



31st Session of meetings of the IEEE 802.15
Working Group for Wireless Personal Area
Networks

Closing Report

July 11-16, 2004

**Hilton Portland & Executive Tower
921 SW Sixth Avenue
Portland, OR 97204, USA**

TG1a – Revision to 802.15.1 Closing Report

Tom Siep
TMS Associates, LLC

Activities and Plans

- Completed paperwork for Sponsor Ballot
- Sponsor Ballot should be complete before Berlin meeting
- General agreement on how to go forward:
 - Ballot Resolution Committee will propose edits to satisfy comments via TG1a reflector
 - Edited draft will be reviewed in Berlin
 - 10-day LB to confirm changes and authorize Sponsor Ballot recirculation
 - Sponsor Ballot recirculation complete before November meeting
 - If work is complete, TG1a likely goes into hibernation in January meeting

Future Work

- Enhanced Data Rate is in the process of being validated and may become a proposed amendment to 902.15.1REVa

Contact Info

- Tom Siep tom.siep@ieee.org
- TG1a reflector:
stds-802-15-1a@ieee.org

TG3a – Alt PHY below 25 GHz for 15.3 Closing Report

Bob Heile
Appairant Technologies

Task Group 3a Closing Report

- DS-UWB proposal selected in the conclusion of the elimination balloting
- DS-UWB proposal failed to gain confirmation vote
- Reasons for no votes were heard but response to no votes did not occur and will be addressed at the next session in Berlin
- Discussions continue in search of possible compromises

TG3b – 15.3 MAC Enhancements Closing Report

John Barr
Motorola

July 2004 Accomplishments

- ✓ Complete review of submissions
- ✓ Review status of current comments
 - ✓ Ready for drafting
 - ✓ Addition work required
 - ✓ Complete disposition of current comments
- ✓ Create initial TG3b Draft
- ✓ Hard Work and Heavy Lifting!

July 2004 Submissions

- 15-04-0131-03-003b-jpkg-proposed-changes.pdf
- 15-04-0138-02-003b-jcs-proposed-changes.doc
- 15-04-0208-03-003b-delayed-negative-acknowledgement.ppt
- 15-04-0297-01-003b-mscs-incorporating-new-fcsldmemlme-functional-division-and-imm-ack-removal.pdf
- 15-04-0299-00-003b-modified-delayed-ack-ieee-802-15-3.ppt
- 15-04-0303-00-003b-fast-cta-reversal.doc
- 15-04-0304-00-003b-rx-status-feedback.doc
- 15-04-0305-00-003b-mac-test-mode.doc
- 15-04-0320-00-003b-2-way-cta.ppt
- 15-04-0373-00-003b-tcp-transmission-mode.ppt
- 15-04-0382-00-003b-bi-directional-cta.ppt
- 15-04-0391-00-003b-Security-Test-Vectors.doc

Status

- Reviewed all contributed submissions:
 - Some items accepted for first draft
 - Some items noted for additional information
- Previewed the comment submission process
 - Document 04/269 contains formatting tool
 - Comment data base 04/334 contains all submissions as comments with current status

Project Time Line

- ✓ Call for submissions – 3-2004
- ✓ Accept and Review Submissions – 3:7-2004
- ✓ Final submission approval – 7-2004
- ✓ First amendment drafting – 7-2004
- WG letter ballot – 9-2004
- Forward to sponsor ballot – 11-2004
- Sponsor ballot approved – 4-2005

Objectives for September 2004

- Review proposed draft
- Update as necessary to create voting draft
- Seek working group approval to go to sponsor ballot
- Hard Work and Heavy Lifting!

Conference Call Schedule

- Thursday at 8AM PDT, 10AM CDT, 3PM GMT
 - July 22 (Gilb will host) 800-914-3396 code 3613565
 - International +1-617-415-0073
- Tuesdays at 10AM CDT, 8AM PDT, 8:30 PM in India, 3PM GMT
 - August 3, 17, 31 (Barr will host) 877-817-4386 code 8706
 - International +1-706-643-2003
 - Other calls as deemed necessary
- No Schaumburg ad hoc meetings yet ...

SG3c-mmWave Alt PHY for 15.3 Portland Meeting Report

Reed Fisher
Oki
13-15 July, 2004

1. 13:45 Tuesday, 13 July. Call to order.

2. SG3c Leadership.

Chair: Reed Fisher.

Vice Chair: Hiroyo Ogawa.

Secretary : Tadahiko Maeda

3. Attendees.

- 18 attendees from 16 organizations.

4. Approve meeting minutes.

- Anaheim meeting minutes (04/280r0)

5. Old Business.

-Review of SG3c work plan (04/241r1)

-Review of Anaheim Meeting Summary(04/270r2)

6. New Business.

6.1 Update work plan.

- Extend due date of CFA to 30 Sep and have presentations in Nov also. CFA has been updated.
- Postpone the duration of channel modeling sub-group activity by two months. It will start at the next meeting.

6.2 Hear two responses of CFA.

- H. Ogawa: Ad-hoc information distribution with P-P network extension (04/352r0)
- T. Maeda: Wireless Home Video Server (04/348r0)

6.3 Draft System Requirements Outline. (04/349r2)

- Completed the first draft.

6.4 New Contributions.

- H. Ogawa: Japanese Safety Regulation for Millimeter-Wave Exposure. (04/355r0)
- A. Mathew: Proposed PHY Layer (04/388r0)
- C. Rypinski : Model Considerations for mmWave PHY (04/361R0)
- C. Rypinski : 3-level AM DSBSC High-rate Data Modulation (04/367r0)
- H. Zhang: Wireless 1394 from microwave to millimeter-wave (04/351r0)

6.5 Update SG3c PAR.

- Ian Gifford will chair a PAR editing sub-group. His recommendations will be presented at the Berlin interim meeting.

6.6 Motion to extend SG3c duration.

The following motion was made during the July 15 meeting.

“To ask the 802.15 Working Group to approve the renewal of the mmW Study Group (SG3c) charter through the next plenary meeting”

The result of the SG3c vote was: 17 for, 0 against and 0 abstain.

7. 12:30 Thursday, 15 July. Adjournment.

Motion

- To approve the renewal of the Study Group 3c charter through the next plenary meeting.
- Moved: M. Dydyk. Seconded: I. Gifford
- Passed

TG4a – Alt PHY for 15.4 Closing Report

Pat Kinney
Kinney Consulting

Meeting Objectives

- **Drafting of Selection Criteria Document – DONE!**
- **Draft the Call for Intent to Propose and Approve – DONE!**
- **Draft the Call for Proposals and Approve – DONE!**
- **Tutorial Contributions for Location Awareness – DONE!**
- **Tutorial Contributions for Possible 4a Technologies – DONE!**
- **Channel Model Subcommittee Session – DONE!**
- **Discussion to Create a Location Awareness Subcommittee – DONE!**
- **Joint Meeting with 802.15.4b regarding MAC – DONE!**
- **Discuss TG4a Activity Between July and Sept Meetings – DONE!**
- **Revise Project Plan – DONE!**

Call for Intent to Propose and Proposal

- Call for Intent to Propose (CIP) issued; deadline for filing is 9 August 2004 (allows for the one month before meeting)
- Preliminary Proposal presentations for the November session are due 9 November 2004
- Call for Proposal (CFP) issued: submissions are due 4 Jan (1 wk before January 2005 meeting)

Selection Criteria Document

Criteria for the selection of the alternate PHY Draft Proposals

The SG4a started this document in 17 March and approved the first release of this document on 15 July 2004. It is anticipated that there will be subsequent releases as the subcommittees report in their findings.

Channel Modeling Subcommittee

- Channel Modeling Subcommittee (CMS) reviewed progress since its start at the Singapore meeting
- Presentations:
 - Large scale parameters for indoor and outdoors
 - Body Area Network UWB channel model update
 - UWB Channel Model and Coverage for Farm/Open-Area Applications

Location Awareness Subcommittee

- Location Awareness Subcommittee (LAS) was formed with the charter to define the MAC-PHY interface changes necessary for location awareness
- The TG4a Chair appointed Rick Roberts as the chair of the LAS with the understanding that this subcommittee will affirm this choice or choose another person as the chair

Joint meeting with TG4B

- TG4b schedule for approval is more than one year ahead of the approval estimated date for TG4a
- It was agreed that a representative from TG4b will make a presentation on the MAC to TG4a at the September session.

Objectives for September

- Hear presentations on some preliminary proposals
- Further discussion of MAC changes necessary to facilitate location awareness
- Further discussion of Channel model developments and approval of the channel models
- Further embellishment of Criteria Selection Document

TG4a Conference Calls

- Continue the bi-weekly alternating meetings
 - Task Group
 - Channel Model Subcommittee
- **Next TG4a Conference Calls**
- **Wednesdays 9:30am (PDT) – 10:30**
- **Hosted by STMicroelectronics**
- **Audio Bridge Number:**
 - Local US Toll Free: 1-866-259-2661**
 - France: +33 1 72 12 33 70
 - International Toll Free : +800 14 12 14 12
- **Passcode: *1006095***

TG4b – Revision to 15.4 Closing Report

Robert Poor
Ember Corporation

TG4b: Enhancements & Clarifications to 802.15.4-2003

- Formed MAC, PHY and Security subcommittees.
- Heard presentations on MAC, PHY and Security issues.
- Triaged received comments database.
- Liaison meeting with TG4a.
- Heard presentation on European spectrum allocation from Andy Andrew Gowans.
- Discussed project timeline and July-August events.
- ...everything is on schedule!

New Submissions

04/0272	Garden Grove meeting minutes	Naeve (Eaton)
04/0308	Agenda and Objectives	Poor (Ember)
04/0313	MAC and synch enhancements	Shao et al (MERL)
04/0314	PHY: Enhanced OQPSK	Li et al (Helicomm)
04/0327	Sub-GHz: an OEM perspective	Grohmann (Danfoss)
04/0337	PHY: Multipath considerations	Gorday (Motorola)
04/0358	PHY: PSSS	Wolf (DWA)
04/0363	MAC: clarifications & questions	Poor et al (Ember)
04/0366	MAC: CSMACA enhancements	Li et al (Helicomm)
04/0370	PHY: sub-GHz band in China	Li (Helicomm)
04/0389	PHY: Comparison checklist	Poor (Ember)
04/0xxx	Portland meeting minutes	Naeve (Eaton)

TG5 – Recommended Practice for Mesh Networking for WPANs Closing Report

John Boot
Motorola

1. 10:36 am Tuesday, 13 July. Call to order.

2. Motion to

extend the CFA period until September 1st, review CFA response doc 312 and then adjourn until the first session of the Berlin meeting.

3. Contribution presentations.

CFA Response 15-04-0312-00-0005 Proposed MESH-WPAN Applications and Usage Scenarios - Guido R. Hiertz

4. 11.30 Adjourn until first meeting Berlin session.

Misc 802.15 News

Formation of Study Group 1b on Enhanced Rate Bluetooth® PHY

- Scope:
 - Alternate Physical Layer for 15.1REVa
 - In collaboration with the Bluetooth SIG define a project and 5C for an enhance rate radio (2Mbps)
 - A goal is to better support 3G services in Bluetooth applications
 - Motion passed in the working 18/11/10
 - Chair- Tom Siep

Motion

- Approve the formation of a Study Group to develop a PAR and 5C for an enhanced data rate Bluetooth Radio

Moved: Bob Heile

Second: Stuart Kerry

Passed 15-0-0