**IEEE P802.19**

**Wireless Coexistence**

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| Project | IEEE P802.19 Coexistence TAG |
| Title | **TVWS Coexistence SG Conference Call Minutes** |
| Date Submitted | [September 15, 2009] |
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| Re: | [] |
| Abstract | [Conference Call Minutes] |
| Purpose | [] |
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Attendance

|  |  |
| --- | --- |
| **Participant** | **Affiliation** |
| Steve Shellhammer | Qualcomm |
| Mark Austin | Ofcom |
| Victor Hou | Broadcom |
| Ari Ahtiainen | Nokia |
| Gerald Chouinard | CRC |
| Victor Tawil | mstv |
| Ivan Reede | AmeriSys Inc |
| Paul Nikolich | YAS, Samsung, HP. |
| Darcy Swain | MITRE |
| Prabodh Varshney | Nokia |
| Alex Reznik | InterDigital |
| Hou-Shin Chen | Thomson Inc. |
| Stanislav Filin | NICT, Japan |
| Mark Cummings | SWIM |
| Tuncer Baykas | NICT, Japan |
| Monisha Ghosh | Philips |
| Ranga Reddy | US Army |
| Tom Kolze | Broadcom |
| Joe Kwak | InterDigital Communications  |
| Julan Hsu,  | Samsung. |

Minutes for September 15, 2009 conference call

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| **1.00** |  | **Meeting called to order** | **Chair** | **0**  | **13.03**  |

The meeting was called to order by the 802.19 study group on TV White Space Coexistence Chair.

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| **2.00** |  | **Attendance** | **Chair** | **6**  | **13.04**  |

The chair required the attendees to send their name and organisation into the Secretary.

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| **3.00** |  | **REVIEW IEEE PATENT POLICY** | **Chair** | **2**  | **13.05**  |

The patent policy slides were brought up. There is no specific requirement for them to be read word for word.

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| 4.00 |  | **Approval of meeting minutes** | **Chair** |  | **13:06**  |

The following SG TVWS minutes were approved.

* Document IEEE 802.19-09/66r1: 08/09/09 Minutes - Approved

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| 4.00 |  | **Approval of agenda** | **Chair** |  | **13:06**  |

**Agenda**

* Attendance (Mark Austin)
* The IEEE patent policy is available at the following location
	+ <http://standards.ieee.org/board/pat/pat-slideset.pdf>
* Approve minutes from last week’s conference call (doc. 66r1)
* Document IEEE 802.19-09/69 (added to the posted agenda)
* 802.22 Spectrum re-use mechanisms (doc. 65r0) (Gerald Chouinard)
* Comments on Draft PAR (doc. 68r0) (Steve)
* Discussion on the plans for the interim meeting (added to the posted agenda)
* Document IEEE 802.19-09/70 (added to the posted agenda)
* New Business

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| **4.00** |  | **Discussions**  | **Chair** |  | **13:09**  |

Note: The following minutes are a guide to the discussion that was held not all comments have been captured and some of the following comments have been summarised.

**Document IEEE 802.19-09/69: TV White Space PAR and 5C**

* Mark Cummings presented this document.
* This document is the current draft of the PAR and 5 criteria but it does not include the comments circulated by the Chair, these will be included in the next draft.
* A cut off for contribution was set for Wednesday to allow the author of the document to address them ready for next week’s interim meeting. Later contributions will be discussed in the Interim meeting.

**Document IEEE 802.19-09/65: 802.22 Spectrum re-use mechanisms**

* Gerard Chouinard presented this document.
* This was submitted during last weeks meeting but the group did not have time to review it.
* Ivan: In the document you talk about coexistence between dissimilar LE devices, what about dissimilar licence devices as in some countries TV whitespace devices may be licensed
* Gerard: They become a incumbent from the regulatory point of view
* Ivan: Asked the chair for clarification if the IEEE 802.19 had voted at the last plenary that dissimilar technologies were limited to dissimilar 802 technologies.
* Chair: Does not recall that vote and though the focus has been on 802 technologies, it can be open to other technologies as set in the draft PAR
* Gerard: Agrees with the Chair, as long as we can the information on the different technologies
* Ivan: Believes that this may be too much work for the group to carry out.
* Gerard: How this is proposed to be carried out should be set out in the scope.
* Mark: The group should solve the coexistence between all 802 devices and as far as possible consider other air interfaces, and if possible to develop interfaces for them. But should not solve the rest of the world’s problems before publishing.
* Ivan: Caution needed when developing the scope to stop people who would like to delay the 802.19 standard at sponsor ballot by citing standard groups that 802.19 has not considered. Would like the option to do the work in the scope and for the group to decide.
* Mark: The current draft of the PAR specifically does the in the Scope, Problem and relevant standards.
* Joe: Gerard you felt that self coexistence is outside the scope of the 802.19 group, should 802.19 address independently operated networks of the same technology, i.e. to prompt coexistence the key is the to provides the communications between the similar but with independent operators that don’t normally communicate with each other. Should we address that aspect?
* Gerard: We need to tread carefully as 802.19 may felt to be taking over work if the group has already started it i.e. 802.16h, 802.11y and 802.22 and these groups should provide information and it should be coordination between the groups.
* Alex: 802.19 provide the tools to be used in most cases if no appropriate tools in the standard, but not overtake a standard if the tools already exist, is there a way of putting this in the PAR.
* Gerard: 802.19 could use the tools that 802.22 have developed and then 802.19 puts in the hooks to allow coexistence across the technologies. How to say that should be in the PAR that Mark is drafting.
* Mark: This was the intent of the draft PAR, if a standard has facility for self coexistence then does not have to use the self coexistent facilities in the standard created 802.19, but if the standard does not have self coexistence as we have defined it for independently operated networks etc, then these would be the tools that would be used. So it would be possible to decide to do self coexistence in some other way and that would be fine, but they need to have a way to do it.
* Joe: Agrees that the PAR and the new standard should supplement and not supersede existing coexistence methods.

**Document IEEE 802.19-09/68: Comments on Draft PAR**

* This document was presented by Steve Shellhammer but due to technical issues with his connection Mark Cummings acted as moderator for this discussion.
* **Comments on the Scope**

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

* First comment
	+ The use of the future tense does not work, since this is the Scope of the standard once it is published. This exact text will be the Scope in the published standard.
* Change agreed.
* Second comment
	+ My first question is why does the PAR refer to both “networks” and “devices” in the same sentence? Why is not sufficient to refer to “networks” only?
* Comment withdrawn PAR will keep the term Network and Devices.
* Third comment
	+ I notice that more detail about the Scope is provided in the Explanatory Notes. That makes sense. However, I think it would be useful to include on more sentence in the Scope listing what will be included in the standard. I suggest a few sentences something like,

*“The standard consists of three main components: methods for discovering other networks within range which would benefit from the coexistence mechanisms, a common control channel between different networks and a logical mechanism for enhancing coexistence between networks.”*

* It was agreed to discuss this at the Interim meeting, as there are strong opinions in both directions.
* **Comments on the Purpose**
* Comment
	+ The term “Air Interface” is more commonly used in the cellular industry. It might be better to change “Air Interface” to “Wireless”
* This change was agreed.
* **Comments on the Need**
* Comment
	+ Existing IEEE 802 standards groups are working to develop modifications of their standards to comply with the regulatory rules for accessing TV White Space.
	+ Not all these standards are amendments. For example 802.22 is not an amendment. Also “standards groups” are “working groups.”
	+ I think it would be cleaner to say,
	+ “Several IEEE 802 working groups are developing standards to comply with the regulatory rules for accessing TV White Space.”
* This change was agreed.
* Comment
	+ The third sentence uses the term “overlay mechanisms.” Can you explain this term?
* Mark: Relates to document IEEE 802.19-09/65, the concept is to allow the specific 802 standards to have control over how they meet the whitespace regulatory requirements and if they have a self coexistent mechanism how they want to do that. Our work would go on top of that for coexistence hence the word overlay. It may not be the best wording and the authors are open to suggestions.
* It was agreed to remove this term.

**AOB**

**General planning discussion for the interim session took place**:

* Currently the only planned submissions are related to the PAR.
* It was confirmed that currently there is 4 two hour timeslots planned for the meeting.
* The chair would like the study group to vote on the PAR at the interim meeting.
* There is a possibility for more meeting slots may be available if need.

The meeting closed at 14:00