AGENDA & MINUTES (Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE and IEEE-SA STANDARDS BOARD JOINT MEETING

Thursday March 15th, 2001 7:00 pm
Marriot Golf Resort, Hilton Head, SC

1. MEETING CALLED TO ORDER

Jim Carlo called the meeting to order at 7:00pm. Members in attendance were:

Jim Carlo - Chair, IEEE 802 LAN / MAN Standards Committee, Vice Chair, IEEE-SA Standards Board
Don Heirman - Chair, IEEE-SA Standards Board
Judy Gorman - Managing Director, IEEE-SA
Paul Nikolich - Vice Chair, IEEE 802 LAN / MAN Standards Committee
Buzz Rigsbee - Executive Secretary, IEEE 802 LAN / MAN Standards Committee
Howard Frazier - Recording Secretary, IEEE 802 LAN / MAN Standards Committee, Chair IEEE-SA RevCom
Robert Grow - Treasurer, IEEE 802 LAN/MAN Standards Committee
Tony Jefferie - 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
Pat Thaler - Chair, IEEE P802.12 – DPAM Working Group (in hibernation)

The meeting was attended by approximately 10 IEEE 802 Working Group members and several guests including Malcom Thaden, Jerry Walker, Jennifer Longman, Yvette Ho Sang, Jim Gurney, Jodi Haaz, Terry Steenweg, Karen Rupp, Bob Pritchard, David Ringle, Kip Ayers, Joe Koepfinger, Mary Lynn Neilsen, Lowell Johnson.

Jim Carlo introduced the members of IEEE 802 to the IEEE-SA Standards Board members, and the overall agenda of the evening’s meeting.

Judy Gorman introduced herself to the group.

Don Heirman introduced himself and the members of the board and provided an overview of the IEEE-SA Standards Board.

Jim Carlo summarizes feedback from 802 members to IEEE-SA and IEEE Standards Department Staff:

Positive Feedback

- Good personal knowledge and willing to listen

- Move to electronic process and better publishing support

Needs improvement

- Non-predictability of functions
  - Balloting service, editorial and publishing actions

- Need single “champion” in IEEE-SA staff

- Co-ordination with other staff
Meeting presence for conflict resolution and support

**Strategic Issue**

- IEEE 802 process is based on individuals with companies paying their attendance at meetings. IEEE-SA strategy promotion of “corporate” as the future.

- IEEE-ISTO and IEEE 802 project conflict on “standards” confuses industry.

The joint IEEE 802 SEC/IEEE-SA Sth meeting concluded at 7:59 pm.
Joint IEEE 802/StdBd Leadership Meeting

- 7:00 - Introductions of IEEE 802 – Carlo
- 7:05 - Summary of IEEE-SASB directions – Heirman
- 7:30 - IEEE 802 Feeback to Standards Board
  - Summary – Jim Carlo
  - Chair’s Inputs – IEEE 802
- 7:50 - Discussion
IEEE 802 ORGANIZATION

SPONSOR EXECUTIVE COMMITTEE (SEC)

WORKING GROUP CHAIRS

<table>
<thead>
<tr>
<th>802.1</th>
<th>802.3</th>
<th>802.17</th>
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<tbody>
<tr>
<td>BRIDGING/ARCH</td>
<td>CSMA/CD</td>
<td>ResPackRing</td>
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<tr>
<td>Tony Jeffree</td>
<td>Geoff Thompson</td>
<td>Mike Takefman</td>
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<tr>
<th>802.11</th>
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<th>802.16</th>
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<tbody>
<tr>
<td>WLAN</td>
<td>WPAN</td>
<td>BWA</td>
</tr>
<tr>
<td>Stuart J. Kerry</td>
<td>Bob Helle</td>
<td>Roger Marks</td>
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APPOINTED OFFICERS

<table>
<thead>
<tr>
<th>VICE CHAIR</th>
<th>RECORDING SEC</th>
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<tr>
<td>Paul Nikolich</td>
<td>Howard Frazier</td>
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<tr>
<th>EXECUTIVE SEC</th>
<th>TREASURER</th>
</tr>
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<tbody>
<tr>
<td>Buzz Rigsbee</td>
<td>Bob Grow</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>REGULATORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vic Hayes</td>
</tr>
</tbody>
</table>

**HIBERNATION**

- 802.2 LLC (Dave Carlson)
- 802.4 Token Bus (Paul Eastman)
- 802.7 Broadband TAG (P Nikolich)
- 802.10 Security (Ken Alonge)
- 802.5 Token Ring (Bob Love*)
- 802.6 DQDB (Jim Mollenauer)
- 802.9 ISLAN (D. Vaman)
- 802.12 Demand Priority (Pat Thaler)

**DISBANDED**

- 802.8 Fiber Optic TAG (C. Benson)
- 802.14 CATV (Robert Russell)

* SEC Voting Member until Mar2001

Jim Carlo - IEEE 802 Chair    Mar-2001
Jim Carlo called the IEEE 802 SEC meeting to order at 8:00 pm.

2.00 APPROVE OR MODIFY AGENDA

DRAFT AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING
Thursday, March 15, 2001 - 8:00 pm
Marriot Golf Resort, Hilton Head, SC

1.00 MEETING CALLED TO ORDER - Carlo 1  08:30 PM
2.00 APPROVE OR MODIFY AGENDA - Carlo 4  08:31 PM
3.00 TREASURER'S REPORT - Grow 10  08:35 PM

Category (* = consent agenda)
4.00 ME* Cond app 802.1w Rapid Spanning Tree to RevCom - Jeffree 5  08:45 PM
4.01 ME Cond app 802.1X Port Based Access Control to RevCom - Jeffree 5  08:50 PM
4.02 ME Cond app 802 Overview and Architecture to RevCom - Jeffree 5  08:55 PM
4.03 ME Cond app 1802.3Rev to RevCom - Thompson 5  09:00 PM
4.04 ME Cond app 802.3ag to LMSC Sponsor Ballot - Thompson 5  09:05 PM
4.05 ME Approve transmittal of response to Jumbo Frame RFC - Thompson 5  09:10 PM
4.06 ME Approve transmittal of liaison statement re: X.86 to ITU-T - Thompson 5  09:15 PM
4.07 ME 802.11e MAC Enhancements (QoS) revised PAR to NesCom - Kerry 5  09:20 PM
4.08 ME 802.11i MAC Enhancements (Security) new PAR to NesCom - Kerry 5  09:25 PM
4.09 ME Cond App 802.11d International Roaming to RevCom - Kerry 5  09:30 PM
4.10 ME Revised PARs 802.16,.16a,.16b,.16.2 to NesCom - Marks 15  09:35 PM
4.11 ME Cond App 802.16 to LMSC Sponsor ballot - Marks 10  09:50 PM
4.12 ME 802.16 Press Release - Marks 5  10:00 PM
4.13 ME Cond App 802.15.1 (BlueTooth) to LMSC Sponsor Ballot - Heile 5  10:05 PM
4.14 802.16 Liaison Letters - Marks 10  10:10 PM
4.15 MI* Initiate 30 day SEC letter ballot re: RIP FRD - Jeffree 5  10:25 PM
4.16 MI Formation of Sponsor Ballot Pool for 802.3ae 10 GigE - Thompson 5  10:30 PM
4.17 MI Renewal of 802.3 EFM Study Group Charter - Thompson 5  10:35 PM
4.18 MI 802.11 5 GHz Study Group renewal - Kerry 5  10:40 PM
4.19 MI Procedure 1 Rules Change - Nikolich 5  10:45 PM
4.20 MI Section 5.1.3 Rules Change - Nikolich 10  10:50 PM
4.21 MI Appointment of 802.17 Officers - Carlo 5  11:00 PM
4.22 MI Appointment of 802 LMSC Recording Secretary - Carlo 5  11:05 PM
4.23 MI 802.16 Study Group on amendment to 802.16.2 - Marks 10  11:10 PM
4.24 MI Formation of Wireless Coexistence EC Study Group - Heile 5  11:20 PM
4.25 MI Network Services Feedback - Nikolich 5  11:25 PM
4.26 DT - 0  11:30 PM
4.27 DT - 0  11:30 PM
4.28 ME 802 Standards Distribution - Carlo 5  11:30 PM
4.29 MI July Closing SEC meeting - Carlo 5  11:35 PM
4.30 MI 802.11/15/16/17 Interim Meeting - Nikolich 5  11:40 PM
4.31 II 802.3 Interpretation Requests - Thompson 5  11:45 PM
Motion to approve agenda

Nikolich/Jeffree

10/0/0 Approved at 8:20 pm

3.00 Treasurer’s Report – Grow

1096 Registrants! Wow. Approaching $300K budget per meeting. Can’t produce a deadbeat list on the same day a meeting ends.

It was an expensive meeting. Had to rent projectors because of large number of breakouts. Copy charges were low. Escrowing another 82K for free standards. The “other” included $4000 for audit, $9000 for database conversion, $2500 for shuttle between hotels.

$5700 deficit for this meeting, expect ~$4K surplus for Portland July meeting. Will have to raise fees or cut cookies to provide networking at July meeting.

Nikolich observes that attendance estimates from WG chairs looking forward are approximately 200 people higher than Treasurer is projecting at each meeting.

Grow’s response is that economic climate in industry may have affect on future attendance, which is one reason his numbers are conservative. At these attendance levels, each additional head would add approx $20 extra to surplus.

(see file thutreasrep.pdf)
IEEE Project 802
Estimated Statement of Operations
March 2001 Meeting

<table>
<thead>
<tr>
<th>open</th>
<th>28 February Operating Reserve</th>
<th>52,896</th>
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March 2001 Meeting Income:  

<table>
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<tr>
<th>Actual</th>
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<tr>
<td>336 Registrations@ $300</td>
<td>100,800</td>
</tr>
<tr>
<td>760 Registrations@ $250</td>
<td>190,000</td>
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<tr>
<td>0 Registrations@ $100</td>
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Subtotal 290,800 243,000
Deadbeat Registrations 600 0
Bank Interest 400 200
Other 1,025 400

plus TOTAL Income 292,825 243,600

March 2001 Meeting Expenses:  

<table>
<thead>
<tr>
<th>Estimate</th>
<th>Budget</th>
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<tr>
<td>Audio Visual Rentals 13,800 8,000</td>
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<tr>
<td>Bank Charges 25 25</td>
<td></td>
</tr>
<tr>
<td>Copying 3,000 7,000 *</td>
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<tr>
<td>Credit Card Discounts 8,462 5,096 *</td>
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<tr>
<td>IEEE 802 Free Standards Escrow 82,200 67,500</td>
<td></td>
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<tr>
<td>Meeting Administration 45,000 48,200 *</td>
<td></td>
</tr>
<tr>
<td>Network 15,000 15,000</td>
<td></td>
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<tr>
<td>Phone &amp; Electrical 4,700 1,500</td>
<td></td>
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<tr>
<td>Refreshments 69,000 22,500</td>
<td></td>
</tr>
<tr>
<td>Shipping 3,500 4,000</td>
<td></td>
</tr>
<tr>
<td>Social 32,250 27,000</td>
<td></td>
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<tr>
<td>Supplies 500 100</td>
<td></td>
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<tr>
<td>Other 15,500 3,000</td>
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minus TOTAL Meeting Expense 292,937 208,921

minus Equipment Expense 5,000 5,000

equals March 2001 Operating Reserve 47,784

| Total Free Standards Escrow 215,100 |
| Net Change in Operating Reserve (5,112) 34,679 |

* Actual charges are based on registration, budget is based on registration forecast.
<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
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<tbody>
<tr>
<td></td>
<td>Albq.</td>
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<tr>
<td>Actual</td>
<td></td>
<td></td>
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<tr>
<td>Registrations</td>
<td>March</td>
<td>July</td>
<td>Nov</td>
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<tr>
<td></td>
<td>598</td>
<td>851</td>
<td>921</td>
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<tr>
<td>Preregistration fee</td>
<td>250</td>
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<td>250</td>
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<tr>
<td>On-site registration fee</td>
<td>300</td>
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<tr>
<td>Average Fee</td>
<td>270</td>
<td>267</td>
<td>269</td>
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<tr>
<td>Subtotal</td>
<td>161,700</td>
<td>227,450</td>
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<td>Bank Interest</td>
<td>200</td>
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<td>607</td>
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<tr>
<td>Other</td>
<td>450</td>
<td>850</td>
<td>950</td>
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<tr>
<td><strong>TOTAL Income</strong></td>
<td>162,350</td>
<td>228,500</td>
<td>249,057</td>
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<thead>
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<th>2002</th>
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<td>March</td>
<td>July</td>
<td>Nov</td>
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<td>6,721</td>
<td>2,925</td>
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<tr>
<td>Credit Card Discounts</td>
<td>4,145</td>
<td>5,945</td>
<td>6,546</td>
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<tr>
<td>IPF/Escrow</td>
<td>22,200</td>
<td>22,200</td>
<td>69,075</td>
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<tr>
<td>Meeting Planners</td>
<td>39,397</td>
<td>48,777</td>
<td>52,563</td>
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<tr>
<td>Network</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Phone &amp; Electrical</td>
<td>556</td>
<td>1,697</td>
<td>1,702</td>
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<tr>
<td>Refreshments</td>
<td>22,610</td>
<td>48,112</td>
<td>38,608</td>
</tr>
<tr>
<td>Shipping</td>
<td>1,631</td>
<td>1,048</td>
<td>2,546</td>
</tr>
<tr>
<td>Social</td>
<td>18,426</td>
<td>42,326</td>
<td>0</td>
</tr>
<tr>
<td>Supplies</td>
<td>22</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>223</td>
<td>3,170</td>
<td>5,326</td>
</tr>
<tr>
<td>Meeting Equipment</td>
<td>5,796</td>
<td>5,796</td>
<td>30,390</td>
</tr>
<tr>
<td><strong>TOTAL Meeting Expense</strong></td>
<td>126,305</td>
<td>186,911</td>
<td>217,989</td>
</tr>
</tbody>
</table>

|                | 36,045 | 41,589 | 31,068 | 106,452  | (5,712)  | 3,996  | 5,543  | 2,052    | (10,904) | (4,297) | (24,197) | (39,398) |
| Opening Reserve | 39,293 | 39,293 | 75,287 | 52,896   | 47,184   | 51,180 | 56,723 | 45,819   | 41,522   |       |       |
| Projected Closing Reserve | 75,338 | 80,882 | 106,356 | 47,184 | 51,180 | 56,723 | 45,819 | 41,522 | 17,325 |
| Projected Closing Cash | 64,138 | 69,682 | 95,156 | 35,984   | 39,980   | 45,523 | 34,619 | 30,322   | 6,125    |       |       |
4.00  ME*  Cond app 802.1w Rapid Spanning Tree to RevCom - Jeffree
Approved as part of the consent agenda

4.01  ME  Cond app 802.1X Port Based Access Control to RevCom - Jeffree
Frazier (at the request of O’Hara) requests that the comments from the negative ballot be reviewed. Jeffrey reviews three comments from Don Wright.
   1) reference to Internet Draft – WG agrees to change the reference to simply point to IETF.
   2) Checking of protocol versions – WG accepts in principle
   3) Concern about inclusion of patented material – WG believes that there is no patent issue.

WG believes that rebuttals will satisfy commenter, but has not been able to communicate with commenter this week to confirm.

(See file dot1motions.pdf)

Motion: Conditionally approve forwarding 802.1X to RevCom pending successful completion of Sponsor Recirculation Ballot.
Jeffree/Frazier
10/0/0 Approved

4.02  ME  Cond app 802 Overview and Architecture to RevCom - Jeffree
4 negative ballots. No comments have been rejected by WG, no voter has rejected resolution.
   1) Carlo – problem with lower bound of 1 Mbps – WG addresses, Carlo accepts resolution.
   2) Byham – Definitions at odds with common use in 802 stds – WG accepts in principle
Carlo interrupts the summary of the negative comments, confirms that proper process will be followed on recirc.
Jeffree states intention to get the project onto the June RevCom agenda, thus the request for conditional approval.

Motion: Conditionally approve forwarding P802 to RevCom pending successful completion of Sponsor recirculation Ballot
Jeffree/Frazier
9/0/1 Approved
802.1 Consent Agenda items
SEC Motion

- SEC conditionally approves forwarding P802.1w - rapid spanning tree - to RevCom pending successful completion of Sponsor recirculation ballot.
- The 802.1 WG plenary voted 11-0-0 in favour of this action.
- The Sponsor ballot closed on 27 February 2001. The results at close of ballot were:
  - Approve: 46 (100%), Disapprove: 0, Abstain: 3
  - Response rate: 80%
- Moved: Jeffree
- Second: 
- For:
- Against:
- Abstain:
SEC Motion

- SEC conditionally approves forwarding P802.1X – Port based network access control - to RevCom pending successful completion of Sponsor recirculation ballot.

- The 802.1 WG plenary voted 11-0-0 in favour of this action.

- The Sponsor ballot closed on 28 February 2001. The results at close of ballot were:
  - Approve: 50 (98%), Disapprove: 1, Abstain: 1
  - Response rate: 85%

- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:
SEC Motion

- SEC conditionally approves forwarding P802 – Overview & Architecture - to RevCom pending successful completion of Sponsor recirculation ballot.
- The 802.1 WG plenary voted 11-0-0 in favour of this action.
- The Sponsor ballot closed March 2000. The results at close of ballot were:
  - Approve: 58 (93%), Disapprove: 4, Abstain: 6
  - Response rate: 78%
- Moved: Jeffree
- Second:
- For:
- Against:
- Abstain:
SEC Motion

• Initiate a 30-day SEC letter ballot as follows:
  – The SEC considers that ongoing maintenance of the 802 Functional Requirements document is no longer required, given that its useful content has now been documented elsewhere. Therefore, the SEC no longer considers the FRD to be an 802 standing document, and deprecates its use. The FRD is to be archived on the IEEE 802 website for the next five years, along with a record of this motion; after that time, the document is to be deleted.

• Moved: Jeffree
• Second:
• For:
• Against:
• Abstain:
4.03 ME  Cond app 1802.3Rev to RevCom - Thompson

Draft currently has no negatives after first sponsor ballot.

Motion: Conditionally approve forwarding P1802.3Rev to RevCom upon successful completion of Sponsor recirc Ballot.

Thompson/Grow

10/0/0 Approved

4.04 ME  Cond app 802.3ag to LMSC Sponsor Ballot - Thompson

No outstanding negatives.

Motion: Conditionally approve forwarding P802.3ag Rev to Sponsor Ballot upon successful completion of WG Recirculation Ballot.

Thompson/Grow

10/0/0 Approved

4.05 ME  Approve transmittal of response to Jumbo Frame RFC - Thompson

802.3 WG feels that Jumbo frames are a bad idea. Formulating a response from dot3 and dot1 to be sent to Scott Bradner.

Motion: Approve transmittal of response from 802.3 and 802.1 to informational RFC about to be posted.

Thompson/Frazier

9/0/0

4.06 ME  Approve transmittal of liaison statement re: X.86 to ITU-T - Thompson

(see file dot3ITU.pdf)

Mick Seaman advises against encouraging use of 802.3x flow control. Suggests removing last paragraph from response. Accepted by Thompson/Grow.

Hayes wants liaison statement to reflect pro forma specified in SEC Procedure 3. Accepted by Thompson/Grow.

Motion: Approve transmittal of informational liaison statement and recommendation as response from 802.3.

Thompson/Grow

10/0/0 Approved.
Thank you for informing us of the approval of your specification X.86 which seems to conform to our interface specification of the MII/GMII in ISO/IEC 8802-3.

You describe this as a new PHY for Ethernet. Because X.86 makes changes to the Ethernet frame transfer rate, and uses a store and forward functionality in LAPS, we believe that it is more appropriate to describe this device as a simple 2 port bridge to connect an MII/GMII to a SDH transmission payload.

In addition, in order to provide full functionality for rate adaptation to lower as well as higher payload rates from Ethernet frame transfer rates, we advise that you should consider the addition of 802.3x flow control capability to your Ethernet side interface.”
4.07 ME  802.11e MAC Enhancements (QoS) revised PAR to NesCom - Kerry

The goal is to split the current 802.11e into two: 802.11e and 802.11i.

Marks reads 802 Rules regarding division of PARs. 48 hour notice is required. Jodi Haasz would like a more detailed cover letter.

Carlo says that on the basis of the rules, the motion is out of order. Asks if SEC will agree to conduct a 20 day letter ballot.

Jodi Haasz points out that PARs as drafted do not match current PAR form.

Motion to conduct a 14 day SEC email ballot to decide whether to:
forward 802.11e PAR to NesCom
forward 802.11i PAR to NesCom
forward covering letter regarding 802.11e and 802.11i to NesCom.

Kerry/Heile
8/0/2 Approved

4.08 ME  802.11i MAC Enhancements (Security) new PAR to NesCom - Kerry

Disposed under item 4.08.

4.09 ME  Cond App 802.11d International Roaming to RevCom - Kerry

No outstanding No votes.

Motion to forward 802.11d draft to RevCom, after successful completion of the procedure for conditional approval to forward a draft standard.

Kerry/Hayes
10/0/0 Approved

4.10 ME  Revised PARs 802.16,.16a,.16b,.16.2 to NesCom - Marks

Motion:
1. to approve revised PAR 802.16, as represented in IEEE 802.16-01/10.
2. to approve PAR 802.16a, as represented in IEEE 802.16-01/10, as a revision of PAR 802.16.3
3. to approve PAR 802.16b, as represented in IEEE 802.16-01/10, as a revision of PAR 802.16.1b
4. to approve revised PAR 802.16.2, as represented in IEEE 802.16-01/10.

Marks presents as 4 motions, Thompson makes motion to join into one motion.
Marks/Thompson
9/0/0 Approved

4.11 ME  Cond App 802.16 to LMSC Sponsor ballot - Marks

WG letter ballot closed on Tuesday. Anticipate 2 to 3 recirculations at WG ballot. Currently have 69 approve votes, 17 disapprove, 80.2% approval.

Have not yet formed a sponsor ballot pool. Anticipate being able to request forward to Sponsor ballot before July meeting.

Carlo thinks that SEC will be able to consider this issue by email ballot.

On the advice of the SEC, Marks declines to make motion asking for conditional approval.
**Project**  
IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>  

<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Update of 802.16 PARs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date Submitted</strong></td>
<td>2001-03-08</td>
</tr>
<tr>
<td><strong>Source(s)</strong></td>
<td>Roger Marks, 802.16 Chair</td>
</tr>
<tr>
<td><strong>Re:</strong></td>
<td>IEEE 802.16-01/03r2 (Plan to Update 802.16 PARs)</td>
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**Abstract**  
This document includes revised versions of the four PARs overseen by IEEE Working Group 802.16. The changes were proposed in document IEEE 802.16-01/03r2 (Plan to Update 802.16 PARs), which was unanimously approved at 802.16 Session #11 after being placed on the Session #11 agenda by a decision at Session #10. These revised PARs were submitted to the 802 LMSC Sponsor Executive Committee for 15 March 2001 approval and to the IEEE-SA Standards Board’s New Standards Committee (NesCom) for 16 March 2001 approval.

**Purpose**  
To record the implementation of a Working Group decision.

**Notice**  
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**Patent Policy and Procedures**  
The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, including the statement IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard.

Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <mailto:r.b.marks@ieee.org> as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.
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 Feb 09  
P802.16

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}

- [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: Local and Metropolitan Area Networks - Part 16: Standard Air Interface for 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 +1 214 340 8837 FAX: +1 214 853 5274
E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [Yes]
   If YES, indicate PAR Number/Approval Date [P802.16.1-2000]
   If YES, is this project in ballot now? [No]
   [Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:
   [x] New standard
   [...]
   [...]
   [...]
   [...]
   [...]

6. Life Cycle

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

7. Balloting Information

   Choose one from the following:
   [x] Individual Sponsor Balloting
   [...]
   [...]
   [...]
   [...]

   Expected Date of Submission for Initial Sponsor Ballot: [2001 June 01]

8. Fill in Projected Completion Date for Submittal to RevCom: 2001 Aug 03

9. Scope of Proposed Project:

   This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems. The specification enables transport of data, video, and voice services. It applies to systems operating in the vicinity of 30 GHz but is broadly applicable to systems operating between 10 and 66 GHz.

10. Purpose of Proposed Project:

    To enable rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products. To facilitate competition in broadband access by providing alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum.
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? Yes

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

Yes

Explanation: The Broadband Radio Access Networks (BRAN) Committee of the European Telecommunications Standards Institute (ETSI) has a project known as HIPERACCESS which is attempting to standardize broadband wireless access in Europe. This is a regional standards effort with limited participation by the rest of the world. Furthermore, the project addresses regional markets with specific regulatory conditions distinct from those of other areas. We have held a joint meeting with this group and appointed a liaison. We plan to coordinate with them and will seek harmony where possible.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption? Yes

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 DRafts}

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}

5a) This revision renumbers the PAR from “802.16.1” to “802.16” and simplifies the title. The PAR is also brought into the current format.
IEEE-SA Standards Board Project Authorization Request (PAR) Form

(2001-Rev 1)

1. Sponsor Date of Request
2001 Feb 09

2. Assigned Project Number
P802.16a

3. PAR Approval Date (to be completed by staff)

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}

- [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: Local and Metropolitan Area Networks — Amendment to Standard Air Interface for Fixed Broadband Wireless Access Systems — Media Access Control Modifications and Additional Physical Layer for 2-11 GHz

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
5. Type of Project

a. Is this an update to an existing PAR? [Yes]
   If YES, indicate PAR Number/Approval Date [P802.16.3-2000]
   If YES, is this project in ballot now? [No]
   [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} [P802.16-2001]
   - [...] Corrigendum to an existing standard {number and year} [...] [x]

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: 2001 Nov 30

8. Fill in Projected Completion Date for Submittal to RevCom: 2002 Mar 31

9. Scope of Proposed Project:

This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems (e.g., those supporting data rates of DS1/E1 or greater). The specification enables access to data, video, and voice services with a specified quality of service in licensed bands designated for public network access. It applies to systems operating between 2 and 11 GHz.

10. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective and interoperable multi-vendor broadband wireless access products. To facilitate competition in broadband access by providing wireless alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum. Utilization of frequencies from 2 to 11 GHz.
GHz will address a market that includes residences, Small Office-Home Office (SOHO), telecommuters and Small and Medium Enterprises (SME).

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? Yes

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

Yes
Explanation:
- T1P1.4 is currently developing air interface standards for Fixed Wireless Access to the PSTN Network. The primary focus of the group is wireless access to POTS, ISDN and Fractional T1/E1 services delivered via the public circuit switched telephone network, although their charter does include packet data services. The individual user data rates currently contemplated by this group range from 8 Kb/s to 2 Mb/s.
- The ETSI BRAN Project is currently focusing on frequencies around 40 GHz but may evolve to frequencies below 11 GHz.
- IEEE 802.11 and 802.15 address primarily short range WLAN and WPAN applications, respectively. The 802.16.3 standard is specifically directed towards longer-range wireless point to multipoint MAN/WAN systems that provide access to core public networks. These systems typically serve large numbers of dispersed subscribers.
- ITU-R Working Party 8F is developing air interfaces for IMT-2000 and access systems beyond IMT-2000 for both mobile and fixed applications.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption? Yes
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 DRafts}
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}

5a) This revision makes the project an Amendment to P802.16-2001 rather than a standalone document. The title is modified accordingly. The PAR is also brought into the current format.
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 Feb 09  P802.16b

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}

- [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: Local and Metropolitan Area Networks — Amendment to Standard Air Interface for Fixed Broadband Wireless Access Systems — Media Access Control Modifications and Additional Physical Layer for License-Exempt Frequencies

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 +1 214 340 8837 FAX: +1 214 853 5274
E-mail: jcarlo@ti.com

5. Type of Project

a. Is this an update to an existing PAR? [Yes]
   If YES, indicate PAR Number/Approval Date [P802.16.1b-2000]
   If YES, is this project in ballot now? [No]
   [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} [P802.16-2001]
   [...] 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: 2001 Nov 30

8. Fill in Projected Completion Date for Submittal to RevCom: 2002 Mar 31

9. Scope of Proposed Project:

This standard specifies the medium access control layer and physical layers of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems. The specification enables transport of data, video, and voice services. Physical layers are specified for both licensed and license-exempt bands.

This Amendment expands the scope of the original project by extending it to license-exempt bands (thereby defining the Wireless High-Speed Unlicensed Metropolitan Area Network [WirelessHUMAN™] Standard). It specifies the physical layer and medium access control layer of the air interface of interoperable fixed broadband wireless metropolitan area network systems, including point-to-multipoint. The standard enables access to data, video, and voice services with quality of service in unlicensed (i.e., license-exempt) bands designated for public network access. It will focus on the 5-6 GHz range and may be applied to unlicensed bands between 2 and 11 GHz. It will address strategies for coexistence with other unlicensed applications. The
project will utilize or modify applicable elements from the following:

- MAC: IEEE 802.16
- PHY: IEEE 802.11a; ETSI BRAN HIPERLAN/2

10. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective, and interoperable multivendor broadband wireless access products. To facilitate competition in broadband access by providing alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum.

This Amendment enhances the original project by extending it to license-exempt bands. It will identify techniques to tolerate interference in the unlicensed bands and facilitate strategies for coexistence with other unlicensed band systems such as 802.11 and 802.15. It will encourage consistent worldwide spectrum allocation and accelerate the commercialization of unlicensed broadband wireless access spectrum. Utilization of unlicensed frequencies will address a market that includes residences, small office-home office (SOHO), telecommuters, and small and medium enterprises (SME).

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? Yes

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

Yes

Explanation:

IEEE 802.11, ETSI HIPERLAN/2, and IEEE 802.15 standards and projects address primarily short range WLAN and WPAN applications, respectively. PACS-UA and PACS-UB address unlicensed operation in the unlicensed personal communication services (UPCS) bands at 1910-1930MHz and 2390-2400MHz. This Amendment is specifically directed towards wireless point-to-multipoint MAN/WAN systems that provide access to core public networks using the unlicensed band spectrum. These systems typically serve large numbers of dispersed subscribers.

13. International Submissions

Will this standard (in part or in whole) be submitted to an international organization for consideration/adoption? Yes

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 DRafts}
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}

8) The intended timetable is:

- Nov 2000: Issue Call for Proposals for PHY and MAC
  - PHY: Modifications of 802.11a and/or HIPERLAN/2
  - MAC: Modifications of 802.16
- Jan 2001: Review proposals
- Feb 2001: Select Candidate Proposals at Interim Meeting
- Mar 2001: Decision on specific modifications
- May 2001: First Tentative Draft Standard submitted for review
- July 2001: Comment Resolutions
- Nov 2001: Initiate Sponsor Ballot
- Mar 2002: Submit to RevCom

5a) This revision renumbers the PAR from “802.16.1b” to “802.16b” to reflect renumbering of the base project from 802.16.1 to 802.16. The title is also simplified, and the PAR is also brought into the current format.
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 Feb 09  P802.16.2

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 — 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)
5. Type of Project

a. Is this an update to an existing PAR? [Yes]
   If YES, indicate PAR Number/Approval Date [P802.16.2-1999]
   If YES, is this project in ballot now? [No (but anticipated to begin on 2001 Feb 27)]
   [Indicate changes/rationale for revised PAR in Item #16. This should be no more than 5 lines.]

b. Choose one from the following:
   [ x ] New standard
   [...] Revision of existing standard {number and year} [...] 
   [...] 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: [2001 Feb 27]

8. Fill in Projected Completion Date for Submittal to RevCom: 2001 May 04

9. Scope of Proposed Project:

   This project covers development of a Recommended Practice for the design and coordinated deployment of
   fixed broadband wireless access (BWA) systems operating from 10-66 GHz (with a focus on 23.5-43.5 GHz) in
   order to minimize interference so as to maximize system performance and/or service quality. This practice will
   provide for coexistence using frequency and spatial separation and will cover three areas. First, it will
   recommend limits of in-band and out-of-band emissions from BWA transmitters through parameters including
   radiated power, spectral masks and antenna patterns. Second, it will recommend receiver tolerance parameters,
   including noise floor degradation performance, for interference received from other BWA systems. Third, it will
   provide coordination parameters, including separation distances, and power flux density limits, to enable
   successful deployment of BWA systems with tolerable interference. The scope includes interference between
   systems deployed across geographic boundaries in the same frequency band and systems deployed in the same
   geographic area in different frequency bands (including different systems deployed by a single license-holder in
   sub-bands of the licensees authorized bandwidth). The scope does not cover coexistence issues due to
   intrasystem frequency re-use within the operator’s licensed band, and it does not consider the impact of
interference created by BWA systems on non-BWA terrestrial and satellite systems.

10. Purpose of Proposed Project:

The purpose of this recommended practice is to provide coexistence guidelines to license holders, service providers, deployment groups, and system integrators. The equipment parameters contained within this practice will benefit equipment and component vendors and industry associations by providing design targets. The benefits of this practice will include:

- Coexistence of different systems with higher assurance that system performance objectives will be met.
- Minimal need for case-by-case interference studies and coordination between operators to resolve interference issues.
- Preservation of a favorable electromagnetic environment for deployment and operation of BWA systems, including future systems compliant to IEEE 802.16 interoperability standards.
- Improved spectrum utilization.
- Cost-effective system deployment.

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 BWA operators to deploy systems. Detailed co-existence guidance, such as described in this PAR, is in its early stages of development in other regional and international standards bodies. Studies addressing certain aspects of the coexistence issues are being developed by or have been completed by organizations such as:

3. Inter-American Telecommunication Commission (CITEL): Permanent Consultative Committee III: Radiocommunications (PCC-III)
5. National Spectrum Managers Association (NSMA)
6. Radio Advisory Board of Canada (RABC)

We will coordinate with these groups as appropriate.

13. International Submissions

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

Which International Organization/Committee ITU-R
International Contact Information:
Name: Dr. José M. Costa
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 DRafts}
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}

5a) This revision simplifies the title and slightly reduces the scope. The PAR is also brought into the current format.
4.12 ME  802.16 Press Release  - Marks
Marks presents draft of press release describing progress in 802.16 WG.

5 SEC members and the audience offer several improvements to the press release draft.

Motion: Approve in principle press release
Marks/Nikolich

5/0/4

4.13 ME  Cond App 802.15.1 (BlueTooth) to LMSC Sponsor Ballot  - Heile

15 Motion:
Forward IEEE Draft 802.15.1/D1.0 to Sponsor ballot, based on a successful completion
Of a WG recirculation ballot. Conditional approval to expire at the beginning of the Portland
Plenary meeting.
Heile/Kerry

11/0/0

4.14 ME  802.16 Liaison Letters (2)  - Marks
25 Marks presents liaison letter to ETSI BRAN. SEC members offer several improvements.
The letter to ETSI BRAN is from the 802.16 WG.

Motion to approve IEEE 802-16I-01/09 as a communication from the 802.16.
Marks/Nikolich
6/0/5 Approved

Motion to approve in principle IEEE802.16I-01/10 as a Working Group position statement to a government body.
Marks/Nikolich
6/0/5 Approved

4.14a ME  SC6 TAG Response to IEEE  - Carlo

40 Motion
IEEE 802 believes that it is no longer necessary to participate in the US Technical Advisory Group (TAG) for ISO/IEC
JTC1/SC6 and recommends that steps be taken to disband the SC6 IEEE TAG (which in the past has provided US inputs to the
JTC1/SC6 working groups WG1 and WG3 via the U.S. National Body [USNB])
Thompson/Frazier

10/0/0 Approved

4.15 MI*  Initiate 30 day SEC letter ballot re: RIP FRD  - Jeffree
Approved as part of the consent agenda.
4.16 MI  Formation of Sponsor Ballot Pool for 802.3ae 10 GigE  - Thompson

Motion: Approve formation of sponsor ballot pool for P802.3ae (10 Gigabit Ethernet)

Thompson/Grow

Withdrawn by Thompson because it is not necessary to have SEC approval to form a sponsor ballot pool.

4.17 MI  Renewal of 802.3 EFM Study Group Charter - Thompson

Request renewal of EFM Study Group Authorization for another plenary cycle.

(see file objectives.pdf)

Frazier/Thompson

11/0/0
SG Objectives

Support subscriber access network topologies:

84-3-12  Point to multipoint on optical fiber
86-0-10  Point to point on optical fiber
64-1-33  Point to point on copper

Provide a family of physical layer specifications:

87-0-11  1000BASE-X extended temperature range optics
84-4-13  1000BASE-X long distance over single SM fiber
68-0-27  PHY for copper
59-3-19  PHY for long distance over PON
79-0-12  Support OAM&P for subscriber access networks
4.18 MI 802.11 5 GHz Study Group renewal - Kerry
Motion Request renewal of 802.11 5 Ghz Study Group authorization for an additional plenary cycle. Expect presubmission of PAR and 5 Criteria for the July 2001 plenary.
Kerry/Heile
11/0/0

4.19 MI Procedure 1 Rules Change - Nikolich
Frazier indicates willingness to remove his disapproval on Rules Change to Procedure 1.
Motion to approve the addition of statement allowing the treasury to support the publication of standards to Procedure 1 Use of LMSC Funds of the LMCS operating rules as presented in the March 15,2001 Nikolich memo.
Nikolich/Thompson
11/0/0

4.20 MI Section 5.1.3 Rules Change - Nikolich
Motion: Approve the modifications to section 5.1.3 of the 802 operating rules to resolve the ambiguity with respect to the definition and use of the terms members and observers as presented in the March 15,2001 Nikolich memo.
Marks asks to delete “level” from “sponsor level ballot”.
Nikolich/Thompson
11/0/0

4.21 MI Appointment of 802.17 Officers - Carlo
Motion: Approve the 802.17 selection of Mike Takefman for 802.17 WG chair. Note he was approved by acclimation by over 100 voting members of 802.17.
Love/Hayes
11/0/0
Motion: Approve as 802.17 Vice Chair selected by the Working group Robert Love Marks/Hayes
9/0/1

4.22 MI Appointment of 802 LMSC Recording Secretary - Carlo
Affirm Bob O’Hara as the recording secretary of IEEE 802 effective at the end of the March plenary meeting
Frazier/Hayes
11/0/0
O’Hara will supply a letter to the recording secretary.

4.23 MI 802.16 Study Group on amendment to 802.16.2 - Marks
Motion to affirm IEEE 802.16’s decision to create a Working Group Study Group on Coexistence of a Fixed Broadband Wireless Access Systems, chartering it to draft a PAR for an amendment to 802.16.2
Marks/Nikolich
10/1/0
4.24 MI Wireless Coexistence EC Study Group - Heile

Motion to form an EC SG on wireless coexistence to develop a recommendation on how best to deal with the issues of wireless coexistence within 802.

Heile/Kerry
11/0/0

10 4.25 MI Network Services Feedback - Nikolich

Authorize expenditure of up to $15K, $2K for a PC and $13K for wired and wireless networking services and internet access for the July 2001 meeting, including instructions for use and announcement 1 month before the start of the meeting. Mr. Heile and Mr Kerry being the SEC contacts.

Hayes/Nikolich

Grow expresses opinion that the motion would be fiscally irresponsible, given that it is unbudgeted, and would result in a $11K deficit for the July meeting.

Motion withdrawn. Will be discussed via email ballot.

4.26 DT

4.27 DT

25 4.28 ME 802 Standards Distribution - Carlo

Launch a 3 year pilot program that provides for the public availability of individual IEEE 802 standards in PDF format via the IEEE-SA web site effective 15 May 2001.

- IEEE 802 contribution of $75 per person per plenary meeting since July 2000
- Individual IEEE 802 PDFs available 6 months after publication
- IEEE-SA socialize corporate solicitation
- Program labeled as “Underwritten by Industry”
- Program to be reviewed yearly for viability
- IEEE 802 chair provide a plenary report with 3 year workload projections

Motion: Approve the above plan and authorize Treasurer to “cut a check” within two weeks after each plenary meeting, including $215,100 within two weeks after this meeting to cover the obligation since July 2000.

Thompson/Frazier
10/1/0 Approved

Jeffree states that 802.1 has asked that IEEE Standards staff provide itemization of costs associated with editing and publication of 802 standards as part of the yearly review.

45 Rigsbee asks if the CDROM is affected by this program. Answer is no.

What is meaning of this being identified as a 3 year pilot program?

Intent is to have a yearly review to make adjustments if necessary, and to keep program in place for 3 years.

4.29 II July Closing SEC meeting - Carlo

Move the SEC meeting to 4-8pm on Friday in July.

Marks/Hayes
9/2/0
4.30 II  802.11/15/16/17 Interim Meeting - Nikolich

Approve Paul Nikolich, on behalf of the SEC to manage the May, 2001 Orlando Interim meeting.
Kerry/Heile
11/0/0

4.31 II  802.3 Interpretation Requests - Thompson

4.32 II  Meeting Arrangements for Portland - Jeffree

802.1 expects to meet only on Monday through Wednesday in July.

12:00 Adjourn

The meeting was adjourned at 12:00pm.

Respectfully Submitted,
Howard Frazier
Recording Secretary
802.1 - Activities & status

Tony Jeffree, WG Chair
15th March 2000
Areas of work

■ 802 Architecture
■ Interworking between 802 technologies
  – “Technical Plenary” if needed
■ MAC Bridging
  – “traditional” bridging
  – VLAN bridging
■ LAN management
■ Website: http://www.ieee802.org/1/
Status of current projects - (1)

- Standard 802 revision (Overview & Architecture)
  - Draft 28 Sponsor Ballot has passed; comments resolved this week
  - Will be submitted to June RevCom after recirc ballot

- P802.1s - Multiple Spanning Tree support in VLANs
  - Draft 10 expected to be circulated in next few weeks
Status of current projects - (2)

- P802.1t - Tech & ed corrections to 802.1D MAC Bridges
  – Draft 10 to RevCom on 16\textsuperscript{th} March

- P802.1u - Tech & ed corrections to 802.1Q VLANs
  – Draft 9 to RevCom on 16\textsuperscript{th} March
Status of current projects - (3)

- P802.1v - VLAN classification by protocol and port
  - Draft 6 to RevCom on 16th March
- P802.1w - Rapid Spanning Tree reconfiguration
  - Draft 9 Sponsor Ballot has passed; comments resolved this week
  - Will be submitted to June RevCom after recirc ballot
P802.1X - Port based network access control

- Draft 10 Sponsor Ballot has passed; comments resolved this week
- Will be submitted to June RevCom after recirc ballot
IEEE 802.3 CSMA/CD

- Feedback to Exec on Network
- Feedback to Exec on Free Standards
- P1802.3Rev conditionally to Standards Board
- P802.3ag Rev to Sponsor Ballot
- Interpretation Requests, 1 Appd, 1 to WG Ball
- P802.3ae to WG ballot, form Sponsor Pool
- EFM: Renew Study Group, PAR/5 preview in June
- Comments of X.86 to ITU-T
- Comments on Jumbo Frame RFC to IETF
• STRAW POLL - 802.3 MON/H-HEAD re: At Meeting Networks

Issues/Concerns:
– Cost: ~$15/head/meeting
– Meeting distraction (Web surfing during mtg)
– Security/viruses

STRAW POLL RESULTS:
• 1) Internet Access
  – FOR 34   AGAINST 89
• 2) Access to servers @ mtg only
  – FOR 66   AGAINST 66
• 3) Nothing (e.g. 5 more cookies for same $)
  – FOR 73   AGAINST 34
IEEE 802 Standards
We’ve Got a Deal!

Launch a 3-year pilot program that provides for the public availability of individual IEEE 802 Standards in PDF format via the IEEE-SA web site effective 15 May 2001.

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Whoopee !!!
P1802.3 Rev

IEEE 802.3 Motion
IEEE 802.3 authorises the IEEE P1802.3Rev Task Force to conduct meetings and recirculation ballots as necessary to resolve the comments received during the Sponsor ballot process. IEEE 802.3 requests that the P802 LMSC Executive Committee forward P1802.3Rev/D3.1 to RevCom (by 05/01) based on successful Sponsor ballot with no new technical disapprove votes.


802 EXEC MOTION:
Conditionally approve forwarding P1802.3Rev to REVCOM upon successful completion of Sponsor Ballot
M: G.Thompson/ S: B.Grow Y_____ N_____ Ab_____
IEEE 802.3 Motion
IEEE 802.3 requests that the P802 LMSC Executive Committee forwards IEEE P802.3ag for LMSC Sponsor Ballot conditional upon successful completion of Working Group recirculation Ballot with no new negatives.
IEEE 802.3 authorises the IEEE P802.3ag Task Force to conduct meetings and recirculation ballots as necessary to resolve comments received during the Sponsor Ballot.
M: D Law      S: P Thaler      Tech 75%
PASSED Date: 15th March 2001
Y: 93 N: 0 A: 4 Time: 8:48am

802 EXEC MOTION:
Conditionally approve forwarding P802.3ag Rev to Sponsor Ballot upon successful completion of WG Recirculation Ballot
M: G.Thompson/ S: B.Grow      Y_____ N_____ Ab _____
IEEE Std. 802.3 Interpretation Requests

Information Item to 802 EXEC

1 Interpretation Request was approved by 802.3 in session on Thursday

1 Interpretation Request was sent to 30 day letter ballot by 802.3 in session on Thursday
P802.3ae 10 Gigabit Ethernet

Draft 2.3 reviewed today for approval by 802.3 for Working Group Ballot and request formation of Sponsor Ballot Pool. Approved 99/0/0

Will have editorial updates (spell-check, link updates and clause renumber) before opening of ballot.

802 EXEC Motion:
Approve formation of Sponsor Ballot Pool for P802.3ae
M: G.Thompson /S: B. Grow Y___ N___ Ab____
Time: ___
Ethernet in the First Mile Study Group

802 EXEC Motion:
Request renewal of Study Group Authorization for another Plenary cycle

Expect to presubmit PAR + 5 Criteria for July Mtg

M: H. Frazier /S: G.Thompson Y___ N___ Ab___
Time: ___
Comments of X.86 to ITU-T

Request Exec approve transmittal of informational Liaison statement and recommendation.

M: G.Thompson / B. Grow Y____ N____ Abs_____
Comments on Jumbo Frame RFC to IETF

Request Exec approve transmittal of opinion regarding information RFC about to be posted.

M: G.Thompson / H. Frazier  Y____ N____ Abs____
802.11 Report to SEC

- 468 participants are on record in the 802.11 database.
- 168 participants were at the opening plenary.
  - 169 Voting Members, 211 potential voting members, 179 aspirant voters.
- Over 200 documents have been published in 802.11 so far this year.
802.11 Report from Task Groups

• 802.11b-cor1 Corrigendum for 802.11b
  – 802.11b-cor1 is ready to go to sponsor ballot, but did not initiate the ballot before this meeting.
802.11 Report from Task Groups

• 802.11d Regulatory Domains
  – TGd resolved 55 comments. 32 were technical: 31 were resolved, 1 was withdrawn. All editorial comments were accepted.
  – TGd forwarded and passed motions in the 802.11 plenary to adopt the comment resolutions, and forward the revised 802.11d Draft 3 to sponsor recirculation ballot.
802.11 Report from Task Groups

- Task Group E Security
  - TGe-Security forwarded revised PARs to the Standards Board to separate TGe-Security into a new task group.
  - TGe-Security adopted document 01/018r4 as the TGe-Security Draft Text D1.0, and forwarded it to Letter Ballot, and to Sponsor Ballot under the new PAR, subject to approval of the new PAR.
802.11 Report from Task Groups

• Task Group E QoS
  – TGe-QoS adopted the Hybrid Coordination Function (HCR, document 110r1) and the Enhanced Distributed Coordination Function (EDCF, document 131r1) into the baseline QoS draft D0.1.
  – The TGe-QoS Draft, with the updates from the previous motions, was approved for WG letter ballot, and forwarding to Sponsor Ballot.
802.11 Report from Task Groups

• Task Group F: Inter Access Point Protocol.
  – Adopted document 01/102r2 as the initial draft of TGf.
  – The draft was approved to conduct a working group letter ballot to forward the draft to Sponsor Ballot.
802.11 Report from Task Groups

• Task Group G
  – Completed the first down-selection vote between three proposals. The vote was 48%, 46%, and 6%. The proposal with 6% was eliminated. Since the remaining two proposals did not have sufficient support to reach 75%, the session was adjourned for the week to seek compromise.
802.11 Report from Task Groups

- Task Group H
  - Has been taking proposals, and discussed them this week. Currently three proposals have been accepted. TGh passed a motion to close proposals on April 14, 2001.
802.11 Report from Task Groups

• 5GSG
  – Passed a motion to extend the study group until the July 2001 Plenary.
  – Approved and forwarded the PAR and 5 criteria documents to executive committee for approval.
Session #12 of the IEEE 802.16 Working Group on Broadband Wireless Access took place on 12-15 March 2001 at the Hilton Oceanfront Resort in Hilton Head, South Carolina, USA. Attendance at Session #12 was 178.

*Note: This report (updated 26 March) is essentially complete but will be edited as final information become available.*

**Summary**

The session was marked by final agreement (as defined in IEEE 802.16-01/10) to create a unified Working Group air interface document with a common, flexible medium access control (MAC) platform supporting multiple physical layers (PHYs). The first stage (the base MAC and a 10-66 GHz physical layer) was approved in a Working Group Letter Ballot, subject to comment resolution. In the development of the 2-11 GHz physical layer, a dual approach (both OFDM and single-carrier) was selected. The WirelessHUMAN™ Task Group made progress in draft development. A Recommended Practice on Coexistence began Sponsor Ballot (its final round of balloting), and a Study Group to consider its enhancement was created.

**P802.16**: Standard Air Interface for Fixed Broadband Wireless Access Systems [10-66 GHz]

A draft was approved, with comments, in a Working Group Letter Ballot. Comments were resolved (as documented in the database IEEE 802.16-01/19) and a recirculation ballot will begin soon. Publication is still anticipated in the fourth quarter of 2001. In a joint meeting, a new flexible header was worked out to support the needs of 802.16a and 802.16b.

**P802.16a**: MAC Modifications and Additional Physical Layer for 2-11 GHz

The 802.16a group agreed to incorporate both a single-carrier mode (based on 802.16.3c-01/32) and an OFDM mode (based on 802.16.3c-01/33r2). Drafting has been initiated on both PHY and MAC documents.

**P802.16b**: MAC Modifications and Additional Physical Layer for License-Exempt Frequencies (WirelessHUMAN™)

MAC and PHY teams made progress in draft development. The project remains on schedule.

**P802.16.2**: Recommended Practice for Coexistence of Fixed Broadband Wireless Access Systems

Following completion of its Working Group Letter Ballot, with 100% approval, on 17 February, P802.16.2 began its Sponsor Ballot (its final ballot stage) on 14 March. June approval is anticipated. A Study Group, chaired by Phil Whitehead, was created to consider amendments to enhance the document by consideration of point-to-point systems and 2-11 GHz issues.

**Working Group Activities**

*Regulatory and Coexistence*

A ninety-minute Working Group session was held to discuss regulatory issues with Julius Knapp,
Chief of the Policy and Rules Division of the Office of Engineering and Technology (OET) at the U.S. Federal Communications Commission (FCC) (see the agenda). David Chauncey was appointed as the Working Group's Regulatory Liaison.

**Liaison**
Liaison letters to ETSI BRAN and ITU-R were approved.

**Membership**
Working Group membership rose from 124 to 137.

**Secretary**
Carl Bushue served as Acting Secretary of the Working Group.

**Documents**
The Session #12 document list indexes the session documents (at least 97 of them).

**Complete Minutes**
Full minutes are forthcoming. Some draft minutes are available:
- Working Group Minutes
- TG1 MAC Minutes
- TG3 Minutes

**Press Release**
A press release entitled "IEEE 802.16 Group Achieves Key Milestones" was approved in draft form.

**Future Meetings**
IEEE 802.16 will meet at Session #13 in Orlando, Florida, USA on 14-18 May 2001 along with 802's other Wireless Working Groups (802.11 and 802.15). Session #14, an 802 Plenary, is 9-13 July 2001 in Portland, Oregon, USA. The site of Session #15 (September 10-14, 2001) is undecided, but San Jose, California, USA is under consideration.

**About IEEE 802.16**
The IEEE 802.16 Working Group on Broadband Wireless Access Standards is creating the WirelessMAN™ family of standards for wireless metropolitan area networks. 802.16 is a unit of the 802 LAN/MAN Standards Committee, the premier transnational forum for wired and wireless networking standardization.

This report was drafted on 15 March and edited by:

Roger Marks (marks@nist.gov)
Chair, IEEE 802.16 Working Group on Broadband Wireless Access Standards
tel: +1-303-497-3037
fax: +1-303-497-7828
r.b.marks@ieee.org