AGENDA & MINUTES (Unconfirmed) - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING, Revision 00

Monday, November 14, 2008 – 1:00 p.m.

All times central standard time (CST)

Dallas, TX

EC members present:

Paul Nikolich - Chair, IEEE 802 LAN / MAN Standards Committee
Mat Sherman - Vice Chair, IEEE 802 LAN / MAN Standards Committee
Pat Thaler – Vice Chair, IEEE 802 LAN / MAN Standards Committee
James Gilb - Recording Secretary, IEEE 802 LAN / MAN Standards Committee
Buzz Rigsbee - Executive Secretary, IEEE 802 LAN / MAN Standards Committee
John Hawkins - Treasurer, IEEE 802 LAN/MAN Standards Committee
Tony Jeffree - Chair, IEEE 802.1 – HILI Working Group
David Law - Chair, IEEE 802.3 – CSMA/CD Working Group
Bruce Kraemer - 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
John Lemmon - Chair, IEEE 802.17 – Resilient Packet Ring Working Group
Mike Lynch - Chair, IEEE 802.18 – Regulatory TAG
Steve Shellhammer - Chair, IEEE 802.19 – Wireless Coexistence TAG
Mark Klerer - Chair, IEEE 802.20 – Mobile Broadband Wireless Access
Vivek Gupta - Chair, IEEE 802.21 – Media Independent Handover
Carl Stevenson - Chair, IEEE 802.22 – Wireless Regional Area Networks
Geoff Thompson - Member Emeritus (non-voting)

Meeting called to order at 1 pm.

**r05   DRAFT AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE
MEETING
Friday, November 14, 2008 – 1:00PM-6:00PM**

| **1.00** | | **MEETING CALLED TO ORDER** | **Nikolich** | **1** | **01:00 PM** |
| **2.00** | **MI** | **APPROVE OR MODIFY AGENDA** | **Nikolich** | **9** | **01:01 PM** |

Nikolich opened the meeting by discussing the agenda.

Motion to approve the agenda as modified

Moved by Lynch, seconded Rigsbee

No objections.

r05 **DRAFT AGENDA - IEEE 802 LMSC EXECUTIVE COMMITTEE MEETING**

Friday, November 14, 2008 – 1:00PM-6:00PM

1.00		**MEETING CALLED TO ORDER**	**Nikolich**	**1**	**01:00 PM**
2.00	MI	**APPROVE OR MODIFY AGENDA**	**Nikolich**	**9**	**01:01 PM**
3.00					**01:10 PM**
3.01					**01:10 PM**
3.02					**01:10 PM**
4.00	II	**Announcements from the Chair**	**Nikolich**	**5**	**01:10 PM**
4.01					**01:15 PM**
		Category (* = consent agenda)			**01:15 PM**
5.00		**IEEE Standards Board and Sponsor Ballot Items**			**01:15 PM**
5.01	ME	**802.21 Extensions for Supporting Downlink Only Broadcast Technologies PAR forward to NesCom**	**Gupta**	**10**	**01:15 PM**
5.02	ME	**802.11 Revision PAR forward to NesCom**	**Kraemer**	**2**	**01:25 PM**
5.03	ME	**802.11 Very High Throughput 60 GHz PAR forward to NesCom**	**Kraemer**	**5**	**01:27 PM**
5.04					**01:32 PM**
5.05	ME	**802.20 MAC bridging support PAR forward to NesCom**	**Klerer**	**5**	**01:32 PM**
5.06	ME	**802.15.4f PHY for Active RFID systems, amendment PAR forward to NesCom**	**Heile**	**10**	**01:37 PM**
5.07	ME	**802.15.4g PHY for low data rate Wireless Neighborhood Area Networks (WNAN), amendment PAR forward to NesCom**	**Heile**	**10**	**01:47 PM**
5.08	ME	**802.15.7 MAC and PHY for short-range, wireless optical communication using visible light PAR forward to NesCom**	**Heile**	**10**	**01:57 PM**
5.09	ME	**802.3.1 MIB definitions for Ethernet PAR forward to NesCom**	**Law**	**5**	**02:07 PM**
5.10	ME	**802.3-2008/Cor 1 (IEEE 802.3bb) Corrigendum PAR forward to NesCom**	**Law**	**2**	**02:12 PM**
5.11	ME	**802.3bc Amendment: Ethernet Organizationally Specific TLVs PAR forward to NesCom**	**Law**	**5**	**02:14 PM**
5.12	ME	**802.3at PAR modification forward to NesCom**	**Law**	**5**	**02:19 PM**
5.13	MI	**802.3at 5C update**	**Law**	**2**	**02:24 PM**
5.14	ME	**802.15.4c forward to RevCom (conditional)**	**Heile**	**5**	**02:26 PM**
5.15	ME	**802.15.5 forward to RevCom (conditional)**	**Heile**	**5**	**02:31 PM**
5.16	ME	**802.15.2 reaffirmation to Sponsor ballot**	**Heile**	**5**	**02:36 PM**
5.17	ME	**802.11n High Throughput to Sponsor ballot (conditional)**	**Kraemer**	**10**	**02:41 PM**
5.18	ME	**P802.3at DTE Power via MDI Enhancements to Sponsor ballot (conditional)**	**Law**	**10**	**02:51 PM**
5.19	ME	**P802.3av 10Gb/s EPON to Sponsor ballot (conditional)**	**Law**	**5**	**03:01 PM**
5.20	ME	**P802.16 Revision to RevCom (conditional)**	**Marks**	**10**	**03:06 PM**
5.21	ME	**P802.16j to RevCom (conditional)**	**Marks**	**5**	**03:16 PM**
5.22	ME	**802.1ap to RevCom**	**Jeffree**	**5**	**03:21 PM**
5.23	ME	**802.1Qaw to Sponsor ballot (conditional)**	**Jeffree**	**5**	**03:26 PM**
5.24	ME	**802.1Qay to Sponsor ballot (conditional)**	**Jeffree**	**5**	**03:31 PM**
5.25	ME	**Response to the interpretation request on 802.1ah (re: L2GP operation)**	**Jeffree**	**5**	**03:36 PM**
5.26	ME	**Response to the interpretation request on 802.1Q (re: MST Region definition)**	**Jeffree**	**5**	**03:41 PM**
5.27	ME	**802.22.1 to Sponsor ballot (conditional)**	**Stevenson**	**5**	**03:46 PM**
5.28	ME				**03:51 PM**
6.00		**Executive Committee Study Groups, Working Groups, TAGs**			**03:51 PM**
6.01	MI	**802 EC SG TV White space**	**Shellhammer**	**10**	**03:51 PM**
6.02	MI*	**802.15 Visible Light communications (2nd extension)**	**Heile**		**04:01 PM**
6.03	MI*	**802.15 RFID 802.15.4 amendment (3rd extension)**	**Heile**		**04:01 PM**
6.04	MI*	**802.15 NAN 802.15.4 amendment (1st extension)**	**Heile**		**04:01 PM**
6.05	MI*	**802.11 Very High Throughput Study Group Extension request (3rd extension)**	**Kraemer**		**04:01 PM**

6.06	MI	802.21 Emergency Services Study Group (2nd extension)	Gupta	5	04:01 PM
6.07	MI				04:06 PM
6.08	MI				04:06 PM
6.09					04:06 PM
6.10					04:06 PM
7.00		Break		10	04:06 PM
8.00		**LMSC Internal Business**			04:16 PM
8.01	MI	Motion to select Singapore venue for the March 2011 plenary	Rigsbee	13	04:16 PM
8.02	MI	Future Plenary options	Rigsbee	11	04:29 PM
8.03	MI	Motion to modify IEEE 802 P&P and create operations manual	Sherman	5	04:40 PM
8.04	MI	Motion to reimburse WGs/TAGs for interim projector expenses	Hawkins	5	04:45 PM
8.05	DT	MSA approval for VeriLAN Event Services 12/1/08 to 12/1/11	Hawkins	15	04:50 PM
8.06	MI	Treasurer's report	Hawkins	5	05:05 PM
8.07	ME*	Response to the interpretation on 802.11-2007 (re. response code misquoted).	Kraemer		05:10 PM
8.08	ME	IEEE 802.18 IMT-Advanced Review Process	Lynch	10	05:10 PM
9.00		**LMSC Liaisons and External Interface**			05:20 PM
9.01					05:20 PM
9.02	ME	Updated Material on IMT-2000 OFDMA TDD WMAN for Revision 9 of Recommendation ITU-R M.1457	Lynch	3	05:20 PM
9.03	ME	Intention to Submit Candidate IMT-Advanced RIT based on IEEE Project 802.16m	Lynch	3	05:23 PM
9.04					05:26 PM
9.05					05:26 PM
9.06					05:26 PM
9.07					05:26 PM
9.08					05:26 PM
9.09					05:26 PM
10.00		**IEEE SA items**			05:26 PM
10.01					05:26 PM
10.02					05:26 PM
10.03					05:26 PM
10.04					05:26 PM
10.05					05:26 PM
10.06					05:26 PM
10.07					05:26 PM
11.00		**Information Items**			05:26 PM
11.01	DT	Dominance ad-hoc report	Thompson	10	05:26 PM
11.02	DT	Plenary reorganization and EC off-site ad-hoc report	Jeffree	10	05:36 PM
11.03	II*	802.11 Member area access change	Kraemer		05:46 PM
11.04	II*	Liaison response to MEF "Reply to MEF 27033-001"	Jeffree		05:46 PM
11.05	II*	Liaison response to MEF "Reply to MEF 27028-002"	Jeffree		05:46 PM
11.06	II*	Sponsor ballot statement	Kraemer		05:46 PM
11.07	II	Discussion of possible discount to unemployed attendees	Kraemer	5	05:46 PM
11.08	II*	802 Task Force update	Nikolich		05:51 PM
11.09					05:51 PM
12.00		**ADJOURN SEC MEETING**	Nikolich		06:00 PM

ME - Motion, External   MI - Motion, Internal

DT- Discussion Topic   II - Information Item

4.00 II Announcements from the Chair   **Nikolich   5 01:12 PM**

Nikolich recognized the 13 years of service to IEEE 802 of Darcel Moro

This was followed by a standing ovation by all EC members and members in the audience.

Category (* = consent agenda)

5.00   IEEE Standards Board and Sponsor Ballot Items

**5.01 ME 802.21 Extensions for Supporting Downlink Only Broadcast   Gupta   10 01:15 PM
Technologies PAR forward to NesCom**

Gupta presented "802.21-EC-Slides-Nov-08.ppt", slide 2

Moved by Gupta, seconded by Klerer

Nikolich asked for objection, no objections were listed, motion passes

802.21b Broadcast Handover PAR Approval

- Motion the 802 EC for approval to forward the 802.21b PAR for Extensions for Supporting Handovers with Downlink Only Technologies <http://mentor.ieee.org/802.21/file/08/21-08-0260-05-bcst-broadcast-handovers-sg-par-5c.doc> to NesCom.

- Moved: Vivek Gupta

- Second: Mark Klerer

- LMSC Vote: Approved unanimously

- WG Vote: 16/0/2

5.02   ME 802.11 Revision PAR forward to NesCom   **Kraemer   2   01:18 PM**

Kraemer presented 11-08-1438-00, slide 3

Move to request that the PAR contained in 11-08/1149r2 as posted to the IEEE 802 Executive Committee (EC) agenda be forwarded to NesCom

Moved by Kraemer, seconded by Rigsbee

Nikolich asked for objection, no objections were listed, motion passes.

Nikolich makes a motion to modify the agenda to move 5.03 and 5.17 to after 5.27.

No objections.

Marks asked if it was OK to approve PARs by asking for any objections.

Nikolich asked if it was OK to ask for any objections and any abstentions if that would be OK.

Sherman suggested that for forwarding PARs and standard should have a vote count.

Nikolich then went back to take explicit votes.

Item 5.01 Motion to forward PAR to NesCom

Moved by Gupta, seconded by Klerer

Result was 16/0/0, no objections were listed.

Item 5.02, forwarding revision PAR to NesCom.

Move to request that the PAR contained in 11-08/1149r2 as posted to the IEEE 802 Executive Committee (EC) agenda be forwarded to NesCom

Moved by Kraemer, seconded by Rigsbee

Result was 16/0/0, motion pases.

802.11 EC Motion – 5.02
802.11-2007 Revision PAR

- **Move to Request that the PAR contained in 11-08/1149r2 as posted to the IEEE 802 Executive Committee (EC) agenda be forwarded to NesCom**
- **Moved: Kraemer 2nd Buzz**

5.05   ME 802.20 MAC bridging support PAR forward to NesCom   Klerer   5 01:30 PM

Klerer presented "802.20b-Par-Motion.ppt"

Motion is to forward 802.20 MAC bridging support to NesCom

Moved by Klerer, seconded by Jeffree

Result was 16/0/0, motion passes.

802.20b: Bridging of 802.20 PAR Approval

- Motion to forward draft PAR 802.20b http://ieee802.org/20/WG_Docs/802.20-08-15r1.pdf (Amendment of 802.1Q for Bridging of 802.20) to NesCom.

- Moved: Mark Klerer

- Second: Tony Jeffree

- LMSC Vote:

- WG Vote: 10/0/0

5.06 ME 802.15.4f PHY for Active RFID systems, amendment PAR forward to Heile   10 01:38 PM
          NesCom

Heile presented "EC_802-15 Agenda Items DFW", slides 14-36.

Motion is to forward 802.15.4f PHY for Active RFID systems to NesCom

Moved by Heile, seconded by Sherman

Discussion on the motion.

Thompson indicated that he feels that it does not meet the 802 architecture because it cannot be bridged.

Jeffree indicated that he felt it did not meet the 802 architecture because it cannot be bridged.

Kraemer, 802.11 felt that they had addressed the comments from 802.11. He also suggested that it would be better to request that the PARs be distributed earlier, preferable during an interim meeting. He wants to work with Heile to make this happen.

Marks pointed out that this is a PHY amendment, which does not affect the MAC address space.

Law indicated that the PHY would introduce many more devices, thereby affecting the address space.

Result was 12/3/0, motion passes.

802.15.4f Draft PAR for a PHY Amendment to 15.4 to support RFID

Posted PAR reaffirmed by the WG (32/0/0)

Bob Heile, ZigBee Alliance

802.15.4f Draft PAR to NesCom

- Move that the 802 EC approve forwarding the 802.15.4f draft PAR for a PHY amendment to 802.15.4 (Doc# 15-08-0665-03) to NesCom

- Move: Bob Heile

- Second: Mat Sherman

- Results

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID PAR & 5C are ~~incomplete~~ and should not be approved because:
  - The 5C & PAR incorrectly claim there is no existing international standard
- There are currently standards available for active tag technology, but none meet all the requirements identified in the PAR document.
  - Action: Added to section 5.5 of the PAR document
- There is considerable demand for a globally available standard that includes, but is not limited to, the identified requirements:
  - Ultra-low energy consumption (low duty cycle)
  - Low PHY transmitter power
  - Both one-way and two-way communications (simplex and duplex transmission)
  - High tag density (large tag population of many thousands)
  - Reader to tag and tag to tag (meshing) communication (unicast)
  - One to many communication (multicast)
  - Authentication
  - Sensor integration
  - Accurate location determination capability
  - 100m read range
  - Global availability (with our without licensing)
  - Narrow bandwidth PHY channels less than 3MHz wide
  - Capable of avoiding, or operating in the presence of interference from other devices operating within the Active RFID's frequency band of operation

 Bob Heile, ZigBee Alliance

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID PAR & 5C are incomplete and should not be approved because:
  - The 5C & PAR need to include evidence that there is user demand for yet another RFID standard
- There are existing efforts in other standards organizations but none have the wherewithal to build an air interface protocol that 802.15.4 already addresses in a way that can meet the active RFID requirements. Additionally, many of the other organizations specifically name IEEE 802.15.4 as viable and available globally to provide a standard air interface protocol for this purpose.
  - Action: Response to comments

- There are multiple single-purpose standards in the market place today. What's missing is a true, globally available multi-purpose standard. If a true global multi-purpose standard is developed, then it is highly likely that it would be used in all of the industries referred to in the 5C document, which in turn would mean a very large user base.
  - Action: Added to 1b of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID PAR & 5C are incomplete and should not be approved because:
    - The 5C & PAR need explain what technical deficiencies of existing systems the proposed standard will address

- Most active tags today in the market use a simplex (one-way) transmission scheme used for the sole purpose of determining location in order to reduce their energy consumption and have no congestion control mechanism for high density reads. Active RFID tags require the ability to provide bi-directional communications as well as ranging, and congestion control for high density reads using ultra-low power.

- One active tag type mentioned in the 5C document, is not capable of bi-directional communication, nor ranging, nor multi-lateration in determining location is ISO/IEC 18000-7 (433 MHz). This tag type is used for identification but requires interrogation from a reader and does not transmit autonomously, uses a frequency not globally available, has no mechanism for congestion control, and has a limited read distance.
    - Action: Added to section 4a of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID PAR & 5C are incomplete and should not be approved because:
  - The 5C & PAR need to provide a better justification of technical feasibility for a unified standard that addresses the requirements of all market segments

- Economies of scale in the active RFID markets are not being met due to a lack of a globally available standard. Today, numerous vendors are producing active tags that meet very specific (and proprietary/non-interoperable) requirements of customers but are doing so with proprietary solutions. An active RFID standard will set the baseline for continued growth but gain the value that economies of scale can bring to price and production levels.

  - Action: Added to section 5.5 of the PAR

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID PAR & 5C are incomplete and should not be approved because:
    - The 5C & PAR need to acknowledge the use of 802.11 in this space today and explain why a 802.15.4 based solution will be significantly better
- Some vendors have decided to adopt 802.11 for active location tags. This type of active tag is used exclusively for location determination and some (relatively little) sensing. The primary issue with using 802.11 for autonomous active RFID tags is the amount of energy required to power the tag and the short lifetime and short mean time between maintenance intervals to replace batteries.
- Autonomous RFID tags are required to run for 3-5 years without a battery change. This is not possible with 802.11.
- 802.11 continues to focus on higher data rates than what is common with 802.15.4 and less on ultra-low energy consumption (a focus within 802.15.4).
- Furthermore, the volume of active RFID tags within a confined region using 802.11 will have a severe impact (high collision rate) on 'non-tag' stations on the same WiFi network (there are typically only three(3) non-overlapping channels) . The 802.15.4f PAR includes a PHY amendment to the 802.15.4 standard to include narrow bandwidth PHY channels less than 3MHz wide (to increase available channels) which would reside below, between, and above 802.11 channels to minimize the chance of interference.
    - Action: Added to 4b of the 5C document

Bob Heile, ZigBee Alliance

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR incorrectly claim there is no existing international standard
  - The 5C asserts that there is a need for an international standard for active RFID, and the PAR asserts that is there in no international standard.

- Most active tags today in the market use a simplex (one-way) transmission scheme used for the sole purpose of determining location in order to reduce their energy consumption and have no congestion control mechanism for high density reads. Active RFID tags require the ability to provide bi-directional communications as well as ranging, and congestion control for high density reads using ultra-low power. There are no international standards that meet this capability and moreover, EPCglobal has specifically identified 802.15.4 as one clear possible air interface protocol for active RFID tags that may meet active RFID tag requirements.
  - Action: Added to section 5.5 of the PAR document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR incorrectly claim there is no existing international standard

    - However, the 5C indicates that an international standard does exist, and even quotes the number of an ISO standard.

- One active tag type mentioned in the 5C document as an example, is not capable of bi-directional communication, nor ranging, nor multi-lateration in determining location, is ISO/IEC 18000-7 (433 MHz). This tag type is used for identification but requires interrogation from a reader, does not transmit autonomously, has no mechanism for congestion control, and has a limited read distance.

    - Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR incorrectly claim there is no existing international standard
  - There are also other quasi international standards in this space that need to be acknowledged explicitly in the PAR. The 5C and PAR need to be modified to correct this error.
- A "quasi-international standard" is by definition not an international standard and should not be considered. Moreover, there was no indication within the question as to which 'quasi-standard' should be addressed.
  - Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.11

- ## The 802.15.4 RFID 5C & PAR incorrectly claim there is no existing international standard
  - Is it the intention to state that there are no suitable international standards? If so, then such a statement needs justification in the PAR.

- ## There are no suitable existing standards that address all active RFID tag requirements as outlined in the previous answers and as described within the PAR document.
  - Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to include evidence that there is user demand for yet another RFID standard.
    - The 5C and PAR assert that active RFID tags have not been successful so far because there are too many options available, which has reduced interoperability and economies of scale. That may be true
- Active tags exist and have been successful in very limited quantities and for very specific and limited functionality, hence not enabling any economies of scale.
    - Action: Response to comment

- There are multiple single-purpose standards in the market place today. What's missing is a true, globally available multi-purpose standard. If a true global multi-purpose standard is developed, then it is highly likely that it would be used in all of the industries referred to in the 5C document, which in turn would mean a very large user base.
    - Action: Added to 1b of the 5C doc

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to include evidence that there is user demand for yet another RFID standard.
  - However, the PAR & 5C do not explain how the development of yet another standard will solve this problem, particularly in a context where 802.15.4 does not have much scale today, certainly in comparison with, say, 802.11.

- Today 802.15.4 is the most prevalent air interface standard for devices that require long battery life with limited maintenance. 802.15.4 is currently being widely deployed in sensor and control networks for which it was originally designed.   As accepted by industry for low energy use active sensing and control devices, 802.15.4 is a much better starting point for the development of an active RFID standard than is 802.11.
  - Action: Added to 4b of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to include evidence that there is user demand for yet another RFID standard.
- There is considerable demand for a globally available standard that includes, but is not limited to, the identified requirements:
  - Ultra-low energy consumption (low duty cycle)
  - Low PHY transmitter power
  - Both one-way and two-way communications (simplex and duplex transmission)
  - High tag density (large tag population of many thousands)
  - Reader to tag and tag to tag (meshing) communication (unicast)
  - One to many communication (multicast)
  - Authentication
  - Sensor integration
  - Accurate location determination capability
  - 100m read range
  - Global availability (with our without licensing)
  - Narrow bandwidth PHY channels less than 3MHz wide
  - Capable of avoiding, or operating in the presence of interference from other devices operating within the Active RFID's frequency band of operation
    - Action: Added to section 5.5 of the PAR document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to explain what technical deficiencies of the existing systems the proposed standard will address.
  - One reason that would justify a new standard is that all the existing mechanisms are missing functionality from a technical perspective
  - If this is not the case, why not just submit one of the existing mechanisms to EPCGlobal, IEEE or ISO?
  - However, the PAR & 5C do not address the issue of whether existing systems are technically deficient
  - The PAR & 5C need to be modified to explain what technical deficiencies of existing systems the proposed standard will address
- There is a need for a common international standard for an active tag RFID system. Active RFID tag types must be capable of but not limited to :
  - Ultra-low energy consumption (low duty cycle)
  - Low PHY transmitter power
  - Both one-way and two-way communications (simplex and duplex transmission)
  - High tag density (large tag population of many thousands)
  - Reader to tag and tag to tag (meshing) communication (unicast)
  - One to many communication (multicast)
  - Authentication
  - Sensor integration
  - Accurate location determination capability
  - 100m read range
  - Global availability (with our without licensing)
  - Narrow bandwidth PHY channels less than 3MHz wide
  - Capable of avoiding, or operating in the presence of interference from other devices operating within the Active RFID's frequency band of operation
    - Action: Added to section 5.5 of the PAR document
- Refer to Comment Response on slide 17

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to provide a better justification of feasibility for a unified standard that addresses the requirements of all market segments
  - One reason that the active RFID market is segmented today is that each market segment has different requirements
  - However, the 5C and PAR assume that a unified standard can achieve the goals of every market segment
  - It incorrectly bases technical feasibility for the unified standard on an argument that each of the existing standards are technically feasible
  - It is possible that the market requirements for the various segments are contradictory.
  - The 5C and PAR need to demonstrate technical feasibility for the unified standard, not just a subset
- Each of these bullets has been specifically addressed in the previous four (4) sets of questions preceding this one.
- There is currently not an international standard for active RFID networks. The purpose of 802.15.4f is to develop one. An active RFID standard requires first and foremost a two-way communication capability further requiring a globally available standard defining the PHY and MAC. Hence it is appropriate that it falls into the 802 wireless PAN standards group ensuring compliance with the 802 LAN/MAN architecture, 802 security, and overall 802 network management described in 802.1
  - Action: Added to 3a of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to acknowledge the use of 802.11 in this space today and explain why a 802.15.4 based solution will be significantly better
  - It is asserted in the 5C that the proposed active RFID functionality is not addressed in any existing 802 standard.
  - However, there is a growing opinion among some in the industry that 802.11 based systems could dominate this space
    - There are already several start-ups that are showing Wi-Fi based sensor chips with very low power and cost – and of course with Wi-Fi you don't require a separate infrastructure.
- Today 802.15.4 is the most prevalent air interface standard for devices that require long battery life with limited maintenance. 802.15.4 is currently being widely deployed in sensor and control networks for which it was originally designed.   802.15.4 is a much better starting point for developing an active RFID standard than is 802.11.
  - Action: Added to 4b of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.11

- The 802.15.4 RFID 5C & PAR need to acknowledge the use of 802.11 in this space today and explain why a 802.15.4 based solution will be significantly better
  - The PAR & 5C needs to be modified to recognize the existing use of 802.11 in the active tag space, and explain why 802.15.4 offers significant benefits over 802.11.
    - The answer should account for the fact that 802.11 based solutions exist today, whereas 802.15.4 based solutions may not exist for some years (5 years?)
- Some vendors have decided to adopt 802.11 for active location tags. This type of active tag is used exclusively for location determination and some (relatively little) sensing. The primary issue with using 802.11 for autonomous active RFID tags is the amount of energy required to power the tag and the short lifetime and short mean time between maintenance intervals to replace batteries.
- Autonomous RFID tags are required to run for 3-5 years without a battery change. This is not possible with 802.11.
- 802.11 continues to focus on higher data rates than what is common with 802.15.4 and less on ultra-low energy consumption (a focus within 802.15.4).
- Furthermore, the volume of active RFID tags within a confined region using 802.11 will have a severe impact (high collision rate) on 'non-tag' stations on the same WiFi network (there are typically only three(3) non-overlapping channels) . The 802.15.4f PAR includes a PHY amendment to the 802.15.4 standard to include narrow bandwidth PHY channels less than 3MHz wide (to increase available channels) which would reside below, between, and above 802.11 channels to minimize the chance of interference.
  - Action: Added to 4b of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.3

1. I'm aware of P1902.1, an RFID project nearing Sponsor ballot. It isn't addressed in PAR 7.1, and it seems to me to have significant overlap in multiple functional areas: low data rate, high density of RFID tags, etc. it would be appropriate to address the differences (which I'm sure there are) when requesting another RFID project.

The scope of P1902.1 (RuBee) standard is to develop a PHY and data link layer protocol standard for long wave length (less the 450KHz), low speed (300-9600 baud), low power, medium range (50-100) industrial visibility networks. This is considerably different from the work within the 802.15.4f PAR.

- Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.3

2. This project does not seem to be within the scope of LMSC:

   "The scope of the LMSC is to develop and maintain networking standards and recommended practices for local, metropolitan, and other area networks, using an open and accredited process, and to enable and advocate them on a global basis."

   Please address why this project should be done within LMSC and how it falls within the scope of this Sponsor committee.

- 802.15.4 is being used by the industry today as the best starting point for active RFID, and given that 802.15.4 is a PAN standard residing within LMSC, then by definition an extension of 802.15.4 belongs within LMSC.
  - Action: Added to 4b of the 5C document
- The purpose of 802.15.4f is to develop an active RFID standard. An active RFID standard requires first and foremost a two-way communication capability further requiring a globally available standard defining the PHY and MAC. Hence it is appropriate that it falls into the 802 wireless PAN standards group ensuring compliance with the 802 LAN/MAN architecture, 802 security, and overall 802 network management described in 802.1
  - Action: Added to 3a of the 5C document

802.15.4 RFID PAR and 5C Comments Received from 802.3

3. Some would assert that the most important characteristic unifying LMSC standards is the commonality provided by adherence to the 802 Overview and Architecture. One of the unifying features of the Overview and Architecture is that 802 LANs are bridgeable and that one network type may be substituted for another within the architecture. The 802 address space is insufficient to address the requirement of RFID. The cursory Five Criteria response to this issue is insufficient to understand how this technology fits within the 802 architecture.

*   First, 802.15.4 provides 64bit MAC address space.

*   The use of active RFID tags will not meet the potential prevalence of passive RFID tags. Passive tags are meant to identify all items/products and in some respects may replace a barcode. Active tags are more expensive by nature and are used to identify assets that have a known depreciated value. Passive tags are generally used one time and are thrown away (again, identifying an item). Active tags have much more value and will be reused over and over within the enterprise or between multiple enterprises.

*   Today 802.15.4 is the most prevalent air interface standard for devices that require long battery life with limited maintenance. 802.15.4 is currently being widely deployed in sensor and control networks for which it was originally designed.

*   802.15.4 is being used by the industry today as the best starting point for active RFID, and given that 802.15.4 is a PAN standard residing within LMSC, then by definition an extension of 802.15.4 belongs within LMSC.

    *   Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.3

4. The project documents do not describe if the project will address security and privacy concerns related to RFID technologies (something EPCglobal had some struggles with).

- This is already defined in the 802.15.4 standard which allows for the optional use of encryption.

  – Action: Response to comment

802.15.4 RFID PAR and 5C Comments Received from 802.3

5. Please include within the project documents a commitment to include a PICS proforma in the initial version of the standard.

- Yes, we commit to provide a PICS proforma in the initial version of the standard.

  – Action: Included in section 8.1 of the PAR

5.07   ME 802.15.4g PHY for low data rate Wireless Neighborhood Area   Heile   10 02:03 PM
             Networks (WNAN), amendment PAR forward to NesCom

Heile presented "EC_802-15 Agenda Items DFW", slides 37-64

Motion is to forward 802.15.4g PHY for low data rate Wireless Neighborhood Area Networks (WNAN), amendment PAR to NesCom.

Moved by Heilie, seconded by Gilb

Discussion followed.

Marks asked about 8.1, in the additional explanatory notes, section 5.2, which has a frame of text covering a line.

Law moved to table the motion, seconded by Jeffree.

Nikolich asked if there were any objections to table the motion. 1 objection.

Results 8/5/3, motion passes.

802.15.4g Draft PAR for a PHY Amendment to 15.4 to support Utility Smart Metering Networks (aka NAN)

Posted PAR reaffirmed by the WG (33/0/0)

 Bob Heile, ZigBee Alliance

802.15.4g Draft PAR to NesCom

- Move that the 802 EC approve forwarding the 802.15.4g draft PAR for a PHY amendment to 802.15.4 (Doc# 15-08-0705-04) to NesCom

- Move: Bob Heile

- Second: Mat Sherman

- Results

802.11 Comments on 802.15.4g PAR and 5c

Comment 1

- 1) This amendment proposes operation within at least the 2.4 GHz band, including ranges of up to 5 km with omni antennas, and simultaneous operation for at least 3 co-location orthogonal networks. Further, at the NAN tutorial proponents advocated a frequency hopping PHY technology. In 8.1, a transmit power up to 1W is indicated.

- Yet 2.4 GHz is a crowded band with dense WLAN deployments and regular Bluetooth usage, each offering tremendous value to their users. We have seen that coexistence with frequency hoppers is difficult as they consume the whole band making frequency planning impossible.

(continued next slide)

802.11 Comments on 802.15.4g PAR and 5c

- Accordingly, coexistence is a grave concern: the PAR is for a latecomer to a mature band, the technology's impact will be at high TX power and over a wide area, and the technology's proponents favor a technology with poor coexistence characteristics. In this context, the language in the scope "This amendment also addresses coexistence with other 802 wireless standards operating in the same bands." is inadequately weak.

- The 2.4 GHz band should be removed from the PAR scope, or the PAR language should be strengthened. Proposed substitute language is "Devices complying with this amendment shall minimally impact the operation of 802.11 and 802.15 devices, along with other 802 wireless devices, already operating in the same bands."

Response
- **We fully agree that good coexistence should be specified and that the current statement is weak. The PAR language will be strengthened.**

Action Taken
 Add to PAR 5.2 Scope coexistence text as agreed to for the VHT 60GHz PAR as shown below:

 "Provides mechanisms that enable coexistence with other systems in the same band(s) including IEEE 802.11, 802.15 and 802.16 systems."

802.11 Comments on 802.15.4g PAR and 5c

Comment 2

- 2) The PAR does not acknowledge that either 802.11 or 802.16 is likely a better home for this work than 802.15.
    - a) 5km range is wildly outside the scope of Personal Area Networking. 802.11 (through 11y) and 802.16 both have far greater expertise in outdoor channel models, and systems for same.

Response and Action

- Replace the text in PAR 5.2 Scope "Line of Sight (LOS) range of up to 5 km using omnidirectional antennae" with "Achieve the optimal energy efficient link margin given the environmental conditions encountered in Smart Metering deployments ."

    - b) Contrary to 5.5 "The 802.11 standards have been optimized for high data rates along with support for star network topologies with centralized control.", 802.11 is already providing a mesh amendment that addresses this assertion. 802.16 also has work in this area.

Response

- Large scale mesh networks based on 802.15.4 have been deployed widely. The Study Group did consider the merits of 802.11 and 802.16: the requirements for mesh plus the application space for sensor networks have historically been addressed by 802.15.4 and the requirements for Smart Metering are a natural and direct extension of 802.15.4 and is broadly supported by the Energy industry.

Action: None

Bob Heile, ZigBee Alliance

802.11 Comments on 802.15.4g PAR and 5c

Comment 3

- Suggest that a change to the last sentence of PAR 5.2 similarly to what the EC has requested in the past of other groups indicating that the phrase "it addresses" is not sufficient:

  From: "This amendment also addresses coexistence with other 802 wireless standards operating in the same bands."

  To: "This amendment will also ensure backward compatibility and coexistence with legacy IEEE 802 devices operating in the same bands."

Resolution and Action

   Add to PAR 5.2 Scope coexistence text as agreed to for the VHT 60GHz PAR as shown below:

   "Provides mechanisms that enable coexistence with other systems in the same band(s) including IEEE 802.11, 802.15 and 802.16 systems."

802.11 Comments on 802.15.4g PAR and 5c

Comment 4

- When the tutorial discussions were held, it seemed that the use of the 700 MHz (e.g. Whitespaces) to 1GHz bands provided the range/power that seemed most reasonable, but in the 2.4 GHz band, the range/power does not seem practical. Why not focus the group on the 700 to 900 MHz bands?

Response

- The PAR focuses on regional unlicensed bands such as the 700-900MHz bands and 2.4GHz band. Currently there is strong industry support for solutions in both sub-GHz and 2.4 GHz

  Note: Use of Whitespaces is not under consideration for the amendment.

Action: None

Comment 5

- If the new devices use the 2.4GHz band, how will they coexist with the existing devices in the band?

Response and action

  Add to PAR 5.2 Scope coexistence text as agreed to for the VHT 60GHz PAR as shown below:

  "Provides mechanisms that enable coexistence with other systems in the same band(s) including IEEE 802.11, 802.15 and 802.16 systems."

802.11 Comments on 802.15.4g PAR and 5c

Comment 6

- If the new devices use 2.4GHz, why develop a new MAC and PHY?
  - There is a FH PHY defined in the 802.11 standard, as well as a DSS PHY, so maybe a new 802.11 amendment would be more appropriate?

  Response
  - The scope specifies a PHY amendment to 802.15.4-2006. 802.15.4 is defined/optimized for sensor networking applications and is already the direction being taken by the industry. Additionally, an 802.15.4-based solution provides for easier harmonization with ZigBee / Smart Energy Profile which is widely deployed.

  Action: none

 Bob Heile, ZigBee Alliance

802.11 Comments on 802.15.4g PAR and 5c

Comment 7

- If the new devices use the 2.4GHz band, how will they coexist with the existing devices in the band?

Response and action

Add to PAR 5.2 Scope coexistence text as agreed to for the VHT 60GHz PAR as shown below:

"Provides mechanisms that enable coexistence with other systems in the same band(s) including IEEE 802.11, 802.15 and 802.16 systems."

802.16 Comments on 802.15.4g PAR and 5c

Comment 1

- The coexistence issues raised by 802.11 are significant, particularly in consideration of other 802 standards deployed over large areas in the same spectrum.

Response and Action

Add to PAR 5.2 Scope coexistence text as agreed to for the VHT 60GHz PAR as shown below:

"Provides mechanisms that enable coexistence with other systems in the same band(s) including IEEE 802.11, 802.15 and 802.16 systems."

802.16 Comments on 802.15.4g PAR and 5c

Comment 2

- **We have concerns regarding distinct identity, as well as the questions "Are there other standards or projects with a similar scope?", particularly noting this description from the Scope:**

  Specifically, the amendment supports all of the following:
  • Operation in any of the regionally available license exempt frequency bands, such as 700MHz to 1GHz, and the 2.4 GHz band.
  • Data rate of at least 40 kbits per second
  • Line of Sight (LOS) range of 5 km using omni directional antennae
  • Outdoor communications
  • PHY frame sizes up to a minimum of 1500 octets
  • Simultaneous operation for at least 3 co-located orthogonal networks
  • Connectivity to at least one thousand direct neighbors.
  characteristic of dense urban deployment

  It appears that other 802 standards and/or projects, such, P802.16h, meet these conditions.

802.16 Comments on 802.15.4g PAR and 5c

Response to Comment 2

- Independent of the more 802.16 oriented backhaul applications, which are not the focus of this PAR, most Utilities engaged in Smart Metering have expressed a preference for 802.15.4 class of solutions to address Smart Metering. In North America alone, in excess of 25 million meters are committed to 802.15.4.

- The scope specifies a PHY amendment to 802.15.4-2006. 802.15.4 is defined/optimized for low complexity, low relative cost (CAPEX and OPEX) sensor networking applications, appropriate for Smart Metering Additionally, an 802.15.4-based solution provides for easier harmonisation with ZigBee / Smart Energy Profile which is widely deployed.

- As stated in section 8.1 (5.5) of the NAN PAR, 802.16 is optimized for high data rate, point to point and point to multiple point, as stated in sub-clause 1.3.1 802.16-2004: "With raw data rates in excess of 120Mb/s this environment is well suited for PMP access serving applications from small office home office through medium to large office applications"

Action: None

802.16 Comments on 802.15.4g PAR and 5c

Comment 3

- This PAR proposes to amend a standard on Wireless Personal Area Networks by adding material to address a range of 5 km, keeping the term Wireless Personal Area Networks in the title. This seems to suggest an incompatibility.

Response

- The 802.15.4 (2003 and 2006) standard defines a short range device intended to serve applications requiring low cost/complexity wireless devices supporting very long battery lives. One feature of this standard was its support for mesh networks, allowing the networks to cover large areas, and as a result these deployments have evolved to transcend "Personal" . The success of this standard has led to the deployment of longer range applications such as factory and industrial automation, and supervisory control and data acquisition (SCADA). Given that IEEE 802.15.4 already has considerable traction in the Smart Energy application arena (e.g., the broad adoption of ZigBee and the Smart Energy Profile) there is a strong industry push for deployment of this class of low data rate solutions for smart metering.

- Note: since this is an amendment it automatically inherits the title of the base standard. This is not available for us to change.

Action: None

802.3 Comments on 802.15.4g PAR and 5c

Comment 1

- **The span proposed in the PAR does not seem to be within the scope of the 802.15 WG as the distances are those covered by LAN/MAN standards. Please address how this project fits within the scope of 802.15 Personal Area Networks, when the PAR recognizes that fundamental characteristics of 802.15 (frame size and error protection) are insufficient for the proposed market. Similarly, the very low data rate is a significant departure from the scope of LMSC. Please also explain why this project belongs within LMSC.**

Response

- The 802.15.4 (2003 and 2006) standard defines a short range device intended to serve applications requiring low cost/complexity wireless devices supporting very long battery lives. One feature of this standard was its support for mesh networks, allowing the networks to cover large areas, and as a result these deployments have evolved to transcend "Personal" . The success of this standard has led to the deployment of longer range applications such as factory and industrial automation, and supervisory control and data acquisition (SCADA). Given that IEEE 802.15.4 already has considerable traction in the Smart Energy application arena (e.g., the broad adoption of ZigBee and the Smart Energy Profile) there is a strong industry push for deployment of this class of low data rate solutions for smart metering.

- The frame size enhancement and error detection are within the scope of a PHY amendment to 802.15.4 and the MAC frame size is defined with respect to the PHY. The scope of LMSC no longer specifies a lower limit for data rates. The specified data rate (20kbps to 250kbps) is consistent with 802.15.4, first released in 2003, and now widely deployed.

Action: None

802.3 Comments on 802.15.4g PAR and 5c

Comment 2

- Please include within the project documents a commitment to include a PICS proforma in the initial version of the standard.

Response

- A commitment to provide a PICS will be included in the project documents.

- Action: Add to section 8.1 "A PICS proforma will be included as part of the initial standard"

Michael Bahr on 802.15.4g PAR and 5c

Comment 1

- The main application is the smart grid, but meters can also be indoors, as often the case in Europe.

Response

- It is not intended to limit the scope to outdoor only applications. This was included to differentiate from existing PHYs as the outdoor NLOS environment is more challenging; It is agreed that NAN nodes may be indoors in basements and other RF unfavorable locations, quite often needing to connect with other nodes that are outdoors, further challenging the RF link.

Action

- Change in PAR 5.2 Scope from "outdoor" to "principally outdoor" and reflect change in 8.1, (5.2)

Michael Bahr on 802.15.4g PAR and 5c

Comment 2

- What is the reason/motivation that a PHY technology with a range of 5000 meters is considered to be standardized in a personal area networks group?

Response

- As explained in 7.4, LOS range is actually not the desired goal, but rather NLOS in very unfriendly RF environments is the expectation. We were asked to translate this into a specific LOS equivalent range because such is easier to measure. Other attempts to specify the desired performance in the expected environment were not precise and measurable. I believe this has added considerable confusion. I suggest we revise the requirement with a NLOS performance metric. Resolved as part of other WG comments

Action: None

Michael Bahr on 802.15.4g PAR and 5c

Comment 3

- What if the metering facility is placed in a basement, which is often the case in Europe? Standard seems to be US-centered.

Response:

- Agree. See also response to Comment 1. The "basement" scenario is realistic and exactly the kind of hostile RF environment we expect, which is not well served by existing DSSS, CSS or UWB PHYs or OFDM systems such as 802.16 and 802.11.   This scenario can occur in any regulatory domain.
- Action: As for Comment 1

Michael Bahr on 802.15.4g PAR and 5c

Comment 4

- How does this fit with the maximum size of a IEEE 802.15.4 MAC frame of 128 octets?

Response:

- In 802.15.4, MAC frame size is not explicitly limited to 128 octets, but is limited with respect to the PHY constant *aMaxPHYPacketSize*. MAC frame sizes and procedures based on frame size are defined with respect to *aMaxPHYPacketSize*, for example see the definitions of *aMaxBeaconPayloadLength* and *aMaxMACSafePayloadSize* (Table 85).

- The constant *aMaxPHYPacketSize* in 15.4-2006 is based on 7-bit length field, in the new PHY we would extend the length field in the PHY frame and in that case the constant value would be different for new PHY.

Action: None

Michael Bahr on 802.15.4g PAR and 5c

Comment 5

- Reference to (external) document necessary? [with respect to the paragraph: "To provide an international standard that facilitates very large scale process control applications such as the utility smart-grid network (e.g., Wireless Neighborhood Area Networking)."]

Response:

- Some references are given in 8.1. For further references, the last slide of presentation 15-08-0795-00-004e provides an extensive list.

Action: None

Michael Bahr on 802.15.4g PAR and 5c

Comment 6

- With respect to the sentence (first P of 5.5): "In the European community, the need is no less urgent and similar standardization mandates are in progress worldwide." Provide references.

Response and Action

- In PAR 5.5 Need for Project (2nd paragraph), insert after "standardization mandates," the text ", such as the EU's 20/20/20 Vision plan, "

- Replace European Community with European Union

Michael Bahr on 802.15.4g PAR and 5c

Comment 7

- With respect to 8.1:5.2(b) (was 7.2 in commented copy): As it is a good idea, not to require meshing explicitly, it shouldn't be excluded explicitly neither. If WNANs require multi-hop topologies, the WNAN PHY has to consider meshing and provide the necessary mechanisms that enable the use of the WNAN PHY in mesh wireless networks.

Response

- Agree that MESH is a necessary capability and support for such will affect some PHY decisions.   Since the method of implementing MESH is above the MAC and thus outside the scope of 15.4, we added this remark to re-enforce that _support_ for MESH is critical to the NAN application. More successful MESH nodes have been deployed with 802.15.4 than any other 802 standard to date, which is why the 15.4 architecture seems better suited to the NAN application than other existing standards, thus the proposed effort to work off 15.4 with a new PHY.

Action: None

Michael Bahr on 802.15.4g PAR and 5c

Comment 8:

- Meters can be also located indoors, for instance, for security reasons. In Europe, meters are often located in basements.

Response:

- Resolved for Comment 1

Action:

- None

Michael Bahr on 802.15.4g PAR and 5c

Comment 9:

- With respect to 8.1:5.2(c) (NLOS): How will this be heeded in the standard?

Response:

- See response to Comment 2. Resolved in response to other WG comments.

Action:

- None

Michael Bahr on 802.15.4g PAR and 5c

Comment 10:

- With respect to 8.1:5.5(P3): Paste-and copy slip: This paragraph occurred already earlier in the document.

Response:

- Incorrect rev of PAR referenced. redundant text was removed in rev 3 of the PAR PDF

Action:

- None

Michael Bahr on 802.15.4g PAR and 5c

Comment 11:

- What about the peer architecture between mesh STAs in IEEE 802.11s?

Response:

- 802.11s is not yet complete. There is much greater, successful experience with meshing based on 802.15.4, with accepted standard methods such as ZigBee, ISA100 etc
- 802.15.5 specifies a recommended practice for mesh on top of 802.5.4
- The vast majority of 802.11 deployments are star architecture (infrastructure based). The majority of work throughout the history of 802.11 has been focused on improving data rate and optimal performance with star (infrastructure mode) topology. Addressed in other WG comments

Action:

- None

Michael Bahr on 802.15.4g 5c

Comment 1
- How will the in some countries very different boundary conditions, e.g.,meters in basements, be taken into account?

Response:
- resolved in scope of PAR.

Action:
- None.

Comment 2
- : last P of 1(b) Provide reference [for European regulatory activities]

Response:
- Reference provided in PAR for comment 6

Action:
- None

Comment 3
- 2nd P of 3(a): misplaced paragraph.

Response:
- maybe not necessary here, but had relevance

Action
None

Comment 4
- A4: 3(a) Paragraph 5: Does not explain/support the difference of the envisaged standard, paragraph is placed better somewhere else, or focus it better to the criteria.

Response:
- This could be placed in the "broad market" section. However, it is OK here

Action:
- None.

Michael Bahr on 802.15.4g 5c

Comment 5
- 3(a) Paragraph 6: Does not explain/support the difference of the envisaged standard
- Response
- This is a duplicate paragraph
- Action
- Delete paragraph 6 in 3a) "The need for …"

Comment 6
- 3(a) Paragraph 7: Has already been mentioned

Response:
- this is duplicate text

Action
- Delete paragraph 7 of 3a)

Comment 7
- In reference to 3(a) P 7 to P 18: Verbatim copy of PAR text, see comments there.

Response:
- This redundancy was added by advice of the 802.15 chair (acting as an individual).

Action:
- None.

Comment 8:
- 4(c) 2nd Paragraph: Misplaced paragraph

Response:
- This is standard practice and consistent with prior PARs. 802.15 WG vice-chair assures us this is the accepted location

Action.
- None

5.08   ME 802.15.7 MAC and PHY for short-range, wireless optical   Heile   10 02:10 PM
communication using visible light PAR forward to NesCom

Heile presented "EC_802-15 Agenda Items DFW", slides 65-69

Motion is to forward 802.15.7 MAC and PHY for short-range, wireless optical communication using visible light PAR to NesCom.

Moved by Heilie, seconded by Sherman

Discussion followed.

Law indicated that 802.3 was concerned with the definition of the medium.

Thompson asked if this would apply to fibers. Said that

Shellhammer asked that we observed the queue.

Sherman said that we should leave it as broad as possible.

Result was 16/0/0, motion passes.

802.15.7 Visible Light Communicatons PAR

Posted PAR reaffirmed by the WG (30/0/0)

802.15.7 PAR Comments

Received from 802.11

- RF stands for Radio Frequencies, as an acronym, you should spell it out on first usage in 5.5 purpose.
  - Agree- spelled out on first use in Sections 5.4 and 5.5.
- Why call out RF interference when you state that the band in use is outside the RF band? Visible light is free of non-visible interference, but that should not be used in the definition of the scope and purpose. The Scope and Purpose should deal specifically with the stated spectrum and not counter examples.
  - It is first mentioned in the Purpose and Need and not in the scope. We have taken a conservative approach to ensure better understanding of where this fits in the grand scheme of things. It also makes it obvious that this provides an inherently non interfering communications scheme.
- All the semicolons in the scope statement should be commas.
  - Agree, replaced by commas
- Have you considered the Mirror in the Middle attack? ☺
  - We adopted the same approach that 802.11 used to deal with the microwave oven in the middle attack ☺

802.15.7 PAR Comments

Received from "Ronald Petersen" <ron.petersen@verizon.net>

- Please explain "health" in the following phrase in the Scope: "...impairments due to noise and interference from, e.g., ambient light; health and other environmental effects:...

- Response: This was an artifact that did not belong there. It has been removed.

802.15.7 PAR Comments

Received from 802.3

- The PAR scope is deficient in that it does not address the medium. This should not be addressed only in the PAR Purpose.
  - The phrase "optically transparent media" has been added to the PAR scope Section 5.2
- Please include within the project documents a commitment to include a PICS proforma in the initial version of the standard.
  - Agree, commitment is included in Section 8.1 of the PAR

802.15.7 PAR to NesCom

- Move that the 802 EC approve forwarding the 802.15.7 draft PAR (Doc# 15-08-0656-03) to NesCom

- Move: Bob Heile
- Second: Mat Sherman

- Results

5.09   ME 802.3.1 MIB definitions for Ethernet PAR forward to NesCom   Law   5 02:17 PM

Law presented "1108_closing_EC.pdf", slides 6-7

Motion is that the EC approves the P802.3.1 PAR and Five Criteria and forward to NesCom

Moved by Law, seconded by Thaler

Result 16/0/0, motion passes.

IEEE P802.3.1 PAR and Five Criteria

- IEEE P802.3.1 Standard for Management Information Base (MIB) definitions for Ethernet
  - Submitted as a PAR for new work with large maintenance item
  - The IETF formerly created and published Ethernet SNMP MIB module specifications. The IETF decided some time ago to not create or publish any future updates to these MIB modules. The IEEE 802.3 Ethernet Working Group has decided to take on this task. This standard will include the MIB modules formerly produced and published by the IETF, as well as extensions resulting from recent amendments to IEEE Std 802.3.
- Draft PAR
  - http://www.ieee802.org/3/maint/public/par_draft_p80231.pdf
- Draft 5C
  - http://www.ieee802.org/3/maint/public/frazier_2_0908.pdf
- Changes from pre-circulated version
  - Unchanged from version previously circulated.

IEEE P802.3.1 PAR and Five Criteria

- The EC approves the P802.3.1 PAR and Five Criteria.

  M: D Law, S: P Thaler
  Y: ??, N: ??, A: ??

  Working Group votes:
  PAR - Y: 72, N: 0, A: 1

  Broad Market Potential criterion - Y: 68, N: 0, A: 7
  Compatibility criterion - Y: 73, N: 0, A: 5
  Distinct Identity criterion - Y: 70, N: 0, A: 4
  Technical Feasibility criterion - Y: 69, N: 0, A: 3
  Economic Feasibility criterion - Y: 70, N: 0, A: 1

**5.10   ME 802.3-2008/Cor 1 (IEEE 802.3bb) Corrigendum PAR forward to   Law   2 02:20 PM
          NesCom**

Law presented "1108_closing_EC.pdf", slides 2-3

Motion is that the EC approves the P802.3bb PAR and forwards to NesCom

Moved by Law, seconded by Thaler

Result 16/0/0, motion passes.

IEEE P802.3bb PAR

- IEEE P802.3-2008/Cor 1 (IEEE 802.3bb) Corrigendum 1 Timing considerations for PAUSE operation
  - Submitted as a Maintenance PAR
  - This Corrigendum is to correct the PAUSE reaction delay value specified in IEEE Std 802.3 so that it is sufficient for the delay of newer IEEE Std 802.3 PHY types.
  - PAR
    - http://www.ieee802.org/3/maint/public/par_draft_p8023bb_1.pdf
  - Draft 5C
    - None required, PAR to correct error
  - Changes from pre-circulated version
    - Editorial correction in 5.5 'Need for the Project', spurious 'is' deleted.

IEEE P802.3bb PAR

- The EC approves the P802.3bb PAR.

  M: D Law, S: P Thaler

  Y: ??, N: ??, A: ??

  Working Group vote:
  Y: 70, N: 0, A: 9

**5.11   ME 802.3bc Amendment: Ethernet Organizationally Specific TLVs PAR   Law   5   02:21PM
forward to NesCom**

Law presented "1108_closing_EC.pdf", slides 4-5

Motion is that the EC approves the P802.3bc PAR and forwards to NesCom

Moved by Law, seconded by Thaler

Result 16/0/0, motion passes.

IEEE P802.3bc PAR

- IEEE P802.3bc Amendment: Ethernet Organizationally Specific TLVs
  - Submitted as a Maintenance PAR to move material from IEEE 802.1AB to IEEE 802.3
  - The IEEE 802.3 Organizationally Specific TLVs are currently specified in IEEE Std 802.1AB. This amendment will be limited to the transfer of these TLVs from IEEE Std 802.1AB to IEEE Std 802.3. The development of future the IEEE 802.3 Organizationally Specific TLVs is more appropriate to specific amendment projects of the IEEE 802.3 standard.
  - PAR
    - http://www.ieee802.org/3/maint/public/par_draft_p8023bc_1.pdf
  - Draft 5C
    - None required, PAR introduces no new functionality
  - Changes from pre-circulated version
    - Editorial correction in 5.5 'Need for the Project', spurious 'the' deleted.

IEEE P802.3bc PAR

- The EC approves the P802.3bc PAR.

  M: D Law, S: P Thaler

  Y: ??, N: ??, A: ??

  Working Group vote:

  Y: 79, N: 0, A: 6

5.12   ME 802.3at PAR modification forward to NesCom   **Law**   **5 02:19 PM**

Law presented "1108_closing_EC.pdf", slides 8-9

Motion is that the EC approves the P802.3at PAR and forwards to NesCom

Moved by Law, seconded by Thaler

Result 16/0/0, motion passes.

IEEE P802.3at PAR modification

- IEEE P802.3at DTE Power Via MDI Enhancements, modification to Existing Approved PAR
  - This modified PAR is to update the IEEE P802.3at amendment to be contingent on the IEEE P802.3bc amendment. The IEEE P802.3at is the first project scheduled to contain additions to the IEEE 802.3 Organizationally Specific TLVs which are being transferred from IEEE Std 802.1AB to IEEE Std 802.3 by IEEE P802.3bc. During this modification the opportunity was taken to: [1] Update target dates for initial sponsor ballot and submission to RevCom. [2] Remove the intent to submit the amendment for adoption by ISO/IEC JTC1, as part of ISO/IEC 8802-3. [3] Added the approximate number of people expected to work on the project, this question was not present on the original PAR. [4] Added the stake holders, this question was not present on the original PAR.
- Draft modified PAR
  - http://www.ieee802.org/3/at/802d3at_modified_PAR.pdf
- Draft 5C
  - None required, PAR introduces no new functionality
- Changes from pre-circulated version
  - Added text 'PICS proforma will be expanded and updated to cover the augmented capabilities provided by this project' to 8.1 'Additional Explanatory Notes'. Added items numbers to the other explanatory items in 8.1.

IEEE P802.3at PAR modification

- The EC approves the P802.3at PAR modification.

  M: D Law, S: P Thaler

  Y: ??, N: ??, A: ??

  Working Group vote:

  Y: 74, N: 0, A: 0

5.13   MI   802.3at 5C update   **Law**   **2 02:24 PM**

Law presented "1108_closing_EC.pdf", slides 10-11

Motion is that the LMSC executive committee approves the changes P802.3at Fiver Criteria

Moved by Law, seconded by Jeffree

Result 16/0/0, motion passes.

IEEE P802.3at Five criteria change

Distinct Identity

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

a) Substantially different from other IEEE 802 standards.

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

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

The project will increase the PD load from 12.95W to a minimum of 24W which represents a substantial change to the capabilities of Ethernet. The power classification information exchanged during negotiation will increase to allow meaningful power management capability. Together these enhancements will make the project substantially different from existing IEEE 802 standards.

Deleted: 30W

The project will edit and enhance Clause 33 which is the only 802.3 clause that provides power over the MDI; which will ensure that the power specification is unique. The resulting standard will create one definition of power via the MDI while allowing current 802.3af compliant devices to remain compliant and adding optional enhanced devices.

As Clause 33 will remain the only power related clause within 802.3, it will be easy for a reader to find the relevant specification within the 802.3 document.

IEEE P802.3at Five criteria change

- The LMSC Executive Committee approves the change to the IEEE P802.3at Five Criteria document

M: D Law, S:

Y: ??, N: ??, A: ??

Working Group vote:

Y: 66, N: 0, A: 3

5.14   ME 802.15.4c forward to RevCom (conditional)   **Heile   5 02:25 PM**

Heile presented "EC_802-15 Agenda Items DFW.ppt", slides 9-13

Motion to grant conditional approval to forward 802.15.4c to RevCom

Moved by Heile, seconded by Gilb

Result 16/0/0, motion passes.

802.15.4c PHY Amendment
for use of 780 MHz band in China

Conditional Approval to Forward to RevCom

Clint Powell
TG4c Chair, Freescale

802.15.4c Sponsor Ballot Results

- **Sponsor Ballot Results**
  Sponsor Ballot closed at 11:59 PM on Sat. Sept. 20
  - **94 Total Voters in the Pool**
  - **68 Affirm Votes**
  - **4 Abstain Votes**
  - **3 Negative Votes w/ 22 Comments**
  - **95% affirmation**

- **Sponsor Ballot Recirc. #1 Results**
  Sponsor Ballot Recirc. #1 closed at 11:59 PM, Thurs. Nov. 6
  - **94 Total Voters in the Pool**
  - **74 Affirm Votes**
  - **4 Abstain Votes**
  - **1 Negative Vote w/ 1 Comment**
  - **98% affirmation**

802.15.4c Sponsor Ballot Recirc. #1

- **1 Comment**
  Annex F is informative. These two paragraphs between lines 44-29 should be moved Clause 6.

- **Proposed Change**
  Move two paragraphs to clause 6. A note is by definition informative, so either make this paragraph not a note or remove the shall. Alternatively, remove the shalls and leave the paragraphs in Annex F.

- **Resolution Status**
  Agree

- **Resolution Detail**
  The 3 instances of "shall be" will be replaced with "is" and the 2 paragraphs will remain in Annex F.

Bob Heile, ZigBee Alliance

Motion in 802.15 WG

"That the 802.15 WG seeks conditional approval from the EC to submit the 801.15 TG4c Draft amendment P802-15-4c-D06_Draft_Amendment to RevCom."

Motion Passed Unanimously

Results: 31/0/0   Y/N/A

Motion for the EC

Move that conditional approval be granted to forward P802-15-4c-D06_Draft_Amendment to RevCom

Moved: Bob Heile
Second:

Results:

5.15   ME 802.15.5 forward to RevCom (conditional)   **Heile   5 02:28 PM**

Heile presented "EC_802-15 Agenda Items DFW.ppt", slides 2-8

Motion to grant conditional approval to forward 802.15.5 to RevCom

Moved by Heile, seconded by Gilb

Result 16/0/0, motion passes.

IEEE802.15.5 Recommended Practice for WPAN Mesh Networking

Conditional Approval to Forward to RevCom

Myung Lee
TG5 Chair, CUNY

IEEE802.15.5 Recommended Practice WPAN Mesh 1st Sponsor Ballot

Ballot Result on d6P802-15-5_Draft_Standard.pdf

- Total Voters: 108
  - 82 Voters returned (75%):
    - 72 Affirmative,
    - 1 Negative with two technical comments (from Eldad Perahia)
    - 9 abstention
    - Approval Rate : 98% (72 out of 73 votes)

- Comments
  - 27 Comments (2 technical, 25 editorial)
  - All comments are resolved

IEEE802.15.5 Recommended Practice Sponsor Ballot 1ˢᵗ Recirculation

- Recirculation package

  - d7P802-15-5_Draft_Standard.pdf

  - 15-08-0740-01-0005-TG5-Sponsor-ballot-comment-resolutions

  - 802.15.5_SponsorBallotRecircCover

- Recirculation period: Nov. 7-Nov.22, 2008

Technical Comment for Low Rate Part from Eldad Perahia

Comment: The mesh network will be used to extend network coverage and by doing so complete changes the coverage paradigm. This is no longer a PAN technology and is now a LAN. This will greatly increase interference to other systems using the same bands. With the new coverage capabilities, interference into other systems and coexistence with other systems must be analyzed and addressed.

Resolution (disagree): The mesh network does raise the interference level to some extend. However, being a low power, low data rate network, we believe LR-WPAN's interference will not seriously affect WiFi communications. We clearly stated the low power, low rate feature in Subclause 5.1. Other reasons include,

1). 802.15.4-based LR WPAN mesh is built for sensor/control networks and have very light traffic in most applications, such as light switches, utility meters and thermostats.

2). There are four 15.4 channels (15, 20, 25, 26) that are not overlay with WiFi channels. By using the build-in automatic scanning mechanism, 15.4-based the networks can operate in different channels with WiFi.

3) 802.15.5 is not the first and the only mesh network standard based on 15.4. In fact, the ZigBee Alliance has done quite some research, including field test, on coexistence issues between WiFi and ZigBee. In fact, what people worry about is high-power WiFi will affect low-power ZigBee/15.4, not the other way around.

4) The coexistence problem has been addressed by 802.15.2.

5) IEEE 802.15.4 supports peer-to-peer topology. A study must have been done before 15.4 became a standard.

Technical Comment for High Rate Part from Eldad Perahia

Comment: The mesh network will be used to extend network coverage and by doing so complete changes the coverage paradigm. This is no longer a PAN technology and is now a LAN. This will greatly increase interference to other systems using the same bands. With the new coverage capabilities, interference into other systems and coexistence with other systems must be analyzed and addressed.

Resolution (Disagree): Generally, interference and coexistence are critical factors in mesh networks. However, we believe that they will not generate serious problems due to the following reasons.

1) Although IEEE802.15.3-based HR WPAN mesh extends to network coverage, the coverage is usually not that big. According to the technical requirements document for this draft, network size of HR WPAN mesh is at most 20 devices. Therefore HR WPAN mesh is still suitable for PAN, not for LAN.

2) WPAN devices may not have a direct communication among participating devices in the network even in the small covered area. This happens due to the attenuation by barriers like walls, doors, tables etc. The desirable mesh concept for HR WPAN is to remove such attenuation affecting on link performance, not simply to extend network coverage itself.

3) Extending the coverage using the mesh architecture does not alter the characteristics of interference itself, but only increases the chances of encountering interference from other networks. Thus, we believe that the various methods described in the IEEE Std. 802.15.3-2003 Annex C are still effective to reduce the interference in the mesh environments. For example, if the HR-WPAN detects the presence of 802.11 WLAN, the PNC would choose a new channel that is not overlapped with the WLAN by adopting the coexistence channel plan. Provided that the 802.11 AP is equipped with additional functionalities as proposed by IEEE Std. 802.15.2-2003, the 802.11 WLAN may also share the superframe structure of the HR-WPAN in the same channel by joining as a neighbor piconet. The HR-WPAN PHY has characteristics that make it easier to build dual-mode 802.11/802.15.3 radios. For more detailed descriptions, refer to the IEEE Std. 802.15.3-2003 Annex C.

IEEE802.15.5 Recommended Practice

- Motion to request conditional approval passed (69/1/1)

- *Move that the EC grant conditional approval to forward 802.15.5 draft d8P802.15-5_Draft_Standard.pdf to RevCom*
  - *Move: Bob Heile*
  - *Second:*

  - *Results:*

5.16   ME 802.15.2 reaffirmation to Sponsor ballot   **Heile   5 02:29 PM**

Heile discussed 802.15.2 is coming up for expiration.

The motion passed the working group 28/0/0

Motion is for EC to approve starting sponsor ballot for the reaffirmation IEEE Std 802.15.2-2003.

Moved by Heile, seconded by Gilb

Result 16/0/0, motion passes.

**5.18   ME P802.3at DTE Power via MDI Enhancements to Sponsor ballot   Law   10 02:32 PM
            (conditional)**

Law presented "1108_closing_EC.pdf", slides 12-14

Motion is that the LMSC Executive Committee grant Sponsor Ballot Conditional Approval for IEEE P802.3at per Procedure 19.

Moved by Law, seconded by Thaler.

Result 16/0/0, motion passes.

IEEE P802.3at DTE Power Enhancements Conditional to Sponsor ballot

- Item 1 - Date the ballot closed:
  - IEEE 802.3 Working Group recirculation on D3.2 of IEEE P802.3at closed Wednesday, 29 October 2008, 11:59 p.m. AOE.

- Item 2 - Vote tally:

Comments: 30

	2nd Recirculation Draft D3.2			Req %
	#	%	Status	
Abstain	39	24	PASS	< 30
Disapprove with comment	14	-	-	-
Disapprove without comment	0	-	-	-
Approve	107	88	PASS	≥ 75
Ballots returned	160	76	PASS	≥ 50
Voters	211	-	-	-

IEEE P802.3at DTE Power Enhancements Conditional to Sponsor ballot

- Item 3 - Comments that support the remaining disapprove votes and WG responses.
  - 17 unresolved negative comments
    http://www.ieee802.org/3/at/comments/D3.2/P802d3at_D3p2_unsatisfied.pdf
- Item 4 - Schedule for recirculation ballot and resolution meeting.
  - Draft 3.3 of IEEE P802.3at will begin a recirculation ballot on or before Dec 1, 2008
  - Recirculation will close no later than Dec 16, 2008 AOE.
  - Comment resolution to be conducted of January 13-15, 2009

IEEE P802.3at DTE Power Enhancements Conditional to Sponsor ballot

- The LMSC Executive Committee grant Sponsor Ballot Conditional Approval for IEEE P802.3at per Procedure 19.

  M: D Law, S: P Thaler

  Y: ??, N: ??, A: ??

  Working Group vote:

  Y: 54, N: 0, A: 2

5.19   ME P802.3av 10Gb/s EPON to Sponsor ballot (conditional)   **Law**   **5 02:34 PM**

Law presented "1108_closing_EC.pdf", slides 15-17

Motion is that the LMSC Executive Committee grant Sponsor Ballot Conditional Approval for IEEE P802.3av per Procedure 19.

Moved by Law, seconded by Thaler.

Result 16/0/0, motion passes.

IEEE P802.3av 10Gb/s EPON Conditional to Sponsor ballot

- Item 1 - Date the ballot closed:
  - IEEE 802.3 Working Group recirculation on D2.1 of IEEE P802.3av closed Wednesday, 22 October 2008, 11:59 p.m. AOE.

- Item 2 - Vote tally:

Comments: 298

	1st Recirculation Draft D2.1			Req %
	#	%	Status	
Abstain	22	14	PASS	< 30
Disapprove with comment	7	-	-	-
Disapprove without comment	0	-	-	-
Approve	128	95	PASS	≥ 75
Ballots returned	157	71	PASS	≥ 50
Voters	221	-	-	-

IEEE P802.3av 10Gb/s EPON Conditional to Sponsor ballot

- Item 3 - Comments that support the remaining disapprove votes and WG responses.

  – 12 unresolved negative comments

- Item 4 - Schedule for recirculation ballot and resolution meeting.

  – 12/03/08 – 2nd Recirc Ballot Opens

  – 12/18/08 – 2nd Recirc Ballot Closes

  – 01/05/09 – D2.2 Proposed comment responses posted

  – 01/12/09 – BRC meeting in New Orleans

IEEE P802.3av 10Gb/s EPON Conditional to Sponsor ballot

- The LMSC Executive Committee grant Sponsor Ballot Conditional Approval for IEEE P802.3av per Procedure 19.

  M: D Law, S: P Thaler
  Y: ??, N: ??, A: ??

  Working Group vote:
  Y: 60, N: 0, A: 0

5.20   ME P802.16 Revision to RevCom (conditional)   **Marks   10 02:35 PM**

Marks presented "80216-08_058.pdf"

Motion is to grant conditional approval, under Clause 19, to forward the 802.16 Revision Draft (P802.16Rev2) to RevCom

Moved by Marks, seconded by Rigsbee

Result 16/0/0, motion passes.

Supporting report to EC for request of conditional approval to forward P802.16Rev2 to RevCom

IEEE 802.16 Presentation Submission Template (Rev. 9)

Document Number:
   IEEE 802.16-08/058

Date Submitted:
   2008-11-14

Source:

Jonathan Labs, John Humbert	Voice:
Wavesat, Sprint	E-mail: jlabs@wavesat.com

Venue:
   Session #58

Base Contribution:
   None

Purpose:
   Report to the EC on the status of the IEEE P802.16Rev2 Sponsor Ballot in support of request for conditional approval to forward the IEEE P802.16Rev2 draft to RevCom.

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   Further information is located at <http://standards.ieee.org/board/pat/pat-material.html> and <http://standards.ieee.org/board/pat >.

Rules

- LMSC P&P Clause 19: Motions requesting conditional approval to forward where the prior ballot has closed shall be accompanied by:
  - Date the ballot closed
  - Vote tally including Approve, Disapprove and Abstain votes
  - Comments that support the remaining disapprove votes and Working Group responses.
  - Schedule for confirmation ballot and resolution meeting.

Date the Ballot Closed
29 October 2008

Stage	Open	Close
Sponsor Ballot	12 Aug 2008	11 Sep 2008
Sponsor Ballot Recirc #1	8 Oct 2008	29 Oct 2008

Vote tally including Approve, Disapprove and Abstain votes

- Approve: 166
- Disapprove: 0
- Abstain: 14

- Return ratio: 85%
- Approve ratio: 100%

Comments that support the remaining disapprove votes and Working Group responses

- Sponsor Ballot:
  - 0 outstanding disapprove comments
- Sponsor Ballot Recirc #1:
  - 0 outstanding disapprove comments

Schedule for Confirmation Ballot and Resolution Meeting

- Dec 4:   Open recirculation

- Dec 20:   Close recirculation

- Jan 12-15: Comment resolution at 802.16 Session #59, if necessary

- Feb 6:   Deadline submittal for RevCom March meeting

802.16 WG Motions

802.16 Closing Plenary: 13 November 2008:

- Motion (9:21 PM): To accept the resolutions of the comments from the Rev2 Sponsor Ballot Recirc R1, as recorded in IEEE 802.16-08/054r2, to develop draft P802.16Rev2/D8 according to those resolutions, and to initiate a Sponsor Recirculation Ballot.
  - Moved: Jon Labs
  - Seconded: Rainer Ullmann
  - Approved 51-0-0

- Motion (9:25 PM): To request conditional approval from the 802 EC to forward the P802.16Rev2 draft to RevCom.
  - Moved: Jon Labs
  - Seconded: John Humbert
  - Approved 66-0-0

Motion

To grant conditional approval, under Clause 19, to forward the P802.16Rev2 draft to RevCom.

- – Moved: Roger Marks
- – Seconded:

- – Approve:
- – Disapprove:
- – Abstain:

5.21   ME P802.16j to RevCom (conditional)   **Marks   5 02:36 PM**

Marks presented "80216-08_059.pdf"

Motion is to grant conditional approval, under Clause 19, to forward the P802.16j draft to RevCom.

Moved by Marks, seconded by Rigsbee

Result 16/0/0, motion passes.

Supporting report to EC for request of conditional approval to forward P802.16j to RevCom

IEEE 802.16 Presentation Submission Template (Rev. 9)
Document Number:
    IEEE 802.16-08/059
Date Submitted:
    2008-11-14
Source:

Mitsuo Nohara	Voice:	+81 80 6744 6243
KDDI R&D Labs.	E-mail:	mi-nohara@kddilabs.jp

Venue:
    Session #58
Base Contribution:
    None
Purpose:
    Report to the EC on the status of the IEEE P802.16j Sponsor Ballot in support of request for conditional approval to forward the IEEE P802.16j draft to RevCom.
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Patent Policy:
    The contributor is familiar with the IEEE-SA Patent Policy and Procedures:
        <http://standards.ieee.org/guides/bylaws/sect6-7.html#6> and <http://standards.ieee.org/guides/opman/sect6.html#6.3>.
    Further information is located at <http://standards.ieee.org/board/pat/pat-material.html> and <http://standards.ieee.org/board/pat >.

Rules

- LMSC P&P Clause 19: Motions requesting conditional approval to forward where the prior ballot has closed shall be accompanied by:
  - Date the ballot closed
  - Vote tally including Approve, Disapprove and Abstain votes
  - Comments that support the remaining disapprove votes and Working Group responses.
  - Schedule for confirmation ballot and resolution meeting.

Date the Ballot Closed
7 November 2008

Stage	Open	Close
Sponsor Ballot	11 Aug 2008	10 Sep 2008
Sponsor Ballot Recirc #1	23 Oct 2008	7 Nov 2008

Vote tally including Approve, Disapprove and Abstain votes

- Approve: 154
- Disapprove: 3
- Abstain: 12

- Return ratio: 84%
- Approve ratio: 98%

Comments that support the remaining disapprove votes and Working Group responses

- Sponsor Ballot:
  - 3 outstanding disapprove comments
- Sponsor Ballot Recirc #1:
  - 0 outstanding disapprove comments

- ## Comment 326

  By   Roger Marks

  Comment

  This document is not ready for submittal to RevCom because, according to the IEEE-SA Standards Board Operations Manual, Subclause 8.1.2:

  Up to three amendments can be approved before the standard shall be revised, unless the base standard has been approved or reaffirmed within the past three years. In the latter case, multiple amendments may be added until the base standard is three years old or three years have elapsed since the most recent reaffirmation of the standard. After the three-year period, RevCom shall defer consideration of additional amendments or corrigenda until a revision or a two-year extension request is approved by the IEEE-SA Standards Board.

  The base standard (IEEE Std 802.16-2004) is more than three years old, and it has been subject to three amendments (802.16e, 802.16f, and 802.16g). Therefore, this amendment cannot be approved until the current 802.16 revision project is complete.

  Suggested Remedy

  Defer submission to RevCom until the current 802.16 revision project is complete and the resulting draft is approved. Revise draft to ensure that it is fully aligned, editorially, with the P802.16Rev2 revision draft. Ensure that draft is consistent with the other ongoing project (namely, P802.16h) that would amend the same document.

  Group Resolution: Principle

  Group agree the comments.

  Group has started the ad hoc for alignment with Rev2 draft before entering sponsor ballot.

  And group made alignment with D5 and approved the text changes required for alignment with D6a.

  And ad hoc group will keep the work for alignment with Rev2 until it release as standard.

  Please refer to 08/144 and 08/145r1 for the result of alignment to Rev2/D5 and Rev2/D6a.

- ## Comment 373

  By   Ronald G. Murias

  Comment

  Page 1 line 38 says: "Temporary note: All references in this version of the draft amendment are relative to P802.16Rev2/D5 (June 2008)."

  The IEEE-SA Standards Board Operations Manual states in 1.2 that an amendment is "A document that contains new material to an existing IEEE standard and may contain technical corrections to that standard."

  This amendment appears to have been written to amend an unapproved working draft of a revision.

  Suggested Remedy

  Re-write the amendment to contain new material to an existing IEEE standard.

  Group Resolution: Principle

  Group agree the comments.

  Group has started the ad hoc for alignment with Rev2 draft before entering sponsor ballot.

  And group made alignment with D5 and approved the text changes required for alignment with D6a.

  And ad hoc group will keep the work for alignment with Rev2 until it release as standard.

  Please refer to 08/144 and 08/145r1 for the result of alignment to Rev2/D5 and Rev2/D6a.

- ## Comment 377

  By: Phillip Barber

  Comment:

    Inconsistent editorial application throughout much of the document. Portions of the document are written to editorial modify IEEE 802.16e-2005. Portions are written to modify iterations of the Rev2 draft. All without properdistinguishing notation. Cannot tell which document 16j is attempting to amend.

    In any case, 16j will have to be aligned to amend the standard that is due to be approved based on the Rev2 draft.

  Suggested Remedy

    Modify the editorial instructions to consistently amend the final, pre-publication, and eventually final publication revision of the Rev2 document.

    Verify that there are no technical conflicts. Actually, I believe there already are conflicts in the UIUC Extended-2 code space use. Fix technical conflicts that arise.

  Group Resolution: Principle

    Group agree the comments.

    Group has started the ad hoc for alignment with Rev2 draft before entering sponsor ballot.

    And group made alignment with D5 and approved the text changes required for alignment with D6a.

    And ad hoc group will keep the work for alignment with Rev2 until it release as standard.

    Please refer to 08/144 and 08/145r1 for the result of alignment to Rev2/D5 and Rev2/D6a.

    And for technical conflict, we identified the problem and adopted the contribution 08/154r1.

Schedule for Confirmation Ballot and Resolution Meeting

- Dec 4:   Open recirculation

- Dec 20:   Close recirculation

- Jan 12-15: Comment resolution at 802.16 Session #59, if necessary

- Feb 6:   Deadline submittal for RevCom March meeting

802.16 WG Motions

802.16 Closing Plenary: 13 November 2008:

- Motion (9:58 PM): To approve P802.16j/D8 (to be issued by the Relay TG Editors) as the revised working group draft and to authorize the WG Chair to proceed to the Sponsor Ballot confirmation recirculation, to close by about 20 Dec., 2008.
  - Moved: Mitsuo Nohara
  - Seconded: Mo-han Fong
  - Approved 48-0-0

- Motion (10:01 PM): To request EC's conditional approval for RevCom submittal of the P802.16j/D8 or latest
  - Moved: Mitsuo Nohara
  - Seconded: Mo-han Fong
  - Approved 40-3-1

Motion

To grant conditional approval, under Clause 19, to forward the
P802.16j draft to RevCom.

- – Moved: Roger Marks
- – Seconded:

- – Approve:
- – Disapprove:
- – Abstain:

5.22   ME 802.1ap to RevCom   **Jeffree   5   02:38 PM**

Jeffree presented "2008-11-802-1-exec-motions.ppt", slides 2-3

Motion is that 802.1 requests approval of the EC to submit 802.1ap to RevCom.

Moved Jeffree, seconded Law

Result 16/0/0, motion passes.

MOTION

- 802.1 requests approval of the EC to submit 802.1ap to RevCom.
- Proposed: haddock Second: lemon
- For: 28   Against: 0   Abstain: 10
- EC proposed: Jeffree Second:

P802.1ap – supporting material

- Pre-submitted to RevCom before close of recirculation ballot
- Recirculation ballot of D4.3 was extended due to file problems; ballot closed 10 Nov
- 73 in pool, 89% (65) response, 98% (61) approval, 4% (3) abstention
- 1 outstanding negative ballot from Satoshi Obara, 1 comment:
  "I understood the information of Clause 17.4 should be normative part of 802.1ap. But I still state that Clause 17.4 defines nothing and there are just informations for readers of 802.1ap."
- Proposed change:
  "All Clause 17.4 should be moved to "Normative Annex"."
- Resolution detail:
- "REJECT. As indicated in the previous ballot, the ballot resolution group reiterates: "Security considerations are a normative part of MIB definitions in the IETF. This section contains important groupings of objects that would be vulnerable, as well as potential implications of these objects being compromised. From the IEEE perspective, this information is viewed as significant and worthy of being in the normative section of the standard." It is most appropriate for this information to be in the MIB clause since it contains security considerations for these MIB modules. Further, the 802.1Q practice is that Annexes (besides the PICS) are informative, so creating a normative Annex would be outside current practice."

5.23 ME 802.1Qaw to Sponsor ballot (conditional)   **Jeffree   5 02:40 PM**

Jeffree presented "2008-11-802-1-exec-motions.ppt", slides 4-5

Motion is 802.1 requests conditional approval of the EC, as per current P&P, to forward P802.1Qaw to Sponsor Ballot following completion of recirculation balloting.

Moved Jeffree, seconded Law

Result 15/0/0, motion passes.

MOTION

- 802.1 requests conditional approval of the EC, as per current P&P, to forward P802.1Qaw to Sponsor Ballot following completion of recirculation balloting.

- Proposed: Haddock Second: Dunbar

- For: 28   Against: 0   Abstain: 16

- EC proposed: Jeffree Second:

-

P802.1Qaw – supporting material

- D3.2 recirculation ballot closed Oct 27
- 106 balloters, 90 responders (85%), 31 approve (97%), 1 disapprove, 58 abstain (64%)
- 1 outstanding comment from disapprove voter (Glenn Parsons): "Where did the definition for "A member port of Link Aggregation Group" go? I though we were going to use "LAG member port" or "LAG port" or "aggregated port" as in 802.1ag Instead"
- SuggestedRemedy: "Put back the definition. Or indicate where it is. And then use the term throughout the document. There are still uses of "a Bridge Port or a member port of a LAG within a Bridge Port" in clause 17"
- Committee response:
  "ACCEPT IN PRINCIPLE.

  remove the reference to LAG in clause 17.

  It was decided at the last ballot to remove the definition and use 802.1ag phrase, i.e "an

  aggregated IEEE802.3 port within a Bridge Port"

  Steve stated this phrase will be replaced by a more proper term in the Q-rev together with 802.1ag"
- Recirc ballot in Nov/Dec timeframe; resolution if needed at Jan interim

5.24 ME 802.1Qay to Sponsor ballot (conditional)   **Jeffree   5 02:42 PM**

Jeffree presented "2008-11-802-1-exec-motions.ppt", slides 6-7

Motion is 802.1 requests conditional approval of the EC, as per current P&P, to forward P802.1Qay to Sponsor Ballot following completion of recirculation balloting.

Moved Jeffree, seconded Law

Result 15/0/0, motion passes.

MOTION

- 802.1 requests conditional approval of the EC, as per current P&P, to forward P802.1Qay to Sponsor Ballot following completion of recirculation balloting.
- Proposed: Haddock Second: Saltsidis
- For: 40 Against: 0 Abstain: 8
- EC proposed: Jeffree Second:
-

P802.1Qay – supporting material

- Recirculation ballot of D4.5 closed Nov 6

- Total responses: 77, Total number of voters: 107, Response rate: 72%

- Approve: 27 (93%) Disapprove: 2 (7%) Abstain: 48 (62%)

- Outstanding comments:
  http://ieee802.org/1/files/public/docs2008/ay-

- Recirc ballot in Nov/Dec timeframe; resolution if needed at Jan interim

5.25   ME Response to the interpretation request on 802.1ah (re: L2GP   Jeffree   5 02:44 PM
operation)

Jeffree presented "2008-11-802-1-exec-motions.ppt", slide 8-9

Motion is 802.1 approves the following text as a response to the interpretation request on 802.1ah (re: L2GP operation)

"The P802.1ah amendment changes and additions to IEEE Std 802.1Q subclauses 13.1 through 13.37 are not consistent with the other provisions of Clause 13. Specifying the necessary corrections is beyond the scope of a response to an interpretation request. The corrections suggested in the interpretation request will be considered as part of an amendment under development (P802.1aq)."

Moved Jeffree, seconded Law

Result 16/0/0, motion passes.

Motions

- 802.1 approves the following text as a response to the interpretation request on 802.1ah (re: L2GP operation)

The P802.1ah amendment changes and additions to IEEE Std 802.1Q subclauses 13.1 through 13.37 are not consistent with the other provisions of Clause 13. Specifying the necessary corrections is beyond the scope of a response to an interpretation request. The corrections suggested in the interpretation request will be considered as part of an amendment under development (P802.1aq).

- Proposed: Seaman Second: haddock
- For: 24 Against: 0 Abstain: 16
- **EC motion**: EC approves the above interpretation response.
- Proposed: Jeffree Second:

Original interp request:

- http://www.ieee802.org/1/pages/int-10.html

5.26 ME Response to the interpretation request on 802.1Q (re: MST Region   Jeffree   5 02:46 PM definition)

Jeffree presented "2008-11-802-1-exec-motions.ppt", slide 10-11

Motion is 802.1 approves the following text as a response to the interpretation request on 802.1Q (re: MST Region definition)

"The clause 13.8 specification of MST Region takes precedence over the 3.87 definition. The latter will be changed in a future amendment or revision of 802.1Q."

Result 16/0/0, motion passes.

Motions

- 802.1 approves the following text as a response to the interpretation request on 802.1Q (re: MST Region definition)

  The clause 13.8 specification of MST Region takes precedence over the 3.87 definition. The latter will be changed in a future amendment or revision of 802.1Q.

- Proposed: Seaman Second: haddock
- For: 26   Against: 1   Abstain: 16
- **EC motion**: EC approves the above interpretation response.
- Proposed: Jeffree Second:

Original interp request:

- http://www.ieee802.org/1/private/email2/msg10719.html

5.27   ME 802.22.1 to Sponsor ballot (conditional)   **Stevenson   5   02:49 PM**

Stevenson presents 22-1_Cond_Approval Motion Nov08.rtf.

Motion is that the LMSC EC grant approval to forward the Working Group's most recently approved draft of P802.22.1 to Sponsor Ballot.

Moved by Stevenson, seconded by Heile

Discussion followed:

Marks requested the draft number.

Law asked for the ballot totals.

Stevenson indicated that the most recent draft is 4.

Motion is now hat the LMSC EC grant approval to forward the Working Group's Draft 4 of P802.22.1 to Sponsor Ballot.

Result 16/0/0, motion passes.

Moved that the LMSC EC grant approval to forward the Working Group's Draft 4 of P802.22.1 to Sponsor Ballot.

Moved: Stevenson
Seconded: Heile

Yes:
No:
Abstain:

5.03   ME 802.11 Very High Throughput 60 GHz PAR forward to NesCom   Kraemer   5 02:55 PM

Kraemer presented 11-08/1438r0.

Motion is to move to forward the PAR information from 11-08-0806-07-0vht-60-ghz-par-nescom-form-plus-5cs, in the proper web based form, to NesCom

Moved by Kraemer, seconded by Shellhammer

Thompson indicated that was good that we worked together to solve the issues.

Kramer thanked the 802 EC and 802.15 for working with 802.11 to come to agreement.

Results 16/0/0, motion passes.

802.11 EC Motion – 5.03
Request New PAR 802.11ad (VHT 60Ghz)

Move to forward the PAR information from 11-08-0806-07-0vht-60-ghz-par-nescom-form-plus-5cs, in the proper web based form, to NesCom

- **SG Vote on the motion:** Vote: Y:41, N:0, Abs: 2
- **WG Vote on the motion:** Vote: Y:92, N:0, Abs: 1

- **Moved: Kraemer   2nd:**

- **Yes: No: Abstain:**

Background – Requested for Agenda

- ----- Original Message ----- From: "Jon Rosdahl" <jrosdahl@ieee.org>
- To: <STDS-802-SEC@LISTSERV.IEEE.ORG>
- Sent: Wednesday, October 08, 2008 4:53 PM
- Subject: Re: [802SEC] Item 4 from WG11 for SEC Agenda -- Nov 2008

- \> Hello SEC members,
  \>   Just to clarify the Agenda items WG11 is requesting:
  \>
  \> Monday
  \> II Administrative withdrawal of P802.11t and disband of TGT   1
  \>
  \> Friday
  \> ME P802.11 revision PAR to NesCom   2
  \> ME P802.11xx Very High Throughput 60 GHz PAR to NesCom   5
  \> ME P802.11n Higher Throughput to Sponsor ballot (conditional)   5
  \>
  \> Regards,
  \> Jon

Information Package for the VHT60 PAR Package sent to EC reflector

- **EC Report:**

    https://mentor.ieee.org/802.11/file/08/11-08-0813-03-0vht-ec-report

    Feedback on VHT60 PAR and response:

    https://mentor.ieee.org/802.11/file/08/11-08-1367-01-0000-feedback

    VHT60 PAR:

    https://mentor.ieee.org/802.11/file/08/11-08-0806-07-0vht-60-ghz-pa

Background for VHT 60 PAR request

- **Believing that the PAR and Five Criteria contained in the documents referenced below meet IEEE-SA guidelines, Request that the updated PAR and Five Criteria contained in 11-08/806r7 be sent to IEEE 802 Executive Committee (EC) for EC approval to submit to NesCom.**

  - **SG results**: Move: Darwin Engwer Second: George Vlantis:
  - Vote Y: 41, N: 0, Abs: 2
  - **WG results**:
  - Moved: by Eldad Perahia (Intel) , Second: Peter Murray (TMG Inc; affiliation Qualcomm)
  - Vote: 92: 0: 1 – Passes.

5.17 ME 802.11n High Throughput to Sponsor ballot (conditional)　　　Kraemer　10 03:02 PM

Kraemer presented 11-08/1438r0.

Motion is to grant conditional approval, under Clause 19, to forward P802.11n Draft 7.0 to Sponsor Ballot.

Moved by Kraemer, seconded by Gupta

Rosdahl presented 11-08/1437r0 which is a precis of the complete resolution package.

Thompson indicated that he was unhappy with conditional approval of a draft with so many unresolved comments. He would have preferred to have the results of a recirculation ballot on unchanged draft for unconditional approval

Kramer indicated that the next ballot would be on an unchanged draft.

Results 15/0/0, motion passes.

802.11 EC Motion – 5.17 Conditional Approval for Sponsor Ballot

- **Grant conditional approval, under Clause 19, to forward P802.11n Draft 7.0 to Sponsor Ballot.**

- **P802.11n had a 94% approval on the last WG Recirculation Ballot. There were 17 voters that had voted NO, then one of the NO voters changed to a YES vote.**

  - Task Group Vote on the Motion Passed: 17 y, 1 n, 0 a
  - Working Group vote on the Motion Passed: 53 y, 3 n, 6 a

- **Moved: Kraemer   2nd:**

  - Yes   No   Abstain

Background for TGn Sponsor Ballot request

- **----- Original Message -----**
- **From: Bruce Kraemer**
- **To: STDS-802-SEC@LISTSERV.IEEE.ORG**
- **Cc: Stephens, Adrian P ; Jon Rosdahl ; Sheung Li**
- **Sent: Wednesday, October 08, 2008 5:27 PM**
- **Subject: TGn Sponsor Ballot request - Presentation for November**

- **Dear EC,**
- **I previously indicated that preparations are being made for WG11 to request conditional approval for TGn to go to sponsor ballot.**
- **To explain the history and status of the amendment, the TGn team has composed a presentation which will be the basis for the EC presentation in November.**
- **https://mentor.ieee.org/802.11/file/08/11-08-1217-02-000n-p802-11n-working-group-letter-ballot-report.doc**
- **Please provide feedback when you have an opportunity.**
- **I expect to update the document based upon feedback from the EC, as well as feedback from WG11 and TGn as events progress during the November Plenary.**

Informational items

- **Report on outstanding Comments:**
- **https://mentor.ieee.org/802.11/file/08/11-08-1217-02-000**
- **Draft v7.0:**
- **http://grouper.ieee.org/groups/802/11/private/Draft_Sta**

- **Precis of WG LB Report:**
- **https://mentor.ieee.org/802.11/file/08/11-08-1437-00-000**

6.00 Executive Committee Study Groups, Working Groups, TAGs

6.01 MI 802 EC SG TV White space

Shellhammer presented 19-08-0037-00

Move to form an EC study group on TV White Space

Moved by Shellhammer, seconded by Sherman

Hawkins asked if the study group need to create a PAR.

Sherman read the rules that said that this was not required.

Marks asked for the tasks to be part of the motion and the name of the chair.

Motion now reads "Move to form an EC study group on TV white space per the tasks in document 802.19-08/37r1, with Mat Sherman appointed as Study Group Chair."

Klerer asked if bullet 4 assumes that the space will be shared.

Shellhammer indicated that this was just to study coexistence.

Stevenson: Is the group prohibited from generating a PAR and 5C.

Jefree said that the group works within its charter. Therefore the group will not be producing a PAR and 5C.

Stevenson and Sherman asked for the following to be elaborated in the minutes that the study group shall not develop a PAR and 5C.

Stevenson made a friendly amendment to "limited to the tasks"

Ammended motion is "Move to form an EC study group on TV white space limited to the tasks in document 802.19-08/37r1, with Mat Sherman appointed as Study Group Chair."

Result 15/0/0

EC Study Group on TV White Space

Date: 2008-11-14

Authors:

Name	Company	Address	Phone	E-mail
Steve Shellhammer	Qualcomm	5775 Morehouse Dr San Diego, CA 92121	(858) 658-1874	Shellhammer@ieee.org
Bruce Kraemer	Marvell	5488 Marvell Lane, Santa Clara, CA 95054	+1 (321) 427-4098	bkraemer@marvell.com
Peter Ecclesine	Cisco	170 W. Tasman Dr., San Jose, CA 95134-1706	+1-408-527-0815	petere@cisco.com

Introduction

- **The FCC recently approved a report and order (R&O) on the Cognitive use of TV White Space**

- **There are multiple working groups interested in utilizing the White Space Spectrum**

- **We recommend formation of an EC Study on TV White Space**

Tuesday Evening 802.11 WNG Meeting on White Space

- **Request approval by IEEE 802 LMSC to form an 802 Study Group to review TV white space in the light of the FCC's TV white space actions of November 4, 2008 , with the intent of creating a PAR and five criteria.**

- **Moved Ivan Reede**

- **Second Roger Durand**

- **Vote 47-7-23**

- **WNG Motion Passes**

- **Primary interest**
  - 802.22 – 16 people
  - 802.20 – 0 people
  - 802.16 – 4 people
  - 802.15 – 1 people
  - 802.11 – 43 people

Study Group Tasks

- **Assess the impact of the FCC White Space R&O on IEEE 802 activities**

- **Identify Use Cases of TV White Space Spectrum**

- **Identify what functions may be common across 802 technologies**

- **Begin technical discussion on how to enable coexistence between various 802 technologies in the shared TV white space spectrum**

- **Prepare a Tutorial for March Plenary**

- **Make recommendations to 802 EC by March 2009 on next steps**

- **This study group shall not develop a PAR and 5C**

Study Group Meetings

- **Bi-weekly conference calls**

- **Meetings at January Wireless Session**

- **Meeting at the March Plenary Session**

Conference Call Schedule

Date	Start Time	End Time
December 2	1:00 PM Eastern Time	2:30 PM Eastern Time
December 16	1:00 PM Eastern Time	2:30 PM Eastern Time
December 30	1:00 PM Eastern Time	2:30 PM Eastern Time
January 6	1:00 PM Eastern Time	2:30 PM Eastern Time
January 27	1:00 PM Eastern Time	2:30 PM Eastern Time
February 10	1:00 PM Eastern Time	2:30 PM Eastern Time
February 24	1:00 PM Eastern Time	2:30 PM Eastern Time
March 3	1:00 PM Eastern Time	2:30 PM Eastern Time

Motion

- **Move to form an EC study group on TV White Space limited to the tasks in document 802.19-08/37r1, with Mat Sherman appointed as Study Group Chair**

- **Move: Steve Shellhammer**

- **Second: Mat Sherman**

- **Vote: 16/0/0**

6.02	MI*	802.15 Visible Light communications (2nd extension)	Heile	04:01 PM
6.03	MI*	802.15 RFID 802.15.4 amendment (3rd extension)	Heile	04:01 PM
6.04	MI*	802.15 NAN 802.15.4 amendment (1st extension)	Heile	04:01 PM
6.05	MI*	802.11 Very High Throughput Study Group Extension request (3rd extension)	Kraemer	04:01 PM

Items 6.02, 6.03, 6.04 and 6.05 were approved as part of the consent agenda

6.06   MI   802.21 Emergency Services Study Group (2nd extension)   Gupta   5 03:26 PM

Gupta presented 802.21-EC-Slides-Nov-08, slide 4.

Motion: Move that the EC extend (second extension) the 802.21 Emergency Services Study Group through the March 2009 Plenary Meeting.

Marks asked for this PAR and 5C to be presented as early as possible.

Gupta committed to send out the PAR and 5C as early as possible.

Gilb suggested sending out the approved PAR and 5C after the Janary meeting

Kraemer also asked for more preview on this PAR as well so it could be discussed at the January meeting.

Result 15/0/0

Meeting recessed for 10 minutes at 3:35 pm.

802.21 Multi-radio PM SG Renewal

- Motion: Move that the EC extend (fourth extension) the 802.21 MRPM Study Group through the March 2009 Plenary Meeting

- Moved: Vivek Gupta

- Second:

- LMSC Vote:

- PAR Approved by WG yesterday (13-1-2) To be submitted for EC consideration in March-2009 along with a Tutorial.
<http://mentor.ieee.org/802.21/file/08/21-08-0297-06-mrpm-revised-par-and-5c.doc>

7.00   Break   10   03:34 PM

Meeting called to order at 3:44 pm

Shellhammer moved to take off the table the motion for 802.15.4g. Seconded by Heile

Result 13/0/0

Motion is: Move that the 802 EC approve forwarding the 802.15.4g draft PAR for a PHY amendment to 802.15.4 (doc # 15-08-0705-05) to NesCom.

Moved by Heile, seconded by Gilb

Marks asked if if was available.

Heile indicated that it was posted on mentor (the document server) and on the 802.15 web page.

Marks asked if there was a part where it said that the data rate was less than some number.

Heile indicated that current limits in 802.15.4 is 250 kb/s and the MAC is designed to support less than 1 Mb/s.

Thaler: doesn't see where it couldn't amend the MAC to allow higher data rate. Would prefer to see a limit on the upper data rate.

Thompson: This should be a revision to the standard that included changing the name of the standard.

Kraemer: The comments in the group duplicate the comments from 802.11. Asked about latency difference from 10 m to 5 km. Asked how the MAC could handle the propagation.

Law: The scope in the current draft says personal operating space of typically 10 m.

Grow: SCC 31 automatic meter reading and management. There is a sponsor in IEEE SA working in this field and we have not worked with them.

Heile: This goes from AMI (advanced meter infrastructure) in which 802.15.4 is already being used.

Shellhammer: We just approved VHT 60 which is a LAN that has much shorter range (10 m). Heile should get the same consideration.

Sherman: Have you coordinated with SCC 31?

Heile: Not yet, but they will.

Marks suggested adding < 250 kb/s.

Heile suggested saying < 1 Mb/s.

Law: The style guide says to avoid words like low and high. Where are the data rates define in 802.15.4?

Heile: Not sure where it is in the standard.

Stevenson: Amendments often extend the data rate, favors allowing flexibility in the data rate.

Nikolich asks if it would be OK to modify the motion to add < 1 Mb/s without modifying the PAR.

Shellhammer: The wording on coexistence in the draft is good.

Heile: Added to the scope that the data rate is < 1 Mb/s.

Thaler: There is a group working in a similar area.

Heile: They are working in AMR, this is AMI.

Result is 15/1/0, motion passes

8.00   LMSC Internal Business

8.01   MI   Motion to select Singapore venue for the March 2011 plenary   Rigsbee   13   04:12 PM
Rigsbee presented nNA-PlenaryUpdate&Motion-03.ppt.

Motion is Select Marina Bay Sands Hotel, Singapore as venue for March 13-18, 2011 Plenary.

Authorize Exec Secy to extend thanx & congrats to hosting organizations for best proposal and proceed with final contract

arrangements.

Extend thanks to ITU and host and request new proposal for Joint Meetings during July 2013 Plenary Session.

Moved by Rigsbee, seconded by Hawkins

Klerer: The hotel is not done and the Sands is in bankruptcy.

Rigsbee: Sands is not in bankruptcy.

Law: The hotel is not yet built.

Thompson: We need some assurances that we have a plan B before we approve it.

Kraemer: Would like to approve this with a backup plan.

Shellhammer: When is the first date we give them money and second when would we have to cut over to a plan B.

Hawkins: We don't pay the hotel until we are there. We commit money based on booking rates. Plan B is a wise thing but an nNA plan B.

Marks: Supports going forward with Plan B, but asked about the space in ITU.

Rigsbee: July will give us better cost. Expects that attendance will decrease, if not, we may have to find an alternate site. The Plan B for Singapore would be the Suntec center and they would like to work with us.

Thaler: Is it possible to do Macau in 2011. It seems safer to do first nNA plenary in the hotel that is already built. The Sands has done an SEC filing that says they may be in default.

Rigsbee: Venetian Macau is from the same company. If they continue operation Venetian Macau, they might let us use that as a backup. Venetian has begin planning for 2012, but wants assurance that it would not be a problem.

Shellhammer: At what point do we get too small for us to be not able to meet the agreements. 800 people?

Rigsbee: Standard contract allows multiple points at which we can reduce our room block, usually 10% to total amount.

Stevenson: What about Plan B? There is a convention center. If we get x months out and the hotel is not available, will we have a contract on the convention center. What about rooms for attendees.

Rigsbee: The hotel is scheduled to be completed at the end of 2009. Suggests that they secure alternate space in the Suntec center as a backup. There are 50,000 rooms in the Singapore area, so we could get 800 rooms about a year out.

Thaler: The filing says they may put off construction.

Heile: It is not unreasonable to expect that Singapore government will help us out to determine backups. There are hotels across the street from Suntec that could hold us.

Rigsbee: Our contracts are worded so that we would be one of the first to know if there are any delays.

Result 14/0/2, motion passes.

nNA Plenary Update

Wednesday, November 12, 2008

Dawn Slykhouse, John Hawkins, Buzz Rigsbee

Status Update

- Have now completed Site Inspections at:
  - ITU HQ in Geneva, Switzerland
  - Marina Bay Sands Hotel, Singapore
- Have compiled site surveys & budgets
- Publish results/recommendations to EC
- WG Chairs may share results with WGs
- We will have motion for March 2011 site selection to vote at Friday EC meeting.

ITU @ Geneva, Switzerland

- Great city & location
- ITU hosting joint mtg for ITU-T, 802, ITU-R with Joint Workshops
- Good Liaison Event
- Most mtg space free
- ITU staff will support
- Great public transport for easy access
- Host Rep: G Parsons

- Difficult venue to plan
- Spread over ITU HQ
- Mtg space is limited and not flexible
- Extra charges @eves
- Many hotels required
- Hotel rates are high due to Motor Show
- F&B rates are high

Marina Bay Sands, Singapore

- Spectacular location
- All-In-One venue
- All mtg space free
- <budget Netwk & Pwr
- F&B+ package deal
- Truly State-of-Art mtg
- Great site-seeing, shopping, nitelife, etc.
- Clean, safe, friendly
- Easy access to all

- Hosts STB & I^{2}R will contribute >$150K US
- Hotel Rates <$250US
- budget hotels available
- Airline discounts
- Site-seeing deals
- Etc, etc, etc.
- No negatives reported

ITU @ Geneva, Switzerland Budgetary Summary

- Hotel Rooms (750) @ $164-680. US average room rate = $298 US

- Rates high due to Motor Show overlap

- Reg Fees: $600 pre-reg, $800 reg

- Several cost factors and commitments are still indeterminant at this time.

- Better deals available in July

Marina Bay Sands, Singapore Budgetary Summary

- Hotel Rooms: (1300) @ $147-251. US average room rate = $233 US
- Up to 1000 rooms at meeting site @$251.
- Generous subsidy from hosts STB & I^{2}R
- **Std Reg Fees: $400 pre-reg, $500 reg**
- Good bundle price for F&B + AV
- Only need single contract to commit

Recommendation to EC

- Deal for Singapore is better and complete
- Deal for Geneva needs more work and needs to avoid Motor Show
- Recommend select Singapore for March 2011 Plenary Session and contract now
- Replan Geneva for July 2013 and seek better deal for EC review vs U. of Twente in Enschede, NL for final decision later.

EC Motion for Friday - Move to:

- Select Marina Bay Sands Hotel, Singapore as venue for March 13-18, 2011 Plenary.
- Authorize Exec Secy to extend thanx & congrats to hosting organizations for best proposal and proceed with final contract arrangements.
- Extend thanks to ITU and host and request new proposal for Joint Meetings during July 2013 Plenary Session.

Mov: Rigsbee, Sec: Hawkins, Y___ N___ A___

8.02   MI   Future Plenary options   **Rigsbee   11 04:35 PM**

Rigsbee presented "FuturePlenaryOptions-01.ppt"

Asked for straw poll for meetings to pursue.

3/2013 Caribe Royal on March 13, straw poll is 13/1/0

7/2013 Geneva – 11, Twente – 3,

11/2013 HR Dallas – 10, HR ATL – 2

3/2014 MBS in Singapore – 12/1/0

11/2014 GH San Antonio – 14, HR-SF Embarcadero – 4, HR-ATL – 2

Future Plenary Options

Dawn Slykhouse, Buzz Rigsbee

November 14, 2008

Buyer's Market Now

- Many of our favorite properties are offering specials now to confirm future business.

- We have an option for several great deals if we can contract before 12/31/2008.

- Shall we take advantage to lock in now ?

2011

- March 13-18: MBS in Singapore

- July 17-22: HR-SF & HR-GH in SF, CA

- Nov. 6-11: HR-ATL, Atlanta, GA

2012

- March 11-16: Venetian Macao in PRC

- July 15-20: GH-Manchester San Diego CA

- Nov. 11-16: GH-San Antonio, TX

2013

- March 10-15, 2013: Caribe Royale Resort $169/149(@BV) s/d all else as before. May have back-to-back weeks with IETF.

- July 14-19, 2013: Geneva Re-Proposal or Univ of Twente, Enschede, NL

- Nov. 10-15, 2013: HR-Dallas @$179 s/d or HR-ATL @$169 s/d

2014

- March 9-14: Singapore return on same package deal as March 2011 or option ?

- July 13-18: GH-Manchester San Diego CA

- Nov. 9-14: GH-San Antonio @$199 s/d
or HR-SF Embarcadero @$219 s/d
or HR-ATL @$179 s/d

8.03 MI Motion to modify IEEE 802 P&P and create operations manual   **Sherman**   **5 04:45 PM**

Sherman presents VC1_14112008_ Closing_EC_Motions.ppt

Motion is to approve the P&P revision ballot titled "Creation of Operations Manual" as described in the document titled:

802.0-Creation_of_LMSC_OM_-_LMSC_P&P_Revision_Ballot_081113.pdf

Found at:

http://grouper.ieee.org/groups/802/PNP/2008-11/802.0-Creation_of_LMSC_OM_-
_LMSC_P&P_Revision_Ballot_081113.pdf

Moved by Sherman, seconded by Shellhammer

Nikolich confirmed that the documents take effect when the P&P is posted by AudCom.

Results 15/0/0

Next two items are taken out of order because the MSA determines the projector costs.

Motions Internal
for LMSC 1st Vice Chair
(And supporting slides)

Motion to Approve "Creation of OM" P&P Revision

EC Motion

To approve the P&P revision ballot titled "Creation of Operations Manual" as described in the document titled:

➢ 802.0-Creation_of_LMSC_OM_-
_LMSC_P&P_Revision_Ballot_081113.pdf

Found at:

➢ http://grouper.ieee.org/groups/802/PNP/2008-11/802.0-
Creation_of_LMSC_OM_-_LMSC_P&P_Revision_Ballot_081113.pdf

Moved: Matthew Sherman
2nd: Steve Shellhammer

For:
Against:
Abstain:

8.05   DT   MSA approval for VeriLAN Event Services 12/1/08 to 12/1/11   **Hawkins   15   04:50 PM**

Hawkins discusses the approval of the MSA.

Motion is: The EC approves the contract with VeriLAN Event Services as 802-Network-MSA-2009-2011-02.doc for the 3-year period beginning December 1, 2008.

Moved by Hawkins, seconded by Rigsbee.

Result 15/0/0

8.04   MI   Motion to reimburse WGs/TAGs for interim projector expenses   **Hawkins   5   04:55 PM**

Hawkins discussed reimbursing the WGs and TAGs for interim projector expenses.

Motion is: The EC approves the reimbursement of fees incurred for the rental of projectors by 802 WF/SG/TAGs at interim meetings during the 2009 calendar year arranged via VeriLAN Event Services. Shipping and management fees remain the responsibility of the individual WG/SG/TAG.

Moved by Hawkins, seconded by Rigsbee.

Stevenson: Who is responsible if the projectors go missing?

Hawkins: The WG or the sponsor is responsible for paying for lost or broken projectors.

Sherman: EC is subsidizing the costs, why doesn't the WGs pay for it?

Hawkins: Many WGs have already made commitments to the hosts and have not had time to adjust the budgets.

Thompson: VeriLAN will be free to use the assets for other companies.

Hawkins: We have first claim on "our gear"

Heile: Has commitments through 2010. Would like to see it for three.

Marks: Does not like this idea. Would only like it for a year.

Motion to amend the motion to be "during the 2009 and 2010 calendar year"

Result 9/5/1, motion passes.

Amended motion is: The EC approves the reimbursement of fees incurred for the rental of projectors by 802 WF/SG/TAGs at interim meetings during the 2009 and 2010 calendar year arranged via VeriLAN Event Services. Shipping and management fees remain the responsibility of the individual WG/SG/TAG.

Result 9/4/1, motion passes.

8.06   MI   Treasurer's report   **Hawkins   5   05:05 PM**

Hawkins presents TreasurerClosingReportv2.pdf.

1269 attendees is lowest since 2003. Still have a surplus.

Thompson requested an update to slide 2, it is the lowest registration since 2003 and highest number of cancellations.

Hawkins said he would update the slides for the minutes.

Thompson asked if we were covered in case we had hotel room pickup in Vancouver.

Rigsbee indicated that we were covered.

**8.07   ME*   Response to the interpretation on 802.11-2007 (re. response code   Kraemer
             misquoted).**

Item 8.07 approved as part of the consent agenda.

IEEE Project 802
Estimated Statement of Operations
Nov 2008 Plenary Session
Dallas, TX
As of Nov 14, 2008

Meeting Income	*Estimate*	Budget	Variance
Registrations	1,269	1,400	(131)
Registration income	545,670	602,000	(56,330)
Cancellation refunds	(32,195)	(12,040)	
Deadbeat collections	0	0	0
Bank interest	1,400	1,400	0
Other income	65,083	75,000	(9,917)
TOTAL Meeting Income	$ 579,959	$ 666,360	(86,401)

Meeting Expenses	Estimate	Budget	Variance
Audio Visual Rentals	25,500	$ 25,500	0
Audit	0	0	0
Bank Charges	350	350	0
Copying	3,000	3,500	500
Credit Card Discount	15,824	17,458	1,634
Equipment Expenses	5,000	15,000	10,000
Get IEEE 802 Contribution	89,560	102,900	13,340
Insurance	0	0	0
Meeting Administration	95,739	101,610	5,871
Misc Expenses	2,800	3,500	700
Network	65,000	70,000	5,000
Other Expenses	0	0	
Phone & Electrical	500	2,000	1,500
Refreshments	126,000	150,000	24,000
Shipping	15,200	15,000	(200)
Social	50,940	50,000	(940)
Supplies	800	800	0
Other Discounts	0	0	0
TOTAL Meeting Expense	$ 496,213	$ 557,618	61,405

NET Meeting Income/Expense	$ 83,745	$ 108,742	(24,997)

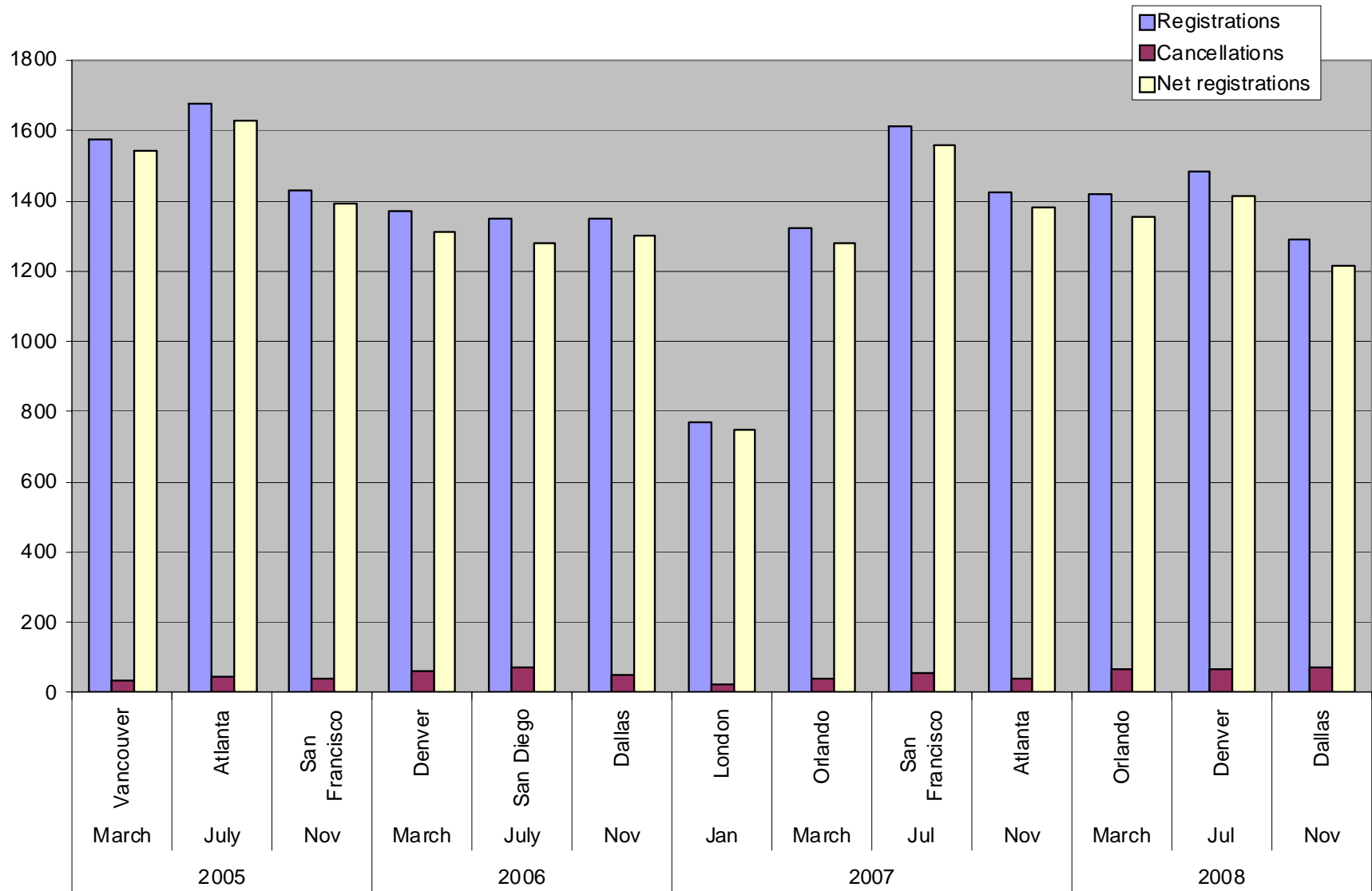| Analysis			
Refreshments per registration	99	107	8
Social per registration	40	36	(4)
Meeting Administration per reg	75	73	(3)
Networking per registration	51	50	(1)
Get IEEE 802 Contribution per	75	75	0
Surplus/Deficit per registration	66	78	(12)
Pre-registration rate	70%	70%	

* Misc expenses: Hotel gratuity, registration desk rental, service gifts
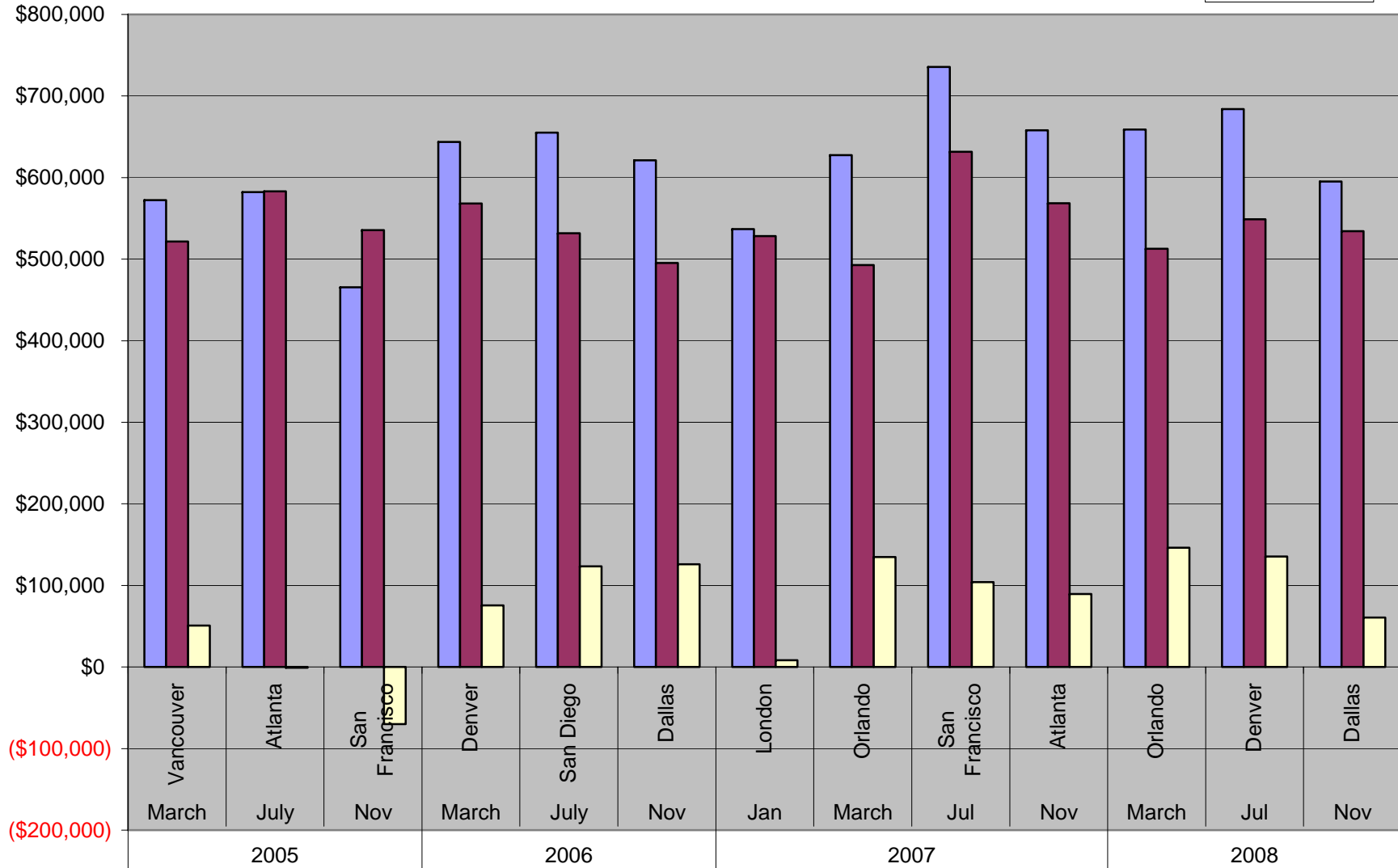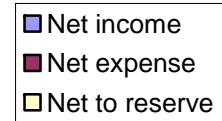**** Other expenses: N/A**

Budgeting/Fee Discussion

- Our cash reserve is intended to:
  - "Self insure" us in the event of an untimely session cancellation or penalties incurred due to low attendance
  - If necessary subsidize the cost of nNA sessions in order to keep registration fees at comparable level to NA sessions
- Our current reserve of aprox $1.2M is seen as sufficient for these purposes
- So why not lower registration fees now?
  - Keeping registration fees stable has some value (lowering is easy, raising later, not so much)
  - Estimate for this meeting (Dallas) shows smaller net to reserves we've seen in the past 4 years (@ $80k, vs > $120k)
  - 1268 registrations are the lowest and 75 cancellations the highest since 2003 (Dallas DFW, Albuquerque)
  - The economic clouds on the horizon portent to leaner times ahead. Lower attendance in Vancouver is not out of the question
  - Recommend: keep fees stable for now, and monitor attendance for a couple more sessions. If it rebounds, we can re-evaluate

Registration Trend

Legend: Registrations, Cancellations, Net registrations

| | March 2005 Vancouver | July 2005 Atlanta | Nov 2005 San Francisco | March 2006 Denver | July 2006 San Diego | Nov 2006 Dallas | Jan 2007 London | March 2007 Orlando | Jul 2007 San Francisco | Nov 2007 Atlanta | March 2008 Orlando | Jul 2008 Denver | Nov 2008 Dallas |

P&L Trend

Legend: Net income, Net expense, Net to reserve

	2005			2006			2007				2008		
City	Vancouver	Atlanta	San Francisco	Denver	San Diego	Dallas	London	Orlando	San Francisco	Atlanta	Orlando	Denver	Dallas
Month	March	July	Nov	March	July	Nov	Jan	March	Jul	Nov	March	Jul	Nov

8.08   ME IEEE 802.18 IMT-Advanced Review Process   **Lynch   10 05:15 PM**

Lynch presented 18-08-0089-02-0000_SEC_Motions_Nov08.ppt, slid 1

Motion is to approve document: 18-08-0058/r6 as the procedure for developing, approving and submitting IEEE 802 contributions on IMT-Advanced to ITU-R WP5D during the period of January through October 2009.

Moved by Lynch, seconded by Marks

Shellhammer asked if we can bypass EC review just by a vote or if this was a vote to suspend the rules.

Stevenson: Due to the IMT deadlines, it makes sense in this one instance to delegate the responsibilities. This is not intended to set a ongoing precedent.

Kraemer: It was prepared with the intention that it was within the rules.

Sherman did not see any issue with the rules.

Result 13/0/1, motion passes

Grow indicated that IEEE will be creating rules regarding outside representatives.

Law: Asked Lynch, when you take position based on the BoG, does it indicates that it is 802s view.

Lynch: Yes.

802.18 Motion to SEC

Agenda: 8.08
Date: 11/14/2008
Time: 5:15 p.m.

Motion by: Lynch　　　　　　　　　　　　**Seconded by: Marks**

Moved:

To approve document:

18-08-0058/r6 as the procedure for developing, approving and submitting IEEE 802

contributions on IMT-Advanced to ITU-R WP5D during the period of January through

October 2009.   802.18 approved this document by a vote of 9/0/0.

Informative: This document establishes the procedure for IEEE 802 contributions to
ITU-R WP5D regarding potential IMT-Advanced technologies

Approve: xx **Do Not Approve:** xx **Abstain:** xx **Motion:**

9.00   **LMSC Liaisons and External Interface**

9.02   ME Updated Material on IMT-2000 OFDMA TDD WMAN for Revision   Lynch   3 05:20 PM
         9 of Recommendation ITU-R M.1457

Lynch presented 18-08-0089-02-0000_SEC_Motions_Nov08.ppt, slide 2

Motion is: To approve document: 18-08-0085 as an 802 document, authorizing the Chair of 802.18 to do necessary editorial and formatting changes and, using the document as a "template", create the appropriate input to ITU-R WP5D.

Moved by Lynch, seconded by Marks

Results 15/0/0, motion passes.

802.18 Motion to SEC

Agenda: 9.01
Date: 11/14/2008
Time: 5:25 p.m.

Motion by: Lynch   **Seconded by:** Marks

Moved:

To approve document:

18-08-0085

as an 802 document, authorizing the Chair of 802.18 to do necessary editorial and formatting changes and, using the document as a "template", create the appropriate input to ITU-R WP5D.   802.18 approved this document by a vote of 7/0/0

Informative: This document notifies ITU-R WP5D of IEEE 802's intention to submit a proposed RIT for consideration as IMT-Advanced.

Approve: xx **Do Not Approve:** xx **Abstain:** xx **Motion:**

**9.03   ME Intention to Submit Candidate IMT-Advanced RIT based on IEEE   Lynch   3 05:23 PM
            Project 802.16m**

Lynch presented 18-08-0089-02-0000_SEC_Motions_Nov08.ppt, slide 3

Motion is: To approve document: 18-08-0086 as an 802 document, authorizing the Chair of 802.18 to do necessary editorial and formatting changes and, using the document as a "template", create the appropriate input to ITU-R WP5D.

Moved by Lynch, seconded by Marks

Result 14/0/1, motion passes.

10.00   IEEE SA items

No IEEE SA items.

11.00   Information Items

11.01   DT   Dominance ad-hoc report   Thompson   10 05:27 PM

Thompson discussed the ad-hoc meeting on the subject formerly known as dominance.

Meeting focused on techniques that would avoid allowing dominance to occur. Thompson will create some documentation that can be used to remind the chairs.

Thaler: Supports the approach of heading off the problem of dominance before it becomes a problem.

802.18 Motion to SEC

Agenda: 9.02
Date: 11/14/2008
Time: 5:28 p.m.

Motion by: Lynch

Seconded by: Marks

Moved:

To approve document:

18-08-0086

as an 802 document, authorizing the Chair of 802.18 to do necessary editorial and formatting changes and, using the document as a "template", create the appropriate input to ITU-R WP5D.   802.18 approved this document by a vote of 7/0/0

Informative: This document provides further update material for Recommendation ITU-R M.1457.

Approve: xx **Do Not Approve:** xx **Abstain:** xx **Motion:**

11.02 DT Plenary reorganization and EC off-site ad-hoc report   **Jeffree   10 05:31 PM**

Jeffree presented "Plenary organization.ppt"

There was discussion of the start time and the keeping the opening plenary.

11.03 II* 802.11 Member area access change	**Kraemer**	
11.04 II* Liaison response to MEF "Reply to MEF 27033-001"	**Jeffree**	
11.05 II* Liaison response to MEF "Reply to MEF 27028-002"	**Jeffree**	
11.06 II* Sponsor ballot statement	**Kraemer**	

11.07 II   Discussion of possible discount to unemployed attendees   **Kraemer   5 05:54 PM**

Kraemer suggested a discount for unemployed engineers. He wanted to start some dialog on this issue.

Nikolich: Were there specific ideas?

Kraemer: No.

Thompson: We may have difficulty defining unemployed.

Thaler: This may affect the overall budget, raising costs for everyone.

Lemon: Meeting fees are not a significant part of the costs.

Rigsbee: Require submitting a letter that is evaluated.

Law: There may be tax consequences. The IEEE does have a criteria for determining unemployed.

Stevenson: This could be considered an invasion of privacy.

Sherman: Last shuttle for the airport leaves at 6:10 pm.

Meeting adjourned at 6:00 pm

11.08 II* 802 Task Force update	**Nikolich**

12.00 ADJOURN SEC MEETING	**Nikolich**	**06:00 PM**

ME - Motion, External	**MI - Motion, Internal**
DT- Discussion Topic	**II - Information Item**
Special Orders	

uuuq

Plenary organization

GOAL

- Make concrete proposals for changes to the Plenary week meeting structure.

Potential targets for change

- EC opening meeting time/day
- Opening Plenary time/day/delete
- Tutorials
  - Number
  - Which days
  - Rules on concurrent WG/TAG activity
- Social
  - Continued existence
  - Impact on budgetary considerations for meeting costs
- Closing EC meeting
- Others?

EC "off-site" proposal

- Appears to be support for this
- Topics?
  - Domination and other distortions to the consensus process
  - Disparities in WG practice for common problems
  - Inter-group complaints/relationships
  - Succession training
  - Process changes/tool needs/operational philosophy (lease or buy?) etc.
- Where?
  - Physically/temporally removed from plenary/interim sessions?
  - Near a major transport hub in a city that is not a major 802 population centre? Attach to a Plenary?
- When?
  - Feb, Apr, or July '09, 1 full day + ½ day meeting, dinner previous night.
- How many would attend?
  - ~30
- Geoff will make a couple of more concrete proposals -> EC reflector.

Proposals:

- Delete the Opening Plenary; as an alternative, post any info (treasurer's report, PARs…etc.) in well known place.

- Opening EC: cut the proforma stuff and reduce it to 2 hours (8-10)

- Tutorials: keep Monday but have 3 slots if necessary – 6-7:30, 7:30-9, 9-10:30. Use Tuesday only on an optional basis.

- Closing EC: II are only II if they have I associated with them ahead of time. Move to 3:00-8:00 PM