**IEEE P802.19**

**Wireless Coexistence**

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| Project | IEEE P802.19 Wireless Coexistence WG |
| Title | **November 2015 TG1a Minutes** |
| Date Submitted | November 13, 2015 |
| Source | Hyunduk Kang (ETRI) | E-mail: henry@etri.re.kr |
| Re: | [] |
| Abstract | [November 2015 TG1a Minutes] |
| Purpose | [] |
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**Tuesday November 10, 2015 AM1**

Chair (Naotaka Sato) called the meeting to order at 8:10 AM

Chair called for secretary: Hyunduk Kang (vice chair) took over as acting secretary.

Reviewed the agenda (document 802.19-15/0087r0), a few change was made to document 802.19-15/0087r1. The agenda was approved by anonymous consensus.

Chair reviewed the IPR policy, and no one came forward with a potentially essential patent claim.

Chair asked the approval of July meeting minute 19-15/0062r1.

Motion to approve the minutes from the July 2015 CUB SG meeting, document 19-15/0062r1

Move: Sho Furuichi

Second: Hyunduk Kang

Motion passed by anonymous consensus

Chair presented November 2015 TG1a Opening Report (document 802.19-15/0088r0).

Chair called for technical editor. Nomination will be opened till Wednesday. Motion to approve technical editor will be at Thursday AM2 TG1a closing session

Chair presented TG1a project timeline plan (document 802.19-15/0095r0).

Chair presented timeline document (document 802.19-15/0096r0).

Chair revisited PAR of TG1a (document 802.19-15/0028r8).

The meeting was recessed at 08:50.

**Tuesday November 10, 2015 PM1**

Chair called the meeting to order at 13:34 AM

Reviewed the agenda (document 802.19-15/0087r1), a few change was made to document 802.19-15/0087r2. The agenda was approved by anonymous consensus.

Chen Sun presented document 802.19-15/0091r1 on “Explanation of IEEE 802.19.1-2014” regarding summary of 802.19.1-2014 and some possible changes in P802.19.1a. Shigenobu Sasaki asked if a CE could have multiple CMs. Chen Sun mentioned that it is logically possible but it is not appropriate because a CM got confused if multiple CMs delivered different information. Shigenobu Sasaki mentioned that if we consider multiple frequency bands with multiple CMs where one CM covers one frequency band, a CE with multiple CMs is appropriate as a use case.

Chair revisited TG1a project timeline plan (document 802.19-15/0095r0) and timeline document (document 802.19-15/0096r0). Chair mentioned that it is welcomed any comments regarding timeline.

The meeting was recessed at 14:22.

**Wednesday November 11, 2015 AM1**

Chair called the meeting to order at 08:05 AM

Reviewed the agenda (document 802.19-15/0087r2), a few change was made to document 802.19-15/0087r3. The agenda was approved by anonymous consensus.

Chen Sun presented document 802.19-15/0092r0 on “Adjustment of energy detection threshold over IP-network”. Hyunduk Kang wondered that this mechanism is good for information service or management service, or both. In order to figure it out, Hyunduk Kang suggested that the author provide a use case using this mechanism to understand how this mechanism effects the current 802.19.1-2014 systems architecture, procedures, messages, data types, and primitives. Chen Sun accepted this suggestion.

Sho Furuichi presented document 802.19-15/0097r0 on “Information exchange between independent IEEE 802.19.1 systems”. The group asked Interface B3 between CMs can be used for information exchange between different operators. Chair said that since the current 802.19.1-2014 do not support information exchange between CDISs, there is a possibility to need new interface between CDISs. With more considerations, Sho Furuichi wanted to continue to discuss during future teleconference calls after the F2F meeting.

Regarding draft development, Steve Shallhammer (802.19 WG chair) mentioned that call for proposal is needed. Chair mentioned that he will take care of it.

The meeting was recessed at 09:05.

**Wednesday November 11, 2015 PM1**

Chair called the meeting to order at 13:35 AM

Reviewed the agenda (document 802.19-15/0087r3), a few change was made to document 802.19-15/0087r4. The agenda was approved by anonymous consensus.

Chen Sun presented document 802.19-15/0093r1 on “Coexistence Management Considering Pre-coding and Priority”. The group discussed the followings;

* Three-tiered spectrum sharing enables spectrum sharing and flexible use in the 3.5 GHz band. The order of priority is: (1) incumbent licensees; (2) Priority Access (“PA”) licensees; and (3) General Authorized Access (“GAA”) operators. So, PAL (Primary Access License) users should be protected by GAA (General Authorized Access) users.
* It is needed to differentiate coexistence issues from protection issues, and to do that use cases are worth to consider.
* The group should check different priorities among GAA users is possible or not.

Steve suggested that someone create document on terminology.

Chen Sun presented document 802.19-15/0094r1 on “Coexistence Management Considering Interference Alignment”. Steve mentioned that what if channel state information (CSI) is rapidly changed and there are errors. Chen Sun answered that simulation results can include imperfect of CSI like those in document 802.19-15/0093r1.

Hyunduk Kang presented document 802.19-15/0098r0 on “Consideration on Neighbor Discovery”. The group discussed that what is different neighbor discovery over 3.5 GHz from TV white space. Hyunduk Kang mentioned that the group need to check the current procedures, messages, data types, and primitives are applicable to three-tier spectrum sharing case. Chair mentioned that use case for neighbor discovery considering three-tier spectrum sharing case is needed.

Chair presented document 802.19-15/0100r0 on “Liaison statement to the wireless information forum”.

Michael Janezic mentioned that information regarding spectrum sharing committee of wireless information forum is available on http:// groups.winnforum.org/page/spectrum-sharing-committee. The group discussed the document and revised it. Chair uploaded the revised document 802.19-15/0100r1 on the mentor.

The meeting was recessed at 14:19.

**Thursday November 12, 2015 AM2**

Chair called the meeting to order at 10:37 AM

Reviewed the agenda (document 802.19-15/0087r4), a few change was made to document 802.19-15/0087r5. The agenda was approved by anonymous consensus.

Motion to confirm Chen Sun for TG1a technical editor

Move: Steve Shallhammer

Second: Hyunduk Kang

Vote: Y: 4 /N: 0 /A: 1

Motion passed.

The group reviewed document 802.19-15/0100r1 on “Liaison statement to the wireless information forum”, and revised it with some editorial changes. Chair uploaded the revised document 802.19-15/0100r1 on the mentor.

Motion to approve liaison statement to the Wireless Innovation Forum (Doc. 802.19-15/0100r2) and forward to the IEEE802.19 working group for approval and ask chair to send to Wireless Innovation Forum by the end of November

Move: Sho Furuichi

Second: Hyunduk Kang

Vote: Y: 4 /N: 0 /A: 0

Motion passed.

The group reviewed objectives for next F2F meeting in Atlanta, GA as followings;

* Discussion text proposals with technical presentations.

The group decided teleconference call schedule as followings;

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| **Day** | **Date** | **Start Time** | **Duration** | **Call Host** |
| Tuesday | December 22, 2015 | 1:00 AM EST (6:00 AM GMT, 3:00 PM JST/KST) | 1 hour | Naotaka Sato |
| Tuesday | January 12, 2016 | 1:00 AM EST (6:00 AM GMT, 3:00 PM JST/KST) | 1 hour | Naotaka Sato |

The TG1a adjourned at 11:03 AM

**Attendance**

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| **Name** | **Affiliation** |
| Hyunduk Kang | ETRI |
| Sho Furuichi | Sony |
| Naotaka Sato | Sony |
| Chen Sun | Sony |
| Steve Shellhammer | Qualcomm |
| Kare Agardh | Sony |
| Hakar Persson | Ericsson |
| Peter Chau | Industry Canada |
| Shigenobu Sasaki | Niigata University |
| Cagatay Capar | Ericsson |
| Kenich Mori | Space-Time Engineering |
| Shigeru Maeda | Toshiba |
| Huang He | ZTE |
| William Young | NIST |
| Radhakrishna Canchi | Kyocera Communication Inc. |
| Michael Janezic | NIST |