac.uk

19. Will this project result in any health, safety, or environmental guidance that affects or applies to human health or safety? No

If yes, please explain:

20. Sponsor Information

a. Is the scope of this project within the approved/scope/definition of the Sponsor's Charter? Yes

If no, please explain:

b. The Sponsor's procedures have been accepted by the IEEE-SA Standards Board Audit Committee? Yes

21. Additional Explanatory Notes: (Item Number and Explanation)

Item 15 – The project will define a protocol that consists of procedures for initiating new transmissions, procedures for determining the state of the channel (available or unavailable), and procedures for managing retransmissions in the event of a busy channel. IEEE 802 standards have not been designed to accommodate operation in ‘lightly-licensed’ bands (i.e. non-exclusively licensed, without guarantees about interference), and the 5 GHz concepts of ‘Dynamic Frequency Selection’ and ‘Transmit Power Control’ should be generalized beyond sharing with radar systems. This proposed project work on a ‘Contention-Based Protocol’ is likely to be suitable for use in ‘lightly-licensed’ bands in other regulatory domains.

Item 18 – The project intends to use the joint development process defined in ISO/IEC TR 8802-1:2001 to achieve international standardization.

**IEEE P802.11
Wireless LANs**

CBP-SG Five Criteria draft

Date: 2005-04-29

Author(s):

Name	Company	Address	Phone	email
Peter Ecclesine	Cisco Systems	MS SJ-10-5 170 W. Tasman Dr., San Jose, CA 95134-1706	+1-408-527-0815	petere@cisco.com

Abstract

IEEE 802.11 US 3650-3700 MHz amendment 5 Criteria (goes with draft PAR IEEE 802.11-05/564r4)

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IEEE 802 Five Criteria

1. BROAD MARKET POTENTIAL

a) Broad sets of applicability.

On March 10, 2005, the United States FCC approved Report & Order 05-56, allowing Wireless Broadband Services in the 3650-3700 MHz band, in accordance with Part 90 Subpart Z of FCC rules. Existing Fixed Satellite Service (FSS) (space-to-earth) licensees in the band are protected from interference by mandating exclusion zones where Wireless Broadband Services are not allowed to operate without mutual consent. More than 125 million people live outside the FSS exclusion zones, including significant rural areas that do not have affordable broadband services.

b) Multiple vendors, numerous users.

Current Wireless ISP services in these areas use the 2.45 GHz and 5 GHz bands, operating under Part 15 rules, which offer no protection from any harmful interference. It is expected that the restriction of 3650-3700 MHz band usage to Part 90 Subpart Z devices, together with the higher transmit power allowed by Part 90 rules will allow Wireless ISPs to provide better services at a lower cost of coverage to larger areas than the current systems. There are many vendors of IEEE 802 wireless equipment for outdoor operation, and it is expected that there will be several offering equipment for this band.

c) Balanced costs (LAN versus attached stations).

The changes to meet FCC regulatory requirements are not expected to impact the cost of clients versus base stations, which is expected to be the same as the 5 GHz bands. FCC rules require that base stations are fixed, their locations are registered, and their operators are licensed, while attached stations and mobiles operating under control of fixed base stations are not registered. The licensing costs and registration costs for operation in this band are not significant, unlike spectrum in bands that are auctioned.

2. COMPATABILITY

The architecture of the system resulting from the proposed amendment will be compatible with the 802.11 architecture.

3. DISTINCT IDENTITY

a) Substantially different from other 802 Projects

There are no other IEEE 802 projects **specifically** addressing the issue of FCC Part 90 Subpart Z Wireless Broadband operation in the US 3650-3700 MHz band. Systems compliant to IEEE 802.16-2004 can operate in the 3650-3700 MHz band in other regulatory domains and a coexistence protocol for 802.16h systems is currently being addressed in the P802.16h project **could be employed by devices operating in the US 3650-3700 MHz band**. The 802.16h TG is writing an amendment that will enable coexistence only between those 802.16 systems that support the amendment. P802.22 is working on a cognitive radio approach to sharing unused channels in the 52 MHz to 900 MHz TV broadcast bands, using spectrum sensing and a master/slave relationship between base stations and user terminals to determine whether given transmit frequencies and power levels will

cause harmful interference to licensed services. Neither of these projects currently address operation under FCC Part 90 Subpart Z rules, however there has been discussion in P802.22 about the possibility that 802.22 base stations, but not user terminals, might be candidates for some sort of 'light licensing'/registration regime.

b) One unique solution per problem (not two solutions to a problem).

The 802.11 Project will define one radio extension to 802.11 OFDM, such that fixed stations and mobile stations can be operated in conformance to FCC Part 90 Subpart Z rules. The central aspect of the ruling is 'light licensing' (i.e non-exclusive licensing, without guarantees about interference) for all present and future operation in the band. The project will define a protocol that consists of procedures for initiating new transmissions, procedures for determining the state of the channel (available or unavailable), and procedures for managing retransmissions in the event of a busy channel. Allowing an unlimited number of license holders may constrain QoS, and in turn may limit markets to those with little or no near-term interference.

c) Easy for document reader to select the relevant specification.

The Project will produce an amendment to the IEEE 802.11 specification.

4. TECHNICAL FEASIBILITY

a) Demonstrated system feasibility.

Equipment that conforms to IEEE 802.11a and having frequency agility, the ability to sense signals from other transmitters, adaptive modulation, and Transmit Power Control are in use today in the 5.8 and 5.3 GHz band, sharing it with equipment approved under ISM and U-NII rules.

b) Proven technology, reasonable testing.

The main components of radio technology and signalling are in use today.

c) Confidence in reliability

There are outdoor IEEE 802.11 systems in operation today, and their reliability is factored into the services offered. The Part 90 Subpart Z Contention-Based Protocol is expected to be no less reliable than current CSMA-CA operation.

d) Coexistence of 802 wireless standards specifying devices for unlicensed operation

The working group proposing a wireless project is required to demonstrate coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable.

Task Group will create a CA document as part of the balloting process.

5. ECONOMIC FEASIBILITY

a) Known cost factors, reliable data.

The fundamental radio and baseband architecture of the WLAN is well known, and adding another supported band is a well-understood process.

b) Reasonable cost for performance.

The extension of IEEE 802.11a products and/or chipsets to cover 3650-3700 MHz operation is similar in cost to that of adding outdoor 5.0 GHz operation as specified in IEEE 802.11j.

c) Consideration of installation costs.

The installation cost of Part 90 Subpart Z compliant outdoor WLAN equipment will not change from that of installing current outdoor 5 GHz band equipment.

Believing the PAR & 5 Criteria contained in the documents below meet IEEE-SA guidelines, It is moved to submit draft PAR 05/565r4 and Five Criteria Draft 05/351r5 to ExCom and forward to NesCom.

Moved: Stuart Kerry/Roger Marks

Roger indicated that he and 802.16 are very satisfied with the process and result when addressing the comments of 802.16.

Passes: 14/0/0

5.02 ME 802.15.4REVb to sponsor Ballot

- Heile

5 01:19 PM

Letter Ballot Results on 15.4REVb

- Letter Ballot 28 174/18/22
 - 85 % return, 91% approve
- Letter Ballot 31 188/6/21
 - 97% Approve

Letter Ballot Results

- Letter Ballot 32 no new no votes
 - 2 remaining unsatisfied no votes (detail in 15-05-0138-02-004b-lb28-comment-database.xls)
 - Bray(lb28 majority of comments accepted)
 - Siep(lb28 majority of comments accepted)
- CA document complete and will be included in Sponsor Ballot Package

Working Group Motion

Motion: *That the IEEE 802.15 Working Group requests that the IEEE 802 Executive Committee submits IEEE P802-15-4b/D3 to the IEEE SA for a 30 day Sponsor Ballot. Moved by R Poor and seconded by I Gifford. The vote on this motion was 52/0/4.*

Motion to the EC

*Move to forward IEEE P802-15-4b/D3 to the
IEEE SA for a 30 day Sponsor Ballot*

Mover: Bob Heile

Second: Steve Shellhammer

Moved: Move to forward IEEE P802-15-4b/D3 to the IEEE SA for a 30 day Sponsor Ballot
Moved: Bob Heile/Steve Shellhammer

Passes: 15/0/0

5.03 ME 802.15.3b to RevCom

- Heile

5 01:22 PM

P802.15.3b Status

- Sponsor balloting completed:
 - Initial ballot: 3Aug05-2Sept05
 - 92 affirmative, 3 negative, 5 abstain
 - 84% return, 97% approval
 - Recirculation ballot: 17Oct05-27Oct05
 - 96 affirmative, 0 negative, 7 abstain
 - One negative without comments entered in error
 - 87% return, 100% approval
- Editorial Comments will be given to IEEE-SA with P802.15.3-D04-Draft-Amendment.pdf
- On REVCOM agenda for December 2005

P802.15.3b Recirculation Comment Resolution

- Affirmative voter submitted two non-binding comments (one general, one technical) that were subsequently withdrawn by the voter.
- SCC14 and MyBallot Editorial review comments:
 - SCC14 - no problems
 - MyBallot Editorial - clarified purpose of D1 Annex
 - D1 Annex to be placed between current Annex D and Annex E causing Annex E to be updated to be Annex F.

802.15 Working Group Approval

- Motion: That 802.15 WG recommends that P802.15.3-D04-Draft-Amendment.pdf be forwarded to RevCom.
- Moved: John Barr
- Second: Jim Allen
- Vote: 30/0/2

Motion to the EC

Move that P802.15.3-D04-Draft-Amendment
be forwarded to RevCom

Mover: Bob Heile

Seconded: Carl Stevenson

Moved: Move that P802.15.3-D04-Draft-Amendment be forwarded to RevCom
Moved: Bob Heile/Carl Stevenson

Passes: 15/0/0

5.04 ME 802.22.1 PAR to NesCom

- Stevenson 15 01:25 PM

802.22 EC Motions – July 2005 Plenary

- **Move that the EC approve the forwarding of the P802.22.1 PAR to NesCom, and to place the work in a Task Group (802.22.1) within 802.22**
 - Moved – Stevenson
 - Seconded – Heile
 - Approve Disapprove Abstain

 - Informative: This PAR was approved by the Study Group and the 802.22 WG with no disapprove votes and the motion above was approved with no disapprove votes. The only WG submitting comments on the PAR was 802.16 and those comments were responded to and circulated to the EC reflector by the prescribed deadline.

IEEE P802.22
Wireless RANs

**DRAFT 802.22 Proposed PAR on Enhanced Protection of Part 74
Devices**

Date: 2005-10-14

Author(s):

Name	Company	Address	Phone	email
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Abstract

This document contains a draft PAR for consideration by the IEEE 802 EC during the November 2005 IEEE 802 plenary.

Notice: This document has been prepared to assist IEEE 802.22. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

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IEEE-SA STANDARDS BOARD

PROJECT AUTHORIZATION REQUEST (PAR) FORM - 2005

The submittal deadlines are available at <http://standards.ieee.org/board/nes/index.html>.
(See NesCom Convention - Item #14)

Prior to submitting your PAR, please review the [NesCom Conventions](#).

1. **ASSIGNED PROJECT NUMBER** P 802.22.1 (???) (Please leave blank if not available.)
(See NesCom Convention - Item #19)

2. **SPONSOR DATE OF REQUEST** Day: Month: Year: 2005

3. **TYPE OF DOCUMENT** (Please check one.)

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

4. **TITLE OF DOCUMENT**

(See NesCom Conventions - [Item #5](#), [Item #7](#))

Draft Standard for methods to enhance the protection of low power licensed device operation in the TV Broadcast Bands from harmful interference from license-exempt devices operating in those bands.

5. **LIFE CYCLE**

- Full-Use**
- Trial-Use**

6. **TYPE OF PROJECT**

- New document
- Revision of an existing document (indicate number and year existing document was approved in box to the right):
- Amendment to an existing document (indicate number and year existing document was approved in box to the right): (####-YYYY)
- Corrigendum to an existing document (indicate number and year existing document was approved in box to the right):
- Modified PAR (indicate PAR Number and Approval Date here: P Day: Month: Year:)

Is this project in ballot now? Yes No
State reason for modifying the PAR in Item #21.

7. WORKING GROUP INFORMATION:

Name of Working Group (WG) : IEEE P802.22 (TG1 ???)
Approximate Number of Expected Working Group Members: 20+

8. CONTACT INFORMATION FOR WORKING GROUP CHAIR (must be an IEEE-SA member as well as an IEEE and/or Affiliate Member)

(See NesCom Convention [Item #3](#), [Item #4](#))

Name of Working Group Chair: First Name: Carl Last Name: Stevenson
Telephone: FAX: E-mail:

9. CONTACT INFORMATION FOR CO-CHAIR/OFFICIAL REPORTER, Project Editor or Document Custodian if different from the Working Group Chair (must be an IEEE-SA member as well as an IEEE and/or Affiliate Member)

(See NesCom Convention [Item #3](#))

Name of Co-Chair/Official Reporter (if different than Working Group Chair): First Name: Last Name:
Name:
Telephone: FAX: E-mail:

10. CONTACT INFORMATION FOR SPONSORING SOCIETY OR STANDARDS COORDINATING COMMITTEE

(See NesCom Convention [Item #1](#), [Item #3](#))

Sponsoring Society and Committee: C/LM (Computer Society, Local and Metropolitan Area Networks)

(Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))

Sponsor Committee Chair: First Name: Paul Last Name: Nikolich
Telephone: FAX: E-mail:

Standards Coordinator (Power Engineering Society Only):

Standards Coordinator: First Name: Last Name:
Name:
Telephone: FAX: E-mail:

IF THIS PROJECT IS BEING SPONSORED BY TWO SPONSORS, PLEASE COMPLETE THE INFORMATION BELOW

Sponsoring Society and Committee: (Please choose the correct acronym for your Sponsor Society/Technical Committee or SCC. [For an acronym list, please click here.](#))

Sponsor Committee Chair: First Name: Last Name:
Name:
Telephone: FAX: E-mail:

Standards Coordinator (Power Engineering Society Only):

Standards Coordinator: First Name: Last Name:

Telephone: FAX: E-mail:

11. SPONSOR BALLOTING INFORMATION (Please choose one of the following):

- Individual Balloting
- Entity Balloting
- Mixed Balloting (combination of Individual and Entity Balloting)

Expected Date of Submission for Initial Sponsor Ballot: Month: January Year: 2007

Please review the PAR form three months prior to submitting your draft for ballot to ensure that the title, scope, and purpose on the PAR form match the title, scope, and purpose of the draft. If they do not match, you will probably need to submit a modified PAR.

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

(See NesCom Conventions - [Item #20](#))

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM: Month: July Year: 2007

If this is a MODIFIED PAR and the completion date is being extended past the original four-year life of the PAR, please answer the following questions. [If this is not a modified PAR, please go to Question #13.](#)

(See NesCom Conventions - [Item #18](#))

a. Statement of why the extension is required:	<input type="text"/>
b. How many working group members are working on the project?	<input type="text"/>
c. How many times a year does the working group meet:	<input type="text"/>
1. In person?	<input type="text"/>
2. Via teleconference?	<input type="text"/>
d. How many times a year is a draft version circulated to the working group via electronic means?	<input type="text"/>
e. What percentage of the Draft is stable?	<input type="text"/> %
f. How many significant working revisions has the Draft been through?	<input type="text"/>

<p>g. Balloting History - If the draft has gone to ballot, please provide a history of all IEEE Sponsor ballots under this project in the box to the right. Please include the:</p> <ul style="list-style-type: none"> • Ballot Close Date (or scheduled Close Date) • Ballot Draft Number • Ballot Results (% affirmative, % negative, % abstain) 	<div style="border: 1px solid black; height: 150px; width: 100%;"></div>
<p>h. Is this the first request for an extension?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>If no, when was the previous extension approved?</p>	<input type="text"/> (DD-MMM-YYYY)

13. SCOPE OF PROPOSED PROJECT

(See NesCom Conventions - [Item #6](#), [Item #16](#), [Item #17](#))

Briefly detail the projected output including technical boundaries.

FOR MODIFIED PROJECTS/REVISION DOCUMENTS - Only detail the projected output including the scope of the project or last published document to be modified and any amendments and/or additions.

This project will create a standard which specifies methods to provide enhanced protection to protected devices such as those used in the production and transmission of broadcast programs (e.g. devices licensed as secondary under FCC Part 74 in the USA and equivalent devices in other regulatory domains) from harmful interference caused by licensed-exempt devices (such as, e.g. IEEE 802.22) that also are intended to operate in the TV Broadcast Bands.

Is the completion of this document contingent upon the completion of another document?

Yes (with detailed explanation below) No

14. PURPOSE OF PROPOSED PROJECT

Briefly, clearly and concisely explain "why" the document is being created.

(See NesCom Conventions - [Item #16](#))

FOR MODIFIED PROJECTS/REVISION DOCUMENTS - Only include the purpose of the project or last published document and any amendments and/or additions.

This project is required to provide a standard and efficient method for license-exempt devices to provide enhanced protection to low-powered licensed devices that are entitled to protection from harmful interference, and that share the same spectrum. This standard may be applicable in global regulatory environments.

15. REASON FOR THE PROPOSED PROJECT:

Give the specific reason for the standardization project. Focus on explaining the problem being addressed, the

benefit to be provided and the stakeholders for the project.

The FCC has proposed to allow new license-exempt (LE) devices to operate within unused TV channels. Licensed incumbent devices such as wireless microphones are currently using this spectrum, and it is important to protect those devices from harmful interference to avoid disrupting these services. A standardized method of protection will enable continued interference-free operation of the licensed incumbent services and promote spectrum sharing with the LE devices, benefit both the incumbent licensees and equipment manufacturers.

16. INTELLECTUAL PROPERTY (Please answer each of the questions below)

a. Has the [IEEE-SA policy on intellectual property](#) been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes No

If yes, state date: Day: 23 Month:09 Year:2005

If no, please explain:

b. Is the Sponsor aware of [copyright](#) permissions needed for this project? Yes No

If yes, please explain:

c. Is the Sponsor aware of [trademarks](#) that apply to this project? Yes No

If yes, please explain:

d. Is the Sponsor aware of possible [registration activity](#) related to this project?

Yes No

If yes, please explain:

17. ARE THERE OTHER DOCUMENTS OR PROJECTS WITH A [SIMILAR SCOPE](#)?

Yes (with detailed explanation below) No

If Yes, please answer the following:

Sponsor Organization:

Project/Document Number:

Project/Document Date: (DD-MMM-YYYY)

Project/Document Title:

18. [FUTURE ADOPTIONS](#)

Is there potential for this document (in part or in whole) to be adopted by another national, regional or

international organization? Do not know at this time.

If Yes, the following questions must be answered:

Technical Committee Name and Number: TC SC WG

Other Organization Contact Information:

Contact Name - First Name: Contact Name - Last Name:

Contact Telephone Number:

Contact FAX Number:

Contact Email address:

19. WILL THIS PROJECT RESULT IN ANY [HEALTH, SAFETY, OR ENVIRONMENTAL GUIDANCE](#) THAT AFFECTS OR APPLIES TO HUMAN HEALTH OR SAFETY? Yes No

If yes, please explain:

20. [SPONSOR INFORMATION](#)

a. Is the scope of this project within the approved scope/definition of the Sponsor's Charter?

Yes No

If no, please explain:

b. Have the Sponsor's procedures been accepted by the IEEE-SA Standards Board Audit Committee? Yes No

(See NesCom Convention [Item #2](#))

21. [ADDITIONAL EXPLANATORY NOTES](#) (Item Number and Explanation)

The protection mechanisms that can be provided within the IEEE 802.22 scope are not sufficient to provide complete protection to Part 74 devices. This work is intended to create a mechanism to provide more comprehensive protection for these devices.

I acknowledge having read and understood the [IEEE Code of Ethics](#). I agree to conduct myself in a manner which adheres to the [IEEE Code of Ethics](#) when engaged in official IEEE business.

The [PAR Copyright Release and Signature Page](#) must be submitted by FAX to +1 732-875-0695 to the [NesCom Administrator](#) before this PAR will be forwarded to NesCom and the Standards Board for approval.

(See NesCom Conventions - [Item #8](#), [Item #9](#), [Item #10](#))

References:

**IEEE P802.22
Wireless RANs**

**DRAFT 5 Criteria for 802.22 Proposed PAR on Enhanced Protection
of Part 74 Devices**

Date: 2005-10-14

Author(s):

Name	Company	Address	Phone	email
Carl R. Stevenson	WK3C Wireless LLC	4991 Shimerville Rd. Emmaus, PA 80149-4955	+1 610-841-6180	wk3c@wk3c.com

Abstract

This document contains the "5 Criteria" information for the IEEE 802 Executive Committee's review, regarding a PAR proposed by 802.22 for approval at the November 2005 IEEE 802 Plenary.

Notice: This document has been prepared to assist IEEE 802.22. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

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Patent Policy and Procedures: The contributor is familiar with the IEEE 802 Patent Policy and Procedures <<http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <[Carl R. Stevenson](#)> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.22 Working Group. **If you have questions, contact the IEEE Patent Committee Administrator at <patcom@ieee.org>.**

CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

Broad Market Potential

A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:

- a) Broad sets of applicability.*
- b) Multiple vendors and numerous users.*
- c) Balanced costs (LAN versus attached stations).*

IEEE P802.22 is developing a standard for use, on a strictly non-interfering basis, for Wireless Regional Area Networks (“WRANs”) using a cognitive radio-based approach, with the target spectrum being geographically unused channels allocated to the TV Broadcast Service.

In the course of our studies, it has become apparent that certain low-powered licensed devices such as wireless microphones (licensed under Part 74 of the FCC rules in the US and nominally equivalent regulations in other regulatory domains around the world) that are critical to the production of television programming are also more difficult to detect and protect (avoid) than TV broadcast stations, due their low power and other factors such as body absorption, etc.

The proposed PAR is intended to develop improved and standardized methods of detecting and protecting such “Part 74” devices. Because of the significant global use of such devices, there is significant need and market potential.

Development of enhanced methods for detecting and protecting Part 74 devices will facilitate the wider deployment of 802.22 networks and will be applicable to other devices and applications that regulatory bodies may, in the future, allow to operate in the TV bands on a non-interfering basis.

Compatibility

IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management, and Interworking documents as follows: 802 Overview and Architecture, 802.1D, 802.1Q, and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802. Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.

The proposed standard will define methods for enhancing the ability of IEEE 802.22 devices to detect and protect the previously described low-power licensed device operations. It is believed that these methods will, by extension be usable by, or readily adaptable to, other 802 and non-802 license-exempt devices that may be allowed access to the TV bands by the FCC and other regulatory agencies around the world in the future.

One method that has been suggested is a “beacon” device/network that would be deployed and activated on an as-needed basis by operators of Part 74 devices to provide a more readily detectable signal with a common signalling format that would facilitate the detection and avoidance of Part 74 operations by IEEE 802.22 devices and such other devices as may be permitted to operate in the TV bands. Other methods may be possible and are not precluded by the scope of the proposed PAR.

At the present time, it is not believed that there will be a need or a requirement for a device such as a "Part 74 beacon" (if that, in fact, is the result of the work proposed by the PAR) to interoperate with other 802 devices in the normal sense, nor is it envisioned that such a device would need to bridge to other 802 devices at the MAC layer or above, provide internet connectivity, etc.

If, during the course of the work proposed in the PAR it is determined that such requirements exist, they will be implemented in a way that meets the 802 compatibility requirements.

Distinct Identity

Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized project shall be:

- a) Substantially different from other IEEE 802 standards.*
- b) One unique solution per problem (not two solutions to a problem).*
- c) Easy for the document reader to select the relevant specification.*

The solution, whether it be a "Part 74 beacon" or some other method will be new and unique from existing 802 standards. A simple, standardized method of enhancing the ability of 802.22 devices to detect and protect Part 74 devices and their operations will inherently have a distinct identity, since this specific problem and its solution have not previously been addressed.

Technical Feasibility

For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:

- a) Demonstrated system feasibility.*
- b) Proven technology, reasonable testing.*
- c) Confidence in reliability.*

The "beacon" concept mentioned above is clearly technically feasible, being based on a simple low-rate, narrow-band FSK technique that would be very simple and cost-effective to implement and easy for 802.22 devices and other devices to detect and interpret.

While, as stated above, the "beacon" has not been selected as "the" solution, and the scope of the proposed PAR does not preclude the selection of another solution, the "beacon" concept clearly illustrates that there are technically feasible solutions. Other solutions considered in the course of the work proposed by the PAR would be required to likewise be demonstrably technically feasible.

Economic Feasibility

For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated), for its intended applications. At a minimum, the proposed project shall show:

- a) Known cost factors, reliable data.*
- b) Reasonable cost for performance.*
- c) Consideration of installation costs.*

The economic feasibility of IEEE 802 wireless devices is well-documented. As stated above under "Technical Feasibility," at least one possible solution has already been described and that solution would be simple, economical, and easily deployable. Any other solutions considered in the course of the work proposed by the PAR would be required to likewise be demonstrably economically feasible.

References:

Moved: that the EC approve the forwarding of the P802.22.1 PAR to NesCom, and to place the work in a Task Group (802.22.1) within 802.22.

Moved: Carl Stevenson/Bob Heile

Roger described a letter representing the 802.16 working group position documenting procedural irregularities during the development of the PAR for 802.22.1. He highlighted several areas of the letter.

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Letter of Complaint to the 802 LMSC Regarding 802.22 Study Group Activity and the Proposed 802.22.1 PAR & 5 Criteria
Date Submitted	2005-11-18
Source(s)	Phillip Barber Huawei [mailto:pbarber@futurewei.com]
Re:	Letter of Complaint to the 802 LMSC Regarding 802.22 Study Group Activity and the Proposed 802.22.1 PAR & 5 Criteria
Abstract	
Purpose	To express my disappointment, frustration, and grave concern regarding the apparent failure of 802.22 to adhere to 802 LMSC published required policies, procedures and guidelines for the operation of 802 Study Groups in the matter of the 802.22 Study Group entitled 'Means to enhance the ability of 802.22 systems to detect and avoid Part 74 licensed devices'.
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Letter of Complaint to the 802 LMSC Regarding 802.22 Study Group Activity and the Proposed 802.22.1 PAR & 5 Criteria

Phillip Barber

Dear LMSC 802 EC Board Members,

I would like to express my disappointment, frustration, and grave concern regarding the apparent failure of 802.22 to adhere to 802 LMSC published required policies, procedures and guidelines for the operation of 802 Study Groups in the matter of the 802.22 Study Group entitled 'Means to enhance the ability of 802.22 systems to detect and avoid Part 74 licensed devices'.

While I may be mistaken in my interpretation, I believe that the 802.22 Working Group and the 802.22 Study Group assigned to consider this matter have failed in their duty to the IEEE 802 community to process their activities in adherence to the published procedures. Further, I believe that this failure has resulted in a PAR and 5 Criteria proposal that exceeds the 802 EC chartered mandate of this Study Group.

I want to make clear that I am not endorsing a slavish adherence to a rigid set of rules, and that I would not make such claims against the 802.22 activity on this matter except that I believe that the failures are so manifest as to undermine the credibility of the work. If it were only some minor lapses in process, I would never consider using these lapses as pretense for complaint. However, I believe the transgressions in this matter do warrant such complaint.

And while I value the output of our collective efforts greater than the process, I observe that for a volunteer participation organization such as IEEE standards activity, adherence to process is imperative. Should members of the 802 community lose confidence that they are participating in an open, fair, and inclusive process they will most assuredly discontinue participation, bringing discredit and disrepute to our collective efforts, undermining our past achievements. I believe that, in the end, people participate in IEEE because they feel they can make a difference here. If we lose that, we have lost everything. So I consider egregious violation of our policies and procedures as a serious threat to the continued viability of the IEEE.

In the matter of the 802.22 Study Group and proposed PAR & 5 Criteria, I have both had discussion with Carl Stevenson, the Chair of the Working Group, and undertaken a careful review of the published Minutes and other relevant documentation of the group's activity. I commend the 802.22 Working Group on the thoroughness and consistency of its record keeping, in most regards. However, the same thoroughness on record keeping on other matters makes the omissions in any recording of Study Group activities especially glaring. Specifically, in reviewing the chronology of the inception, approval, activity, and output of the Study Group, several issues absolutely leap out at me:

First mention of the potential need for a Study Group to study a 'PAR addressing sensing mechanism for protecting Part 74 Wireless Microphone operation' in a Teleconference on July 6, 2005

At the 802.22 Working Group Opening Plenary in San Francisco, in the Chair's Status Report of July 18, 2005, under item - 802.22's goals this session, there is an item 'Consider formation of a study group on means to improve sensing and protection of licensed Part 74 devices (wireless microphones)'

In the 802.22 Working Group Closing Report in San Francisco of July 22, 2005, under item - 802.22 Closing Report – July 2005 Plenary, there is an item ‘Approved motion to request EC approval to form a Study Group to explore means to improve 802.22 devices’ ability to detect and protect Part 74 licensed devices

- Approved unanimously in .22’

And the 802.22 Working Group Minutes for the San Francisco Plenary, dated July 22, 2005, include the Motion for the Study Group creation,

‘In the Thursday AM1 meeting, a motion was moved by Ahren Hartman regarding the “Formation of a Study Group for investigating means to enhance detection and protection of licensed Part 74 devices by the WRAN system, and authorize the Chair to get the Study Group approval from the Executive Committee.”

Motion was seconded by Peter Murray.

The votes were

Yes: 19, No: 0, Abstain: 2

Motion passed.’

The item was placed on the LMSC 802 EC Board Closing Meeting agenda as item 10.21 and was approved as,

‘Formation of 802.22 SG on “Means to enhance the ability of 802.22 systems to detect and avoid Part 74 licensed devices”’

No additional action was taken after the EC approval of the formation of the Study Group until the 802 Interim Meeting in Orange County, the week of September 18. In the Opening Agenda for 802.22 for this meeting, notation is made for selection of a ‘CHAIR for the STUDY GROUP ON MEANS TO ENHANCE DETECTION OF PART 74 DEVICES’.

And the Minutes for the meeting reflect action on this item:

‘William Rose had volunteered to chair the study group (SG) on means to enhance detection of Part 74 devices. During the Monday PM1 meeting, Peter Murray made the motion to approve William Rose as Chair of the SG. The motion was seconded by Paul Thompson. The vote was:

Yes: 22, No: 0, Abstain: 0

William Rose was thereupon appointed by the Chair following unanimous approval by the WG. The SG has to develop the PAR and Five criteria, which will ultimately lead to the creation of a Task Group.’

Unfortunately, the notes for the Study Group activity at this meeting are sparse at best. The Minutes record that ‘During the Friday AM1 meeting, the WG devoted time working on the PAR pertaining to the SG related to means to enhance detection of Part 74 devices. The WG unanimously agreed to delay the start of the plenary till 11 am to advance the work on the PAR and Five criteria.’ So we know of one previously unscheduled interval where the Study Group met and discussed the PAR & 5 Criteria. But note that there is no record that the Study Group met during any of its scheduled intervals. And there is no record of who participated in, nor any actions or motions made at the Study Group.

Importantly, the Orange County Interim Meeting 802.22 Working Group Minutes record a very significant Motion for the Study Group made at the Working Group Closing:

‘William Rose will continue to Chair the SG to enhance detection of Part 74 devices.

William Rose moved to authorize the SG to complete a draft PAR and Five criteria via correspondence and conduct up to two duly noticed teleconference calls to obtain approval by the SG participants to submit the draft PAR and Five criteria for WG approval by a WG electronic ballot. The motion was seconded by Gerald Chouinard.

It was approved by unanimous consent.’

There is no record of any Teleconferences to discuss the PAR & 5 Criteria, either by the Study Group or by any other party. There is no record of any 802.22 WG electronic ballot to approve submittal of a draft PAR & 5 Criteria for comment by the 802 community and consideration by the 802 EC. I can only conclude that such Teleconferences and Study Group approval, and that any subsequent 802.22 Working Group electronic ballot, never occurred.

And yet, through miraculous inception, PAR & 5 Criteria documents dated October 14, 2005, were spontaneously created and submitted to the 802 EC for consideration and comment.

And, again, no activity until the Vancouver Plenary Meeting where no Study Group meetings were scheduled at all, though 802.22 Working Group meetings were scheduled to resolve any comments provided on the proposed PAR & 5 Criteria

Given this chronology, I object to the process (actually, the absence of process) on several grounds:

1. At no time did the Study Group maintain records required under the 802 P&P clause 7.2.4.3 as required under 7.4.1
Specifically, the Study Group is obligated to keep the same detail level of records, separate and distinct of the Working Group records, because the Study Group participation is open to anyone and that Study Group participation may be the foundation for future, subsequent Working Group participation. The Study Group is obligated to maintain record of (from the 802 P&P):
‘The meeting minutes are to include:
 - List of participants
 - Next meeting schedule
 - Agenda as revised at the start of the meeting
 - Voting record (Resolution, Mover / Second, Numeric results)’
2. There is no record that any member of the Study Group (should we ever be able to determine who they were) had any part in developing the PAR & 5 Criteria documents submitted to the 802 EC.
3. There is no record that the Study Group or 802.22 Working Group approved transmittal of the PAR & 5 Criteria documents per the mechanics adopted in the 802.22 Working Group motion approved in the September meeting.
4. The scope of the PAR proposed:
‘This project will create a standard which specifies methods to provide enhanced protection to protected devices such as those used in the production and transmission of broadcast programs (e.g. devices licensed as secondary under FCC Part 74 in the USA and equivalent devices in other regulatory domains) from harmful interference caused by licensed–exempt devices (such as, e.g. IEEE 802.22) that also are intended to operate in the TV Broadcast Bands.’

Exceeds the scope of the Study Group as approved by the 802 EC:
‘Means to enhance the ability of 802.22 systems to detect and avoid Part 74 licensed devices’

Specifically, the proposed PAR makes no **NORMATIVE** reference to its specific application as an enhancement to 802.2 systems, as specified in the mandate by the 802 EC. The proposed PAR instead proposes standardizing methods and mechanics of Part 74 devices performance and behavior. This in and of itself, while troubling, would not have been unacceptable, except that given the failure of the Study Group to conduct its activities in a well publicized, open, transparent, and inclusive manner,

other interested parties, both within the 802 community and without, were denied opportunity to comment in the formulation of this PAR & 5 Criteria.

But the intent of the proposed PAR to specify behavior of wireless microphones and similar, non-802 type equipment must itself be questioned. It may be that given an open and transparent discussion of the facts, substantial justification can be made to substantiate what would seem on the face of it to be a completely out of scope for 802 proposal. But we did not get that open discussion, so we cannot know.

Again, I object to the 802.22 Study Group exceeding its mandate without open consultation with interested parties. Did the Study Group consider work ongoing at ETSI TG17 or CEPT FM 41 Project? We cannot know, because there is no record. And it is not good enough to say 'take my word for it.' The whole point of an open and transparent process, and requirements in the P&P, is to assure fair and equitable treatment. I would be defending 802.22 activity to the extreme had this PAR and 5 Criteria been the result and had they met their obligation to process and transparency.

In conclusion, I respectfully request that the EC reject the proposed 802.22.1 PAR & 5 Criteria. This could have been the simplest, sanest PAR & 5 Criteria ever, and I would still vigorously object to the lack of adherence to process. The fact that this PAR & 5 Criteria is anything but only adds to my concern. I ask that the 802 EC approve another Study Group to study this matter in a more transparent and adherent manner.

Thank you for your kind consideration of my request.

Sincerely,
Philip Barber

Appendix A

Review of Relevant 802.22 Public Documents

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, June 15, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2:14 hours

Document:

22-05-0047-00-0000_Requirements_Minutes_June15.doc

Notes:

Attendance was noted. 14 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted.

Excerpt:

Under Item - **3- Review of the Functional Requirements document**

‘A straw poll was taken on the possibility of the group initiating the process to develop the PAR and 5 Criteria in July to undertake the development of the Recommended Practices for WRAN operation. The PAR and 5 Criteria would be developed during the Plenary in July, submitted at EC in November and then to be approved in December at NavCom. The work would be done in a SG or a TG under the 802.22WG when approved. Because of the fact that the development of these Recommended Practices need to be done in parallel with the development of the standard, an unofficial study group could start the discussions earlier. No objection was raised in the straw poll.

The document to be developed may need to have a stronger title than “Recommended Practice” such as “Recommended minimum system specifications.”

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, June 22, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted until 2:05pm

Document:

22-05-0050-00-0000_Requirements_Minutes_June22.doc

Notes:

Attendance was noted. 14 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. Meeting Note Item Under- **2- Review minutes of the June 15th meeting** noted that ‘The minutes were reviewed and approved without change.’ No mention of any discussion or action on any item related to a proposed Study Group.

From:

Teleconference Minutes
Minutes third teleconference of the 802.22 ad-hoc group on FCC Status Presentation
Tuesday, 28 June 2005 from 12:00pm to 14:00pm Eastern Daylight Time (GMT-4:00h)

Document:

22-05-0051-00-0000_FCC_Minutes_June28.doc

Notes:

Attendance was noted. 13 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to a proposed Study Group.

Excerpt:

Under Item - **Discussion**

‘The fundamental requirements to protect Part 74 wireless microphones listed on slide 8 were discussed. Rearrangements of the slide were made for better flow and Kirk Skeba was asked to come up with some text on the use of beacons and the restriction that the FCC could impose on the sale/operation of these beacons for legitimate Part 74 users. Kirk agreed to work with Ahren Hartman of Sure to create something that’s likely to be acceptable to all interested parties.’

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, June 29, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 1:55 hour

Document:

22-05-0052-00-0000_Requirements_Minutes_June29.doc

Notes:

Attendance was noted. 16 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to a proposed Study Group.

From:

Teleconference Minutes
Minutes of the Channel Model Sub-group teleconference
Tuesday, July 5th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 1:50 hour

Document:

22-05-0053-00-0000_Channel_Model_Minutes_July05.doc

Notes:

Attendance was noted. 9 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to a proposed Study Group.

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, July 6th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:

22-05-0054-00-0000_Requirements_Minutes_July06.doc

Notes:

Attendance was noted. 12 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted.

Excerpt:

Under Item - **2- Review of the Functional Requirements document**

‘He [Carl Stevenson] also expect that there will be a PAR produced to launch the work on the WRAN Recommended Practice as part of the 802.22 mandate and another PAR addressing sensing mechanism for protecting Part 74 Wireless Microphone operation.’

From:

Teleconference Minutes
Minutes of the Channel Model Sub-group teleconference
Tuesday, July 12th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 1:05 hour

Document:

22-05-0056-00-0000_Channel_Model_Minutes_July12.doc

Notes:

Attendance was noted. 7 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to a proposed Study Group.

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, July 13th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:

22-05-0058-00-0000_Requirements_Minutes_July13.doc

Notes:

Attendance was noted. 12 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. Meeting Note Item Under- **2- Review of the Functional Requirements document** noted that:

‘After some explanations from Carl Stevenson, Carlos Cordeiro moved that the group approve the minutes of the past teleconference calls. It was seconded by Peter Murray and accepted with unanimity. Tom Gurley mentioned that his name was misspelled in the attendance list. This will be corrected in the coming minutes.’

No mention of any discussion or action on any item related to a proposed Study Group.

From:

San Francisco IEEE Plenary Meeting, IEEE 802.22 WG Status Report – July 2005
2005-07-18

Document:

22-05-0059-00-0000_802.22_WG_Status_Rpt.pdf, 22-05-0059-00-0000_802.22_WG_Status_Rpt.ppt

Notes:

Single slide (with cover page).

Excerpt:

Under Item - **802.22’s goals this session**

‘Consider formation of a study group on means to improve sensing and protection of licensed Part 74 devices (wireless microphones)’

From:

San Francisco IEEE Plenary Meeting, 802.22 Closing Report – July 2005 Plenary
2005-07-22

Document:

22-05-0064-00-0000_802.22_Closing Report.ppt

Notes:

Single slide (with cover page).

Excerpt:

Under Item - **802.22 Closing Report – July 2005 Plenary**

‘Approved motion to request EC approval to form a Study Group to explore means to improve 802.22 devices’ ability to detect and protect Part 74 licensed devices

- Approved unanimously in .22’

From:

San Francisco IEEE Plenary Meeting, IEEE 802.22 Wireless Regional Area Networks, San Francisco Session, July 2005, MINUTES
2005-07-22

Document:

22-05-0066-02-0000_WRAN_Minutes_July05.doc

Notes:

The Meeting Minutes include a list of 75 Attendees, and identifies 43 Members listed as attending. Note that the r0 of these Meeting Minutes listed 74 Attendees and identified only 31 Members.

In the Minutes it is noted that the:

‘Chair reviewed agenda: agenda approved by unanimous consent. (see 22-05-0045-01-0000_802.22_Tentative_Agenda_Jul05.xls)’

and that,

‘May meeting minutes were reviewed and accepted by unanimous consent.’

Note that both of the items were not approved as appropriate motions, with notation of the initiator and second of the motion. Note that there was no note that the previous Teleconference Minutes were approved by the Working Group.

Excerpt:

Under Item - **List of functional requirements**

‘During the Monday PM1 meeting, an initial strawpoll was conducted for the “Formation of a study group to investigate means to enhance detection and protection of Part 74 devices.”

After a short discussion, it was decided that the matter would be revisited later in the week.’

And,

‘In the Thursday AM1 meeting, a motion was moved by Ahren Hartman regarding the “Formation of a Study Group for investigating means to enhance detection and protection of licensed Part 74 devices by the WRAN system, and authorize the Chair to get the Study Group approval from the Executive Committee.”

Motion was seconded by Peter Murray.

The votes were

Yes: 19, No: 0, Abstain: 2

Motion passed.’

From:

San Francisco IEEE Plenary Meeting, LMSC Closing Meeting Minutes

Document:

Notes:

Note that the approved SG focus was specifically restricted to application to 802.22, deals with 802.22 behavior and specification, while the SG generated PAR is not specific to 802.22 at all, is general to the entire 802 community, and deals with Part 74 device behavior and specification.

Excerpt:

Under Agenda Item – **10.21**

‘Formation Of 802.22 SG on “Means to enhance the ability of 802.22 systems to detect and avoid Part 74 licensed devices”’

The Motion was approved by the EC.

From:

Teleconference Minutes

Minutes of the Requirements Sub-group teleconference

Wednesday, August 3rd, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:

22-05-0067-01-0000_Requirements_Minutes_August3.doc

Notes:

Attendance was noted. 15 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:

Teleconference Minutes

Minutes of the Requirements Sub-group teleconference

Wednesday, August 10th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:

22-05-0068-00-0000_Requirements_Minutes_August10.doc

Notes:

Attendance was noted. 17 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:

Teleconference Minutes

Minutes of the Channel Model Sub-group teleconference

Tuesday, August 16th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2:55 hour

Document:

22-05-0070-00-0000_Channel_Model_Minutes_August16.doc

Notes:

Attendance was noted. 11 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:
Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, August 17th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:
22-05-0071-00-0000_Requirements_Minutes_August17PMu.doc

Notes:
Attendance was noted. 18 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:
Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, August 24th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hour 19 minutes

Document:
22-05-0072-00-0000_Requirements_Minutes_August24.doc

Notes:
Attendance was noted. 17 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:
Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, August 31st, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:
22-05-0077-00-0000_Requirements_Minutes_August31.doc

Notes:
Attendance was noted. 12 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:
Orange County IEEE Interim Meeting, Opening Agenda for 6th Session of the IEEE P802.22 WG,
Wireless Regional Area Networks
September 18th-23rd, 2005

Document:
22-05-0076-03-0000-802.22_Tentative_Agenda_Sept05.xls

Notes:
MS Excel Spreadsheet.

Excerpt:
Under Tab - **802.22 WRAN Graphic**

Study Group on Pt 74 Devices sessions are shown for Monday, Tuesday, and Thursday evenings.

Under Tab - **802.22 WG Agendas**

Item 5.1 of the agenda is 'CHAIR for the STUDY GROUP ON MEANS TO ENHANCE DETECTION OF PART 74 DEVICES'

From:

Orange County IEEE Interim Meeting, IEEE 802.22 Wireless Regional Area Networks, Garden Grove Session, September 2005, MINUTES
2005-09-23

Document:

22-05-0085-00-0000_WRAN_Minutes_Sept05.doc

Notes:

The Meeting Minutes include a list of 59 Attendees. Assessment of Member status of attendees and determination of any Quorum was not noted.

In the Minutes it is noted that the:

'Chair reviewed agenda: agenda approved by unanimous consent.
(see 22-05-0076-03-0000_802.22_Tentative_Agenda_Sept05.xls)'

and that,

'July meeting minutes were reviewed and approved by unanimous consent.'

Note that both of the items were not approved as appropriate motions, with notation of the initiator and second of the motion. Note that there was no note that the previous Teleconference Minutes were approved by the Working Group.

Note that in the San Francisco Plenary the WG authorized the group to work at the Interim meeting without a Quorum.

Excerpt:

Under Item - **List of requirements**

'William Rose had volunteered to chair the study group (SG) on means to enhance detection of Part 74 devices. During the Monday PM1 meeting, Peter Murray made the motion to approve William Rose as Chair of the SG. The motion was seconded by Paul Thompson. The vote was:

Yes: 22, No: 0, Abstain: 0

William Rose was thereupon appointed by the Chair following unanimous approval by the WG. The SG has to develop the PAR and Five criteria, which will ultimately lead to the creation of a Task Group.'

And,

'During the Friday AM1 meeting, the WG devoted time working on the PAR pertaining to the SG related to means to enhance detection of Part 74 devices.

The WG unanimously agreed to delay the start of the plenary till 11 am to advance the work on the PAR and Five criteria.'

Note that there is no record that the Study Group met during any of its scheduled intervals. And there is no record of who participated in, nor any actions or motions made at the Study Group.

Under Item - **Closing plenary**

'William Rose will continue to Chair the SG to enhance detection of Part 74 devices.

William Rose moved to authorize the SG to complete a draft PAR and Five criteria via correspondence and conduct up to two duly noticed teleconference calls to obtain approval by the SG participants to submit the draft PAR and Five criteria for WG approval by a WG electronic ballot. The motion was seconded by Gerald Chouinard. It was approved by unanimous consent.'

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, September 7th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 2 hours

Document:

22-05-0078-00-0000_Requirements_Minutes_Sept07.doc

Notes:

Attendance was noted. 12 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:

Teleconference Minutes
Minutes of the Requirements Sub-group teleconference
Wednesday, September 14th, 2005 from 12:00pm Eastern Daylight Time (GMT-4:00h) and lasted 1:55 hours

Document:

22-05-0079-00-0000_Requirements_Minutes_Sept14.doc

Notes:

Attendance was noted. 14 People attending teleconference. Affiliation noted. Assessment of Member status of attendees and determination of any Quorum was not noted. No mention of any discussion or action on any item related to the approved Study Group.

From:

Vancouver IEEE Plenary Meeting, 802.22 Opening Report – November 2005
2005-11-14

Document:

22-05-0111-00-0000-802.22_Opening_Report_Nov05.ppt

Notes:

Three slides (with cover page).

Excerpt:

Under Item - **Report on July 2005 Plenary and September 2005 Interim**

'At the September 2005 interim, a PAR/5C were also crafted with a goal of developing standardized methods of improving the ability to detect and protect low power secondary licensed devices such as wireless microphones'

From:

Vancouver IEEE Plenary Meeting, Opening Agenda for 7th Session of the IEEE P802.22 WG,
Wireless Regional Area Networks
November 13th-18th, 2005

Document:

22-05-0089-04-0000_802.22_Tentative_Agenda_Nov05.xls

Notes:

MS Excel Spreadsheet.

Excerpt:

Under Tab - **802.22 WRAN Graphic**

There are no session times allocated for any Study Group activity. There is a session time on Tuesday evening allocated for '802.22 - Consider any WG Comments On PAR', and on Wednesday afternoon allocated for '802.22 - Respond to any WG Comments On PAR - SUBMIT FINAL BY 5:00 pm'

Under Tab - **802.22 WG Agendas**

Item 4.1 of the agenda is 'REVIEW/APPROVAL OF "PART 74 PAR"'

Carl provided references to the July LMSC Plenary agenda and minutes to show that the SG was announced and held meetings in an open fashion.

Passes: 12/1/2

5.05 ME 802.16i PAR to NesCom

- Marks

5 01:45 PM

DRAFT

1. ASSIGNED PROJECT NUMBER: [802.16i](#)

2. SPONSOR DATE OF REQUEST: [14-Oct-2005](#)

3. TYPE OF DOCUMENT: [Standard](#)

4. TITLE OF DOCUMENT: [Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Broadband Wireless Access Systems - Mobile Management Information Base](#)

5. LIFE CYCLE: [Full-Use](#)

6. TYPE OF PROJECT: [Amendment 802.16-2004](#)

Modified PAR?
In Ballot? [No](#)

7. WORKING GROUP INFORMATION

Name of Working Group: [IEEE 802.16 Working Group on Broadband Wireless Access](#)
Approximate Number of Expected Working Group Members: [300](#)

8. CONTACT INFO FOR WORKING GROUP CHAIR

Name of Working Group Chair: [Roger Marks](#)
Telephone: [303-497-3037](#)
FAX:
E-mail: r.b.marks@ieee.org

9. CONTACT INFO OF CO-CHAIR/OFFICIAL REPORTER

Name of Co-Chair/Official Reporter:
Telephone:
FAX:
E-mail:

10. CONTACT INFO OF SPONSOR

Sponsor: [C/LM](#)
Name of Sponsor Chair: [Paul Nikolich](#)
Telephone: [+1 857 205 0050](#)
FAX: [+1 781 334 2255](#)
E-mail: p.nikolich@ieee.org

CO-SPONSOR INFORMATION (THIS IS BEING SPONSORED BY TWO SPONSORS):

Cosponsor: [MTT/SCC](#)
Name of Cosponsor Chair: [Jeffrey Jargon](#)
Telephone: [+1-303-497-3596](#)
FAX:
E-mail: jargon@boulder.nist.gov

11. TYPE OF SPONSOR BALLOT: [Individual](#)

Expected Date of Submission for Initial Sponsor Ballot: [Aug-2006](#)

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM: [Dec-2006](#)

13. SCOPE: This document provides mobility enhancements to IEEE Std 802.16 MIB for the MAC, PHY and associated management procedures. The project will use protocol-neutral methodologies for network management to develop resource models and related solution sets for the management of devices in a multi-vendor 802.16 mobile network.

Completion of this document contingent upon another document? [Yes](#)
IEEE 802.16f, IEEE 802.16Cor1 and IEEE 802.16e, all of which have been submitted for final approval by RevCom

14. PURPOSE: The purpose of this project is to provide a definition of managed objects to enable the standards-based management of 802.16 devices.

15. REASON: The reason for this project is to facilitate cross-vendor interoperability at the network level for the management of 802.16e devices and networks. This will provide network operators with the ability to manage multivendor networks including 802.16e devices. This project extends upon the work of IEEE 802.16f in adding MIB support for new features and functions added in IEEE 802.16e.

16. INTELLECTUAL PROPERTY:

IEEE-SA Policy on Intellectual Property Presented: [Yes](#) [12-Sep-2005](#)
Copyrights: [No](#)
Trademarks: [No](#)
Registration of Object: [No](#)

17. SIMILAR SCOPE: [No](#)

18. FUTURE ADOPTION: [Yes](#)

Int'l Organization: [ITU](#)
Int'l Contact Person: [Jose M. Costa](#)
Telephone: [613-763-7574](#)
FAX: [613-765-1225](#)
E-mail: costa@nortel.com

19. Health, Safety or Environmental Issues: [No](#)

Explanation:

20. SPONSOR INFORMATION:

- a. Is the scope of this project within the approved scope/definition of the Sponsor's Charter? [Yes](#)
Explanation:
b. Sponsor's procedures accepted by AudCom: [Yes](#)

21. ADDITIONAL NOTES:

I acknowledge having read and understood the IEEE Code of Ethics I agree to conduct myself in a manner which adheres to the IEEE Code of Ethics when engaged in official IEEE business.

802.16i Five Criteria

CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

Broad Market Potential

A standards project authorized by IEEE 802 shall have a broad market potential. Specifically, it shall have the potential for:

- a) *Broad sets of applicability.*
 - b) *Multiple vendors and numerous users.*
 - c) *Balanced costs (LAN versus attached stations).*
- a) IEEE 802 systems require consistent management features. The MIB related mechanisms are applicable to all IEEE 802 systems including 802.16.**
- b) Multiple vendors, from all around the world have participated in the study group process that developed this PAR and 5 Criteria**
- c) A MIB mechanism is a common feature of 802 systems and has been shown not to adversely affect the cost of such systems.**

Compatibility

IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802. Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802. Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.

- 1. The proposed project will be developed in conformance with the 802 Overview and Architecture.**
- 2. The proposed project will be developed in conformance with 802.1D, 802.1Q, 802.1f.**
- 3. Managed objects will be defined consistent with existing policies and practices for 802.1 standards.**

Consideration will be made to ensure compatibility with the 802 architectural model including at least 802, 802.2, 802.1D, 802.1f and 802.1Q.

This amendment is specifically intended to address the requirement for managed object consistent with existing policies and practices for 802.1 standards.

Distinct Identity

Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized

project shall be:

- a) Substantially different from other IEEE 802 standards.*
- b) One unique solution per problem (not two solutions to a problem).*
- c) Easy for the document reader to select the relevant specification.*

- a) This standard will add mobility support to the previous 802.16f fixed MIB standard.**
- b) The proposal for the standard is to develop a single MIB.**
- c) It will be obvious from the title and content of the standard that it is a standard defining mobility additions to the MIB for 802.16.**

Technical Feasibility

For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:

- a) Demonstrated system feasibility.*
- b) Proven technology, reasonable testing.*
- c) Confidence in reliability*
 - a) MIBs are integral parts of most 802 systems. Thus they are demonstrably feasible.**
 - b) MIBs are already a proven and testable management mechanism, as shown through widespread deployment in millions of systems.**
 - c) There is no reason to consider MIBs to be unreliable.**
- d) Working Group will not create a CA document because no physical layer specifications are included.*

Economic Feasibility

For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated), for its intended applications. At a minimum, the proposed project shall show:

- a) Known cost factors, reliable data.*
 - b) Reasonable cost for performance.*
 - c) Consideration of installation costs.*
-
- a) MIB implementations are widely and cost effectively deployed today.**
 - b) The performance of MIBs are related to the performance of the underlying network technology. 802.16 is capable in this respect.**
 - c) MIBs will generally be included directly in products and will not demand costly installation methods. In addition, MIBs may serve to reduce installation costs of 802.16 systems.**

Moved: To forward the PAR for 802.16i to RevCom and approve the 5 criteria.
Moved: Roger Marks/Ajay Rajkumar

Passes: 15/0/0

5.06 ME Conditional approval of 802.1AE to RevCom

- Jeffree

10 01:48 PM

MOTION

- 802.1 requests conditional approval from the EC, as per current P&P, to forward P802.1AE to RevCom following completion of Sponsor balloting
- 802.1 Proposed: romanow Second: wright
 - For: 22 Against: 0 Abstain: 0
- SEC Proposed: Jeffree, Second:
 - For: Against: Abstain:

Supporting material – P802.1AE

- Sponsor ballot closed 17th July
- Voting: 82.4% returned, 12.4% abstention, 92.3% approve, 6 Disapprove votes
- Two disapprove voters were present for the discussions and have indicated that they are satisfied with the resolution of their comments
- Comment database and dispositions can be found here:

<http://www.ieee802.org/1/files/public/docs2005/802-1ae-d4-sponsor-proposed-disposition-11-16-05.xls>

- Recirc in December timeframe with ballot resolution if needed in Jan interim

**Moved: 802.1 requests conditional approval from the EC, as per current P&P, to forward P802.1AE to RevCom following completion of Sponsor balloting.
Moved: Tony Jeffree/Jerry Upton**

Passes: 15/0/0

5.07 ME Withdrawal of Trial Use Recommended Practice 802.11F - Kerry 10 01:50 PM

IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: OHARA

Moved: Whereas, the trial use period of 802.11F has expired and,

Whereas, there has been no significant deployment of 802.11F implementations and,

Whereas, the functionality provided by 802.11F is being addressed in other standards fora,

The 802.11 working group approves the withdrawal of IEEE Trial Use Recommended Practice 802.11F and requests the LMSC Executive Committee to forward the withdrawal request to the IEEE-SA Standards Board.

- WG Moved by: Bob O'Hara WG 2nd : Clint Chaplin
- WG Results: 81/3/21 Approved

Approve:

Do Not Approve:

Abstain:

**Moved: Whereas, the trial use period of 802.11F has expired and,
Whereas, there has been no significant deployment of 802.11F implementations
and,
Whereas, the functionality provided by 802.11F is being addressed in other
standards fora,
The 802.11 working group approves the withdrawal of IEEE Trial Use
Recommended Practice 802.11F and requests the LMSC Executive Committee to
forward the withdrawal request to the IEEE-SA Standards Board.**

Moved: Stuart Kerry/Bob O'Hara

Passes: 14/0/0

5.08 ME 802.3an Sponsor ballot

- Grow

4 01:58 PM

P802.3an 10GBASE-T Sponsor Ballot

- D2.4 recirculation, closed 10 Nov 2005:
 - 206 voters, 163 responses
 - A: 136, D: 8, Ab: 19, 94.44% approval
 - 0 TR; 0 T; 0 ER; 13 E
 - Non-substantive editorial changes to be incorporated in D3.0
- 10 unresolved comments from D2.0 – D2.2
- All recirculation requirement have been met
- IEEE 802.3 requests that the IEEE 802 LMSC EC forwards IEEE P802.3an Draft 3.0 for Sponsor Ballot.
 - Y: 92, N: 0, A: 4 (Passes)

EC Motion – P802.3an Sponsor Ballot

The LMSC Executive Committee grants approval for P802.3an Sponsor ballot.

M: Bob Grow

S: Mike Takefman

Y: , N: , A:

Moved: The LMSC Executive Committee grants approval for P802.3an Sponsor ballot.

Moved: Bob Grow/Mike Takefman

Geoff indicated that there is still some concern that this project has met its objectives. There are likely to be significant issues to be addressed in sponsor ballot.

Passes: 14/0/1

5.09 ME Conditional approval of 802.3aq sponsor ballot - Grow 5 02:00 PM

P802.3aq 10GBASE-LRM Conditional Sponsor Ballot

- D2.4 recirculation closed 1 Nov 2006:
 - 206 voters, 126 responses
 - A: 103, D: 17, Ab: 6, 85.83% approval
 - 14 TR; 2 T; 1 ER; 10 E
- Ballot resolution efforts are substantially complete
 - 6 unresolved comments requiring recirculation
 - No changes to draft
 - Recirculation ballot 18 November to 3 December
- Request SEC authorization for sponsor ballot of P802.3aq/D2.4 per “Procedure For Conditional Approval To Forward a Draft Standard (formerly Procedure 10)” and authorize re-circulation ballots and interim meetings as necessary.
 - Y: 57, N: 3, A: 9 (Passes)

EC Motion – P802.3aq

Conditional Sponsor Ballot

The LMSC Executive Committee grants conditional approval, per clause 20, for P802.3aq Sponsor ballot.

M: Bob Grow

S: Mike Takefman

Y: , N: , A:

Moved: The LMSC Executive Committee grants conditional approval, per clause 20, for P802.3aq Sponsor ballot.

Moved: Bob Grow/Mike Takefman

Passes: 15/0/0

5.10 ME Conditional approval of 802.3as sponsor ballot - Grow 3 02:06 PM

P802.3as Frame Format Extensions

Conditional Sponsor Ballot

- D2.1 recirculation closed 1 Nov 2006:
 - 200 voters, 127 responses
 - A: 83, D: 12, Ab: 32, 87.36% approval
 - 24 TR; 28 T; 26 ER; 50 E
- Ballot resolution efforts are substantially complete
 - 7 unresolved comments requiring recirculation
 - Substantive changes to draft will be included in recirculation
 - Two recirculations may be required
 - D2.2 recirculation prior to 9 Jan interim, second soon following if required
- Request WG for conditional sponsor ballot based on a successful recirculation ballot after January 2006 interim meeting.
 - Y: 48, N: 0, A: 18 (Passes)

EC Motion – P802.3as

Conditional Sponsor Ballot

The LMSC Executive Committee grants conditional approval, per clause 20, for P802.3as Sponsor ballot.

M: Bob Grow

S: Mike Takefman

Y: , N: , A:

Moved: The LMSC Executive Committee grants conditional approval, per clause 20, for P802.3as Sponsor ballot.

Moved: Bob Grow/Mike Takefman

Passes: 14/0/0

5.11	ME	Conditional approval of 802.16/Conformance04 to sponsor ballot	-	Marks	10	02:13 PM
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P802.16/Conformance04 to
Sponsor Ballot:
Conditional Approval

18 November 2005

Rules

Motions requesting conditional approval to forward where the prior ballot has closed shall be accompanied by:

- Date the ballot closed
- Vote tally including Approve, Disapprove and Abstain votes
- Comments that support the remaining disapprove votes and Working Group responses.
- Schedule for confirmation ballot and resolution meeting.

Date the ballot closed: **9 November 2005**

Stage		Open	Close	
Ballot	D4	25 Oct	9 Nov	2005

Vote tally including Approve, Disapprove and Abstain votes

- 178 Approve 89%
 - 22 Disapprove
 - 18 Abstain
 - 70 not voting
-
- <http://iee802.org/16/tgc/C4/ballot18/report18.html>

Comments that support the remaining disapprove votes and Working Group responses

- attached

Schedule for confirmation ballot and resolution meeting

- Dec 9: Issue D5
- Dec 9-Jan 4: extended recirc
- Jan 9-12: comment resolution at
802.16 Session #41

802.16 WG Motions

802.16 Closing Plenary: 17 Nov 2005:

Motion: To request conditional approval from EC to move IEEE 802.16/Conformance04/D5 to Sponsor Ballot

- Proposed: Gordon Antonello
- Seconded: Herbert Ruck
- Approved 38-0-0.

Motion

To grant conditional approval, under Clause 21, to forward P802.16/Conformance04 for Sponsor Ballot

Moved: Marks

Seconded:

Approve:

Disapprove:

Abstain:

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **001**

Comment submitted by: Baraa

Al-Dabagh

Member

2005/05/02

Comment	Type	Technical, Binding	Starting Page #	5	Starting Line #	Fig/Table#	Section	Annex A
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[Identical comment submitted by Baraa Al-Dabagh, Dov Andelman, [Prakash Iyer - A], JaeYoung Kim, [Jose Puthenkulam - A], Atul salvekar, Mathys Walma, [Hassan Yaghoobi - A], [Margaret LaBrecque - A]]

The current document suffers from serious flaws. These are discussed in the contribution.

Suggested Remedy

Adopt the remedies proposed in the contribution C80216Conf04-05_001.pdf

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted-Modified**

Adopt the remedies proposed in the contribution "C80216Conf04-05_001" except section 3 "Annex A: Example of PICS Document Partitioning Based on Functions".

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items****Editor's Notes****Editor's Actions****Editor's Questions and Concerns****Editor's Action Items**

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **002**

Comment submitted by: Baraa

Al-Dabagh

Member

2005/05/02

Comment	Type	Technical, Binding	Starting Page #	5	Starting Line #	12	Fig/Table#	Section	1
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[Identical comment submitted by Baraa Al-Dabagh, Dov Andelman, [Prakash Iyer - A], JaeYoung Kim, [Jose Puthenkulam - A], Atul salvekar, Mathys Walma, [Hassan Yaghoobi - A], [Margaret LaBrecque - A]]

The current scope statement in the document violates the PAR.

Suggested Remedy

Change the the scope in section 1. to accurately reflect the PAR scope. Because referring to IEEE 802.16 in the document scope as opposed 802.16REVd (or equivalently 802.16-2004), is expanding scope by violating the PAR.

Hence change the scope to:

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 air interface specified in IEEE 802.16-2004 for frequencies below 11 GHz.

In addition on page 7 in Annex A the following text should be changed

from: "Protocol ICS Proforma for Frequencies below 11 GHz". This will remove any ambiguity that indeed the document only applies to Fixed systems.

to "Protocol ICS Proforma for Fixed systems based on Frequencies below 11 GHz"

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Superseded****Comment 3****Reason for Group's Decision/Resolution****Group's Notes**

This comment is resolved as defined in summary comment database comment #078

Group's Action Items**Editor's Notes****Editor's Actions**

Editor's Questions and Concerns

Editor's Action Items

Document under Review:	P802.16/Conf04/D4	Ballot Number:	18c	Comment Date
Comment #	003	Comment submitted by:	Samuel Kang	Member
Comment	Type Technical, Binding	Starting Page #	5	Starting Line #
			17	Fig/Table#
				Section
				1

In the 'Scope' section on page number 5, 'air interfaces specified in IEEE 802.16' violates to the scope of PAR of P802.16/Conformance04 which describes as 'air interface specified in IEEE P802.16-REVd for frequencies below 11GHz'.

Suggested Remedy

Change 'IEEE 802.16' to 'IEEE P802.16-REVd for frequencies below 11GHz' as it is in the PAR.

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

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

Page 3 line 38

Change line 38 from:

"Wire-lessMAN-OFDM, and WirelessMAN-OFDMA air interfaces specified in IEEE 802.16."

To:

"Wire-lessMAN-OFDM, and WirelessMAN-OFDMA air interfaces specified in IEEE 802.16-2004 and subsequent Corrigenda."

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes

Editor's Actions

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **005**

Comment submitted by: Tal

Kaitz

Member

2005/05/02

Comment	Type	Technical, Binding	Starting Page #	5	Starting Line #	18	Fig/Table#	Section
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[Identical comment submitted by Tal Kaitz, Ran Yaniv, Vladimir Yanover, [Yong Chang - A], [Seung Joo Maeng - A], Sungjin Lee, [Changhoi Koo - A], [YoungKyun Kim - A], Jeongheon Kim, Hyunjeong Kang, [Panyuh Joo -A], [Jaeho Jeon - A]]

The document does not contain statement that it is for fixed wireless access systems only though the content is derived from IEEE 802.16-2004 standard. Obviously for mobile systems PICS should be different

Suggested Remedy

At page 5 line 18 add

"Scope of this document is limited to Fixed Broadband Wireless Access Systems"

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Rejected**

This document describes the capabilities and options within the WirelessMAN (below 11 GHz) air interface specified in IEEE Std 802.16-2004 and included here by reference: [1] IEEE Std 802.16-2004: "Local and Metropolitan Area Networks – Part 16: Air Interface for Fixed Broadband Wireless Access Systems". This reference clearly states that this is limited to Fixed Broadband Wireless Access Systems and adding another such statement is redundant.

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

This comment is resolved as defined in summary comment database comment #078

Group's Action Items**Editor's Notes****Editor's Actions****Editor's Questions and Concerns****Editor's Action Items**

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **006**

Comment submitted by: Wonil

Roh

Member

2005/05/02

Comment	Type	Starting Page #	Starting Line #	Fig/Table#	Section
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The document does not contain statement that it is for fixed wireless access systems only though the content is derived from IEEE 802.16-2004 standard.

Suggested Remedy

At page 5 line 18 add

"Scope of this document is limited to Fixed Broadband Wireless Access Systems"

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Superseded****Comment 5****Reason for Group's Decision/Resolution****Group's Notes**

This comment is resolved as defined in summary comment database comment #078

Group's Action Items**Editor's Notes****Editor's Actions****Editor's Questions and Concerns****Editor's Action Items**

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **017**Comment submitted by: **Shlomo****Ovadia**

Member

2005/05/02

Comment Type **Technical, Binding** Starting Page # **13** Starting Line # **30** Fig/Table# Section **A.7**

The current structure, organization, and technical content of draft standard for conformance to IEEE Standard 802.16 - Part 4: Protocol Implementation Conformance Statement (PICS) Proforma for Frequencies below 11 GHz is not designed properly for the target usage.

Suggested Remedy

Implement changes according to contribution C80216Conf04-05_001.pdf

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: **Superseded******Comment 1****Reason for Group's Decision/Resolution****Group's Notes****Group's Action Items****Editor's Notes****Editor's Actions****Editor's Questions and Concerns****Editor's Action Items**

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **049**Comment submitted by: **Shlomo****Ovadia**

Member

2005-07-08

Comment	Type Technical, Binding	Starting Page # 5	Starting Line # 12	Fig/Table#	Section Section 1
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The Scope of draft standard for Conformance to IEEE Standard 802.16 - Part 4 does not match word for word the IEEE 802.16/Conformance04

PAR except for the reference to rev.d

Suggested Remedy

Replace the draft Scope with the following paragraph:

"This standard represents the Protocol Implementation Conformance Statement (PICS) Proforma, per ISO/IEC Standard 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements, and ITU-T X.296, for conformance specification of base stations and subscriber stations based upon the air interface specified in IEEE 802.16- 2004 for frequencies below 11 GHz."

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted**

"This standard represents the Protocol Implementation Conformance Statement (PICS) Proforma, per ISO/IEC Standard 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements, and ITU-T X.296, for conformance specification of base stations and subscriber stations based upon the air interface specified in IEEE 802.16- 2004 for frequencies below 11 GHz."

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items**

Editor's Notes Editor's Actions k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**

Ballot Number: **18c**

Comment Date

Comment # **050**

Comment submitted by: Jose

Puthenkulam

Member

2005-07-08

Comment Type **Technical, Binding** Starting Page # **5** Starting Line # **12** Fig/Table# Section **1**

The present Scope and Purpose are not the same as that is in the PAR document.
These sections are typically applied directly from the PAR.

Suggested Remedy

Take the scope and purpose from the PAR document and apply as is without any elaboration or clarification. The only change should be the reference to 802.16REVd which should be changed to 802.16-2004

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: **Superceded**

superceded by 02 (049 in summary database)

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

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

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **051**

Comment submitted by: Randall

Schwartz*

Member

2005-07-08

Comment Type **Technical, Binding** Starting Page # **5** Starting Line # **12** Fig/Table# Section **1**

[*Identical comment submitted by [Roger Eline - A], Yung Hahn, [Chris Knudsen - A], Randall Schwartz]

The present Scope clause goes beyond the PAR for this project

Suggested Remedy

Copy the scope from the PAR document and apply exactly without any elaboration or clarification.

Proposed Resolution

Recommendation:

Recommendation by

Reason for Recommendation

Resolution of Group

Decision of Group: **Superceded**

superceded by 02 (049 in summary database)

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes

Editor's Actions |) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **052**

Comment submitted by: Panyuh

Joo*

Member

2005-07-08

Comment	Type	Technical, Binding	Starting Page #	5	Starting Line #	20	Fig/Table#	Section
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[*Identical comment submitted by Jaehwan Chang, [Yong Chang - A], [Jaehee Cho - A], Jaeweon Cho, InSeok Hwang, Jiho Jang, [Jaeho Jeon - A], [Panyuh Joo - A], Hyunjeong Kang, jeongheon Kim, Sungjin Lee, Geunhwi Lim, [Hyoung Kyu Lim - A], [Seung Joo Maeng - A], Wonil Roh, [Yeongmoon Son - A], Ran Yaniv, Vladimir Yanover]

I am not satisfied with resolution of comment #005 in IEEE 802.16-05/024r3.
The document does not state explicitly that it is for fixed systems only

Suggested Remedy

At page 5 line 20 add

"Scope of this document is limited to Fixed Broadband Wireless Access Systems"

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted-Modified**

At page 5 line 20 add:

"Scope of this document is limited to Fixed Broadband Wireless Access Systems
as specified in IEEE 802.16-2004 "

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

This comment is resolved as defined in summary comment database comment #078

Group's Action Items**Editor's Notes****Editor's Actions** k) done**Editor's Questions and Concerns****Editor's Action Items**

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **053**

Comment submitted by: Shlomo

Ovadia

Member

2005-07-08

Comment	Type Technical, Binding	Starting Page # 5	Starting Line # 24	Fig/Table#	Section Section 2
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The Purpose of draft standard for Conformance to IEEE Standard 802.16 -Part 4 does not match word for word the IEEE 802.16/Conformance04 PAR except for the reference d.

Suggested Remedy

Replace the draft Purpose with the following paragraph:

"This document describes the capabilities and options within the air interface specified for frequencies below 11 GHz in IEEE 802.16-2004. 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. It allows a user of the product to evaluate its conformance and to determine whether the product meets the user's requirements."

Proposed Resolution	Recommendation:	Recommendation by
----------------------------	------------------------	--------------------------

Reason for Recommendation

Resolution of Group	Decision of Group: Accepted
----------------------------	---

Replace the entire text of draft Purpose with the following paragraph:

"This document describes the capabilities and options within the air interface specified for frequencies below 11 GHz in IEEE 802.16-2004. 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. It allows a user of the product to evaluate its conformance and to determine whether the product meets the user's requirements."

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items****Editor's Notes**

Editor's Actions k) done

Editor's Questions and Concerns

2005/11/18

18c-summary-comment-resolutio

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **054**

Comment submitted by: Shlomo

Ovadia

Member

2005-07-08

Comment Type **Technical, Binding**Starting Page # **13**Starting Line # **30**

Fig/Table#

Section **A.7**

Related content to division of PICS based on approved contribution C802.16Conf04-05_001 is not implemented.

Suggested Remedy

Divide PICS for WirelessMAN-OFDMA based on contribution C802.16Conf04-05_002

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted-Modified**

Divide PICS for WirelessMAN-OFDMA based on section 2.3 (PHY) and 2.4 (PHY/MAC) of contribution C802.16Conf04-05_002r1. Does not include the recommendation in 2.5 that remains informational.

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items****Editor's Notes****Editor's Actions** k) done

In order to implement the comment on introducing a section on PHY and PHY/MAC. I made the following changes so that the main section A7 is not modified. The section A7 has numerous references to on its own content, and any change will bring about a massive renumbering.

Changed the title of sections A5, A6 and A7 to reflect the partitioning

A.5 Protocol ICS for Physical Layer Partitioning of WirelessMAN OFDMA

A.6 Protocol ICS for MAC/PHY Layer Partitioning of WirelessMAN OFDMA

A.7 Protocol ICS for MAC Layer of WirelessMAN OFDMA

Moved the two sections (previously A.5 and A.6) to the end where they become sections A.8 and A.9. These sections are empty so moving them does not change the flow of the document.

A.8 Protocol ICS for WirelessMAN SCa

A.9 Protocol ICS for WirelessMAN OFDM

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

2005-07-08

Comment # **055**

Comment submitted by: Shlomo

Ovadia

Member

Comment Type **Technical, Binding** Starting Page # **13** Starting Line # **35**Fig/Table# Section **A.7 Protocol ICS for**

The current draft standard of IEEE 802.16/Conformance04 PICS statement format is misaligned with with ISO/IEC 9646-7 (1995) guidelines, and our accepted contribution C802.16Conf04-05_001.pdf, which was not implemented in the IEEE 802.16/Conformance04/D2 draft.

It is the IEEE 802.16C chair responsibility to send a liaison to ISO to obtain a copy of ISO/IEC 9646-7 (1995) document for IEEE use.

Suggested Remedy

PICS Tables A.1 to A.184 should be modified with the Status and Predicate columns according to our accepted contribution C802.16Conf04-05_001.pdf.

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted-Modified**

Motion to obtain [ISO/IEC 9646-7 \(1995\)](#) for chairs and editors use, by any means appropriate

Add a Predicate column to each of the PICS Tables A.1 to A.184. It is expected that the task group members will provide information for filling in the Predicate column and changing the Status column according to the ISO/IEC 9646-7 (1995).

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items****Editor's Notes****Editor's Actions** k) done

There are too many columns in some tables, which makes it hard to fit them onto the page and even harder to enter text in each column

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4** Ballot Number: **18c** Comment Date

Comment # **057** Comment submitted by: Pieter-Paul Giesberts Member 2005-07-08

Comment Type **Technical, Binding** Starting Page # **20** Starting Line # **12** Fig/Table# **A.19** Section **A.7.2.3.2**

[*Identical comment submitted by [Pieter-Paul Giesberts - A], Yufei Blankenship, [Amitabha Ghosh - A]]

DBPC mechanism is not applicable for OFDMA (see corrigendum).

Suggested Remedy

Remove row containing Item 2 from Table A.19
and
Remove row containing Item 1 from Table A.40

Proposed Resolution Recommendation: Recommendation by

Reason for Recommendation

Resolution of Group Decision of Group: **Rejected**

Reject first part Remove row containing Item 2 from Table A.19

Reject second part of comment

Reason for Group's Decision/Resolution

Consulted with experts who said DBPC is still valid and needed for burst profile changes and needs to be tested

Group's Notes

Group's Action Items

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

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**

Ballot Number: **18c**

Comment Date

Comment # **065**

Comment submitted by: **Shlomo**

Ovadia

Member

2005-07-08

Comment Type **Technical, Binding**

Starting Page # **59**

Starting Line # **5**

Fig/Table#

Section **A.7.5.2.1.3**

The UCD-TLV table is missing. This table is part of 802.16-2004 specifications.

Suggested Remedy

Add UCD TLV table to Section A.7.5.2.1.3.

Proposed Resolution

Recommendation:

Recommendation by

Reason for Recommendation

Resolution of Group

Decision of Group: Accepted

Following **A.100** insert UCD TLV table to Section A.7.5.2.1.3 from D1

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes

Editor's Actions k) done

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **066**

Comment submitted by: Pieter-Paul

Giesberts*

Member

2005-07-08

Comment	Type	Technical, Binding	Starting Page #	999	Starting Line #	Fig/Table#	Section
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[*Identical comment submitted by [[Pieter-Paul Giesberts - A](#)], [Yufei Blankenship](#), [[Amitabha Ghosh - A](#)]]

Secondary management connection is optional in 802.16 (see e.g. 6.3.9 in 802.16-2004), so it should be optional in the conformance document as well.

Suggested Remedy

Add a row to Table A.18 and fill its columns as follows:

Item: "[12](#)",
 Name: "[Managed mode](#)",
 Reference: "[\[1\] 6.3.9](#)",
 Status "[o](#)"

Change the status of Item 8 of Table A.19 to a conditional "cxx-01" and add the following description below the Table:

"[cxx-01](#) [IF A.18/12](#) [- if SS supports Managed mode](#)
 [THEN m](#)
 [ELSE n/a](#)"

Change the status of Item 4 of Table A.20 to a conditional "cxx-01" and add the following description below the Table:

"[cxx-01](#) [IF A.18/12](#) [- if SS supports Managed mode](#)
 [THEN m](#)
 [ELSE n/a](#)"

Change the status of Items 7, 8 and 9 of Table A.31 to a conditional "cxx-01" and add the following description below the Table:

"[cxx-01](#) [IF A.18/12](#) [- if SS supports Managed mode](#)
 [THEN m](#)
 [ELSE n/a](#)"

Change the status of Items 4 of Table A.36 to a conditional "cxx-01" and add the following description below the Table:

"[cxx-01](#) [IF A.18/12](#) [- if SS supports Managed mode](#)
 [THEN m](#)
 [ELSE n/a](#)"

Add the following text at the beginning of Section A.7.2.3.2.8.7:

"[Prerequisite: A.18/12: SS supports Managed mode](#)"

Add the following text at the beginning of Section A.7.2.3.2.8.8:

"[Prerequisite: A.18/12: SS supports Managed mode](#)"

Add the following text at the beginning of Section A.7.2.3.2.8.9:

"[Prerequisite: A.18/12: SS supports Managed mode](#)"

Proposed Resolution

Recommendation:

Recommendation by

Reason for Recommendation

Resolution of Group

Decision of Group: **Accepted-Clarified**

Add a row to Table A.18 and fill its columns as follows:

Item: "12",
 Name: "Managed mode",
 Reference: "[1] 6.3.9",
 Status "o"

Change the status of Item 8 of Table A.19 to a conditional "cxx-01" and add the following description below the Table:

"cxx-01 IF A.18/12 - if SS supports Managed mode
 THEN m
 ELSE n/a"

Change the status of Item 4 of Table A.20 to a conditional "cxx-01" and add the following description below the Table:

"cxx-01 IF A.18/12 - if SS supports Managed mode
 THEN m
 ELSE n/a"

Change the status of Items 7, 8 and 9 of Table A.31 to a conditional "cxx-01" and add the following description below the Table:

"cxx-01 IF A.18/12 - if SS supports Managed mode
 THEN m
 ELSE n/a"

Change the status of Items 4 of Table A.36 to a conditional "cxx-01" and add the following description below the Table:

"cxx-01 IF A.18/12 - if SS supports Managed mode
 THEN m
 ELSE n/a"

Add the following text at the beginning of Section A.7.2.3.2.8.7:

"Prerequisite: A.18/12: SS supports Managed mode"

Add the following text at the beginning of Section A.7.2.3.2.8.8:

"Prerequisite: A.18/12: SS supports Managed mode"

Add the following text at the beginning of Section A.7.2.3.2.8.9:

"Prerequisite: A.18/12: SS supports Managed mode"

Reason for Group's Decision/Resolution

Group's Notes

2005/11/18

18c-summary-comment-resolutio

Group's Action Items

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

[Change the numbering of cxx-01 as needed](#)

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**

Ballot Number: **18c**

Comment Date

Comment # **077**

Comment submitted by: Siavash

Alamouti

Member

Comment	Type	Technical, Binding	Starting Page #	Starting Line #	Fig/Table#	Section
---------	------	--------------------	-----------------	-----------------	------------	---------

[Identical comment submitted by Siavash Alamouti, Baraa Aldabagh, Dov Andelman, Yung Hahn, Atul Salvekar, **[Jose Puthenkulam - A]**]

This project duplicates a lot of work with the WiMAX Forum PICS development and also it is not aligned with real market requirements. Hence it is questionable whether there is significant value in this project.

Also the document is substantially incomplete. The SCa PHY PICS are missing. Also all the WirelessHUMAN PICS are missing.

Also while the 802.16-2004 standard is the basis of this PICS, this document does not highlight the fact that the PICS is for fixed systems.

Suggested Remedy

Complete the incomplete sections identified and also call out the fact this is for Fixed Systems only.

Proposed Resolution

Recommendation:

Recommendation by

Reason for Recommendation

Resolution of Group

Decision of Group: Accepted-Modified

The Task Group is open to contributions for SCa and WirelessHUMAN OFDMA PICS. However, the document does include sections on OFDM and OFDMA and therefore the document has value in spite of the missing material.

The item regarding that PICS is for fixed Systems is addressed in comment 2 **(078 in the summary database)**

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes

Editor's Actions

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **P802.16/Conf04/D4**Ballot Number: **18c**

Comment Date

Comment # **078**

Comment submitted by: Wonil

Roh

Member

Comment	Type Technical, Binding	Starting Page # 5	Starting Line # 17	Fig/Table#	Section 1
---------	--------------------------------	--------------------------	---------------------------	------------	------------------

[Identical comment submitted by Wonil Roh, Hyunjeong Kang, and Jaeweon Cho]

Some clarification is needed to ensure that this document applies only to the fixed broadband application.

Suggested Remedy

Add the following sentence at the end of Scope section:

Scope of this document is limited to Fixed Broadband Wireless Access Systems.

Proposed Resolution**Recommendation:****Recommendation by****Reason for Recommendation****Resolution of Group****Decision of Group: Accepted-Modified**

In the Scope statement replace "IEEE 802.16-2004 for frequencies below 11 GHz." with "IEEE 802.16-2004 (Air Interface for Fixed Broadband Wireless Access Systems) for frequencies below 11 GHz."

Reason for Group's Decision/Resolution**Group's Notes****Group's Action Items****Editor's Notes****Editor's Actions****Editor's Questions and Concerns****Editor's Action Items**

**Moved: To grant conditional approval, under Clause 21, to forward
P802.16/Conformance04 for Sponsor Ballot *Draft Standard for Conformance to IEEE
Standard 802.16 – Part 4: Protocol Implementation Conformance Statement (PICS) Proforma
for Frequencies below 11 GHz***

Moved: Roger Marks/Stuart Kerry

A question was asked whether the draft is now going beyond the scope of the PAR. Roger clarified that the PAR referred to the draft of the 802.16 revision that became 802.16-2004. Roger indicated that IEEE staff indicated that it would be within editorial change capability for the PAR to replace the reference to the draft document with the ultimately approved standard and its name.

Passes: 13/0/2

5.12	ME		-		02:42 PM
5.13	ME		-		02:42 PM
5.14	ME		-		02:42 PM
5.15	ME		-		02:42 PM
5.16	ME		-		02:42 PM
5.17					02:42 PM
6.00		Executive Committee Study Groups & Working Groups	-		02:42 PM
6.01			-		02:42 PM
6.02			-		02:42 PM
7.00			-		02:42 PM
8.00		IEEE-SA Items	-		02:52 PM
8.01	II	802 Task Force update	-	Kipness	5 02:25 PM

Task Force Meeting, Wednesday, November 16th 2005 12:00pm-2:00pm
Hyatt Regency Hotel, Windsor Room, Vancouver B.C

Attendees:

Paul Nikolich
Steve Mills
David Law
Bob Grow
Geoff Thompson
Sue Vogel
Karen Kenney
Michael Kipness
Michelle Turner

myBallot/myProject Update - Bob Grow/ Sue Vogel

Concern was expressed that a mechanism to take note of appeal during a project's development process is not being built into the MyProject spec.

- **Action Item:** Geoff Thompson to write and submit a request to the MyProject team that a mechanism be developed for integration into MyProject to track the existence and outcome of any appeals associated with a project.

Concern was expressed that MyProject tools need to be compatible with 802 existing tools and tools in development; e.g., Access database, attendance/registration-keeping tools, etc. 802 would like to know the requirements of MyProject tools so that what 802 develops is not incompatible. It was noted that an Access database is much more functional than Excel. 802 is planning to develop attendance/meeting registration system requirements that should not be redundant or duplicative with MyProject, and should be developed with synergies between 802 and MyProject.

- **Action Item:** IEEE-SA staff (Kenney/Kipness/Vogel) to schedule a brainstorm session with the MyProject team (Bob LaBelle, Chris Sahr, Clyde Camp), 802 members (Paul Nikolich, Bob Grow, David Law) and other IEEE staff as appropriate in conjunction with the Standards Board meeting in December 2005 in Florida, to discuss MyProject tools, requirements, and roll-outs relative to 802 tools and needs. 802 Executive Committee are to be copied on email meeting notice.

Questions raised, such as "When will 802 be directly affected by MyProject? What is the status and roll-out date for MyProject?" can be addressed at this session.

Declaration of Affiliation Update - K. Kenney

Karen reminded the task force members to review with their constituency the proposed language coming to ProCom in December, and bring forth their concerns/comments.

European Patent Office

The European Patent Office has expressed interest in obtaining 802 drafts as well as technical submissions that currently do not reside in the IEEE OLIS program. The Task Group drafted a motion for the 802 Executive Committee meeting to consider at their meeting on Friday: "that 802 support allowing patent office access to their drafts."

- **Action Item:** Steve Mills will also raise this issue with the IEEE-SA Board of Governors for discussion at their December 2005 meeting.

SC6 TAG meetings in conjunction with 802 meetings

- The SC6 US TAG had requested to hold a meeting in conjunction with the 802 November Plenary meeting. There is concern that, it could influence a perception that IEEE 802 is a US organization

Motion on Electronic Voting

The IEEE 802 LMSC EC requests that the IEEE-SA (Gorman for the BOG) seek an exemption on electronic voting requirements (IEEE Bylaw 300-I), with regard to Working Group letter ballots, for standards development.

M: Bob Grow

S:

Y: , N: , A:

Moved: The IEEE 802 LMSC EC requests that the IEEE-SA (Gorman for the BOG) seek an exemption on electronic voting requirements (IEEE Bylaw 300-I), with regard to Working Group letter ballots, for standards development.

Moved: Bob Grow/Tony Jeffree

Roger asked if there is a process for obtaining this exemption. Steve Mills indicated that he does not know how this should be done, other than delivering it to the IEEE-SA. Steve recommended sending this request to Judy Gorman as the secretary of the Board of Governors.

Roger suggested that this be limited to working group letter ballots, rather than a blanket exemption.

Passes: 11/0/3

8.03		-		03:00 PM
9.00		-		03:00 PM
9.01	ME	-	Thaler	10 02:42 PM

Moved: to approve the IEEE SOW for On-Line Training and the resulting expenditure of \$13,435.

Moved: Pat Thaler/Ajay Rajkumar

Passes: 12/0/1

9.02 ME Coordination letter to ISO - Kerry 5 02:48 PM

The document is a set of comments on the China WAPI submission, describing the 802 position on WAPI. It is intended to be made available to national bodies and other interested parties for the purpose of their developing the positions of those national bodies or other parties for submission to ISO on the current ballot on WAPI.

This will be conducted in a 10-day email ballot, to be conducted by Stuart Kerry.

9.03 ME Response to EC Committee draft decision on UWB - Lynch 5 02:55 PM

ECC consultation on draft UWB Decision

- Was not on original agenda
 - Was brought to the RR-TAG's attention by U.K. Ofcom
- RR-TAG began to develop a response
 - Became clear that the RR-TAG's views were polarized
 - RR-TAG felt that the concerned parties were not represented
 - Directed the chair to bring this to the EC
 - Should 802 respond or not? If yes then how to proceed? Conf. calls – other?

Some opinions were expressed that, without consensus having been reached at the plenary, the only feasible action is not to respond to the UWB Decision.

The ECC Decision will make usage of Detect and Avoid as a voluntary national decision. If the EC then adopts this decision, it will become mandatory in the EC countries. Part of the decision is that this issue needs further study.

9.04 ME EPO access to archival LMSC material

- Grow

3 03:03 PM

Motion on EPO

IEEE 802 supports moving forward with allowing European Patent Office access to archival material including drafts. The LMSC Chair to convey this position to appropriate individuals in IEEE-SA.

M: Bob Grow

S:

Y: , N: , A:

Moved: IEEE 802 supports moving forward with allowing European Patent Office access to archival material including drafts. The LMSC Chair to convey this position to appropriate individuals in IEEE-SA.

Moved: Bob Grow/Stuart Kerry

Passes: 15/0/0

9.05 ME 802.16 Liaison statement to ITU-R

- Marks

5 03:05 PM



Received:

TECHNOLOGY

Subject: [Question ITU-R 223-1/8](#)

***** DRAFT *****

Institute of Electrical and Electronics Engineers (IEEE)

KEY TECHNICAL AND OPERATIONAL REQUIREMENTS FOR ACCESS TECHNOLOGIES TO SUPPORT IP APPLICATIONS OVER MOBILE SYSTEMS

This contribution was developed by IEEE Project 802, the Local and Metropolitan Area Network Standards Committee (“IEEE 802”), an international standards development committee organized under the IEEE and the IEEE Standards Association (“IEEE-SA”).

The content herein was prepared by a group of technical experts in IEEE 802 and industry and was approved for submission by the IEEE 802.16 Working Group on Wireless Metropolitan Area Networks, the IEEE 802.18 Radio Regulatory Technical Advisory Group, and the IEEE 802 Executive Committee, in accordance with the IEEE 802 policies and procedures, and represents the view of IEEE 802.

IEEE thanks ITU-R for the liaison statement in Document IEEE 802.16-05/056 requesting input for the progression of the work toward the development of a PDNR ITU-R M.[IP CHAR] (“Key technical and operational requirements for access technologies to support IP applications over mobile systems”) in response to Question ITU-R 223-1/8, which WP 8F is developing in close co-operation with WP 8A.

We have reviewed the document with interest and we expect to be able to provide specific input material by the 19th meeting of ITU-R WP 8F in May 2006.

Our preliminary assessment is that we will develop a description of the relevant capabilities based on the outline of the sections in the main body of Annex A of the PDNR ITU-R M.[IP CHAR]. We expect to develop a proposed new attachment to Annex A, summarizing the implementation of relevant IP capabilities of IEEE 802.16 systems.

Moved: To approve IEEE L802.16-05/059 as an intended contribution from IEEE to ITU-R, subject to editorial revision.

Moved: Roger Marks/Mike Lynch

Passes: 13/0/2

9.06 ME Approve the press release on 802.11k

- Kerry

2 03:10 PM

IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: OHARA

**Request the IEEE 802 Executive Committee approve
IEEE 802.11k Press Release for media publication by
IEEE.**

WG: Moved by *Nanci Vogtli, 2nd Richard Paine*

WG Results (85/0/9) Approved

Approve:

Do Not Approve:

Abstain:

DRAFT: 11/18/05

Contact: Karen McCabe, IEEE Senior Marketing Manager
+1 732-562-3824, k.mccabe@ieee.org
or
Stuart Kerry, 802.11 Working Group Chair
+1 408-474-7356, stuart.kerry@philips.com

RADIO RESOURCE MANAGEMENT SPEC FOR IEEE 802™ WIRELESS LANs PASSES MILESTONE

PISCATAWAY, N.J., USA, 21 November 2005 – The IEEE 802.11 Working Group has passed a major milestone in the development of IEEE 802.11k™, “Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: Radio Resource Management of Wireless LANs”, by voting to accept a draft radio resource measurement document as a baseline for the final standard.

Once completed, IEEE 802.11k will allow enhanced measurements and diagnostics for IEEE 802.11™ wireless local area networks (WLANs) that operate in the unlicensed 2.4GHz (ISM), 4.9GHz (Japan), and 5GHz (UNII) bands. This amendment to the IEEE 802.11 base standard will enable more accurate and efficient operation of WLANs in governmental, residential, enterprise and metropolitan settings.

“Next generation video streaming, wireless VOIP and dense WLAN deployments present new challenges that call for more precise WLAN measurements,” says Stuart Kerry, IEEE 802.11 Working Group Chair. “IEEE 802.11k will help optimize these radio environments so more devices can coexist even as it reduces wireless network traffic congestion. Final approval of this amendment is targeted for January 2007.”

About the IEEE Standards Association

The IEEE Standards Association, a globally recognized standards-setting body, develops consensus standards through an open process that brings diverse parts of an industry together. It offers a full menu of standards development programs and services for both individuals and corporations. The standards developed set specifications and procedures based on current scientific consensus. The IEEE-SA has a portfolio of more than 870 completed standards and more than 400 standards in development. For further information on IEEE-SA see: <http://standards.ieee.org/>.

About the IEEE

The IEEE has more than 360,000 members in approximately 175 countries. Through its members, the organization is a leading authority on areas ranging from aerospace, computers and telecommunications to biomedicine, electric power and consumer electronics. The IEEE produces nearly 30 percent of the world's literature in the electrical and electronics engineering, computing and control technology fields. This nonprofit organization also sponsors or cosponsors more than 300 technical conferences each year. Additional information about the IEEE can be found at <http://www.ieee.org>.

#

Moved: Request the IEEE 802 Executive Committee approve IEEE 802.11k Press Release for media publication by IEEE.

Moved: Stuart Kerry/Bob O'Hara

Roger expressed the opinion that this seems a relatively minor item on which to issue a press release.

Passes: 15/0/0

9.07	Break	-				03:15 PM	
						03:30 PM	
10.24		-				03:30 PM	
10.00	LMSC Internal Business				-		03:30 PM
10.01	MI*	802.11 CBP SG extension	-	Kerry	0	03:30 PM	
10.02	MI	Document and attendance server	-	Heile	10	03:25 PM	

Moved: Move to form a subcommittee, led by Buzz Rigsbee, to complete the RFP process for attendance and doc management software and report back to the EC with a recommended action for EC consideration no later than the March 2006 session.

Moved: Bob Heile/Buzz Rigsbee

Buzz indicated that the first action of the subcommittee will be to solicit input from all the WG chairs. Bob Grow indicated that 802.3 is sympathetic to the needs of other groups, but does not need it for its own purposes and does not desire to fund it. Jerry Upton suggested that we set deadlines for the execution of this work, beyond the RFP phase. Roger requests that the motion be clarified, particularly what is meant by "RFP process".

Stuart Kerry indicated that he is stating that 802.11 is not able to comply with the LMSC P&P requirements for membership without a system such as what is sought by this RFP.

Geoff indicated that during this week at the Fairmont, the network support was probably not sufficient to support a system such as being sought.

Pat indicated that she has concerns that because it is called an "RFP process" presupposes the outcome, which is to purchase a solution rather than to obtain the solution through other means, such as from other groups that have such systems in use.

Tony expressed concern that we are getting ourselves involved in a situation that may result in acrimonious debate in the future.

Buzz expressed that the first step of the subcommittee is to develop a set of requirements that meet the needs of each of the groups. The RFP is simply a request for a proposal, including from those that offer the solution for free.

Passes: 11/3/0

10.03	MI	802.22 Protection of low power (Part 74) devices SG extension	-	Stevenson	5	03:49 PM
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802.22 EC Motions – July 2005 Plenary

- **Move that the EC approve extending the Study Group on means to enhance unlicensed devices' ability to detect and protect low power licensed devices operating in the TV bands (in the US "Part 74") until the close of the March 2006 802 plenary.**
 - Moved – Stevenson
 - Seconded – Heile
 - Approve Disapprove Abstain

 - NOTE: This motion/second are presented in the event that this item were to be removed from the consent agenda.

Moved: Move that the EC approve extending the Study Group on means to enhance unlicensed devices' ability to detect and protect low power licensed devices operating in the TV bands (in the US "Part 74") until the close of the March 2006 802 plenary.

Moved: Carl Stevenson/Bob Heile

Passes: 13/0/2

10.04	MI	802.19 SG formation on predicting coexistence in wireless networks	-	Shellhammer	5	03:52 PM
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IEEE 802.19 Study Group

- In November 2004 the Executive Committee approved an 802 P&P change to require production of a Coexistence Assurance (CA) document for all new unlicensed wireless projects which could potentially impact coexistence with other 802 wireless networks

CA Methodology

- The 802.19 TAG took on the task of producing an internal 802.19 document describing how to produce such a CA document
- The TAG currently has a 64 page document, which is a work in progress, but is starting to be used by the working groups
 - 802.15.4b

Study Group

- The TAG believes that using the current internal document as a starting point it could produce an IEEE Recommended Practice or Guide that would be very useful to the industry
- The IEEE document would describe how to predict coexistence of wireless networks
- The document would target the following classes of wireless networks
 - WPAN
 - WLAN
 - WMAN
 - WRAN

Motion

- Form a Study Group to develop a PAR and Five Criteria for an IEEE Recommended Practice or Guide on Prediction of Coexistence between wireless networks
 - Move Steve Shellhammer
 - Second Carl Stevenson
 - Vote

**Moved: Form a Study Group to develop a PAR and Five Criteria for an IEEE Recommended Practice or Guide on Prediction of Coexistence between wireless networks.
Moved: Steve Shellhammer/Carl Stevenson**

Passes: 14/0/1

10.05 MI Payment for services in support of LMSC P&P revisions - Sherman 5 04:07 PM

Moved: To approve payment of IEEE SA invoice in the amount of \$16,129 for completed LMSC P&P support.

Moved: Sherman/Shellhamer

Passes: 14/0/1

10.06 MI Approval of LMSC P&P revision on LMSC Organization - Sherman 5 04:07 PM

EC Motion

To approve payment of IEEE SA invoice in the amount of \$16,129 for completed LMSC P&P support.

Moved: M. Sherman

For:

Against:

2nd:

Abstain:

Moved: To approve payment of IEEE SA invoice in the amount of \$16,129 for completed LMSC P&P support.

Moved: Mat Sherman/Steve Shellhammer

Passes: 14/0/1

10.07 MI Approval of LMSC P&P revision on WG Membership and Meetings - Sherman 10 04:08 PM

EC Motion

To approve the proposed P&P revision titled “WG Membership and Meetings” as described in the document titled:

- 802.0-WG_Membership_&_Meetings_-_Proposed_Resolutions_051117_r0.pdf

Moved: M. Sherman

For:

Against:

2nd:

Abstain:

Moved: To approve the proposed P&P revision titled “WG Membership and Meetings” as described in the document titled:

➤ **802.0-WG_Membership_&_Meetings_-_Proposed_Resolutions_051117_r0.pdf**

Moved: Sherman/Shellhammer

Fails: 9/3/3, the motion does not achieve the necessary 2/3 of all voting members (10 required).

10.08 MI Approval to ballot LMSC P&P revision on WG Plenary - Sherman 5 04:15 PM

EC Motion

To approve for distribution and executive committee ballot the P&P Revision titled “WG Plenary” as described in the document titled:

802.0-WG_Plenary_-_Proposed_ballot_051118_r0.pdf

Moved: M. Sherman

2nd:

For:

Against:

Abstain:

Moved: To approve for distribution and executive committee ballot the P&P Revision titled “WG Plenary” as described in the document titled:

802.0-WG_Plenary_-_Proposed_ballot_051118_r0.pdf

Moved: Mat Sherman/Steve Shellhammer

Passes: 11/1/1

10.09 MI Approval to ballot LMSC P&P revision on Editorial changes - Sherman 5 04:20 PM

EC Motion

To approve for distribution and executive committee ballot the P&P Revision titled “Editorial” as described in the document titled:

802.0-Editorial_-_Proposed_ballot_051118_r0.pdf

Moved: M. Sherman

2nd:

For:

Against:

Abstain:

Moved: To approve for distribution and executive committee ballot the P&P Revision titled “Editorial” as described in the document titled:

802.0-Editorial_- _Proposed_ballot_051118_r0.pdf

Moved: Mat Sherman/Steve Shellhammer

Passes: 13/1/0

10.10 DT Meeting fee increase

- Rigsbee 10 03:55 PM

This item taken up out of order to allow Mat to screw around with his PC to get it to display properly on the projector.

Motion:

Whereas it is desired to provide 50% more servings of F&B at our plenary sessions,

and it is desired to fund a major upgrade of our network service support equipment,

and it is desired to fund development of Online Training Modules and P&P Revision Work,

and we need to fund legal expenses and increase our level of reserves in anticipation of more international sessions:

therefore it is moved and seconded that the Plenary Meeting Fee be increased to **\$400** pre-reg and **\$500** for late and on-site reg.

Moved: **Buzz Rigsbee**

Seconded: **Mat Sherman**

Y **9** **N** **4** **A** **1**

Moved: Whereas it is desired to provide 50% more servings of F&B at our plenary sessions, and it is desired to fund a major upgrade of our network service support equipment, and it is desired to fund development of Online Training Modules and P&P Revision Work, and we need to fund legal expenses and increase our level of reserves in anticipation of more international sessions:

therefore it is moved and seconded that the Plenary Meeting Fee be increased to \$400 pre-registration and \$500 for late and on-site registration.

Moved: Buzz Rigsbee/Mat Sherman

Two opinions were expressed that paying more for networking service is not appropriate until the service becomes adequate to support the current membership. As well, the opinion was expressed that increasing the expenditure for F&B is also inappropriate. Rather it was indicated that this expenditure might be reduced.

Passes: 9/4/1

10.11			-			04:30 PM
10.12	MI*	802.11 ISO/IEC JTC1/SC6 comment receiving SG extension	-	Kerry	0	04:30 PM
10.13	MI	Approval of payment to Arent-Fox	-	Nikolich	5	04:21 PM

Moved: to approve payment of \$11,365.32 to Arent-Fox for legal services.

Moved: Rigsbee/Heile

Tony expressed that 802.1 is very unhappy about having to pay this item. Geoff is also unhappy. He asks that Arent-Fox not be on our approved vendor list in the future. Buzz expressed that he is very unhappy that there was no notice or request that we get involved in a situation where legal fees need to be paid. Paul indicates that he takes personal responsibility for getting the LMSC into this situation.

Passes: 12/0/1

10.14	MI	Approval of payment to Avilar	-	Thaler	5	04:25 PM
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Approval of Avilar Payment

- Motion to approve an additional \$3500 for the Avilar on-line training development SOW.
 - Moved: Pat Thaler 2nd: Stuart Kerry

Approve:

Disapprove:

Abstain:

**Moved: to approve an additional \$3500 for the Avilar on-line training development SOW.
Moved: Pat Thaler/Stuart Kerry**

Passes: 13/0/0

10.15 MI 802.16 Multihop relay SG extension

- Marks

5 04:30 PM

Session #40 802.16mmr Closing Report – 11/17/05

IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number:

IEEE 802.16mmr-05/023

Date Submitted:

2005-11-17

Source:

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Venue:

IEEE 802.16 Session #40, Vancouver, Canada

Base Document:

None

Purpose:

SG Meeting organization

Notice:

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Session #40 802.16mmr
Closing Report – 11/17/05
2nd Study Group Meeting on Mobile
Multi-hop Relay in IEEE 802.16

Chair: Mitsuo Nohara

Time: 08:00 – 12:00, Tue. 15 – Thu. 17 Nov., 2005

Place: British Room, The Fairmont Hotel Vancouver

Objectives of this 2nd SG Meeting

- To exchange views on Mobile Multi-hop Relay
 - with contributions provided, referring to the 2nd call for contributions,
 - especially on the PAR and 5 Criteria
- To have open comments and discussions, and
- To plan future activity and schedule towards the PAR and 5 Criteria preparation (to be completed at the #41 Meeting in New Delhi, Jan. '06.)

Outcomes

- **Summarized the 1st SG meeting held in Taipei, Sept. 2005.**
- **Conducted Three-days Contribution Presentations**
 - **23 Contributions**
 - **11 Contributions with main focus on the Scope,**
 - **7 on Technical, and**
 - **5 on PAR.**
- **Started discussions on the PAR and 5 Criteria Preparation.**
- **Set future activity plan and schedule towards the PAR and 5 Criteria preparation (to be completed at the #41 Meeting in New Delhi, Jan. '06.)**

Contributions

2nd Call for Contributions

Areas of activities:

- Assess feasibility of Multi-hop Relay for fixed / mobile terminal including PHY/MAC modifications;
- Study the impact on PHY with enhancement of normal frame structure and backward compatibility with 802.16 TGe PMP mode;
- Study the impact on MAC protocols to be newly added for the relay networking including handover cases;
- Study spectral scenario including frequency reuse and interference among the links between Base station (BS) and Relay station (RS), and ones between RS and Mobile/Subscriber station (MS/SS);
- Study the security between BS and Mobile Subscriber station (MS) via RS;

2nd Call for Contributions

Contribution Provisions:

In preparation for the second SG Meeting, further contributions addressing the above topics are requested. The contributions should provide:

- Technical issues relevant to a “PAR and Five Criteria” preparation and other works**
- Direction of MMR activities for high level issues such as service scenarios, network topologies, etc.**

Note that the Study Group plan is to initiate discussions on and create a first draft text of a “PAR and Five Criteria” during Session #40.

Contribution Presentations

* List of 1st Authors:

T Ozgur Oyman
S Jimin Liu
S Deng Shiqiang
T Kyungjoo Suh
S D. J. Shyy
S Masahito Asa
P Byoung-Jo Kim
S Weng Tong
T Aeran Youn
S Kenji Saito
S Amir Rubin

S Mariana Goldhamer
T Gang Shen
T Xiaobing Leng
T Fang-Ching Ren
T Tzu-Ming Lin
S D. J. Shyy
S Shyamal Ramachandran
P David Steer
P Yousuf Saifullah
P Mitsuo Nohara
S I-Kang Fu
P Mike Hart

(23 Presentations in total)

• Each of those 23 Presentations will be categorized into:

P "PAR & 5 Criteria" / **S** Scope, Scenario and System Definition
/ **T** Technical Analysis and Design

2nd SG Meeting Presentation Program, amended

Day#1-1 08:00 - 09:40 Tue. 15 Nov., 2005

No.	Ref.	1 st Authour	Affiliation	Title
1*	Cmmr-05_020	Mariana Goldhamer	Alvarion	Advantages of a Coexistence Protocol for Relay Operation
2*	Cmmr-05_040	Kenji Saito	KDDI R&D Labs.	Considerations on Mobile Multi-hop Relay for IEEE802.16
3*	Cmmr-05_032	Masahito Asa	Motorola	Recommendations for the Scope and Purpose of the Mobile Multihop Relay Task Group
4	Cmmr-05_024	Jimin Liu	Aclatel Shanghai Bell	Self-backhaul Relay

Day#1-2 10:00 - 12:00 Tue. 15 Nov., 2005

5	Cmmr-05_026	Deng Shiqiang	Huawei Technologies	Recommendation on Mobility Management of Multi-hop Relay
6	Cmmr-05_030	D. J. Shyy	MITRE	Military Usage Scenario for 802.16 MMR
7	Cmmr-05_031	D. J. Shyy	MITRE	CDMA2000 Network Repeater Deployment Experience.
8	Cmmr-05_033	Shyamal Ramachandran	Motorola	A Case for Multihop Backhaul
9	Cmmr-05_041	I-Kang Fu	National Chiao Tung Univ.	System Performance of Relay-based Cellular Systems in Manhattan-like Scenario

* Each presentation consists of 15-minutes presentation and 5-minutes Discussions.

2nd SG Meeting Presentation Program

Day#2-1 08:00 - 09:40 Tue. 15 Nov., 2005

No.	Ref.	1st Authour	Affiliation	Title
10	Cmmr-05_042	Amin Rubin	Intel	Cooperative Relaying System
11	Cmmr-05_022	Ozгур Oyman	Intel	Throughput Improvements in Micro-Cellular Multi-Hop Networks
12	Cmmr-05_023	Gang Shen	Alcatel Shanghai Bell	Recommendation on 802.16 MMR with Backward Compatibility
13	Cmmr-05_025	Xiaobing Leng	Aclatel Shanghai Bell	A frame structure for mobile multi-hop relay with different carrier frequencies

Day#2-2 10:00 - 12:00 Tue. 15 Nov., 2005

14	Cmmr-05_027	Fang-Ching Ren	ITRI	Recommendation on PMP Mode Compatible TDD Frame Structure
15	Cmmr-05_028	Kyungjoo Suh	Samsung Electronics	Open Problems in Mobile Multi-hop Relay System
16	Cmmr-05_029	Tzu-Ming Lin	ITRI	Modification for enabling the RS Operations
17	Cmmr-05_038	Aeran Youn	LG Electronics	Decision method of relayed MS in MMR-enabled networking
18	Smmr-05_034	Byoung-Jo Kim	AT&T	Analysis of Simple Infrastructure Multihop Relay Wireless System
19	Cmmr-05_036	Wen Tong	Nortel Networks	MMR Topology Study with 6 Configurations

*** Each presentation consists of 15-minutes presentation and 5-minutes Discussions.**

2nd SG Meeting Presentation Program

Day#3-1 08:00 - 09:40 Thu. 16 Nov., 2005

No.	Ref.	1 st Authour	Affiliation	Title
20	Cmmr-05_035	David Steer	Nortel Networks	MMR PAR and Five Criteria Draft
21	Cmmr-05_037	Yousuf Saifullar	Nokia	Issues and Scope of MMR
22	Cmmr-05_043	Mike Hart	Fujitsu Lab. Europe	Input text to the PAR and Five Criteria
23	Cmmr-05_039	Mitsuo Nohara	KDDI	PAR and Five Criteria for 802.16 Mobile Relay

- Each presentation consists of 15-minutes presentation and 5-minutes Discussions.
- Discussions on PAR and 5 Criteria Preparation to follow.

Day#3-1 10:00 - 12:0 Thu. 16 Nov., 2005

Discussion on PAR and 5 Criteria Preparation

PAR and 5 Criteria Discussions

***see ref. 80216mmr-05/024**

- Motion to adopt C802.16mmr_05_39 as initial material for drafting PAR and updating based on discussion
- Issued by Mitsuo Nohara; Second by Jungje Son; Approved unanimously.

The following proposed text got major support :

- The subscriber station operating according to existing standard shall be capable of operating with MMR enabled BS with no modification and with an RS with little or no modification.

Future Activity and Schedule

Tentative Schedule

- PAR & 5 Criteria Preparation towards #42 Plenary

Year	Month	802.16 session	Actions
2005	July	#38 Plenary	Propose to form SG – Approved
	Sept.	#39 Interim	SG: the 1st meeting
	Nov.	#40 Plenary	SG: the 2nd meeting
2006	Jan.	#41 Interim	SG: the 3rd meeting – Complete a PAR
	Mar.	#42 Plenary	802 EC endorses PAR approval
	May	#43 Interim	TG: the 1st meeting
	July	#44 Plenary	TG: the 2nd meeting
	Sept.	#45 Interim	TG: the 3rd meeting
	Nov.	#46 Plenary	TG: the 4th meeting

To Do List

- **At This Meeting**
 - Made PAR & 5 Criteria Discussions Base
 - **After This Meeting towards Next #41 Meeting**
 - Comments and Discussions
- “Call for Contributions/Comments on the PAR and 5 Criteria Preparation”**
- **At the Next #41 Meeting**
 - Complete “PAR & 5 Criteria” ready
 - Tutorial Preparation (to be held in #42 Session, Mar. 2006)

Motion to SG

- Motion: To empower the chair to combine all of proposed text during second MMR SG session and to produce the baseline as draft for PAR and 5 Criteria for consideration at the next session.
- Proposed: Mike Hart
- Seconded: Jaeweon Cho
- Approved by Unanimous voice vote

Motion to SG

- Motion: To empower the chair to issue the call for contributions and comments on the baseline draft for PAR and 5 Criteria such that they can be considered at the session 41, closed by 6th January, 2006.
- Proposed: Mike Hart
- Seconded: J Kim
- Approved by Unanimous voice vote

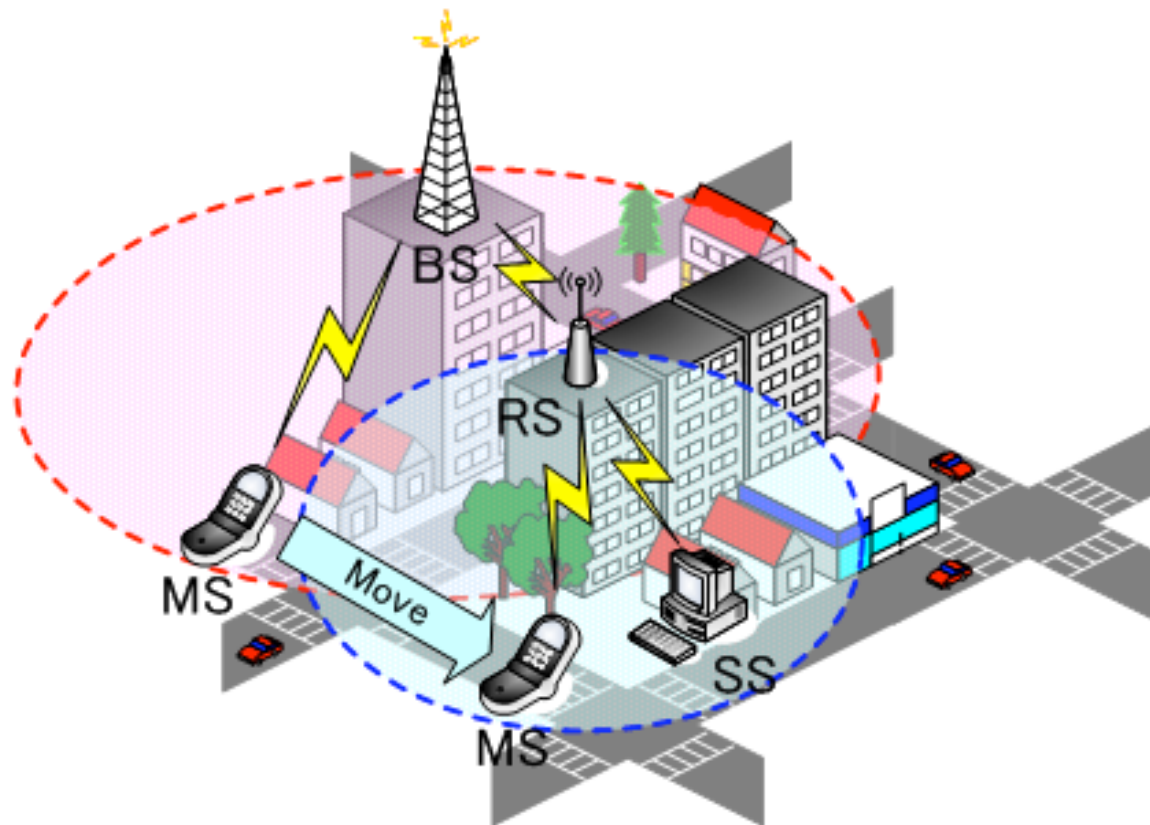
Motion to SG

- Motion: To empower the chair to ask the WG for extending MMR SG to next plenary at WG plenary
- Proposed: J Kim
- Seconded: Mike Hart
- Approved by Unanimous voice vote

Motion to WG

- Motion: To renew the Mobile Multihop Relay Study Group through the March 2006 IEEE 802 Plenary Session
- Proposed: Mitsuo Nohara
- Seconded: Jose Puthenkulam
- Approved by Unanimous voice vote

See you in India!



Moved: To renew the Mobile Multihop Relay Study Group through the March 2006 IEEE 802 Plenary Session (see Study Group Documentation and Report)

Moved: Roger Marks/Stuart Kerry

Tony expressed that this project would seem to require coordination with 802.1. He indicated that this has not taken place. Bob Grow indicated that a tutorial is strongly requested. Roger provided that there will be a tutorial in the March session.

Passes: 8/0/4

10.16 MI Equity of distribution of tickets at the social

- Kerry

10 04:35 PM

IEEE 802 LMSC RESOLUTION

Motion By: KERRY

Seconded By: OHARA

- Move to include concession tickets in the membership badge at registration
- Garth Hillman
 - 2nd Charles Wright
 - WG Results 87/0/4 Approved

Approve:

Do Not Approve:

Abstain:

Moved: to include concession tickets in the membership badge at registration.

Moved: Stuart Kerry/Bob O'Hara

Tony expressed that he would rather see the social be discontinued. Bob Grow expressed that he would rather discontinue drink tickets entirely, as they may be a liability to the LMSC. Bob would rather see any cost associated with drink tickets used for other cost reduction. Buzz reported that these tickets are provided by the hotels, not by LMSC, and that the number of tickets provided is determined by the hotel. The tickets do not increase or decrease the meeting fee.

Fails: 3/9/3

10.17 DT Access to WG materials and websites - Jeffree 5 04:40 PM

Tony's 802.1 membership has indicated that some working groups require that access to portions of the web site require voting membership. Others make it very difficult to obtain access. He asks that each chair describe their access requirements. Tony points out that several meetings ago the EC passed a motion that any 802 member could gain access to any material on the web site of another group. He believes that this has not been uniformly implemented.

Each chair described their policies for access to their web sites.

Paul directed Tony to obtain a clarification on the requirements for granting access to IEEE copyrighted materials.

10.18 MI Vote of confidence in Geoff Thompson and Floyd Backes - Stevenson 2 05:55 PM

This item deferred until after item 11.16.

Moved: The LMSC executive committee expresses confidence in Geoff Thompson and Floyd Backes as the LMSC representatives to the IEEE RAC.

Moved: Carl Stevenson/Tony Jeffree

Passes: 15/0/0

10.19 DT 802.20 participation credit - Nikolich 5 04:52 PM

Paul has had several members approach him about concerns for the granting of membership credit in 802.20, due to the early adjournment this week. Paul has asked each current and past chair to report to him how they grant, or granted, participation credit in an event such as this.

802.20 entered this situation due to a motion from the floor to amend the agenda, removing several items if business from the agenda. This resulted in the remaining items being concluded much earlier than in the original agenda.

Paul asked that Jerry send the minutes to the EC for review of this situation. Paul asks that within a week of receiving the minutes, each chair respond to the query about how they have handled this situation in the past.

10.20			-		05:07 PM
10.21			-		05:07 PM
10.22			-		05:07 PM
10.23			-		05:07 PM
11.00		Information Items	-		05:07 PM
11.01	II	Open office hours feedback	-	Nikolich	5 04:58 PM

Only two people showed up, though their feedback was very good. Paul asked for feedback on how to encourage more participation. Stuart asked that he show up at the group meetings to obtain the feedback. Pat indicated that the office hours are not convenient to the members, who are either in other meetings or on their way home. She suggested moving them around to be able to allow the greatest number of folks to participate.

The feedback

Our rules have not kept pace with the growth of 802. We are mired in a set of rules 25 years old.

We are restricted by being able to make formal decisions only every four months. We need to find a way to work more rapidly.

We often wind up in a conflict situation, rather than a consensus situation.

What would be an appropriate means to generate the income to support the tools needed to facilitate the work we need to do. Perhaps a corporate membership?

Consider having task group membership, in addition to the working, since all members in large groups may not have expertise in all areas of work in the WG.

Make the release of the individual members' email and phone numbers voluntary. The current requirement not to release this information prevents some interaction among members.

At the Tuesday evening tutorial, he had some members indicate they felt the chairs are not in touch with the members of their own constituency.

11.02	II	interactive opening plenary meeting format proposal	-	Nikolich	10 05:08 PM
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Paul indicated that 5 minutes at the end of the plenary was good. However, he would prefer a short Q&A session at the end of each presenter's slides.

Mike Takefman suggested the chairs' presentations be eliminated in favor of a long Q&A session. Pat indicated that she would prefer removing all the material that is repeated each session, significantly reducing each chair's presentations.

11.03	II	P&P change for representation when a chair is absent	-	Kerry	2 05:12 PM
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Stuart intends to bring a P&P change to consider how representation of a WG is to be obtained when its chair is not able to participate.

11.04	II	Liaisons to ITU/T	-	Jeffree	2 05:16 PM
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802.1 is continuing liaisons with several WGs in ITU/T on 802.1an.

11.05 II Integration of ResE activity into 802.1 - Jeffree 2 05:17 PM

The Residential Ethernet activity, previously in 802.3, has been assimilated into 802.1. This will become a new task group, titled Residential Bridging. A PAR will be completed at the January 2006 meeting and then circulated for approval at the March 2006 plenary.

11.06 II Creation of 10 GbE short-haul Cu study group - Grow 2 05:18 PM

Rulings were made that “raised the eyebrows” of some in the group. A vote by raising the hand passed, followed by a role call vote that failed. He indicated that there may be some issues that are brought to the EC on this subject.

11.07 II Summary of Tuesday "Process Improvement" meeting - Sherman 5 05:20 PM

Review of '802 Process Improvement' Meeing

Background

- Wanted to solicit inputs from Membership
 - How to improve IEEE 802 Process?
- Held in tutorial slot since available
- Very lightly attended
 - About 25 participants
 - Mostly 802 leadership and SA staff
- The following slides summarize outcome

Influences Outside the Process

- Teams form outside 802 process
- If people want to prevent progress, can't stop
- A small organization can block progress
- When people stop talking tech and make personal head down hill fast
- Sometimes only reason a group is present is to prevent progress
- Companies with large markets want slow change
- IEEE802 not the only place to do a standard

Key Issues Identified

- Size of groups
- Don't always have necessary tools
 - Automation of Attendance, documents, ballots, etc
 - Barcode reader or RFID
- Process drives to two hard line positions
 - Limits opportunities for compromises
- Three stable states
 - Converging, Deadlock, Giveup
 - Want to get to one of three as soon as possible
- Distinction between interim and plenary slows process
- No 'acquisition' process – only consensus
 - No impartial judge

Suggested Solutions

- Same rules for interims as plenarys
- Chair training
- Entity balloting
- Electronic tools for
 - Attendance, Document control, electronic balloting, Calendar, Event tracking.
- Simplified attendance
 - Pay fee, register, show up – Receive credit
- Revenue based voting

11.08 II Mr. Law exempted from term limits for March 2006 elections - Grow 0 05:25 PM

802.3 voted to exempt David Law under the term limit P&P for the March 2006 elections.

11.09 II P802.3-2005/Cor1 to WG ballot - Grow 1 05:26 PM

This has just been sent to WG ballot.

11.10 II Network services report - Verilan 10 05:27 PM



IEEE 802 November 2005
Vancouver, BC



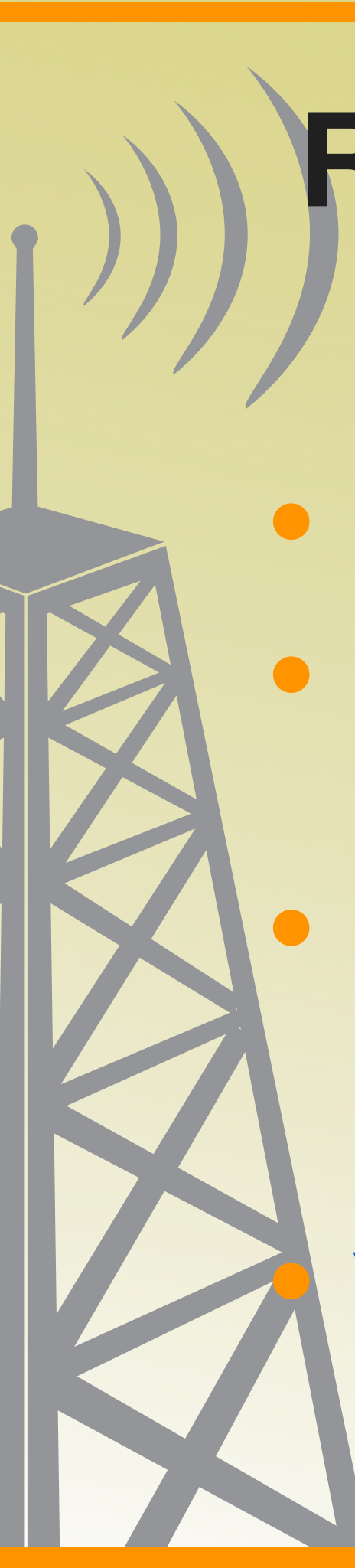
VeriLAN's second plenary meeting
for IEEE 802

Presented by Steven Schroedl



SFO Lessons Learned and not repeated

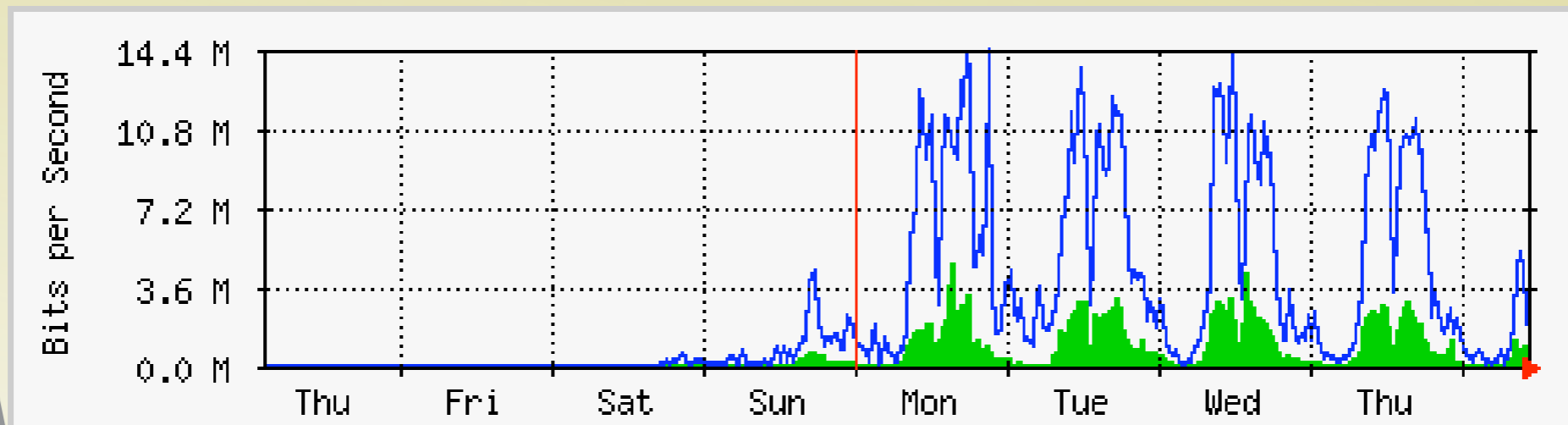
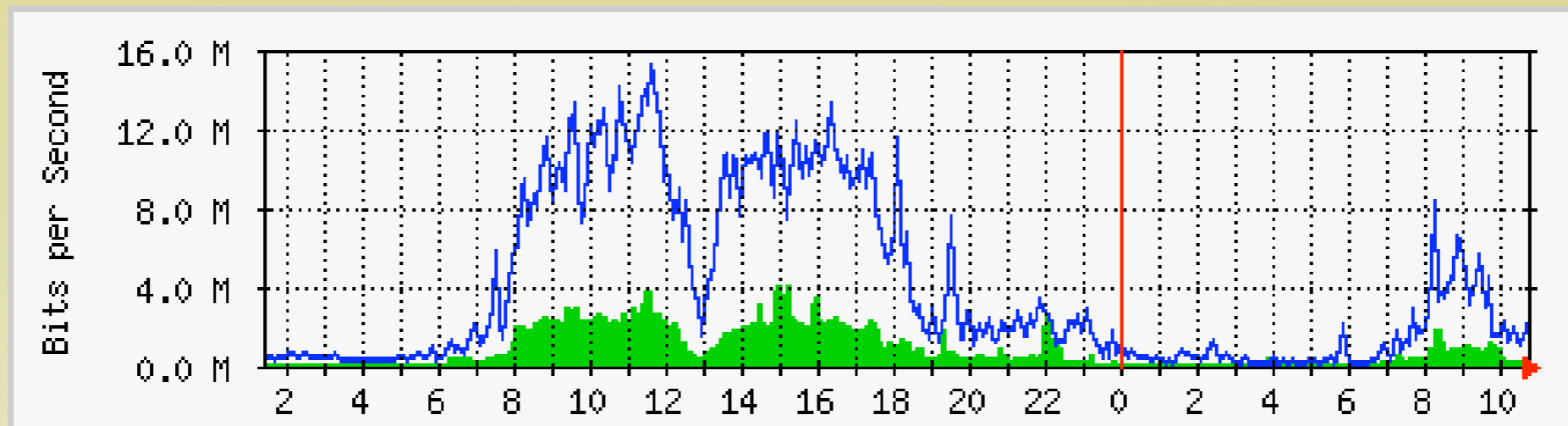
- Trusting venue to have the HSLA pipe turned up prior to IEEE 802 meeting.




Research done between SFO and YVR 2005

- Multiple PPTP, IPSec VPN passthrough.
- Hot standby, High Availability gateways and servers
- Block infected computers, DNS hijack, SMTP auto redirect unless SSL allow, caching service and proxy service.
- WLAN stress and HSLA validation prior to meeting start.

HSIA Usage




A stylized illustration of a grey lattice tower with a signal antenna at the top, emitting three curved lines representing radio waves. The tower is positioned on the left side of the slide.

Monday 11/14/05

Problems and Solutions


- Wireless link between hotels has hardware failure.
- Replaced with IEEE 802 vintage Cisco bridge. Cisco bridge is the bottle neck. Fairmont members suffer.



Tuesday 11/15/05

Problems and Solutions

- Tuesday early AM Cisco bridge replace with 18 Mb link before Tuesday start.
- RF interference from members and or other outside interference makes link quality poor.
- 155 Mb FSO link put in place.
- Nortel hardware
 - limited training
 - early availability of new Nortel product (but this is the direction of how heavy load, large head count smart AP should go)



Wednesday - Thursday Problems and Solutions

- Fairmont: Having one flat LAN allowed members to pick IP address the same as the AP serving the members.
- Nortel was quick to respond to our requests and helped to mitigate long outages.



YVR Lessons Learned

- Multiple VLAN to separate out sections of network, members from management network.
- Have multiple ways to inform members of problems with network.
- Find ways to encourage how 802.11A can provide members with better quality to the network.
- Have no single point of failure.
- FSO LOS links work very well in a RF noisy environment.
- Hotel access to rooms must be set at min 24 hours prior to meeting start.
- Create additional methods for members to notify us when network is slow (support@verilan.com, SMS...)
- White boards to show network status.
- Additional spares and replace vintage hardware.

Questions?



"You the guy having trouble staying connected to the network?"

Why did more than half of 802.3 folks have problems on Thursday? There were multiple problems, including two AP failures/reboots, and an ad hoc network started by a user. Pat indicated that she has never seen worse performance from the WLAN than at this meeting. Buzz indicated that some problems were caused by people unplugging, changing, or causing other problems with the APs. Geoff requested that we use the local access provided by each hotel, rather than try to bridge between the facilities to save on access costs.

11.11 II Network RFQ/Contract Status Report - Rigsbee 15 05:39 PM

The text for the contract is available. It has not been reviewed by Verilan, due to the operational requirements of this week's meeting. Once it has been reviewed, it will be sent to the RFQ review committee and the EC. Bob Grow indicated that Mike Bennett has volunteered to review the service requirements in the contract.

Buzz thanked Tim Godfrey for all of his support throughout the week.

Significant improvements are in the offing, as we bring the system and service to an enterprise level.

11.12 II Non-North-American Venues Report and Action Item - Rigsbee 2 05:43 PM

The London venue is solid. Buzz indicated he is now looking for an Asian venue for the next opportunity. A new set of guidelines for international sites is in the works. It should be available in 2-3 weeks. It will be circulated to the NNA support committee and the EC for review and comment.

We are still looking for anyone that has contact with a company that might be able to serve as a host at an international session. This is invaluable help during the process.

There are a couple plenary sessions in 2009 that are candidates for the first non-North-American session.

11.13 II Future Plenary Session Venue Options - Rigsbee 5 05:49 PM

Offers from Whistler, B.C. (3 hotels and a convention center) during July; Grand Hyatt San Diego.

11.14 II Appeal status and next steps - O'Hara 1 05:51 PM

The pending appeals will be held on Wednesday of the March 2006 plenary.

Paul indicated that he would like to put together a single panel that will hear both appeals.

11.15 II 802.11r to WG ballot - Kerry 1 05:51 PM

802.11r is going to WG letter ballot.

11.16 II RAC Report - Thompson 5 05:52 PM

Object Identifiers

Currently, in IEEE std 802b

iso(1) iso8802(8802) ieee802.xx(xx) ...

New, IEEE wide system via RAC

iso (1) iso-identified-organization (3) ieee (111)
standards-association-numbered-series-standards (2)
lan-man-stds (802) part5-token-ring (5) ...

**RESULT: System is same, root is changed. Change to Std 802b req'd to track
Main benefit is to IEEE non-802 standards.**

Current Traffic

- Issue being voted in the RAC:
Does the price of an IAB
(\$500 for 4096 Ethernet addresses)
entitle you to 2^{28} addresses
of the type EUI-64?
- This is a business issue, not technical
- LMSC voted: NO to the question
(IAB was selling 4K Ethernet addresses,
not high order bits.)

From DVJ to Paul N:

- Could you please ask your appointed LMSC representatives to sample the LMSC before voting on significant IEEE/RAC positions?
- GOT recommendation:
Depend on the judgement of your reps as to whether consultation is appropriate.

11.17		-	06:15 PM
11.18		-	06:15 PM
11.19		-	06:15 PM
11.20		-	06:15 PM
11.21		-	06:15 PM
	ADJOURN SEC MEETING	-	
	ME - Motion, External	MI - Motion, Internal	
	DT- Discussion Topic	II - Information Item	
		- Nikolich	06:00 PM

Respectfully submitted,

Bob O'Hara
Recording Secretary, 802 LMSC