

License-Exempt Task Group Meeting Minutes – Session #40

IEEE 802.16 Session #40 – Vancouver, Canada

Chairman: Mariana Goldhamer Vice Chairman: Barry Lewis Editor: Xuyong Wu Secretary: Paul Piggin

Planned sessions: Tuesday 15 November: 1pm - 3.30pm (Joint meeting with NetMan TG) 4pm-6pm Wednesday 16 November: 1pm-6pm Thursday 17 November: 1pm-6pm

Tuesday 15 November 2005

First session: The meeting opened at 1:15pm. Vancouver Island room Fairmont Hotel Vancouver

The agenda was discussed and finalized accordingly:

- 1. Opening of the LE TG Sessions
- 2. Secretary appointment
- 3. Revision and approval of the LE TG Agenda
- 4. Approval of the Minutes for Session #39 doc. IEEE 802.16h-05/020
- 5. Approval of 802.16 comments to 802.11y PAR C802.16h-05/044r1
- 6. Meeting with NetMAN Tuesday 4:00-6:00 p.m.

scope

- 7. Input contributions discussion and approval
 - Accept 2 late contributions: C802.16h-05/044r1, C802.16h-05/045

Editorial issues C802.16h-05/035 - Tuesday <u>Wednesday – Thursday, 1:00-6:00 p.m.</u> Fundamental approach - Discussions and decisions – C802.16h-05/045 – what we have by now – only if there is interest for the presentation C802.16h-05/044r1 C802.16h-05/042

Specific improvements / simulations C802.16h-05/034 C802.16h-05/036r1 C802.16h-05/037r1 C802.16h-05/038 C802.16h-05/039 C802.16h-05/040r1 - Tuesday C802.16h-05/041 - Tuesday C802.16h-05/043 8. Elements for the next Call for contributions (30 min)9. A.O.B.10. Close the meeting

2. Secretary appointment: Paul Piggin

Marianna asked for a stand-in secretary due to the absence of Nader Zein. Paul Piggin volunteered to be the secretary for the duration of this meeting.

3. Revision and approval of the LE TG Agenda

The agenda was approved by unanimous voice vote.

4. Approval of the Minutes for Session #39 – doc. IEEE 802.16h-05/020

The minutes for last meeting at Session #39 were approved by unanimous voice vote.

5. Approval of 802.16 comments to 802.11y PAR C802.16h-05/044r1

Comments of IEEE 802.16 Working Group on Proposed P802.11y PAR (document IEEE802.16h-05/046).

Barry Lewis described to the meeting the document produced from an earlier (Monday 14 November) ad hoc of the 802.16 Working Group. Some minor editorial changes were made. Document IEEE802.16h-05/046r1 was produced.

The document IEEE802.16h-05/046r1 was approved by unanimous voice vote.

7. Input contributions discussion and approval

There was no objection to accepting late contributions C802.16h-05/044, C802.16h-05/045.

The agenda continued with specific discussion of contributions. First, editorial related contributions were discussed.

Editorial examples on table format in 16h draft for the contributors

Wu Xuyong Huawei Contribution: IEEE C802.16h-05/035

This contribution requested that subsequent contributions to the group be of a consistent format and one that reflects the format used in the base standard.

Further discussion of the contribution was deferred for editorial changes to be made; the outcome being that the revised document would be adopted as a 'task group document' to be applied to further contributions.

Frame structure consolidation for IP broadcast

Wu Xuyong, Pan Zhong, Zhao Quanbo Huawei Contribution: IEEE C802.16h-05/040

Discussion on the wider applicability of this proposed consolidation to the co-existence protocol. There was specific discussion of the CTS slot.

After extended discussion it was decided that further discussion was required on this contribution and the wider topic. It was decided to defer the document's approval and an ad hoc meeting would convene before tomorrow's session.

The document IEEE802.16h-05/040 was approved by unanimous voice vote.

Treatment by OBS on error report in IBS_IPBC procedure Wu Xuyong Huawei Contribution: IEEE C802.16h-05/041

This contribution sought to consolidate the procedures for dealing with the error reports from SSs that fail to receive the whole message of IBS_IPBC. The OBS is judge the interference source by comparing the frame number in the report message.

The document IEEE802.16h-05/041 was approved by unanimous voice vote.

~ ~ ~ The meeting adjourned at 3:45pm ~ ~ ~

~ ~ ~ The meeting reconvened at 4:20pm ~ ~ ~

Joint meeting with NetMan. British room Fairmont Hotel

Marianna provided an overview of the current working assumptions of the 16h task group.

Discussion covered: general concepts in interference avoidance, security issues, and the forward looking plans for the group.

Phil has indicated that the IP address transmission over the air is very problematic; he also indicated that a system should demonstrate its identity as a 802.16h system, before being accepted in the BS-BS or BS-BSIS communication.

~ ~ ~ The joint meeting adjourned at 5:15pm. ~ ~ ~

Wednesday 16 November 2005

Second session: The meeting opened at 1:15pm. Vancouver Island room Fairmont Hotel

Discussion of yesterday's joint meeting with NetMan. The points of outcome were highlighted:

- Issues with transmitting the IP address over the air.
- Lack of security expertise in the LE task group.

There was a motion, by Mariana, to empower the editor to move all aspects of security to an annex and to remove all text that refers to transmitting of the IP address over the air within the working document.

The motion was approved by unanimous voice vote.

Examination of proposed interference resolution techniques and messaging for IEEE 802.16h & additions to working document 802.16h-05_022

John Sydor, Shanzeng Guo Communication Research Centre, Canada C802.16h-05/044r1

Discussion was deferred for offline discussion and presentation of a revised contribution in tomorrow's session.

ACS procedure in Coexistence Community

Pan Zhong, Wu Xuyong, Zhao Quanbo Huawei C802.16h-05/042r1

In principle the proposal is good in terms of maximizing the capacity of the spectrum. Text accepted for the Working Document apart from the last paragraph in the document. There were questions about the algorithm, e.g. how to get out of the process if the new frequency selections are unacceptable to the incumbent BS's. How to revert back to the previous frequency assignments.

Further contributions will be requested.

~ ~ ~ The meeting recessed at 4:15pm ~ ~ ~

~ ~ ~ The meeting reconvened at 4:30pm ~ ~ ~

Proposal for enhanced credit tokens based co-existence resolution and negotiation protocol

David Grandblaise Motorola C802.16h-05/036r1

It was proposed by Mariana that the proposed text and supplementary the figure 2 and related text from the contribution is to be added to the working document.

Was no objection to include the text.

Proposal for MAC frame mechanisms supporting enhanced credit tokens based co-existence resolution and negotiation protocol

David Grandblaise Motorola C802.16h-05/037r1

There was discussion concerning the frame structure assumptions of this contribution. The meeting agreed to defer a decision on this contribution to allow additional time for the investigation of base station to base station communication mechanisms in 16e.

~ ~ ~ Meeting adjourned at 6:30pm. ~ ~ ~

Thursday 17 November 2005

Third session: The meeting opened at 1:15pm. Vancouver Island room Fairmont Hotel

Further discussion deferred from yesterday on David Grandblaise's presentation C802.16h-05/037r1 (Proposal for MAC frame mechanisms supporting enhanced credit tokens based coexistence resolution and negotiation protocol). The group's decision was to seek further clarification on how the proposed scheme relates and interfaces to the base standard.

Editorial suggestions for the 16h Working Document facilitating License-Exempt amendment to 802.16-2004

Paul Piggin Cygnus Communications

In principle the group agreed with the contribution. However, the meeting agreed to accept the contribution with the following conditions:

- Channel spacing (ChSp) terms are to be changed from steps of 200kHz to steps of 10kHz.
- Reference to WirelessHUMAN should be placed in square brackets ([]) to indicate renaming is required.
- The section numbering of the suggested text should be changed from references to 8.x to 6.x, i.e. added to the MAC section rather than the PHY section.

There was further consideration following on from yesterday discussion on John Sydor's contribution C802.16h-05/044r1. John presented a new document (C802.16h-05/047r1) which replaced C802.16h-05/044r1 which was generated following yesterday's discussion.

- The document (C802.16h-05/047r1) was accepted.
- ~ ~ ~ The meeting recessed at 3:50pm ~ ~ ~
- ~ ~ ~ The meeting reconvened at 4:05pm ~ ~ ~

Simulation on energy pulse in SUI

Wu Xuyong Huawei IEEE C802.16h-05/043

The was an informative presentation for the group.

Message Specification for Cognitive Radio Systems operating as Frequency Division Duplexing (FDD) IEEE 802.16h Networks

John Sydor, Shanzeng Guo Communication Reseach Centre, Canada C80216h-05_039r1.doc

This contribution was for information only. At a later meeting a further contribution on this topic will be presented for consideration by the group.

Contribution IEEE C802.16h-05/038 was not presented.

8: Elements for the next Call for contributions (30 min)

Topics to be improved or clarified were discussed. Namely:

- Extract the text specifying the transmission of the IP address over the air.
- Optimization of the operating frequencies for BS in a community.
- Definition of the process for ACS and communication using CTS.
- Assessment of slaves that could qualify as masters in the token protocol.
- Possibility of BS-BS communication over the air.
- Clarification on TDD and FDD in 5.8GHz.
- After discussion earlier in the week the editor was empowered to separate the system architecture from the security part and add the security aspects to an annex.
- Regarding the area of "Definition of the process for ACS and communication using CTS" John Sydor volunteered to lead an ad hoc group in the area. To report back at the next meeting.

9. A.O.B.

There was no other business.

10. Close the meeting

Motion: To adjourn Proposer: Barry Lewis Second: Avi Freedman

~ ~ ~ The meeting closed at 5:50pm ~ ~ ~