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

Friday, July 13, 2001 – 3:00 p.m.

Downtown Marriott, Portland, OR

1. MEETING CALLED TO ORDER

Jim Carlo called the meeting to order at 8:00 am. Members in attendance were:

Jim Carlo	- Chair, IEEE 802 LAN / MAN Standards Committee
Paul Nikolich	- Vice Chair, IEEE 802 LAN / MAN Standards Committee
Buzz Rigsbee	- Executive Secretary, IEEE 802 LAN / MAN Standards Committee
Bob O'Hara	- Recording Secretary, IEEE 802 LAN / MAN Standards Committee
Robert Grow	- Treasurer, IEEE 802 LAN/MAN Standards Committee
Tony Jeffree	- Chair, IEEE 802.1 - HILI Working Group
Geoff Thompson	- Chair, IEEE 802.3 - CSMA/CD Working Group
Bob Love	- Chair, IEEE 802.5 - Token Ring Working Group
Stuart Kerry	- Chair, IEEE 802.11 - Wireless LANs Working Group
Bob Heile	- Chair, IEEE 802.15 – Wireless PAN Working Group
Roger Marks	- Chair, IEEE 802.16 – Broadband Wireless Access Working Group
Mike Takefman	- Chair, IEEE 802.17 – Resilient Packet Ring Working Group
Vic Hayes	- Regulatory Ombudsman

The meeting was attended by approximately 10 IEEE 802 Working Group members and several guests.

2.00 APPROVE OR MODIFY AGENDA

Motion to approve agenda

Move/Second: Paul Nikolich/Vic Hayes

9/0/0 Approved at 3:10 pm

1.00	**MEETING CALLED TO ORDER**	**-**	**Carlo**	**1**	**03:00 PM**
2.00	**APPROVE OR MODIFY AGENDA**	**-**	**Carlo**	**4**	**03:01 PM**
3.00	**TREASURER'S REPORT**	**-**	**Grow**	**5**	**03:05 PM**
Category (* = consent agenda)					
4.00 MI	**Coexistence Study Group**	**-**	**Lansford**	**5**	**03:10 PM**
4.01 ME*	**802.1 Maintenance PARs**	**-**	**Jeffree**	**15**	**03:15 PM**
4.02 ME	**Forward 802.3ah PAR for EFM to NESCOM**	**-**	**Thompson**	**5**	**03:30 PM**
4.03 ME	**802.3 EFM Press Release**	**-**	**Thompson**	**5**	**03:35 PM**
4.04 ME	**Forward P1802.3Rev conditional to REVCOM**	**-**	**Thompson**	**5**	**03:40 PM**
4.05 ME		**-**		**5**	**03:45 PM**
4.06 ME	**Liaison letters to ITU from EFM**	**-**	**Thompson**	**5**	**03:50 PM**
4.07 ME		**-**		**5**	**03:55 PM**
4.08 ME	**802.11b-COR1 to RevCom**	**-**	**Kerry**	**5**	**04:00 PM**
4.09 ME	**802.15.1 to sponsor ballot**	**-**	**Heile**	**5**	**04:05 PM**
4.10 ME	**PAR Approval: P802.16.2a**	**-**	**Marks**	**5**	**04:10 PM**
4.11 ME	**802.16 to Sponsor Ballot (Conditional Approval)**	**-**	**Marks**	**5**	**04:15 PM**

4.12 ME	**Comments to FCC**	**-**	**Hayes**	**10**	**04:20 PM**
4.13 ME	**Spectrum request to US WRC-03 gremia**	**-**	**Hayes**	**5**	**04:30 PM**
4.14	**Break**	**-**		**15**	**04:35 PM**
4.15 MI	**Equipment Purchase**	**-**	**Rigsbee**	**5**	**04:50 PM**
4.16 MI	**Networking @ 802**	**-**	**Heile**	**5**	**04:55 PM**
4.17 MI	**Rules proposal for a standing SEC committee**	**-**	**Hayes**	**15**	**05:00 PM**
4.18 MI	**November Closing SEC Meeting**	**-**	**Carlo**	**5**	**05:15 PM**
4.19 DT		**-**		**5**	**05:20 PM**
4.20 DT		**-**		**5**	**05:25 PM**
4.21 II	**Forward P802.3ag, presubmittal to REVCOM**	**-**	**Thompson**	**5**	**05:30 PM**
4.22 II	**802 Chair Election in November**	**-**	**Carlo**	**5**	**05:35 PM**
4.23 II	**SCTE 'mark' statement**	**-**	**Nikolich**	**5**	**05:40 PM**
4.24 II	**Liaison letter to EP BRAN**	**-**	**Hayes**	**5**	**05:45 PM**
4.25 II	**5GSG PAR Proposal Rescinded**	**-**	**Kerry**	**5**	**05:50 PM**
4.26 II	**P802.3ae, 10GbE to go to Sponsor in Nov.**	**-**	**Thompson**	**5**	**05:55 PM**
4.27 II	**P802.3af, DTE Pwr to go to WG ballot in Nov.**	**-**	**Thompson**	**5**	**06:00 PM**
4.28 II	**Interim meetings**	**-**	**O'Hara**	**5**	**06:05 PM**
4.29	**Adjourn**				**07:00 PM**

ME - Motion, External **MI - Motion, Internal**

DT- Discussion Topic **II - Information Item**

3.00 Treasurer's Report – Grow

Discussion of networking at 802 meetings.

Moved: Authorize payment of network expenses for this meeting and the next two meetings (including an ISP connection) and not to exceed $10,000 per plenary meeting.

Moved: Bob Grow, Seconded: Stuart Kerry

Discussion: ISP cost for current meeting was $0. Service was donated. Network costs for installation was <$5k.

Approved: 11/0/0

AV fees were higher than budgeted because of $3k for technician.

Fees will be changed to be web registration = $250, registration by hand = $300.

Attendance projection is to stabilize around 900-1000 for the next several meetings.

(see file 0701_FriTreasRpt.pdf)

IEEE Project 802
Estimated Statement of Operations
July 2001 Meeting

open	**1 July Operating Reserve**			**144,459**	**
July 2001 Meeting Income:				***Actual***	*Budget*
279	**Registrations@**	**$300**	**83,700**		
761	**Registrations@**	**$250**	**190,250**		
0	**Registrations@**	**$100**	**0**		
Subtotal				**273,950**	251,750
Deadbeat Registrations				**1,200**	150
Bank Interest				**250**	375
Other				**1,000**	0
plus	**TOTAL Income**			**276,400**	252,275
July 2001 Meeting Expenses:				***Estimate***	*Budget*	
Audio Visual Rentals				**12,000**	8,000	
Bank Charges				**1**	30	
Copying				**4,000**	7,600	*
Credit Card Discount				**7,671**	7,049	*
Get IEEE 802				**78,000**	71,250	
Meeting Administration				**54,300**	55,250	*
Network				**5,000**	0	
Phone & Electrical				**1,500**	3,000	
Refreshments				**45,000**	42,750	
Shipping				**3,000**	3,500	
Social				**23,000**	40,850	
Supplies				**0**	500	
Other				**4,900**	500	
minus	**TOTAL Meeting Expense**			**238,372**	240,279	
minus	**Equipment Expense**			**28,000**	8,000	
equals	**July 2001 Operating Reserve**			**154,487**		
	Net Change in Operating Reserve			**10,028**	11,996	

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

** Operating reserve includes contingent liabilities of ~$42,000. Reserve is less than specified by LMSC Rules Procedure 1.

4.00 MI Coexistence Study Group - Lansford 5 03:20 PM

This coexistence group would not address licensed bands. Mostly germane to only unlicensed bands. Membership and attendance is open to any paying attendee. Why isn't a TAG appropriate? Because of the membership rules for a TAG and the reason for a TAG to exist – producing recommended practices.

Moved: to extend the Coexistence SG until the November Plenary with the goals as previously adopted.

Moved: Vic Hayes, Seconded: Bob Heile

Approved: 11/0/0

(see COEX-01001r0_Coex-excom-summary-071301.ppt file)

IEEE 802 Wireless Coexistence Study Group
Tuesday Meeting

Jim Lansford
Chair, IEEE 802 Coexistence Study Group
Jim.Lansford@mobilian.com
(405) 377-6170

Tim Blaney
Secretary/Editor
Timb@mobilian.com
(530) 478-5606

Goals for the week

- Resolve outstanding issues
  - Mission statement
  - Membership/voting
  - Engagement
  - Ratification of results
  - Does the SG propose a TAG or something else
    - Rules review
- Determine if rules change will be needed
- Present to ExCom on Friday
- Meetings scheduled for this week:
  - Tuesday 8-10AM (Columbia)
  - Thursday 6:30-9:30PM (Salon A)
- Extension of SG will be needed to resolve outstanding issues
  - Plan: Close on a proposal and ask for COEX formation at Nov plenary

Goals of COEX

- A committee that can review and make coexistence recommendations to ExCom on current or proposed PARs within the established wireless WGs of the IEEE802 standards body
  - Similar in concept to the FCC OET, which makes recommendations to the commissioners about policy
  - The functional charter of this new group is to address the wireless coexistence issues across all wireless WGs

Functional Charter Discussion

- This group is responsible for reviewing all unlicensed band proposed PARs
  - The group generates a “guidance” report to ExCom relative to coexistence with published wireless standards and those in the development process (not a Recommended Practice)
  - This “guidance” report shall be used by ExCom as a technical expert opinion for evaluating the proposed PAR
- This group is responsible for generating a final review report of the Draft Standard prior to Sponsor Ballot
  - This report will be presented to the sponsoring WG and ExCom and a copy will be sent to the Chair of all other wireless WGs within IEEE802

This does not affect existing coexistence TGs

802 COEX Proposed Procedures

- Membership & Voting
  - Attendance at the 802 COEX meetings is open to registered member of 802.11, 802.15 or 802.16
  - Voting at the 802 COEX meetings is limited to voting members of 802.11, 802.15 or 802.16
  - Attendance at 802 COEX meetings will count towards attendance at the individual's primary WG
- Ratification of guidelines
  - A guideline requires a 75% approval vote by the members of the 802 COEX as outlined above
  - The guideline is then presented to ExCom and the appropriate wireless WG(s)

Regulatory & Coexistence Complementary Charters

- Regulatory TAG
  - Harmonize the IEEE 802 activities with the worldwide regulatory bodies
- Coexistence TAG
  - Harmonize the IEEE 802 activities with the internal wireless WGs relative to unlicensed bands

Next Steps

- Rules change for organization and voting
  - See Vic Hayes presentation
- Coordinate activity with the Regulatory to create a consistent message within ExCom
  - The Regulatory TAG is an outwardly focused activity targeted at influencing decisions of the worldwide regulatory agencies relative to IEEE 802 desired directions
  - The Coexistence TAG is an inwardly focused activity targeted at coordinating coexistence issues within and between the various wireless WGs in IEEE 802
- Motion to extend to November

Motion

Motion to extend the Coexistence Study Group until the November 2001 Plenary with the original goals as previously adopted

- Moved:
- Seconded:
- Vote:

4.01 ME* 802.1 Maintenance PARs - Jeffree 15 03:25 PM

Approved on the consent agenda at 3:10 p.m.

4.02 ME Forward 802.3ah PAR for EFM to NESCOM - Thompson 5 03:25 PM

Why is 802.16 not included in the list of possible other standards that might have related scope? It would be unnecessarily confusing to add 802.16 to this list, as it is not a wire-line network, it is an internal 802 issue. The scope does not identify that this is only a wireline standard. The 5 criteria do make this distinction and limitation.

Moved: Approve the 802.3ah PAR and forwarding to NESCOM

Moved: Geoff Thompson, Seconded: Bob Grow

Motion to ammend: add "IEEE 802.16" to item 12 of the PAR, just before the word "DOCSIS".

Moved: Roger Marks, Seconded: Stuart Kerry

Discussion: Should be deferential to the SG, which explicitly declined to include a references to 802.16. SEC should be an executive group, taking input from the WGs, TGs, and SGs. We depend on the work of volunteers. If we overrule the technical decisions of the SG, we put the continued volunteerism at peril. This "related standards" item is to put the Standards Board on notice as to what external organizations might be interested in this area.

Roger: would the chair entertain the withdrawal of the ammendment and develop a guideline for this item in 802.

Ammendment Fails: 2/8/1

Main motion approved: 10/0/1

(see file 8023ahPAR.doc)

IEEE-SA Standards Board Project Authorization Request (PAR) Form (2001-Rev 1)

Note: After completing and saving this form, please send the form as an e-mail attachment to the NesCom Administrator. Please don't forget to fax the signature page.

If the Working Group is new to the process or if you are a new Working Group Chair/Sponsor Chair/Society Liaison and you feel it would be beneficial for staff to give a brief presentation on the process of developing a standard, please check here [ ]

1. Sponsor Date of Request [**2001 Jul 16**]

2. Assigned Project Number [**P802.3ah**]

3. PAR Approval DATE [ ] {to be completed by staff}
{Copyright release must be received with appropriate signatures by FAX (1-732-562-1571)}

4. Project Title, Recorder and Working Group/Sponsor for this Project
Document type and title: {Place an X in only one option below}
[**X**] Standard for {document stressing the verb "shall"}
[ ] Recommended Practice for {document stressing the verb "should"}
[ ] Guide for {document in which good practices are suggested, stressing the verb "may"}

TITLE: [**Standard for - Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications - Media Access Control Parameters, Physical Layers and Management Parameters for subscriber access networks**]

Name of Working Group(WG) : [**802.3 Carrier Sense Multiple Access with Collision Detection**]

Name of Official Reporter (usually the WG Chair) who MUST be an SA member as well as an IEEE and/or Affiliate Member: [**Howard M. Frazier**]
IEEE Standards Staff has verified that the Official Reporter (or Working Group Chair) is an IEEE and an IEEE-SA Member: [ ] (Staff to check box}
Contact Information:
Telephone: [**+1 408 436 6663**] FAX: [**+1 408 437 9556**]
EMAIL: [**millardo@dominetsystems.com**]

Name of Working Group Chair (if different than Reporter): [**Geoffrey O. Thompson**]
IEEE-Standards Staff has verified that the Working Group Chair is an IEEE and an IEEE-SA Member: [ ] (Staff to check box}
Contact Information:
Telephone: [**+1 408 495 1339**] FAX: [**+1 408 495 5615**]
EMAIL: [**gthompso@nortelnetworks.com**]

Name of Sponsoring Society and Committee: [**CS/LMSC**]
Name of Committee Sponsor Chair: [**James T. Carlo**]
IEEE Standards Staff has verified that the Sponsor is an IEEE and an IEEE-SA Member: [ ] (Staff to check box}
Contact Information:

Telephone: [**+1 214 693-1776**] FAX: [**+1 214 853-5274**]
EMAIL: [**j.carlo@ieee.org**]

5. Type of Project:

5a. Is this an update to an existing PAR? {Yes/No} [**No**]
If YES: indicate PAR Number/Approval Date [P####-YEAR]
If YES: is this project in ballot now? [ ] {yes/no}
[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

5b. Choose from one of the following:
[ ] New standard
[ ] Revision of existing standard {number and year} [ ]
[**X**] Amendment to an existing standard {number and year} [**802.3 2000 Edition and approved amendments**]
[ ] Corrigendum to an existing standard {number and year} [ ]

6. Life Cycle
[**X**] Full Use (5-year life cycle)
[ ] Trial Use (2-year life cycle)

7. Balloting Information
Choose one from the following:
[**X**] Individual Sponsor Balloting
[ ] Entity Sponsor Balloting
[ ] Mixed Balloting (combination of Individual and Entity Sponsor Balloting)

Expected Date of Submission for Initial Sponsor Ballot: [**Jan 2003**]

8. Fill in Projected Completion Date for Submittal to RevCom [**Aug 2003**]

9. Scope of Proposed Project
[**Define 802.3 Media Access Control (MAC) parameters and minimal augmentation of the MAC operation, physical layer specifications, and management parameters for the transfer of 802.3 format frames in subscriber access networks at operating speeds within the scope of the current IEEE Std 802.3 and approved new projects.**]

10. Purpose of Proposed Project:
[**To expand the application of Ethernet to include subscriber access networks in order to provide a significant increase in performance while minimizing equipment, operation, and maintenance costs.**]

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

Has the sponsor reviewed the IEEE patent policy with the group?
[**Yes**] {Yes/No}

Are you aware of the possibility of any copyrights relevant to this project?
[**No**] {Yes/No}

Are you aware of the possibility of any trademarks relevant to this project?
[**No**] {Yes/No}

Are you aware of possible registration of objects or numbers due to this project?
[**No**] {Yes/No}

12. Are you aware of other standards or projects with a similar scope?
[**Yes**] {Yes, with explanation below/ No}
[**There are other standards activities with related scope, including T1E1.4, ETSI TM6, DOCSIS, and ITU-T SG 15.**]

13. International Harmonization
Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption?
[**Yes**]

It is the current policy of 802.3 to submit their standards to ISO/IEC JTC1 via fast track after IEEE approval

If Yes, please answer the following questions:
Which International Organization/Committee [**ISO/IEC JTC1**]
International Contact Information:
Name: [ ]
Address: [ ]
Phone: [ ]
FAX: [ ]
Email: [ ]

14. Is this project intended to focus on health, safety or environmental issues?
[**No**]
If Yes: Explanation? [ ]

15. Mandatory Coordination

SCC 10 (IEEE Dictionary) by DR
IEEE Staff Editorial Review by DR
SCC 14 (Quantities, Units and Letter symbols) by DR

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

16. Additional Explanatory Notes: {Item Number and Explanation}
[ ]{If necessary, these can be continued on additional pages}

The PAR Copyright Release and Signature Page must be submitted by FAX to 732-562-1571 before this PAR will be sent on for NesCom and Standards Board approval.

4.03 ME 802.3 EFM Press Release - Thompson 5 03:55 PM

Motion: Approve the EFM press release

(see file EFM Press Release - Final-SG.doc)

Moved: Thompson, Seconded: Grow

Approved: 9/0/1

Ethernet Poised to Become Ubiquitous Standard for Wireline Subscriber Access Networks

IEEE 802.3 Working Group Approves Ethernet in the First Mile Project

Contact:
Howard Frazier, IEEE 802.3 EFM Study Group Chair, +1 408 436 6663 Voice, millardo@dominetsystems.com

Karen McCabe, Standards Mktg. Mgr., +1 732 562 3824 Voice, k.mccabe@ieee.org

For Release: Embargo until July 16, 2001

(PISCATAWAY, NJ, 16 July 2001) The Institute of Electrical and Electronics Engineers, Inc., (IEEE) 802 LAN/MAN Standards Committee (LMSC) today announced it has approved a Project Authorization Request (PAR) for Ethernet in the First Mile (EFM). The IEEE 802.3 Working Group has authorized the 802.3ah EFM Task Force to carry out the work of drafting the standard pending approval by the IEEE Standards Association Standards Board. Ethernet in the subscriber access network will offer several advantages over traditional first mile technologies in terms of cost, network simplicity, packet-based efficiency, bandwidth, scaling, and provisioning.

The EFM Study Group has identified several key objectives that will be used to evaluate technical proposals brought before the 802.3ah Task Force. They include support of three subscriber access network topologies and physical layers: point to point copper over the existing copper plant at speeds of at least 10 Mbps up to at least 750 m; point to point optical fiber over a single fiber at a speed of 1000 Mbps up to at least 10 km; and point to multipoint fiber at a speed of 1000 Mbps up to at least 10 km. The project will also define operations, administration, and maintenance (OAM) for EFM which includes remote failure indication, remote loopback, and link monitoring.

Since its formation last November, the IEEE EFM Study Group has continued to build momentum with widespread industry participation from component, system, and service providers who are enthusiastic about bringing users the benefits of Ethernet. “With over 200 individuals from over 80 companies collaborating on this effort, the best solution for both users and providers is assured,” said Yukihiro Fujimoto, Senior Research Engineer of NTT. “We are encouraged by the broad industry interest in Ethernet in the first mile,” said Dr. Kamran Sistanizadeh, Chief Technology Officer of Yipes Communications, a pioneer in the optical Ethernet services market. “We support the IEEE's efforts towards standards for Ethernet in First Mile” said Tony Baird, Director of Network Technology for Telestra-Saturn, a provider of Ethernet voice and data services.

Also in support of the project, representatives from these companies delivered technical presentations to the IEEE 802.3 EFM Study Group at the July 802 Plenary meeting: ADC Telecommunications (ADCT), Agere Systems (AGR.A), Agilent (A), Alcatel (ALA), Alloptic, Avaya (AV), Broadcom (BRCM), BroadLight, Calimetrics, Cisco Systems (CSCO), Com21 (CMTO), Corning (GLW), Dominet Systems, Elastic Networks (ELAS), Extreme Networks (EXTR), Fiberintheloop, Finisar (FNSR), Ikanos Communications, Infineon Technologies (IFX), Intel (INTC), Marvell (MRVL), Massana, Mitsubishi Electric, Nortel Networks (NT), Oregon Trail Internet, Passave Networks, PicoLight, Quantum Bridge Communications, Salira Optical Network Systems, ST Microelectronics (STM), World Wide Packets, and Zonu. See http://www.ieee802.~~grouper.ieee.~~org~~/groups/802~~/3/efm/public/jul01/presentations/index.html

Network operators will have the freedom to choose among these topologies and physical layers based on their business models and network architecture plans. Many network operators will build or upgrade their access networks with products based on multiple EFM technologies that are managed with common tools and OAM procedures. Ethernet on point to point copper is ideally suited to exploit the existing voice-grade copper infrastructure, as well as fiber to the curb/neighborhood deployments. Ethernet on point to point copper is also ideal for buildings with voice grade wiring. When new media is to be installed in a greenfield, overbuild, or rehabilitation application, single mode fiber is the optimal choice. The selection between point-to-point or point-to-multipoint topologies is driven by business and technical factors: distance between facilities, network architecture, existing investment models, revenue generation potential, cost of capital, financial plans, and assumptions about future applications, just to name a few.

Howard Frazier, chairman of the EFM Study Group, said that he expects the IEEE-Standards Association Standards Board to approve the PAR at their meeting September 11-13, 2001 in Piscataway, NJ. This will be the formal authorization to draft and conduct ballots on the draft specification. The first meeting of the 802.3ah Task Force is expected to follow a week later in Copenhagen, Denmark. At this meeting, the group will formally adopt the proposed objectives and timeline, and begin evaluating technical proposals. The EFM study group meeting presentations and minutes can be found at http://www.ieee802.org/3/efm/index.html.

The IEEE 802.3 Working Group is responsible for the development of Ethernet standards, such as 10BASE-T, Fast Ethernet, Gigabit Ethernet, and the forthcoming 10 Gigabit Ethernet standard. The IEEE 802 LMSC is sponsored by the IEEE Computer Society and develops IEEE Networking Standards that are recognized worldwide. For more information on the IEEE 802.3 Working Group, visit: http://www.ieee802.org/3/index.html.

The IEEE Standards Association (IEEE-SA) is an international membership organization serving today's industries with a complete portfolio of standards programs. The IEEE-SA is a major contributor to the IEEE, which is the world's largest technical professional society. IEEE-SA membership, through its IEEE association, promotes the engineering process by creating, developing, integrating, sharing and applying knowledge about

electro- and information technologies and sciences for the benefit of humanity and the profession. More information is found at http://standards.ieee.org/sa-mem/index.html.

4.04 ME Forward P1802.3Rev conditional to REVCOM - Thompson 5 04:00 PM

Moved: Conditionally approve forwarding of P1802.3 Rev to REVCOM upon successful completion of the Sponsor recirculation ballot satisfying the conditions of LMSC Rules Procedure 10.

Moved: Thompson, Seconded: Grow

Approved at last sponsor ballot: 31 of 40, no negatives or abstains.

Approved: 9/0/0

4.05 ME - 5 04:00 PM

Intentionally left blank

4.06 ME Liaison letters to ITU from EFM - Thompson 5 05:00 PM

Approval of the first letter has the effect of endorsing Dr. Effenberger's nomination.

Moved: to approve the liaison letters to ITU-T SG 15, NRIC V, T1E1 -4

Moved: Thompson, Seconded: Grow

Approved: 10/0/0

(see files NRICV Liason Response.doc, T1E1_4 Liason Response.doc, EFMITUcomm.DOC)

July 12, 2001

Mr. Ed Eckert, Chairman NRIC V, Focus Group 3

VIA EMAIL: eeckert@catena.com

Reply: Liaison from NRIC V, Focus Group 3

Mr. Eckert,

On July 10, 2001, the liaison letter and attached material, were presented to the 802.3 Ethernet in the First Mile study group. Thank you for providing this information. The recommendations that Focus Group 3 has made to NRIC V, as well as work conducted in standards development organizations, is being seriously considered as 802.3 develops standards for copper based Ethernet in the First Mile. On July 12, 2001, the EFM study group approved the following objective:

The point-to-point copper PHY will recognize the spectrum management restrictions imposed by operation in public access networks, including:

- Recommendations from NRIC V (USA)
- T1.417-2001 Spectrum Management Standard (For frequencies up to 1.1MHz)
- Frequency plans approved by ITU-T SG-15/Q4, T1E1.4, and ETSI/TM6

Cc: Geoff Thompson(gthompso@nortelnetworks.com), Chairman 802.3
Cc: Howard Frazier(millardo@dominet.com), 802.3 EFM Study Group Chair

Best Regards,
Jim Carlo (j.carlo@ieee.com)
Chairman, IEEE 802 – www.ieee802.org

July 12, 2001

Mr. Ed Eckert, Chairman T1E1

VIA EMAIL: eeckert@catena.com

Reply: T1E1/2001-037 R1, “Ethernet over VDSL”

Mr. Eckert,

On July 10, 2001, the liaison letter was presented to the 802.3 Ethernet in the First Mile study group. Thank you for providing this information. The Draft Trial Use VDSL standard currently in the letter ballot comment resolution period in T1E1.4, T1.417-2001 Spectrum Management standard, and work being conducted in other standards development organizations, are being seriously considered as 802.3 develops standards for copper based Ethernet in the First Mile.

On the subject of spectrum management, on July 12, 2001, the EFM study group approved the following objective:

The point-to-point copper PHY will recognize the spectrum management restrictions imposed by operation in public access networks, including:

- Recommendations from NRIC V (USA)
- T1.417-2001 Spectrum Management Standard (For frequencies up to 1.1MHz)
- Frequency plans approved by ITU-T SG-15/Q4, T1E1.4, and ETSI/TM6

Cc: Geoff Thompson(gthompso@nortelnetworks.com), Chairman 802.3
Cc: Howard Frazier(millardo@dominet.com), 802.3 EFM Study Group Chair

Best Regards,
Jim Carlo (j.carlo@ieee.com)
Chairman, IEEE 802 – www.ieee802.org

Portland, Oregon, 9-13 July 2001

SOURCE: IEEE EFM study group
TITLE: Communication to ITU-T Q2/15 from IEEE P802.3 Ethernet in the First Mile Study Group

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COMMUNICATION STATEMENT

TO: ITU-T Q2/15 (Peter Wery, Chairman ITU-T Study Group 15,
Tel: +1 613 763 7603, Fax: +1 613 763 2697, E-mail: wery@nortelnetworks.com)
COPY: David Faulkner (Q2/15 rapporteur; david.faulkner@ties.itu.int)
Frank Effenberger (feffenberger@quantumbridge.com)

APPROVAL: Agreed to at IEEE 802.3 plenary meeting, Portland, Oregon 9 -13 July 2001
FOR: Information / Action
DEADLINE: 10 September 2001

CONTACT: Jim Carlo IEEE 802 chair; j.carlo@ieee.org
Howard Frazier, IEEE 802.3 EFM chair; millardo@dominetsystems.com

The Ethernet in the First Mile (EFM) study group appreciates the communication sent from study group 15 concerning its work in the area of fibre access networks.

The EFM study group is in the final stages of obtaining its project authorization request, and expects to have its first formal meeting as an IEEE 802.3 task force in September 17-19, 2001, in Copenhagen, Denmark. The EFM project's scope includes subscriber access networks that use point-to-point fibre, PON, and copper physical layers, and also management and environmental requirements. The ITU-T standards referenced refer mainly to the PON and management topics.

The EFM task force will consider these standards, and will use and / or reference whatever material it finds suitable. Given the early stage of the work, it is unclear to what degree this is feasible. However, the advantages of commonality are acknowledged.

The call for ongoing information exchange is also welcomed. All of the materials used at the task force meetings are available to the public on the Internet at http://www.ieee802.org/3/efm. All interested parties are encouraged to review and comment on this material. Likewise, any contributions that the ITU-T study group members wish to submit will be accepted through the usual channels described on the website.

IEEE 802 would also like to formalize a common liaison role between the EFM task force and the Q.2/15 working group to share schedules, contributions, and works in progress on a reciprocal basis. Access to these materials via the Internet would be most helpful. The liaison could serve to report these documents into each group. Dr. Frank Effenberger is nominated to serve in this role.

The EFM task force looks forward to a continuing dialog with the participants of the Q.2/15 effort, and we welcome your attendance and participation at our upcoming meetings.

4.07 ME - 5 05:10 PM

4.08 ME 802.11b-COR1 to RevCom - Kerry 5 05:10 PM

Motion: to forward 802.11b-COR1 draft standard to REVCOM, after having successfully completed the sponsor balloting process.

Moved: Stuart Kerry, Seconded: Heile

Approved: 11/0/0

(see file 802.11b-cor1 to RevCOM Motion at SEC 071301.ppt)

Agenda#:
Date: July 13, 2001
Time:

IEEE 802 LMSC RESOLUTION

Motion By: KERRY Seconded By: HEILE

To forward the 802.11b-cor1 draft standard to REVCOM, after having successfully completed the sponsor balloting process.

- Sponsor ballot closed: January 16, 2001
  - Sponsor Ballot Tally: 44/1/1 (One Technical No Vote)
- 1st Recirculation Sponsor ballot closed: April 13, 2001
  - Sponsor Ballot Tally: 45/0/1 (deemed to have One Technical Yes Vote)
- 2nd Recirculation Sponsor ballot closed: June 6, 2001
  - Sponsor Ballot Tally: 45/0/1

Approve: Do Not Approve: Abstain:

4.09 ME 802.15.1 to sponsor ballot - Heile 5 05:12 PM

Motion: to forward draft standard 802.15.1 D0.9.2 to sponsor ballot.

Moved: Heile, Seconded: Kerry

Discussion: The draft number will be changed to d1.0 when the ballot is issued.

It is not necessary to forward WG comments to the first sponsor ballot. It is appropriate to put this material in the cover letter.

Approved: 9/0/1

(see file 01365r1P802-15_TG1-Sponor_ballot_request.ppt)

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [WPAN Sponsor Ballot Request Presentation]
Date Submitted: [12 July 2001]
Source: [Tom Siep] Company [Bluetooth SIG, Inc.]
Address [m/s 365, 1802 Pleasant Valley Drive, Suite 100, Garland, TX 75040]
Voice:[+1 972 496 0766], FAX: [], E-Mail:[tom.siep@home.com]

Re: [original document.]

Abstract: [Presentation of Ballot Results for Letter Ballot Draft to SEC]

Purpose: [SEC requested to approve forwarding 802.15.1 D0.9.2 to Sponsor Ballot]

IEEE P802.15.1
Wireless Personal Area Networks:
Sponsor Ballot Request

Tom Siep
Bluetooth SIG, Inc.

IEEE P802.15.1 Status
(Wireless Personal Area Networks)

- The Draft from LB10 was put forward to the SEC for Sponsor Ballot, but was withdrawn due to issues raised by Bob O'Hara.
- The Draft for LB11was created by taking into account comments from Bob O'Hara, WG, and Bluetooth SIG.
- LB11 recirculated with previous "no vote" information (and WG response) for approval by the WG.
- Ballot Results:
  - Approve: 57
  - Do not approve 1
  - Abstain 1

Consideration of LB11 Comments
(single dissenting voter)

- The Ballot Resolution Committee considered all comments lodged against the draft
  - 48 were editorial and would not prevent the proper implementation of interoperable systems
  - 12 were technical but have been considered and declined before
  - All declines were re-considered and previous decisions were confirmed
  - There were no new never-before-seen technical comments
- No changes made to Draft from LB11 based on this ballot

WG MOTION: The Working Group instructs the Chair of 802.15 to submit Draft D0.9.2 to the SEC for review to forward the Draft to Sponsor Ballot.

Moved: Tom Siep
Second: Michael Camp
Vote:
For:26
Against:3
Abstain: 7
PASSED

NOTE: All comments from LB10 that were declined and not withdrawn will be forwarded with the draft in document
01310r4aP802-15_WG-LB11-Comment-Form.pdf

SEC Motion: Forward Draft 802.15.1 D0.9.2 to sponsor ballot
Vote: Moved -Heile, Second -Kerry
For: 9
Against 0
Abstain:1

Impact on the Bluetooth Specification

- The Bluetooth SIG is very pleased with the work 802.15.1 has performed
- Over 300 individual changes were made to the original Bluetooth Specification as a result of 802.15.1 inputs
- The IEEE review process has initiated changes in the way the Bluetooth SIG creates its new specifications.

4.10 ME PAR Approval: P802.16.2a - Marks 5 05:15 PM

Motion: To approve PAR 802.16.2a, Ammendment to Recommended Practice for Coexistence in Licensed Bands.

Moved: Roger Marks, Seconded: Nikolich

Discussion: PAR differs from that circulated on the 30-day rule by adding a statement allowing "clarifications and updates" of the base 802.16.2 standard. Intent is to be fairly open, but not open the entire base standard to modification. Recommendation: Change to "The working group may add material for clarification and updates of the base standard" would allow the WG to make the decision on scope and not a sponsor balloter.

Approved: 8/0/3

(see file 80216-01_27r1.pdf)

IEEE-SA Standards Board Project Authorization Request (PAR) Form (2001-Rev 1)

1. Sponsor Date of Request	2. Assigned Project Number	3. PAR Approval Date (to be completed by staff)
2001 Jul 13	P802.16.2a	

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

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

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

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

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

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

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

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

Contact Information:

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

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

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

Contact Information:

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

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

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

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

Contact Information:

Telephone +1 214 693 1776 FAX: +1 214 853 5274

E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [No]

If YES, indicate PAR Number/Approval Date […]
If YES, is this project in ballot now? […]
[Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:

[...] New standard
[...] Revision of existing standard {number and year} [...]
[x] Amendment to an existing standard {number and year} [...]
[...] Corrigendum to an existing standard {number and year} [...]

6. Life Cycle

[x] Full Use (5-year life cycle)
[...] Trial Use (2-year life cycle)

7. Balloting Information

Choose one from the following:

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

Expected Date of Submission for Initial Sponsor Ballot: [November 2002]

8. Fill in Projected Completion Date for Submittal to RevCom: March 2003

9. Scope of Proposed Project:

This project will develop extensions and modifications to IEEE 802.16.2-2001 addressing two distinct topics. The first topic is the coexistence between multipoint systems and point-to-point systems in the frequency range 10-66 GHz, with a focus on the range 23.5 to 43.5 GHz. Two types of point-to-point systems will be considered: those used by fixed BWA operators and those used as individually assigned links, commonly licensed on a “first-come, first-served” basis. The second topic is coexistence among fixed BWA systems operating in licensed bands within the frequency range 2-11 GHz. Clarifications and updates to the existing standard will also be considered.

10. Purpose of Proposed Project:

The purpose of this Amendment is to provide additional coexistence guidelines to license holders, service providers, deployment groups, and system integrators, covering coexistence with point-to-point systems

(primarily from 23.5 - 43.5 GHz) and coexistence among licensed fixed BWA systems operating in the 2-11 GHz frequency range. The equipment parameter values contained within this amended practice will benefit license holders, equipment and component vendors, and industry associations by facilitating the deployment and operation of fixed BWA systems while minimizing the need for case-by-case coordination. A further purpose is to encourage voluntary procedures that facilitate a simpler licensing process for systems operating below 11 GHz, particularly in the 2.5 GHz MMDS/ITFS bands in the USA.

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

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

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

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

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

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

Yes
Explanation:

Administrations are developing general coordination criteria and procedures to allow fixed BWA operators to deploy systems. Detailed coexistence guidance, such as described in this PAR, is under development in other regional and international bodies. Studies addressing certain aspects of coexistence are being developed by or have been completed by organizations such as:

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

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption? ??
If Yes, please answer the following questions:

Which International Organization/Committee ITU-R
International Contact Information:
Name: Dr. José M. Costa
Address: P.O. Box 3511, Station C, Ottawa, ON K1Y 4H7 Canada
Phone: +1 613 763 7574
FAX: +1 613 763 1225
Email: costa@nortelnetworks.com

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

No

15. Mandatory Coordination

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

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

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

The current Recommended Practice concentrates on interference between fixed BWA systems with a multipoint architecture operating in the 23.5 to 43.5 GHz frequency range. In each interference scenario, the victim system has a point-to-multipoint architecture. This project will extend the analysis to include scenarios in which various types of point-to-point system are either the interferer or the victim. It will also add scenarios for multipoint systems operating at lower frequencies. New recommendations and guidelines will be developed appropriate to the new scenarios studied.

4.11 ME 802.16 to Sponsor Ballot (Conditional Approval) - Marks 5 05:20 PM

Motion: to grant conditional approval to forward IEEE P802.16 to LMSC sponsor ballot under procedure 10 of the LMSC Operating Rules.

Moved: Roger Marks, Seconded: Vic Hayes

Approved: 9/0/2

(see file 80216-01_33r1.pdf)

IEEE 802.16 Motion

802.16 Session #11 Closing Plenary: 13 July 2001

Motion: **To place the following motion in front of the LMSC SEC on 13 July 2001: "To grant conditional approval to forward IEEE P802.16 to LMSC Sponsor Ballot under Procedure 10 of the LMSC Operating Rules."**

Motion by:	Carl Eklund
Seconded by:	Jay Klein
Approve:	40
Disapprove:	0
Abstain:	1

802 SEC Meeting: 13 July 2001

Motion: **To grant conditional approval to forward IEEE P802.16 to LMSC Sponsor Ballot under Procedure 10 of the LMSC Operating Rules.**

Motion by: Roger Marks
Seconded by: Hayes
Approve: 9
Disapprove: 0
Abstain: 2

Background Information

Letter Ballot #3 on IEEE P802.16/D2-2001 (2001-02-06 to 2001-03-13)
Ballots 93 (75% of 124 eligible members)
Approve 69 (80.2%)
Disapprove 17
Abstain 7

Recirculation Ballot #3a on IEEE P802.16/D3-2001 (2001-05-25 to 2001-06-15)
Approve 76 (89.4%)
Disapprove 9 [none new]
Abstain 8
371 Comments (218 Editorial; 149 Technical, Non-binding; 4 Technical-Binding)

Following comment resolution at Session #14:
Approve 77 (90.6%)
Disapprove 8
Abstain 8
4 new Technical-Binding comments (3 resolved and accepted by voter; 1 remaining)

{Vote change and resolution acceptance based on email of 11 July 2001 from Paul Thompson:
Roger:

For your information, on July 10 I had the opportunity to discuss my comments to 802.16.1 Recirculation 3a with the 802.16.1 PHY Task Group. Based on that discussion, I am now satisfied with the resolution of the Comments and intend to vote "Approve" at the next Recirculation.

Regards...Paul}

Disapprove Voter	**LB#3 Vote**	**Unaccepted Comments**	**Recirc #2a Vote**	**Comments**
Keith Doucet	Disapprove	9	Did not vote	No reply
Chet Shirali	Disapprove	9	Did not vote	No reply
George Fishel	Disapprove	9	Did not vote	No reply
Menashe Shahar	Disapprove	9	Did not vote	No reply
David Ribner	Disapprove	4	Did not vote	No reply
Bruce Currivan	Disapprove	4	Did not vote	No reply
Srinath Hosur	Disapprove	1	Did not vote	No reply
Allen Klein	Disapprove	3	Disapprove	1

Unaccepted Resolutions by Binding Comment Number (Recirc#3a)	**Voter**
288	Klein

Unaccepted Resolutions by Binding Comment Number (LB#3)	**Voter**
766, 767, 1058, 1059, 1060	Doucet, Fishel, Ribner, Shahar, Shirali (Identical Comments)
770, 771, 1063, 1064, 1065	Doucet, Fishel, Ribner, Shahar, Shirali (Identical Comments)
772, 773, 1066, 1067, 1068	Doucet, Fishel, Ribner, Shahar, Shirali (Identical Comments)
796, 797, 1073, 1074	Doucet, Fishel, Shahar, Shirali (Identical Comments)
748, 749, 1048, 1049	Doucet, Fishel, Shahar, Shirali (Identical Comments)
774, 775, 1069, 1070	Doucet, Fishel, Shahar, Shirali (Identical Comments)
763, 765, 1052, 1053, 1054	Doucet, Fishel, Ribner, Shahar, Shirali (Identical Comments)
762, 764, 1055, 1056	Doucet, Fishel, Shahar, Shirali (Identical Comments)

768, 769, 1061, 1062	Doucet, Fishel, Shahar, Shirali (Identical Comments)
776, 777, 1071, 1072	Doucet, Fishel, Shahar, Shirali (Identical Comments)
1047	Hosur
717	Currivan
731	Currivan
733	Currivan
736	Currivan
617	Klein
618	Klein
619	Klein

Schedule for Letter Ballot Closure

20 July 2001	Issue Draft 4 and initiate Recirc #3b
30 July 2001	Close Recirc #3b
6 August 2001	Forward to IEEE Balloting Center

2001/07/13

Document under Review: P802.16/D3-2001 **Ballot Number:** 3a **Comment Date**

Comment # 288 **Comment submitted by:** Allan Klein

Change Type Technical, Binding **Starting Page #** 288 **Starting Line #** 57 **Section** 8.2.6

Add additional channelization options to address 10.5 GHz applications. 7 MHz and 3.5 MHz should be included as they are frequently used by products already operating in this frequency band.

Reason

Channel sizes of 20 MHz and greater are not viable for typical frequency allocations at 10.5 GHz, where the overall 150 MHz band is sub-divided for use among many different operators- typically in tranches of 30 MHz. Since the standard is supposed to address applications from 10-66 GHz, at least one of the mandatory channelizations should be suitable for 10. 5 GHz applications. The specific channelizations and baud rates were submitted as comments to letter ballot # 3.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

The fact that the 802.16 (TG1) standard addresses 10-66 GHz does not mean that ANY spectrum oppurtunity could be used for LMDS-like services (i.e., 20 MHz vs. 500 MHz). The example given by the comment is more suitable for the 802.16a (TG3) case which addresses such spectrum oppurtunities in a better way. The fact that 10 GHz is a lower limit to 802.16 (TG1) is more of propagation aspects and suitability of the PHY.

Furthermore, please note the actual language of section 8.2.6 :
"...other combinations of channel size, symbol rate, roll-off factor, and frame duration could be made, but interoperability will not be guaranteed in these cases."

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: **Ballot Number:** #3 **Comment Date**

Comment # 766 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 49 **Starting Line #** 37 **Section** 6.2.2

Change the generic header format to DOCSIS 1.1 header.
Extended header is required (as defined in DOCSIS).
Change HCS to 16 bits.

Reason

As per IEEE 802.16 decisions, this draft is used for both MMDS and LMDS applications. Most of the MMDS target market and some of the LMDS target markets are residential/SOHO where, low cost is an important feature and the applications are IP centric. Low cost will be achieved by using existing technology as DOCSIS and the header should be based on IP environment, not on connection oriented environment that is not typical to residential/SOHO appplications.
Time to market will be achieved by making use of a matured standard with existing products as DOCSIS (including DOCSIS based wireless

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

For wireless access systems, the suggested headers would cause a significant capacity reduction. The 802.16 system was designed to efficiently carry connectionless as well as connection-oriented protocols and fits seamlessly into a routed IP network. The MAC protocol is well suited to residential and SOHO applications. It is to be noted that the proposed alternative is also connection-oriented.

Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 767 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 49 **Starting Line #** 37 **Section** 6.2.2

Change the generic header format to DOCSIS 1.1 header.
Extended header is required (as defined in DOCSIS).
Change HCS to 16 bits.

Reason

As per IEEE 802.16 decisions, this draft is used for both MMDS and LMDS applications. Most of the MMDS target market and some of the LMDS target markets are residential/SOHO, where low cost is an important feature and the applications are IP centric. Low cost will be achieved by using existing technology as DOCSIS and the header should be based on IP environment, not on connection oriented environment that is not typical to residential/SOHO appplications.
Time to market will be achieved by making use of a matured standard with existing products as DOCSIS (including DOCSIS based wireless

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

766

Reason for Group's Decision/Resolution

See 766

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1058 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 49 **Starting Line #** 37 **Section** 6.2.2

Change the generic header format to DOCSIS 1.1 header. Extended header is required (as defined in DOCSIS).Change HCS to 16 bits

Reason

As per IEEE 802.16 decisions, this draft is used for both MMDS and LMDS applications. Most of the MMDS target market and some of the LMDS target markets are residential/SOHO, where low cost is an important feature and the applications are IP centric. Low cost will be achieved by using existing technology as DOCSIS and the header should be based on IP environment, not on connection oriented environment that is not typical to residential/SOHO appplications. Time to market will be achieved by making use of a matured standard with existing products as DOCSIS (including DOCSIS based wireless products). It is important to support applications such as VoIP, QoS, link

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 766, 767, 1059, and 1060.

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

766

Reason for Group's Decision/Resolution

See 766

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1059 **Comment submitted by:** David Ribner Member

Change Type Technical, Binding **Starting Page #** 49 **Starting Line #** 37 **Section** 6.2.2

Change the generic header format to DOCSIS 1.1 header.
Extended header is required (as defined in DOCSIS).
Change HCS to 16 bits.

Reason

As per IEEE 802.16 decisions, this draft is used for both MMDS and LMDS applications. Most of the MMDS target market and some of the LMDS target markets are residential/SOHO, where low cost is an important feature and the applications are IP centric. Low cost will be achieved by using existing technology as DOCSIS and the header should be based on IP environment, not on connection oriented environment that is not typical to residential/SOHO appplications.
Time to market will be achieved by making use of a matured standard with existing products as DOCSIS (including DOCSIS based wireless

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 766, 767, 1058, and 1060.

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

766

Reason for Group's Decision/Resolution

See 766

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1060 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 49 **Starting Line #** 37 **Section** 6.2.2

Change the generic header format to DOCSIS 1.1 header.
Extended header is required (as defined in DOCSIS).
Change HCS to 16 bits.

Reason

As per IEEE 802.16 decisions, this draft is used for both MMDS and LMDS applications. Most of the MMDS target market and some of the LMDS target markets are residential/SOHO where, low cost is an important feature and the applications are IP centric. Low cost will be achieved by using existing technology as DOCSIS and the header should be based on IP environment, not on connection oriented environment that is not typical to residential/SOHO appplications.
Time to market will be achieved by making use of a matured standard with existing products as DOCSIS (including DOCSIS based wireless

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 766, 767, 1058, and 1059.

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

766

Reason for Group's Decision/Resolution

See 766

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 776 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 69 **Starting Line #** 3 **Section** 6.2.2.2.6

Change to:
A RNG-RSP shall be transmitted by the BS in response to received RNG-REQ or to send corrections, based on measurements that have been done on other received data or MAC messages.

Reason

This change enables faster correction, based on data, without the need for high rate of RNG-REQ messages. Active SSs will be calibrated based on measurement information obtained by BS from data bursts while non active modems will be calibrated by slower rate of RNG-REQ messages, which can be done at slower rates.
This is mainly important for NLOS channles with more dynamic changing parameters.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

777

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 777 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 69 **Starting Line #** 3 **Section** 6.2.2.2.6

Change to:
A RNG-RSP shall be transmitted by the BS in response to received RNG-REQ or to send corrections, based on measurements that have been done on other received data or MAC messages.

Reason

This change enables faster correction, based on data, without the need for high rate of RNG-REQ messages. Active SSs will be calibrated based on measurement information obtained by BS from data bursts while non active modems will be calibrated by slower rate of RNG-REQ messages, which can be done at slower rates.
This is mainly important for NLOS channles with more dynamic changing parameters.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

Resolution of Group **Decision of Group:** **Accepted**

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** i) to do

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1071 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 69 **Starting Line #** 3 **Section** 6.2.2.2.6

Change to: A RNG-RSP shall be transmitted by the BS in response to received RNG-REQ or to send corrections, based on measurements that have been done on other received data or MAC messages.

Reason

This change enables faster correction, based on data, without the need for high rate of RNG-REQ messages. Active SSs will be calibrated based on measurement information obtained by BS from data bursts while non active modems will be calibrated by slower rate of RNG-REQ messages, which can be done at slower rates. This is mainly important for NLOS channles with more dynamic changing parameters.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 776, 777, and 1072.

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

777

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1072 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 69 **Starting Line #** 3 **Section** 6.2.2.2.6

Change to:
A RNG-RSP shall be transmitted by the BS in response to received RNG-REQ or to send corrections, based on measurements that have been done on other received data or MAC messages.

Reason

This change enables faster correction, based on data, without the need for high rate of RNG-REQ messages. Active SSs will be calibrated based on measurement information obtained by BS from data bursts while non active modems will be calibrated by slower rate of RNG-REQ messages, which can be done at slower rates.
This is mainly important for NLOS channles with more dynamic changing parameters.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 776, 777, and 1071.

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

777

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 770 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 56 **Starting Line #** 28 **Section** 6.2.2.2.1-2,

DCD and UCD messages should be adapted to support OFDM PHY and adaptive modulation. It is required to configure the OFDM parameters in these messages. The messages should enable the definition of multiple profiles for each usage code (DIUC/ UIUC) .

Reason

These messages are designed for single carrier. PHY layer for the 802.16.3 (this draft is for both 802.16.1 and 802.16.3) has not been selected yet but OFDM and adaptive modulation are required by the customers to support reliable and efficient operation in the Non Line of Sight (NLOS) environment.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

These messages are based on TLVs and so can support this in the future when an OFDM PHY is finalized. This will be done under the PARs 802.16a and 802.16b

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** **#3** **Comment Date**

Comment # **771** **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 56 **Starting Line #** 28 **Section** 6.2.2.2.1-2,

DCD and UCD messages should be adapted to support OFDM PHY and adaptive modulation. It is required to configure the OFDM parameters in these messages. The messages should enable the definition of multiple profiles for each usage code (DIUC/ UIUC) .

Reason

These messages are designed for single carrier. PHY layer for the 802.16.3 (this draft is for both 802.16.1 and 802.16.3) has not been selected yet but OFDM and adaptive modulation are required by the customers to support reliable and efficient operation in the Non Line of Sight (NLOS) environment.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

770

Reason for Group's Decision/Resolution

See 770

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1063 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 56 **Starting Line #** 28 **Section** 6.2.2.2.1-2,

DCD and UCD messages should be adapted to support OFDM PHY and adaptive modulation. It is required to configure the OFDM parameters in these messages. The messages should enable the definition of multiple profiles for each usage code (DIUC/ UIUC) .

Reason

These messages are designed for single carrier. PHY layer for the 802.16.3 (this draft is for both 802.16.1 and 802.16.3) has not been selected yet but OFDM and adaptive modulation are required by the customers to support reliable and efficient operation in the Non Line of Sight (NLOS) environment.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 770, 771, 1064, and 1065.

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

770

Reason for Group's Decision/Resolution

See 770

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1064 **Comment submitted by:** David Ribner Member

Change Type Technical, Binding **Starting Page #** 56 **Starting Line #** 28 **Section** 6.2.2.2.1-2,

DCD and UCD messages should be adapted to support OFDM PHY and adaptive modulation. It is required to configure the OFDM parameters in these messages. The messages should enable the definition of multiple profiles for each usage code (DIUC/ UIUC) .

Reason

These messages are designed for single carrier. PHY layer for the 802.16.3 (this draft is for both 802.16.1 and 802.16.3) has not been selected yet but OFDM and adaptive modulation are required by the customers to support reliable and efficient operation in the Non Line of Sight (NLOS) environment.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 770, 771, 1063, and 1065.

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

Reason for Group's Decision/Resolution

See 770

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1065 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 56 **Starting Line #** 28 **Section** 6.2.2.2.1-2,

DCD and UCD messages should be adopted to support OFDM PHY and adaptive modulation. It is required to configure the OFDM parameters in these messages. The messages should enable the definition of multiple profiles for each usage code (DIUC/ UIUC) .

Reason

These messages are designed for single carrier. PHY layer for the 802.16.3 (this draft is for both 802.16.1 and 802.16.3) has not been selected yet but OFDM and adaptive modulation are required by the customers to support reliable and efficient operation in the Non Line of Sight (NLOS) environment.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 770, 771, 1063, and 1064.

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

Reason for Group's Decision/Resolution

See 770

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 736 **Comment submitted by:** Bruce Currivan Member

Change Type Technical, Binding **Starting Page #** 106 **Starting Line #** 44 **Section** 6.2.3.4

delete "for future study"; Add section defining details of ARQ function.

Reason

ARQ needs to be better defined before the draft is approved.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

.

Reason for Group's Decision/Resolution

This is the place holder for PARs 802.16a and 802.16b to complete. 802.16 systems above 10 GHz operate without ARQ and so it is not necessary in the current version of the standard. To clarfy this point ARQ-ACK message was deleted (see comment 731).

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 731 **Comment submitted by:** Bruce Currivan Member

Change Type Technical, Binding **Starting Page #** 99 **Starting Line #** 18 **Section** 6.2.2.2.21

delete "this section is for future study"; Add section defining details of ARQ function."

Reason

ARQ needs to be better defined before the draft is approved.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

delete section 6.2.2.2.21 ARQ-ACK Message. Also remove it from page 56, line 17, in table 3.

Reason for Group's Decision/Resolution

This is the place holder for PARs 802.16a and 802.16b to complete. 802.16 systems above 10 GHz operate without ARQ and so it is not necessary in the current version of the standard. To clarfy this point ARQ-ACK message was deleted.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** e) done

Marked Type 25 as "Reserved for future use"

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 772 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 61 **Starting Line #** 34 **Section** 6.2.2.2.3-4

DL-MAP and UL-MAP should be adapted to support allocation on both frequency and time domain for OFDM and for multiple antennas for MIMO.

Reason

OFDM and MIMO are required by customers to support reliable and efficient operation in the NLOS environment. The current allocation scheme refers to a single carrier scheme where the allocations refer just to the time domain.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

The burst descriptors were moved these to the PHY specific sections to allow future PHYs to define their own.

Reason for Group's Decision/Resolution

Currently no OFDM PHY is defined in the specification. OFDM is considered under PARs 802.16a and 802.16b.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 773 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 61 **Starting Line #** 34 **Section** 6.2.2.2.3-4

DL-MAP and UL-MAP should be adapted to support allocation on both frequency and time domain for OFDM and for multiple antennas for MIMO.

Reason

OFDM and MIMO are required by customers to support reliable and efficient operation in NLOS environment. The current allocation scheme refers to a single carrier scheme where the allocations refer just to the time domain.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

772

Reason for Group's Decision/Resolution

See 772

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1066 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 61 **Starting Line #** 34 **Section** 6.2.2.2.3-4

DL-MAP and UL-MAP should be adapted to support allocation on both frequency and time domain for OFDM and for multiple antennas for MIMO.

Reason

OFDM and MIMO are required by customers to support reliable and efficient operation in NLOS environment. The current allocation scheme refers to a single carrier scheme where the allocations refer just to the time domain.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 772, 773, 1067, and 1068.

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

Reason for Group's Decision/Resolution

See 772

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1067 **Comment submitted by:** David Ribner Member

Change Type Technical, Binding **Starting Page #** 61 **Starting Line #** 34 **Section** 6.2.2.2.3-4

DL-MAP and UL-MAP should be adapted to support allocation on both frequency and time domain for OFDM and for multiple antennas for MIMO.

Reason

OFDM and MIMO are required by customers to support reliable and efficient operation in NLOS environment. The current allocation scheme refers to a single carrier scheme where the allocations refer just to the time domain.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 772, 773, 1066, and 1068.

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

772

Reason for Group's Decision/Resolution

See 772

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1068 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 61 **Starting Line #** 34 **Section** 6.2.2.2.3-4

DL-MAP and UL-MAP should be adapted to support allocation on both frequency and time domain for OFDM and for multiple antennas for MIMO.

Reason

OFDM and MIMO are required by customers to support reliable and efficient operation in the NLOS environment. The current allocation scheme refers to a single carrier scheme where the allocations refer just to the time domain.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 772, 773, 1066, and 1067.

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

772

Reason for Group's Decision/Resolution

See 772

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 796 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 124 **Starting Line #** 37 **Section** 6.2.7

Initialization procedure should be changed to optimize the channel selection, based on frequency selective performance, channels load, PHY parameters (more robust or higher throughput tradeoff), geographical location, antenna direction (sector) and polarization.
Both initial selection and on the fly channel changing should be supported.

Reason

The current proposal can cause a SS to randomly select a channel or in a typical implementation to select the first one that is found in the scanning for downstream, and the first one in the UCD for upstream. This will result in a very unloaded system and managing it with channel change messages will make the initialization very slow.
Channels may have big difference in the performance per SS, based on the frequency diversity in NLOS channels, channels that serve different antenna sectors or cells, and channels with different PHY parameters. It is important to select the optimal channel per SS, while

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The text in the MAC specification has been made generic enough to accomadate all PHYs. Any rules that are necessary for a specific PHY will be included within the appropriate PHY section. RNG-RSP can direct an SS to a different channel. In addition, a BS ID is present to allow an SS to register only with a pre-specified BS.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 797 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 124 **Starting Line #** 37 **Section** 6.2.7

Initialization procedure should be changed to optimize the channel selection, based on frequency selective performance, channels load, PHY parameters (more robust or higher throughput tradeoff), geographical location, antenna direction (sector) and polarization.
Both initial selection and on the fly channel changing should be supported.

Reason

The current proposal can cause a SS to randomly select a channel or in a typical implementation to select the first one that is found in the scanning for downstream, and the first one in the UCD for upstream. This will result in a very unloaded system and managing it with channel change messages will make the initialization very slow.
Channels may have big difference in the performance per SS, based on the frequency diversity in NLOS channels, channels that serve different antenna sectors or cells, and channels with different PHY parameters. It is important to select the optimal channel per SS, while

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

796

Reason for Group's Decision/Resolution

See 796

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1073 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 124 **Starting Line #** 37 **Section** 6.2.7

Initialization procedure should be changed to optimize the channel selection, based on frequency selective performance, channels load, PHY parameters (more robust or higher throughput tradeoff), geographical location, antenna direction (sector) and polarization. Both initial selection and on the fly channel changing should be supported.

Reason

The current proposal can cause a SS to randomly select a channel or in a typical implementation to select the first one that is found in the scanning for downstream, and the first one in the UCD for upstream. This will result in a very unloaded system and managing it with channel change messages will make the initialization very slow. Channels may have big difference in the performance per SS, based on the frequency diversity in NLOS channels, channels that serve different antenna sectors or cells, and channels with different PHY parameters. It is important to select the optimal channel per SS, while maintaining load balance in the whole system.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 796, 797, and 1074.

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

796

Reason for Group's Decision/Resolution

See 796

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1074 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 124 **Starting Line #** 37 **Section** 6.2.7

Initialization procedure should be changed to optimize the channel selection, based on frequency selective performance, channels load, PHY parameters (more robust or higher throughput tradeoff), geographical location, antenna direction (sector) and polarization.
Both initial selection and on the fly channel changing should be supported.

Reason

The current proposal can cause a SS to randomly select a channel or in a typical implementation to select the first one that is found in the scanning for downstream, and the first one in the UCD for upstream. This will result in a very unloaded system and managing it with channel change messages will make the initialization very slow.
Channels may have big difference in the performance per SS, based on the frequency diversity in NLOS channels, channels that serve different antenna sectors or cells, and channels with different PHY parameters. It is important to select the optimal channel per SS, while

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 796, 797, and 1073.

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

796

Reason for Group's Decision/Resolution

See 796

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 717 **Comment submitted by:** Bruce Currivan Member

Change Type Technical, Binding **Starting Page #** 26 **Starting Line #** 10 **Section** 5.1.3

Insert more complete information on payload header suppression for ATM. Extended header should be included, as, for example, in DOCSIS.

Reason

Existing definition of payload header suppression with ATM is ambiguous.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

ATM payload header supression requires no extended/sub-headers. The exact mapping of ATM header fields to the ATM CS header is fully defined in the document in section 5.1.

Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 733 **Comment submitted by:** Bruce Currivan Member

Change Type Technical, Binding **Starting Page #** 103 **Starting Line #** 1 **Section** 6.2.3.2

Insert numerical limitation on the number of fragmentation flows open at once.

Reason

Incomplete specification. Without a limit specified, the memory size of the implementation could become unbounded.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The number of supported service flows is bounded via SS capability negotiation. Each service flow can only have one SDU in a fragmented state. This bounds the required memory size for an implemtation.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1047 **Comment submitted by:** Srinath Hosur Member

Change Type Technical, Binding **Starting Page #** **Starting Line #** **Section**

Need the extended header feature of DOCSIS to be reflected in Chapter 6 of the TG1 spec.

Reason

The extended header adds to the flexibility to add new features like ARQ.

Proposed Resolution **Recommendation:** **Superceded** **Recommendation by** Roger Marks

Reason for Recommendation

Comment is a subset of 717, 766, and 767.

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

Reason for Group's Decision/Resolution

Same functionality is accomplished using sub-headers and the Type field.
Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 748 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** **Starting Line #** **Section**

Proposals for the changes of message formats that support the above comments are included in document number 802.16-3c-01/37 dated March 7, 2001

Reason

Faster to market with matured standard.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The proposed message set doesn't provide adequate functionality for a next generation standard. Shorter time to market does not warrant significantly compromising the technical quality of the standard.
Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 749 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** **Starting Line #** **Section**

Proposals for the changes of message formats that support the above comments are included in document number 802.16-3c-01/37 dated March 7, 2001

Reason

Faster to market with matured standard.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

748

Reason for Group's Decision/Resolution

See 748

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1048 **Comment submitted by:** George Fishel Member

Change Type Technical Binding **Starting Page #** **Starting Line #** **Section**

Proposals for the changes of message formats that support the above comments are included in document number 802.16-3c-01/37 dated March 7, 2001

Reason

Faster to market with matured standard.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 748, 749, and 1049.

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

748

Reason for Group's Decision/Resolution

See 748

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1049 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** **Starting Line #** **Section**

Proposals for the changes of message formats that support the above comments are included in document number 802.16-3c-01/37 dated March 7, 2001

Reason

Faster to market with matured standard.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 748, 749, and 1048.

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

748

Reason for Group's Decision/Resolution

See 748

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 774 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 67 **Starting Line #** 54 **Section** 6.2.2.2.5

RNG-REQ should include feedback information regarding the downstream reception, such as CNR and error rate.

Reason

This information is required to enable the BS to make decisions for adaptive modulation, channel switching, ARQ, MIMO and OFDM allocations.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The requested functionality is achieved by allowing the SS to request the burst profile for downlink transmissions. This method is faster and uses less link capacity than continuously reporting measurements to the BS.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 775 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 67 **Starting Line #** 54 **Section** 6.2.2.2.5

RNG-REQ should include feedback information regarding the downstream reception, such as CNR and error rate.

Reason

This information is required to enable the BS to make decisions for adaptive modulation, channel switching, ARQ, MIMO and OFDM allocations.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

see 774

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1069 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 67 **Starting Line #** 54 **Section** 6.2.2.2.5

RNG-REQ should include feedback information regarding the downstream reception, such as CNR and error rate.

Reason

This information is required to enable the BS to make decisions for adaptive modulation, channel switching, ARQ, MIMO and OFDM allocations.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 774, 775, 1066, and 1070.

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

See 774

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1070 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 67 **Starting Line #** 54 **Section** 6.2.2.2.5

RNG-REQ should include feedback information regarding the downstream reception, such as CNR and error rate.

Reason

This information is required to enable the BS to make decisions for adaptive modulation, channel switching, ARQ, MIMO and OFDM allocations.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 774, 775, 1066, and 1069.

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

see 774

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 763 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Timing mechanisms should be defined and adapted for an OFDM PHY.

Reason

OFDM PHY is required by customers to support reliable and efficient operation in NLOS environment. The proposed timing scheme is designed for single carrier where the data is spread only on the time domain. For OFDM it is required to define exactly the time reference of the time related messages. It is required to define an efficient mechanism for the initial ranging on OFDM.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

If an OFDM PHY is added in the future, the timing mechanism will be defined in the particular PHY section at that time.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 765 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Timing mechanisms should be defined and adapted for an OFDM PHY.

Reason

OFDM PHY is required by customers to support reliable and efficient operation in the NLOS environment. The proposed timing scheme is designed for single carrier where the data is spread only on the time domain. For OFDM it is required to define exactly the time reference of the time related messages. It is required to define an efficient mechanism for the initial ranging on OFDM.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

763

Reason for Group's Decision/Resolution

See 763

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1052 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Timing mechanisms should be defined and adapted for an OFDM PHY.

Reason

OFDM PHY is required by customers to support reliable and efficient operation in the NLOS environment. The proposed timing scheme is designed for single carrier where the data is spread only on the time domain. For OFDM it is required to define exactly the time reference of the time related messages. It is required to define an efficient mechanism for the initial ranging on OFDM.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 763, 765, 1053, and 1054.

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

763

Reason for Group's Decision/Resolution

See 763

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1053 **Comment submitted by:** David Ribner Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Timing mechanisms should be defined and adapted for an OFDM PHY.

Reason

OFDM PHY is required by customers to support reliable and efficient operation in the NLOS environment. The proposed timing scheme is designed for single carrier where the data is spread only on the time domain. For OFDM it is required to define exactly the time reference of the time related messages. It is required to define an efficient mechanism for the initial ranging on OFDM.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 763, 765, 1052, and 1054.

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

See 763

Reason for Group's Decision/Resolution

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1054 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Timing mechanisms should be defined and adapted for an OFDM PHY.

Reason

OFDM PHY is required by customers to support reliable and efficient operation in the NLOS environment. The proposed timing scheme is designed for single carrier where the data is spread only on the time domain. For OFDM it is required to define exactly the time reference of the time related messages. It is required to define an efficient mechanism for the initial ranging on OFDM.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 763, 765, 1052, and 1053.

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

763

Reason for Group's Decision/Resolution

See 763

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 762 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Use DOCSIS 1.1 QoS.

Reason

Compatibility with other products, mainly VoIP and management tools.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

Current QoS originated from the source referenced in the comment. It has since been enhanced to meet 802.16's needs. Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 764 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Use DOCSIS 1.1 QoS.

Reason

Compatibility with other products, mainly VoIP and management tools.

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

762

Reason for Group's Decision/Resolution

See 762

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1055 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Use DOCSIS 1.1 QoS.

Reason

Compatibility with other products, mainly VoIP and management tools.

Proposed Resolution **Recommendation:** **Superceded** **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 762, 764, and 1056.

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

762

Reason for Group's Decision/Resolution

See 762

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1056 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 38 **Starting Line #** 1 **Section** 6

Use DOCSIS 1.1 QoS.

Reason

Compatibility with other products, mainly VoIP and management tools

Proposed Resolution **Recommendation:** **Superceded** **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 762, 764, and 1055.

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

762

Reason for Group's Decision/Resolution

See 762

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 768 **Comment submitted by:** Keith Doucet Member

Change Type Technical, Binding **Starting Page #** 54 **Starting Line #** 44 **Section** 6.2.2.2

Use IEEE 802.2 format to pack MAC management messages

Reason

1. Required for IP centric protocol (see comment 1).
2. Following other mature standards and products - other IEEE 802 standards and DOCSIS

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

Reason for Group's Decision/Resolution

The 802.2 format is appropriate for LAN applications. 802.16 addresses access applications. It is designed for a multiprotocol environment including IP and 802.2 packets among others.
Similar suggestions were extensively debated and rejected during development of the draft.

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 769 **Comment submitted by:** Chet Shirali Member

Change Type Technical, Binding **Starting Page #** 54 **Starting Line #** 44 **Section** 6.2.2.2

Use IEEE 802.2 format to pack MAC management messages

Reason

1. Required for IP centric protocol (see comment 1).
2. Following other mature standards and products - other IEEE 802 standards and DOCSIS.
3. Simplify the implementation by using the same format for data and MAC management messages

Proposed Resolution **Recommendation:** **Recommendation by**

Reason for Recommendation

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

768

Reason for Group's Decision/Resolution

See 768

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1061 **Comment submitted by:** George Fishel Member

Change Type Technical, Binding **Starting Page #** 54 **Starting Line #** 44 **Section** 6.2.2.2

Use IEEE 802.2 format to pack MAC management messages.

Reason

1. Required for IP centric protocol (see comment 1).

Proposed Resolution **Recommendation:** **Superceded** **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 768, 769, and 1062.

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

768

Reason for Group's Decision/Resolution

See 768

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

Document under Review: **Ballot Number:** #3 **Comment Date**

Comment # 1062 **Comment submitted by:** Menashe Shahar Member

Change Type Technical, Binding **Starting Page #** 54 **Starting Line #** 44 **Section** 6.2.2.2

Use IEEE 802.2 format to pack MAC management messages

Reason

1. Required for IP centric protocol (see comment 1).
2. Following other mature standards and products - other IEEE 802 standards and DOCSIS.

Proposed Resolution **Recommendation:** Superceded **Recommendation by** Roger Marks

Reason for Recommendation

Duplicate of 768, 769, and 1061.

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

768

Reason for Group's Decision/Resolution

See 768

Group's Notes

Group's Action Items

Editor's Notes **Editor's Actions** f) none needed

Submitted in LB#3, but accidentally left out of resolution database.

Editor's Questions and Concerns

Editor's Action Items

4.12 ME Comments to FCC - Hayes 10 05:22 PM

Motion: that SEC approve submission of Comments on FNPRM 99-231 to FCC on behalf of LMSC, after an editing cycle by the Regulatory Ombudsman and a 14-day comment phase among the SEC.

Moved: Roger Marks, Seconded: Hayes

Which document will be the base for editing? 802.16 does not have a problem with accepting the amendment made by 802.15. 802.16 thought that the process went very well, with each WG participating and coming to an appropriate consensus. Concern was expressed that we send an 802 position without a decision made by 802.11.

Motion: to defer to a date determined by the SEC chair.

Moved: Geoff Thompson, Seconded: Paul Nikolich

Discussion: Jim Carlo to send a 14-day email ballot to the SEC at the end of today, asking the working groups to poll their membership for response within 7 days, closing after 14 days. This is a delicately craft document, balancing the positions of many interests. The WG chairs should make it clear that this is a take it or leave it proposition.

Motion to defer is withdrawn.

Main motion is withdrawn.

Motion: that SEC chair conduct a 14-day email ballot on the comments to be submitted in response to FCC FNPRM 99-231. Working group chairs are expected to poll their groups on these comments within 10 days.

Moved: Roger Marks, Seconded: Vic Hayes

Approved: 10/0/0

(see file 11-01-391r7-R-Draft-for-Comment-to-FCC-FNPRM-99-231.doc)

IEEE P802.11
Wireless LANs

Draft for Comments to FCC FNPRM OET Docket Nr. 99-231
(Clean version with highlighted amendments)

Date: July 11, 2001

Author: Vic Hayes
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Abstract

This document is the result the following vote at the 1-3 PM meeting of the 802.11 Radio Regulations ad-hoc group.

Motion: To submit doc 11-01/391r4 to 802.11, 802.15 and 802.16 with the request to empower the regulatory ombudsman to finalize the document and send it to the addressees

Mover: Goldhammer
Second: Chauncey

Motion to amend the document to remove 2.2.2

Mover: Kuwahara
Second: Lycklama
802.11 tally: Approve 3, Do not approve 0, Abstaining 0
802.15 tally: Approve 0, Do not approve 0, Abstaining 1
802.16 tally: Approve 2, Do not approve 2, Abstaining 1

The Chair interprets this motion as passed

Motion with amended document: To submit doc 11-01/391r4 to 802.11, 802.15 and 802.16 with the request to empower the regulatory ombudsman to finalize the document and send it to the addressees

802.11 tally: Approve 3, Do not approve 0, Abstaining 0
802.15 tally: Approve 1, Do not approve 0, Abstaining 0
802.16 tally: Approve 2, Do not approve 2, Abstaining 0

Amended document will be sent to the 3 Working Groups.

To empower the Regulatory Ombudsman to make document 11-01/391 r6 as amended complete and internally consistent for filing at the FCC with this WG as one of the sources

15: Mover: Hayes, second Allen 18/0/2 pass
11: Mover: Hayes, ruled out of order
16: Mover: Chauncey, second Satapathy 19/0/1

To: Miss Magalie Roman Salas,
Office of Secretary,
Federal Communications Commission,
445 12th Street, SW,
Washington, DC 20554

From: Vic Hayes,
Regulatory Ombudsman, IEEE Project 802,
C/o Agere Systems,
1-10 Zadelstede
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Vichayes@agere.com

Dear Miss Magalie,

In response to the questions of the Federal Communications Commission (the "Commission") in the Further Notice of Proposed Rule Making and Order (the "Notice"), document FCC 01-158, in the proceedings of ET Docket No. 99-231 the following entities offer their Comments:

[IEEE project 802, the LAN/MAN Standards Committee]

[- IEEE 802.11, the Working Group for Wireless Local Area Networks]

[- IEEE 802.15, the Working Group for Wireless personal Area Networks] and

[- IEEE 802.16, The Working Group for Metropolitan Wireless Networks] (the "Committees").

The Committees welcome the proposed actions of Commission to improve the sharing capabilities for spread spectrum devices, to permit new digital transmission technologies and to remove the processing gain requirement for Direct Sequence Spread Spectrum devices.

The Committees support, in principal, the improved sharing capability in the shape of the adaptive hopping proposal. However, they feel that the requirement for a hop sequence review at 30 s intervals should be removed, and that waivers should be issued on those rules before the Order is released.

The Committees support the introduction of the new digital transmission technologies, but note with concern that the rules as proposed do not provide sufficient qualifications to provide the necessary sharing capabilities.

1 Introduction of the Committees

All Committees operate under the rules of the Institute of Electrical and Electronics Engineers (IEEE) and the IEEE Standards Association (IEEE-SA). They are part of IEEE project 802, called the Local and Metropolitan Area Networks Standards Committee (LMSC). LMSC is sponsored by the IEEE Computer Society.

1.1 IEEE

The IEEE is a non-profit, technical professional association of more than 350,000 individual members in 150 countries.

Through its members, the IEEE is a leading authority in technical areas ranging from computer engineering, biomedical technology and telecommunications, to electric power, aerospace and consumer electronics, among others.

Through its technical publishing, conferences and consensus-based standards activities, the IEEE

produces 30 percent of the world's published literature in electrical engineering, computers and control technology,

holds annually more than 300 major conferences and

has more than 800 active standards with 700 under development.

The IEEE is made up of 10 Regions, 36 Technical Societies, four Technical Councils, approximately 1,200 individual and joint Society chapters, and 300 Sections.

1.2 IEEE-SA

The IEEE Standards Association (IEEE-SA) is an international membership organization serving today's industries with a complete portfolio of standards programs.

The IEEE-SA has two governing bodies: the Board of Governors and the Standards Board. The Board of Governors is responsible for the policy, financial oversight and strategic direction for the Association including two very important documents:

- IEEE Standards Association Bylaws
- IEEE Standards Association Operations Manual

The Standards Board has the charge to implement and manage the standards process, such as approving projects.

IEEE-SA members - both individual and corporate - continue to set the pace for the development of standards products, technical reports and documentation that ensure sound engineering practices worldwide. Membership in the IEEE-SA demonstrates to industry, its regulatory bodies and to customers, strong support of an industry-led consensus process for the development of standards and operating procedures and guidelines that:

- facilitate trade and commerce
- create and expand markets
- increase competitiveness in industry
- foster quality design and manufacture
- safeguard against hazards

1.3 LMSC

IEEE Project 802, Local and Metropolitan Area Network (LAN/MAN) Standards Committee has the basic charter to develop and maintain networking standards and recommended practices, using an open and accredited process, and to enable and advocate them on a global basis.

LMSC was formed in February 1980 and has met at least three times per year as a Plenary body ever since that time. LMSC has grown from a participation of 500 individuals in the 90s till over 1000 individuals in the Plenary sessions in 2001.

Products of LMSC are the IEEE 802.3 or Ethernet standards, IEEE 802.5 or Token Ring standards and the IEEE 802.11 or Wi-Fi standards. They all have been adopted by the ISO/IEC Joint Technical Committee 1 (JTC1) as International standards.

1.4 [IEEE 802.11

IEEE 802.11, the Standards Working Group for Wireless Local Area Networks, is responsible for developing Carrier Sense Multiple Access/Collision Avoidance (CSMA/CA) based Wireless Local Area Network (WLAN) standards within LMSC. IEEE 802.11 was formed in July 1990 and has produced the ISO/IEC 8802-11:1999 (IEEE 802.11:1999) standard with two supplements. With supplement 802.11b, Manufacturers can build

devices for operation at data rates of 11 million bits per second (11 Mbit/s) using radio at 2.4 GHz. These devices can be used in the home, the enterprise and at public places such as Conference areas, Hotels and Airports to surf the Internet or connect to the Enterprise Intranet.

With supplement 802.11a, devices can be built operating at between 6 Mbit/s and 54 Mbit/s using radio at 5 GHz.

This Committee is using its own product during its conferences 6 times a year. Some Radio Access Points, Radio PC cards in the laptops of the members, a file server and a fast Internet connection enable the members to work efficiently and paperless. At its May 2001 meeting, for instance, 350 members could get the documentation in a matter of seconds from the file server or from the Internet. Without the network, copies would have been ordered, distributed and collected, normally requiring a lead time of at least 4 hours if a high speed copy machine was available on premises, or 8 hours if the copies had to be ordered at a copy service.

This Committee has 5 projects, 1) to enhance to WLAN standard with improved Quality of Service capabilities, 2) to write a Recommended Practice for an Inter-Access Point Protocol, 3) an additional radio entity for higher than 20 Mbit/s data rates in the 2.4 GHz band, 4) to enhance the standard with Dynamic channel selection and transmit power control, and 5) to enhance the standard with improved security capabilities. A study group is proposing a project to arrive at a single global 5 GHz standard.

At the beginning of the July 2001 meeting, 802.11 has [200] members, [200] observers building membership. Those individuals are sponsored by [80] companies.

]

1.5 [IEEE 802.15

IEEE 802.15, the Standards Working Group for Wireless Personal Area Networks, is responsible for developing Carrier Sense Multiple Access/Collision Avoidance (CSMA/CA) or other access method based standards for short distance wireless networks within LMSC. IEEE 802.15 was formed in [July 1999]. The group has four projects: 1) a WPAN standard for Bluetooth, 2) a co-existence guideline for license exempt devices, 3) a High rate WPAN standards and 4) a low rate WPAN standard.

At the beginning of the July 2001 meeting, 802.15 has [60] members, [60] observers building membership. Those individuals are sponsored by [40] companies.

]

1.6 [IEEE 802.16

IEEE 802.16, the Standards Working Group for Broadband Wireless Access Networks (or Wireless Metropolitan Area Networks), is responsible for developing standards and recommended practices to support the development and deployment of fixed broadband wireless access systems. IEEE 802.16 first met in July 1999. The group has four projects: 1) 802.16, Air Interface for 10-66 GHz, 2) 802.16a, amendments to the MAC layer and an additional PHY layer for 2-11 GHz Licensed Frequencies, 3) 802.16b, amendments to the MAC layer and an additional PHY layer, License-Exempt Frequencies, with a focus on 5-6 GHz and 4) Recommended Practice for co-existence amongst 802.16 and 802.16a devices.

At the beginning of the July 2001 meeting, 802.16 had 137 members, 97 others eligible for membership. Those individuals were sponsored by over 120 companies.

]

2 Comments

2.1 Adaptive Hopping

The Committee applauds the Commissions initiative to reduce interference between Frequency Hopping Spread Sectrum systems and other systems for the support of IEEE 801.11 and IEEE 802.15. The goal of the

proposed modifications to FCC Part 15.247 requested by the Joint Petitioners[1] was, and is, to persuade the FCC to minimize the potential for unnecessary interference between occupants of the 2400-2483.5 MHz band in a way that is best for all its occupants, present and future, by seeking a modification of Part 15.247 of the FCC's rules to make the use of adaptive frequency hopping techniques practical and technically feasible in the 2400-2483.5 MHz band.

There are a number of major, distinct classes of communications devices presently operating in, or being targeted at that band: IEEE 802.11b/g, Bluetooth (IEEE 802.15.1), IEEE 802.15.3, IEEE 802.15.4, HomeRF, and some 2.4 GHz cordless phones, in addition to microwave ovens, which, while not communications devices, can present potentially significant sources of interference.

The intent of the Committees is to enable "low power, narrowband FH devices," such as Bluetooth to elect to reduce their number of hopping channels from the current minimum of 75 hopping frequencies to some reduced hopset of <75 by employing intelligent, adaptive hopping algorithms to significantly improve their ability to coexist with IEEE 802.11b/g, IEEE 802.15.3, IEEE 802.15.4, and other "static, wideband" systems, as well as eliminating problems with interference from microwave ovens.

The use of such intelligent, adaptive hopping algorithms will enable such frequency hopping devices to recognize the presence of, and intelligently avoid interference from and to, other occupants of the band.

Since there are large numbers of IEEE 802.11b devices already fielded (and those numbers will continue to grow rapidly by all projections), IEEE 802.11g and IEEE 802.15.3 and IEEE 802.15.4 will begin to be deployed in the relatively near future, and projections indicate that 10's to 100's of millions of Bluetooth devices will be fielded in the next couple of years, it is imperative that everything possible be done to enhance the ability of Bluetooth and those other occupants of the 2400-2483.5 MHz band to coexist.

~~2.1.1 Elimination of the 30 s re-evaluation rule~~

~~The Committee strongly suggests to the Commission that the "30 second re-evaluation" requirement proposed in the NPRM be eliminated from the proposed rules changes as an unnecessary component of an intelligent adaptive hopping algorithm that is expected to adjust its behavior to the local environment. Earlier adoption of adaptive hopping and method therefore~~

~~2.1.2~~2.1.1 Earlier adoption of adaptive hopping and method therefore

As the Committee has shown above ,there are already many devices in the field that deserve limitation of interference from hopping devices. The Commission, however, did NOT allow early adoption with Waivers, such as the Commission did for digital transmission systems. It would be advantageous if adaptive hopping could also be permitted under a waiver to the existing rules. This would allow Bluetooth implementers to proceed with interference avoidance measures without waiting for the full NPRM processing.

2.2 Digital Transmission Systems

In paragraph 15 to paragraph 18, the Commission discusses the introduction of Digital Transmission Systems. The Commission proposes in paragraph 16 to change the rules in the current spread spectrum bands at 915 MHz, 2.4 GHz and 5.7 GHz in such a way that that the new digital transmission system would be required to meet the same technical requirements as modified in this proceeding. The goal of the Commission to provide flexibility and certainty to promote the introduction of new and non-interfering products into the bands without the need for rules changes is whole heartedly supported. However, as shown in the following sections, the Commission needs to include an additional rule to prevent the new digital transmission systems from causing unacceptable levels of interference.

[1] See paragraph 5 of the Notice, *Joint Petition For Clarification or, in the Alternative, Partial Reconsideration*, submitted on October 25, 2000, by 3Comm, Apple Computer, Cisco Systems, Dell Computer, IBM, Intel Corporation, Intersil, Lucent Technologies, Microsoft, Nokia Inc., Silicon Wave, Toshiba America Information Systems, and Texas Instruments.

2.2.1 Power spectral density levels of digital transmission systems

In paragraph 17 the Commission requests comment on whether digital transmission systems should be allowed the same power levels as direct sequence spread spectrum systems [2].

The current direct sequence spread spectrum rules require the digital signal to be spread by a pseudo random code. Such operation has the characteristic that the power is spread over a wider frequency band than for normal modulations. The effect is that the power level density of the transmitted signal is remarkably lower than the total transmit power. All proposals in paragraph 15 of the Notice are based on digital transmission with the same characteristics. For instance, all modulations of the Direct Sequence Spread Spectrum specifications (1, 2, 5.5 and 11 Mbit/s data rate) in the IEEE 802.11 standard have, if they would use the full transmit power level of 30 dBm, a peak power spectral density of 20 dBm/ MHz and a 23 dB bandwidth of 22 MHz.

If the current Commission's proposal for the new digital transmission systems with no more than the same power level limits as specified for direct sequence spread spectrum systems were adopted, then this would permit systems with a peak power spectral density of 8 dBm/3 kHz (that is equivalent to 33 dBm/MHz). A peak power spectral density of 33 dBm/MHz is 13 dB more than what is currently practiced for direct sequence spread spectrum systems. Accordingly, the proposed digital transmission sytems would heavily interfere with all currently deployed direct sequence spreading systems.

To prevent new systems from causing unacceptable interference to those devices in the 2.45 GHz band, the Committees propose the Commission to introduce a new requirement in addition to the existing requirement of 8 dBm/3 kHz. The new requirement is to limit the peak power spectral density to use an additional limitation in dBm/MHz.

~~2.2.2 Power levels in the 5.7 GHz band~~

~~In paragraph 17 of the Notice, the Commision invite comment on whether digitally modulated systems should be allowed to operate at the same power levels as direct sequence spread spectrum systems, namely 1 watt maximum output power with power spectral density not exceeding 8 dBm in any 3 kHz band. The ComitteeWe agree with FCC to not reduce the peak power, the power spectral density or EIRP limits for the 5.7 GHz ISM band provided that the minimum bandwidth is 10 MHz.~~

.

2.2.3 Alignment of the rules in 15.247 with the U-NII rules

The Commission seeks comment [3] on whether the same result would be achieved by amending the U-NII rules to include the 915 MHz and 2.4 GHz bands. The Committee supports this proposal, provided that the Commision expresses the power spectral density in the same unit (dBm/MHz) as in the U-NII rules and the level is specified comparable to the levels currently applied by devices approved through the Direct Sequence Spread Spectrum rules.

The Committee supports the proposal of the Commission to extend the upper limit of the U-NII band from 5.825 GHz to 5850 GHz. The Committee does not expect any detrimental impact of this change.

3 Summary

To be defined after completion of the Comments.

[2] See beginning of paragraph 17 of the Notice: The rules for Part 15 spread spectrum systems limit maximum peak output power to 1 watt. In addition, the rules for direct sequence systems limit peak power spectral density conducted to the antenna to 8 dBm in any 3 kHz band during any time interval of continuous operation

[3] See paragraph 18 of the Notice

4.13 ME Spectrum request to US WRC-03 gremia - Hayes 5 05:30 PM

Motion: that the SEC submission of WRC-03 documents to the US groups under the FCC on behalf of LMSC under procedure 4 as an IEEE 802 position statement.

Moved: Vic Hayes, Seconded: Geoff Thompson

Approved: 11/0/0

4.14 Break - 15 05:32 PM

4.17 MI Rules proposal for a standing SEC committee - Hayes 15 05:43 PM

Vic presented proposed changes to the SEC Operating Rules.

Motion: that the SEC approve the proposed rules change for distribution and letter ballot.

Moved: Vic Hayes, Seconded: Stuart Kerry

Discussion: There is a 4-month cycle for rules changes to allow WG examination and feedback. The TAG might be more appropriately modified to encompass this function being proposed. The letter ballot should include a clear statement of the problem to be solved by the rules change and to state clearly how the changes solve the problem.

Approved: 8/0/2

(see file rules change from Vic)

IEEE P802.11
Wireless LANs

Proposed Rules change for SEC Standing Committee

Date: July 13, 2001

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Abstract

The attached page is a proposal for the rules for an SEC Standing Committee to support work that needs to be done for more than one Working Group and does not fall under the category of a TAG.

Examples of SEC Standing Committees are a Radio Regulations Standing Committee and a shared medium coordination group.

The rules were prepared by Vic Hayes, reviewed and approved by the 802.11 Radio Regulatory ad-hoc group for submission to the Working Groups 802.11, 802.15 and 802.16 for information.

The experience in the approval of 3 documents on Friday plenary Working Groups taught that the process of separate and parallel Working Group approval for the same document is infeasable. Together with the Chair and Secretary of the Study Group for Co-existance, Vic Hayes revised the rules as shown on the next pages.

5.4 SEC Standing Committees

SEC Standing Committees are formed when a number of Working Groups have identical interest in a specific topic, such as regulations or sharing a specific medium.

An SEC Standing Committee is initiated on request of the Chairs of the ~~parent~~relevant Working Groups by a vote of the SEC and the Standing Committee Chair is appointed and approved by SEC, for a two year period (copy from ExCom).

The SEC Standing Committee Chair has the same responsibilities as a Working Group Chair as specified in 5.1.4.1 and has Executive Committee voting rights.

The SEC Standing Committee tasks, specific output and delegated authority shall be defined by the Working Groups forming the SEC SC.

5.4.1 SEC Standing Committee Operation

Each SEC Standing Committee shall have an official Liaison Officer and deputy Liaison Officer from each of the ~~parent~~relevant Working groups. Meetings of the SEC Standing Committee at Plenary Sessions or at Interim Sessions of at least one Working Group are scheduled at pre-defined slots for conducting business. In between its meetings editing meetings can be scheduled globally. (The intent is to conduct meeting with interim WG sessions)

An SEC Standing Committee shall maintain an area on the LMSC web site to post the minutes, conference announcements, submissions and (draft) output documents. An SEC Standing Committee shall maintain an e-mail distribution list for making the announcements of conferences and availability of important information on the web area.

In between Sessions, the Chair of the SEC Standing Committee is empowered to schedule (Tele)-conferences provided that the venue and agenda is made available 10 calendar days before the actual date and time of the (Tele)-conference.

An SEC Standing Committee shall appoint a Secretary and may appoint Vice-Chairs from the membership of the ~~parent~~relevant Working Groups.

Actions of each SEC Standing Committee shall be presented at Opening Plenary meetings by the SEC Standing Committee Chair.

All external actions of an SEC Standing Committee shall be presented at the Relevant Working Groups and shall be approved by the ~~parent Working Groups~~SEC. ~~The SEC Standing Committee Chair shall have the right to conduct e-mail ballots among the members of the parent Working Groups through the e-mail distribution lists of the Working Groups. The duration of the e-mail ballot is at the discretion of the SEC Standing Committee Chair but shall be at least 10 days. The rules of Procedures 2 and 3 apply.~~

5.4.2 Voting at SEC Standing Committee Meetings

Any member of the ~~parent~~relevant Working Groups may vote on all motions. The vote count is taken by Working Group, and tally by group, . A vote is carried by 50 % of those present and voting “Approve” or “Disapprove” for internal actions. External Actions (going outside IEEE 802) will be sent to each ~~parent~~relevant WG for a 75% vote for approval. All WGs must pass the action in order to send the action out.

The quorum of an SEC Standing Committee is the Chair or Vice-Chair, the Secretary and one official Liaison of each ~~parent~~relevant Working Group. (teleconference possible)

Credit for attendance at an SEC SC meeting is transferred to the individual's primary Working Group.

4.15 MI Equipment Purchase - Rigsbee 5 05:57 PM

Motion: to spend <=$15k to acquire 3 new LCD projectors with XGA resolution, 1 large (~TLP-771), 2 small (~DX-2). Purchase to be delayed as much as practical to allow Austin meeting assessment.

Moved: Rigsbee, Seconded: Grow

We now have 19 projectors and needed 23 at this meeting.

Approved: 11/0/0

Motion: to spend <=$5k for new laptop and software for database support. Existing laptop to be used for onsite web registration and meeting support. To spend <=$3k for new network server for 802.3.

Moved: Rigsbee, Seconded: Grow

Approved: 10/1/0

4.16 MI Networking @ 802 - Heile 5 06:08 PM

Handled in the beginning of the meeting.

4.18 MI November Closing SEC Meeting - Carlo 5 06:08 PM

Discussion: We will need a Sunday meeting for the rules change issue. Suggestion is to have a meeting from 1-5pm. Comment: Surprised at how badly this meeting has gone. Doubt that moving the meeting to 1pm will make it any better. Suggestion: 3-7 (x2), 8am – noon. Comment: if the SEC meeting is on Friday morning, this means that SEC committee meetings could be held Thursday evening.

Poll: 8-12: 5, 3-7:3, 1-5:0

Meeting time will be: 3pm to 7pm, since WGs are already planning on using the mo rnings for meetings.

4.19 DT - 5 06:18 PM

Intentionally blank.

4.20 DT - 5 06:18 PM

Intentionally blank.

4.21 II Forward P802.3ag, presubmittal to REVCOM - Thompson 5 06:18 PM

802.3ag maintenance is launching sponsor ballot. It is intended to presubmit to REVCOM and the result of the sponsor ballot will be reviewed in November.

4.22 II 802 Chair Election in November - Carlo 5 06:20 PM

Election in November. Working to plan stated on Monday.

4.23 II SCTE 'mark' statement - Nikolich 5 06:21 PM

Would like the IEEE to emulate the spirit of the SCTE policies on use of their marks. Concern that the IEEE office will need to excise a clause from IEEE Std 802 in order to comply with the newly stated policy, causing technical changes to the adopted standard.

4.24 II Liaison letter to EP BRAN - Hayes 5 06:23 PM

Concern that this is being sent as a response from only 802.11, when the ETSI letter that this responds to was sent to the entire 802. This should go out as an 802 LMSC response.

Motion: to approve ETSI BRAN liaison as an 802 communication, to be co-signed by the 802 chair and Regulatory Ombudsman and include process to be used to communicate on common wireless and regulatory issues.

Moved: Hayes, Seconded: Kerry

Approved: 11/0/0

(see file ETSI letter from Vic)

IEEE P802.11
Wireless LANs

Draft Liaison to ETS-BRAN 24d129

This submission shows the original text from BRAN, the instructions for editing, as well as the text of the liaison leytter to ETSI BRAN.

To: Jamshid Khun-Jush, Dr.-Ing., Chairman, ETSI Project BRAN

Copy: Dr. Robert F. Heile, Chairman IEEE802.15 Working Group bheile@ieee.org
Dr. Roger B. Marks, Chairman IEEE802.16 Working Group r.b.marks@ieee.org

Date: July 11, 2001

Subject: Worldwide Spectrum allocation at 5GHz for Mobile/Nomadic applications

•Preliminary view on ETSI-BRAN Liaison (BRAN24d129r1)
- •To support the use of the 5150-5350 and 5470-5725 MHz for mobile/nomadic use only
- •To promote FWA in addition to the mobile/nomadic use in the 5725-5850 MHz band
- •To write a liaison back to BRAN reflecting this position.

Dear Jamshid,

EP-BRAN would like to call to your attention the ongoing sharing analysis work within various ITU-R study groups with a view gaining a Worldwide Spectrum allocation at 5GHz (5150-5350 MHz, 5470-5725 MHz) for Mobile/Nomadic applications under agenda 1.5 of the World Radio Conference 2003.

With a view to helping European Regulators allocating the above spectrum and for harmonization within ETSI, EP-BRAN have issued a position statement that it will only support the development of the HIPERLAN type 2 standard which is primarily used for mobile/nomadic applications within these bands. It also resulted in a decision within ETSI EP-BRAN not to develop any FWA standards for these bands. This has given a clear signal to European regulators which RLAN parameters should be used when conducting sharing analysis for input to the European and ITU-R process for spectrum allocation. This has resulted so far in the ERC Decision 99/23.

Thank you for your recent statement apprising IEEE 802 of the position developed by EP-BRAN regarding frequency allocation and harmonization in the 5 GHz band. IEEE 802 has been engaged in the process of exploring harmonization between IEEE 802 and ETSI standards for mobile/nomadic applications.

We agree that forming a unified position between the worldwide standards bodies will enable the RLAN community to develop significant momentum in developing mobile/nomadic applications suitable for worldwide deployment in these bands.

In order to present a unified position to Worldwide Regulators with regard to 5GHz allocation at WRC 2003 EP-BRAN would like IEEE 802 to clarify if it supports the allocation of all of spectrum for mobile/nomadic applications under agenda WRC item 1.5. If so which of the

various IEEE 802 wireless standards parameters should be used when conducting sharing analysis with other services in these bands.

IEEE 802 supports a unified position with regard to 5GHz allocation (5150-5350 MHz, 5470-5725 MHz) for mobile/nomadic applications. In these bands, the IEEE 802.11 (and IEEE 802.15??) family of standards should be used to conduct sharing analysis with other services. IEEE 802.16b is also developing standards that could be used in the 5470-5725 MHz band and IEEE 802.16b would provide the characteristics for this unpublished standard. IEEE 802 is currently working on an update to the ITU-R M1450 and will provide a draft copy as soon as possible.

A unified position between the worldwide standards bodies would enable the RLAN community as a whole to strengthen it's lobbying position when dealing with International regulators. This would also give guidance to the regulators when carrying out sharing analysis with other services in the 5GHz band.

Within the IEEE 802 community, the primary band of interest for standards development supporting fixed wireless access deployment is the 5.8 GHz band (5725-5825 MHz). Accordingly, IEEE 802 reaffirms its support for fixed wireless access application development in the 5.8 GHz band based on the applicable IEEE 802.16 standards now under development. In addition, we note that there is currently an FCC proceeding to extend the upper limit of this band to 5850 MHz.
We would like to know if there is any similar expression of interest within the EP Bran for FWA in the 5.8 GHz band?

With best regards,

Stuart

Stuart Kerry, Chairman, IEEE P802.11
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4.25 II 5GSG PAR Proposal Rescinded - Kerry 5 06:25 PM

802.11 voted not to send the 5GSG (802.11 TGj) PAR to NESCOM. Will go to interim meeting with ETSI BRAN to determine future direction.

Motion: to renew 802.11 5GSG authorization for an additional plenary cycle.

Moved: Kerry, Seconded: ???

Approved: 11/0/0

4.26 II P802.3ae, 10GbE to go to Sponsor in Nov. - Thompson 5 06:33 PM

Holding off going to sponsor ballot until November meeting.

4.27 II P802.3af, DTE Pwr to go to WG ballot in Nov. - Thompson 5 06:35 PM

Now in preview ballot, expect to go to WG ballot in November.

4.28 II Interim meetings - O'Hara 5 06:37 PM

The following interim meetings are scheduled:

802.1		**Copenhagen, Sept 17-21**
802.3	**10G**	**Copenhagen, Sept 17-21**
	EFM	**Copenhagen, Sept 17-21**
	DTE	**TBD (maybe Sept 10)**
802.11		**Seattle, Sept 16-21**
802.15		**Seattle, Sept 16-21**
802.16		**Denver, Sept 10-14**
802.17		**Santa Clara, Sept 10-14**
SB		**Piscataway, Sept 11-13**

4.29 II PATCOM - Marks 5 06:41 PM

Inquired about a new IP inquiry letter and has been told that it is not yet ready or available. Changes have been made, but it has not yet been formally sent out.

4.30 II Future meetings - Rigsbee 5 06:43 PM

March 2003 Meeting choices

Vancouver	DFW	Monterey	Irvine	Portland
8	5	1	7	4

July 2003 Meeting choices

San Antonio	DFW	Atlanta	San Francisco
8	2	0	9

March 2004 Meeting choices

DFW	Orlando	St. Louis	Portland
2	9	7	9

July 2004 Meeting Choices

San Antonio	DFW	San Francisco	Portland
5	1	8	9

4.29 Adjourn 07:02 PM

The meeting was adjourned at 7:02pm.

Respectfully Submitted,
Bob O'Hara
Recording Secretary