IEEE P802.19

Wireless Coexistence

Abstract

These are unofficial minutes of the 802.19 TVWS Study Group activities. These are provided per request of SG members for information purposes only. Accuracy is not guaranteed and official minutes will be issued separately.

The secretary does request that any inaccuracies noted in these minutes be reported to him.

**Notice:** This document has been prepared to assist IEEE 802.19. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

|  |
| --- |
| Unofficial Minutes of the 802.19 TVWS SG |
| Date: 2009-09-22 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Alex Reznik | InterDigital | 781 Third Ave., King of Prussia, PA 19406USA | (610) 878-5784 | Alex.Reznik@interdigital.com |

**Monday, PM2 Session**

Meeting called to order by Chair at 4:01pm

Meeting moved to a different room and reconvened at 4:07pm

**1. Approve Study Group Agenda: 4:07pm**

Chair outlined proposed changes to the agenda which focuses the discussion on a topic by topic. Alex R. and Joe K. spoke in favor. No objections raised. Modified agenda reviewed.

Chair also pointed that he needs a TAG vote on the PAR and proposed the last 1 hour of the last session (Thu. PM1) for that discussion and vote.

Discussion of all modifications: Joe K. proposed adding a discussion on timing/schedule constraints for the group to be aware of such. 10 Minutes proposed and added to agenda.

Chair asked if anyone is opposed to approval. Agenda rev. 3 is approved.

**2. IEEE IPR Statement: 4:16pm**

Chair reviewed the IEEE’s IPR policy. Chair issues a call for potentially essential patents. No respondents to the call.

Chair reviewed other Guidelines for IEEE WG Meetings.

**3. Approve Minutes from July Study Group Meetings: 4:20pm**

Chair noted that that minutes (doc 52r0) were posted in July. Victor H. noted that his name is missing from minutes. Minutes approved with the modification adding Victor H.’s name without objection.

**4. Approve Minutes from Last Conference Call: 4:21pm**

Postponed as the minutes are not yet posted.

**5. PAR-related Schedule Constraints and Requirements: 4:21 pm**

Joe K. outlined what information he would like the chair to overview. Chair overviewed the timing of when the group has to complete the PAR for the PAR to be reviewed and available for approval by the EC in November. Important points:

* PAR and 5Cs must be approved by October 12.
* This required SG approval (75% of those present)
* Following SG approval it requires TAG approval (75% of voting members present).

Joe K. followed up asking about how we can address feedback to the PAR after October 12. Chair overviewed what may happen with comments. Pertinent points:

* Requirement to have all comments back by 5pm Tuesday week of plenary.
* It is unlikely that too many comments will come in much earlier.
* The group has effectively 24 hours to turn around comments, which have to be addressed by Wed 5pm. This means that the SG will likely have a lot of time scheduled on Wednesday for November plenary.

Marianna pointed out that TAG quorum may not be required for approval in this meeting due to a change in rules. Chair will investigate and report back to the group.

Chair will also confirm the timeline during the week of the plenary and report back to the group.

**6. Discussion of the Scope: 4:31 pm.**

Presentation by Marc Cummings - draft PAR (doc 0060, rev.3). Marc noted that there have been no objections to Title to date. He asked for objections. None raised.

Title as approved by the group is: *Standard for TV White Space Coexistence Mechanisms*

Marc C. moved on to the discussion of scope.

Joe K. overviewed his comments to the PAR as posted in doc 0073 rev. 0. Discussion and Q&A followed.

Marianna presented her comments as distributed on the reflector. Discussion and Q&A followed.

General discussion and Q&A not based on posted comments followed.

Steve S. presented his comments on the scope as posted on doc. 0068, rev. 0 Discussion and Q&A followed.

General discussion and Q&A not based on posted comments followed.

Mark C. proposed a different mode of operation for the group where contributions are made and discussion follow only after all contributions made. Vice Chair asked for a show of hands on the proposal. Interactive (standard) mode of operation continues to be the method of operation.

Group proceeded to scope proposals leading to strawpolls on wording.

Straw Poll #1

The standard specifies mechanisms for coexistence amongst 802 networks and devices, using different radio technologies ~~which use dissimilar radio technologies~~ and ~~may also be~~ being deployed by different operators ~~operated independently~~ on common TV White Space Frequency Bands.

Yes 2

No 10

Abstain 12

Straw Poll #2

The standard specifies mechanisms for coexistence amongst networks and devices, which use dissimilar radio technologies ~~and~~ or may also be operated independently on common TV White Space Frequency Bands.

Yes 9

No 4

Abstain 15

Straw Poll #3

The standard specifies mechanisms for coexistence ~~amongst networks and devices, which use dissimilar radio technologies and may also be operated independently on common~~ among dissimilar or independently operated networks and among dissimilar devices in the TV White Space Frequency Bands.

Yes 11

No 3

Abstain 10

Straw Poll #4

The standard specifies mechanisms for coexistence amongst unlicensed networks and devices, which use dissimilar radio technologies and may also be operated independently on common TV White Space Frequency Bands.

Yes 9

No 5

Abstain 14

Review of strawpoll results followed. This was followed by a new strawpoll to downselect one of the options.

Straw poll: which option do you prefer. Vote for no more then 1:

Preferred Straw Poll

#1 0

#2 4

#3 17

#4 2

Based on the straw poll results, it appeared to the group that proposal #3 mad most sense as the baseline for discussion.

**MOTION**

To confirm the following text for the Scope,

*“The standard specifies mechanisms for coexistence among dissimilar or independently operated networks and among dissimilar devices in the TV White Space Frequency Bands.”*

Move Joe

Second Alex

**Motion to amend**

Add “secondary” in front of “networks” and “devices”

Move Wendong

Second Yong Hong

Yes 2

No 10

Abstain 11

**Motion fails**

**Motion to amend**

Add “The standard will also specify enabling mechanisms allowing the mandatory detection of devices, as required by regulations”

Move Mariana

Second

**Motion to amend,**

Drop the second occurrence of the phrase “*among dissimilar”*

Motion Kursat

Second Mark

Yes 7

No 3

Abstain 15

**Motion fails**

**Original Motion**

Yes 12

No 6

Abstain 9

**Motion fails**

**Session recessed at 6:00 pm**

**Tuesday PM2 Session**

Meeting called to order by the chair at 4:08pm

**1. Discuss and review agenda 4:08pm**

Chair presented agenda.

**2. Discussion on adding additional meeting rooms 4:09 pm**

Proposal to add additional timeslots Wed PM2 and Thu AM2. Straw poll: who wants:

Wed PM2: 3

Thu AM2: 0

Both: overwhelming

**3. Discuss on having an ad-hoc to try and work on the PAR 4:12**

Discussion followed. It was decided that no separate ad-hoc is needed.

**4. Finalizing the scope 4:14 pm**

Chair opened discussion with the failed motion from Mon. AM2 meeting. Discussion with proposed modifications followed. Some discussion centered around whether TVBD or WSD is the right term. Quick straw poll was TV Band Devices (TVBD):8; White Space Devices (WSD) :3.

**MOTION**

To confirm the following text for the Scope,

*“The standard specifies mechanisms for coexistence among dissimilar or independently operated TV Band Device (TVBD) networks and dissimilar TV Band Devices.”*

Move Joe K.

Second Mika

Yes 16

No 0

Abstain 0

**Motion passed**

**5. Discuss and Agree on Purpose: 4:29 pm**

Chair displayed the purpose as it is currently written in the contribution 0060 rev. 3. Discussion with proposed modifications followed. Original purpose and modifications noted below:

**ORIGINAL PURPOSE**

The purpose of the standard is to enable the family of IEEE 802 Wireless Standards to most effectively use TV White Space by providing standard coexistence mechanisms. This standard addresses coexistence of IEEE 802 networks and devices and will also be useful for non IEEE 802 networks and devices in TV White Space.

**MODIFIED PURPOSE**

The purpose of the standard is to enable the family of IEEE 802 Wireless Standards to ~~most~~ effectively use TV White Space by providing standard coexistence mechanisms among dissimilar or independenlty operated TVBD networks and dissimilar TVBDs. This standard addresses coexistence for IEEE 802 networks and devices and will also be useful for non IEEE 802 networks and TVBDs.

**MOTION**

To confirm the following text for the Purpose,

*“The purpose of the standard is to enable the family of IEEE 802 Wireless Standards to ~~most~~ effectively use TV White Space by providing standard coexistence mechanisms among dissimilar or independenlty operated TVBD networks and dissimilar TVBDs. This standard addresses coexistence for IEEE 802 networks and devices and will also be useful for non IEEE 802 networks and TVBDs.”*

Move Alex

Second Mark

Yes 19

No 0

Abstain 2

**Motion passes**

**6. Discuss and Agree on Need: 4:41pm**

Chair displayed the purpose as it is currently written in the contribution 0060 rev. 3. Discussion with proposed modifications followed. Numerous modifications proposed. After prolonged discussion, there was a proposal to attempt to approve at least pieces of the Need via motions on partial text. Original need is presented for reference and then the motions are minuted.

**ORIGINAL NEED**

Existing IEEE 802 standards groups are developing standards to comply with the regulatory rules for accessing TV White Space. Mechanisms that allow these standards to coexist are needed. The work proposed here will result in standard overlay mechanisms that allow these different 802 standards to coexist in TV White Space. It will also seek to allow coexistence with other well established non IEEE 802 wireless standards.

**MOTION** to add “and amendments” in the first sentence

Move Mark

Second Alex

Yes 17

No 0

Abstain 4

**Motion passes**

**MOTION** to approve the first two sentences including the adopted changes above. The sentences are:

*Existing IEEE 802 standards groups are developing standards and amendments, to comply with the regulatory rules for use of TV white space. Other non-IEEE 802 wireless standards for use of the TV white space are also in development.*

 **Motion approved with no objections.**

**MOTION** to delete the proposed last sentence as given below

*Coordinated silence periods may be needed for the detection of wireless microphones.*

Move Mark

Second Kursat

Yes 13

No 2

Abstain 5

**Motion passes**

**MOTION** to approve the following sentence,

*In order to minimize interference in the TV white space bands standardized coexistence mechanisms are needed.*

Move Mark

Second Ivan

**Motion to amend**,

Replace “minimize interference in” with the words “enhance utilization of”

Move Tom

Second Ivan

**Motion approved with no objections**

**Motion to amend**,

After “bands” insert “use of” and after “standardized” insert “coordinated”

Move Garth

Second Kursat

Yes 9

No 6

Abstain 4

**Motion fails**

**Returning to the original motion which has now been modified to:**

**MOTION** to approve the following sentence,

*In order to enhance utilization of the TV white space bands standardized coexistence mechanisms are needed.*

**Motion approved with no objections**

**MOTION**  to delete the following sentence in its entirety

*~~Coordinated use of the~~ Standardized coexistence mechanisms specified in this standard enhances the use of TV white space ~~which enhance the other TV white space standards~~ is needed.*

Move Ivan

Second Garth

Yes 12

No 4

Abstain 0

**Motion passes**

**MOTION** to approve the following sentence

*Mechanisms such as those discussed in the explanatory notes may be considered.*

Move Ivan

Second Tuncer

**Motion approved with no objections.**

**MOTION** to approve the full need which now stands as follows

*Existing IEEE 802 standards groups are developing standards and amendments, to comply with the regulatory rules for use of TV white space. Other non-IEEE 802 wireless standards for use of the TV white space are also in development. In order to enhance utilization in the TV white space bands standardized coexistence mechanisms are needed. Mechanisms such as those discussed in the explanatory notes may be considered.*

 Move: Joe K.

Second <none>

**Session recessed at 6:00 pm**