IEEE P802.11
Wireless LANs

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| 802.11 TGaf September 2012 Palm Springs Meeting Minutes |
| Date: 2012-09-20 |
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Abstract

This document contains the meeting minutes from the 802.11 TGaf meetings, held at the September 2012 IEEE 802 Wireless Interim session.

 **Sep 17th , 2012 (Monday) AM 10:30-12:30**

**Notes – Monday, Sep 17th, 2011; with 50+ attendees, AM2 meeting**

1. **Richard Kennedy (RIM) is the chair of the group. Peter Ecclesine (Cisco Systems) is the vice-chair of the group. Zhou Lan (NICT) is the second vice-chair of the group. Chair called the meeting to order: 10:30 am.**
2. **The agenda of this meeting was reviewed and approved by unanimous consent.**
3. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
4. **Administrative items**
	1. Chair reviewed the administrative items and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed IEEE-SA bylaws and operations manual.
	6. Chair reviewed task group chair functions and authority.
5. **Discussions and approval on the agenda of this week.**
6. **Rich Kennedy reviewed the status of the task group.**
7. **Motion to approve the TGaf minutes from the July Wireless Plenary in San Diego, and August 21th, 18th and Sep 4th teleconferences in documents 11-12-0986r0, 11-12-1024r0, 11-12-1038r0, 11-12-1071r0 respectively.**
	1. **Moved by Richard Van Nee (Qualcomm), seconded by Zhou Lan (NICT)**
	2. **Discussions: None**
	3. **Passes with 24 YES, 0 NO and 3 ABSTAIN.**
8. **Peter Ecclesine reviewed the regulatory updates.**
	1. Peter reviewed the updates of FCC.
	2. Peter reviewed the ETSI bran document EN 301 598.
	3. Peter reviewed the Ofcom rules (July 4th 2012)
		1. The rule of kill command (3.23.8) requires RLSS.
		2. Ofcom allows multi-band operation for channel availability query.
9. **Peter Ecclesine reviewed the comment spreadsheet (802.11-12/1017r5).**
10. **Motion to approve the comment spreading sheet in 802.11-12/1017r5 as the working document.**
	1. **Moved by Stuart Kerry (OK-Brit), Seconded by David Hunter (WireFi Networks)**
	2. **Discussion on the motion: None**
	3. **Pass with unanimous consent.**
11. **Richard Van Nee (Qualcomm) presented PHY comment resolution document 802.11-12/1068r2.**
	1. Jianhan Liu (Marvell) asked what is the intention of a mandatory short guard interval?
	2. Richard responded it is for reducing the latency.
	3. **Motion to approve the comment resolution in document 802.11-12/1068r2.**
	4. **Moved by Richard Van Nee (Qualcomm), seconded by Ron Porat (Broadcom)**
	5. **Discussions: None**
	6. **Passes with 19 YES, 0 NO and 4 ABSTAIN.**
12. **Richard Van Nee (Qualcomm) presented PHY comment resolution document 802.11-12/1069r1.**
	1. **Motion to approve the comment resolution in document 802.11-12/1069r1.**
	2. **Moved by Richard Van Nee (Qualcomm), Seconded by Ron Porat (Broadcom)**
	3. **Discussions: None**
	4. **Pass with 18 YES, 0 NO and 1 ABSTAIN**
13. **Richard Van Nee (Qualcomm) presented PHY comment resolution 802.11-12/1070r2.**
	1. **Motion to approve the comment resolution in document 802.11-12/1070r2 with changes as shown on the screen, to become r3.**
	2. **Moved by Richard (Qualcomm), Seconded by David Hunter(WireFi Networks)**
	3. **Discussions: None**
	4. **Pass with 16 YES, 0 NO and 0 ABSTAIN**
14. **Recessed at 12:30 am Local time.**

**Sep 17th , 2012 (Monday) PM 1:30-3:30**

**Notes – Monday, Sep 17th, 2012; with 50+ attendees, PM1 meeting**

1. **Richard Kennedy (RIM) is the chair of the group. Peter Ecclesine (Cisco Systems) is the vice-chair of the group. Zhou Lan (NICT) is the second vice-chair of the group. Chair called the meeting to order: 1:30 pm.**
2. **The agenda of the meeting was reviewed and approved by unanimous consent.**
3. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
4. **Administrative items**
	1. Chair reviewed the administrative items and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
5. **Wookbong Lee (LGE) presented document 802.11-12/1072r0 for PHY general comment resolution.**
	1. Peter Ecclesine proposed an editorial change to remove “/” from the band.
	2. Hongyuan Zhang (Marvell) asked how to proceed the proposed changes.
	3. Wookbong Lee responded the changes will happen after 11ac is combined with REVmc.
	4. Peter Ecclesine said no change will be in chapter 22. All the changes will be in chapter 23.
6. **Hongyuan Zhang (Marvell) presented document 802.11-12/1110r0 for PHY general comment resolution.**
7. **Wookbong Lee (LGE) presented document 802.11-12/1012r1 for BSS operation and channelization related comment resolutions.**
8. **Hongyuan Zhang presented document 802.11-12/1107r0 for PHY general comment resolutions.**
9. **Recessed at 3:27 PM.**

**Sep 18th , 2012 (Tuesday) AM 8:00-10:00**

**Notes – Tuesday, Sep 18th, 2012; with 40+ attendees, AM1 meeting**

1. **Richard Kennedy (RIM) is the chair of the group. Peter Ecclesine (Cisco Systems) is the vice-chair of the group. Zhou Lan (NICT) is the second vice-chair of the group. Chair called the meeting to order: 10:00 am.**
2. **The agenda of the meeting was reviewed and approved by unanimous consent.**
3. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
4. **Administrative items**
	1. Chair reviewed the administrative items and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
5. **Peter Ecclesine reviewed the editorial comments.**
6. **Wookbong Lee presented document 802.11-12/1014r1 for general PHY comment resolution on the definition section.**
	1. Jianhan Liu (MediaTek) asked if the use of CW may cause some inconsistency.
	2. Wookbong Lee responded those proposed changes only apply to MAC sections, not to PHY sections.
7. **Recessed at 10:00 am Local time.**

**Sep 18th , 2012 (Tuesday) AM 10:30-12:30**

**Notes – Tuesday, September 18th, 2012; with 40+ attendees, AM2 meeting**

1. **Agenda was reviewed and approved.**
2. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
3. **Administrative items**
	1. Chair reviewed the administrative items, placing emphasis on his responsibility to deliver a quality draft standard in a timely fashion, as outlined in the WG P&P, asking that comments and comment resolutions be in the best interest of the standard, and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
4. **Hongyuan Zhang presented document 802.11-12/1107r1 for stream parser related comment resolution.**
	1. Wookbong Lee asked which IDFT is mapped to which section.
	2. Hongyuan Zhang responded to check the 11ac draft for clarification.
5. **Zhou Lan presented document 802.11-12/1124r1 for multi-band related comment resolution.**
	1. Yongho Seok (LGE) asked to clarify the difference between this and 12/1098r5, another contribution in TGai.
	2. Zhou Lan pointed out two major differences and emphasized that this contribution is for the multiband operation required by the Ofcom regulation.
	3. Peter Ecclesine said there is no problem from the procedure point of view to have similar contributions in two different task groups.
6. **Peter Ecclesine reviewed the comment spreading sheet 802.11-12/1017r7.**
	1. **Motion to approve the Editorial comment resolutions (305 on Editorial Tab 1) in document 11-12/1017r6, with changes as shown on the screen to become r7**
		1. **Moved by Peter Ecclesine (Cisco Systems), Seconded by Wookbong Lee (LGE)**
		2. **Discussions: None**
		3. **Passes with 15 YES, 0 NO and 0 ABSTAIN**
7. **Joe Kwak (InterDigital) presented document 802.11-12/0924r1 for SNR variation on multiple TVWS channels.**
	1. Wookbong Lee asked how to find the best inter-median MCS.
	2. Joe Kwak responded to choose the one with the best throughput.
	3. Hongyuan Zhang commented no diversity gain is achieved if NON\_HT\_DUP mode is not supported.
8. **Discussion about the FCC and Ofcom rules of permitted power.**
	1. Peter Ecclesine pointed out the transmission power per 6MHz will be 40mW if an adjacent channel is used on both contiguous and noncontiguous cases.
9. **Recessed at 12:30 am Local time.**

**Sep 19th , 2012 (Wednesday) AM 8:00-10:00**

**Notes – Wednesday, July 19th, 2012; with 40+ attendees, AM1 meeting**

1. **Agenda was reviewed and approved.**
2. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
3. **Administrative items**
	1. Chair reviewed the administrative items, placing emphasis on his responsibility to deliver a quality draft standard in a timely fashion, as outlined in the WG P&P, asking that comments and comment resolutions be in the best interest of the standard, and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
4. **Hongyuan Zhang presented 802.11-12/1107r2 for the stream parser related comment resolution.**
	1. **Motion to approve comment resolution in document 802.11-12/1107r2.**
		1. **Moved by Hongyuan Zhang (Marvell) , Seconded by Wookbong Lee (LGE)**
		2. **Discussions on the motion: None**
		3. **Passes with 9 YES, 0 NO and 2 ABSTAIN.**
5. **Hongyuan Zhang presented 802.11-12/1110r1 for the scrambler seed related comment resolution.**
6. **Hongyuan Zhang presented 802.11-12/1109r0 for the SIG B field comment resolution.**
7. **Hongyuan Zhang presented 802.11-12/1108r0 for the MCS table related comment resolution.**
	1. Ron Porat (Broadcom) commented due to 11af support low throughput, one encoder will be enough, 4 encoders are too much.
	2. Hongyuan Zhang responded that higher clock is needed for Viterbi decoder.
	3. Peter Ecclesine responded the clock of 11af runs six or five times lower than 11ac, the clock for Viterbi decoder will not very high.
	4. Ron Porat commented the highest data rate of 11af is around 600Mbps. One encoder has better performance.
8. **Wookbong Lee presented document 802.11-12/1072r0 for general PHY comment resolution.**
9. **Wookbong Lee presented document 802.11-12/1013r1 for NON\_HT\_DUP related comment resolution.**
	1. Hongyuan Zhang commented single channel with 3dB gain would be good. Multiple channels may not be a good option.
10. **Recessed at 10:00 am Local time.**

**Sep 19th , 2012 (Wednesday) PM 13:30-15:30**

**Notes – Wednesday, Sep 19th, 2012; with 40+ attendees, PM1 meeting**

1. **Agenda was reviewed and approved.**
2. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
3. **Administrative items**
	1. Chair reviewed the administrative items, placing emphasis on his responsibility to deliver a quality draft standard in a timely fashion, as outlined in the WG P&P, asking that comments and comment resolutions be in the best interest of the standard, and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
4. **Motion to approve comment resolutions in document 802.11-12/1110r1, with the changes as shown on the screen, to become r2.**
	1. **Moved by Hongyuan Zhang (Marvell), Seconded by Zhou Lan (NICT)**
	2. **Discussions: None**
	3. **Passes with 21 YES, 0 NO and 3 ABSTAIN**
5. **Motion to approve comment resolutions in document 802.11-12/1109r0, with the changes as shown on the screen, to become r1.**
	1. **Moved by Hongyuan Zhang (Marvell), Seconded by Wookbong Lee (LGE)**
	2. **Discussions: None**
	3. **Passes with 23 YES, 0 NO and 2 ABSTAIN**
6. **Wookbong Lee (LGE) presented document 802.11-12/1014r2 for general PHY comment resolutions.**
7. **Wookbong Lee (LGE) presented document 802.11-12/1011r1 for general PHY comment resolutions.**
8. **Peter Ecclesine reviewed the comment spreadsheet 802.11-12/1017r07 and called for volunteers for comment resolution.**
9. **Recessed at 3:30 pm Local time.**

**Sep 20th , 2012 (Thursday) AM 8:00-10:00**

**Notes – Thursday, Sep 19th, 2012; with 40+ attendees, AM1 meeting**

1. **Agenda was reviewed and approved.**
2. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
3. **Administrative items**
	1. Chair reviewed the administrative items, placing emphasis on his responsibility to deliver a quality draft standard in a timely fashion, as outlined in the WG P&P, asking that comments and comment resolutions be in the best interest of the standard, and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
4. **Yongho Seok (LGE) presented document 802.11-12/1119r0 for general MAC comments.**
	1. Peter Ecclesine commented NNI should be handled in layer 2.
	2. Zhou Lan commented to remove the scope of 802.19.1 from the discussion part.
	3. **Motion to approve the comment resolutions in document 802.11-12/1119r0, with changes as shown on the screen to become r1.**
		1. **Moved by Yongho Seok (LGE), Seconded by Ron Porat (Broadcom)**
		2. **Discussion: None**
		3. **Pass with 9 YES, 1 NO, 6 ABSTAIN.**
5. **Wookbong Lee (LGE) presented document 802.11-12/1012r2.**
	1. **Motion to approve the comment resolutions in document 802.11-12/1012r2.**
	2. **Moved by Wookbong Lee (LGE), Seconded by Stuart Kerry (OK-Brit)**
	3. **Discussions: None**
	4. **Passes with 13 YES, 0 No and 3 ABSTAIN.**
6. **Zhou Lan deferred the motion on document 802.11-12/1124r2 to November.**
7. **Wookbong Lee presented document 802.11-12/1013r1 for Non\_HT\_DUP related comment resolution.**
8. **Peter Ecclesine reviewed the comment spreadsheet 802.11-12/1017r8 for the editorial comments.**
	1. Peter removed the proposed resolution to CID 351 from the list.
9. **Motion to approve the comment resolutions in document 802.11-12/1014r3.**
	1. **Moved by Wookbong Lee (LGE) , Seconded by Jens Tingleff (CSR)**
	2. **Discussions: None**
	3. **Passes with 19 YES, 0 NO and 0 ABSTAIN.**
10. **Motion to approve the comment resolutions in document 802.11-12/1011r2, with changes on the screen to become r3.**
	1. **Moved by Wookbong Lee (LGE), Seconded by Zhou Lan (NICT)**
	2. **Discussions: None**
	3. **Passes with 20 YES, 0 NO and 0 ABSTAIN**
11. **No changes on the conference call plan.**
	1. Peter Ecclesine proposed to have a special conference call right before next face to face meeting to assist the comment resolution procedure.
12. **Meeting recessed at 10:00am.**

**Sep 20th , 2012 (Thursday) PM 1:30-3:30**

**Notes – Thursday, Sep 19th, 2012; with 40+ attendees, PM1 meeting**

1. **Agenda was reviewed and approved.**
2. **Introduction**
	1. Chair welcomed participants.
	2. Chair reminded participants to record their attendance.
3. **Administrative items**
	1. Chair reviewed the administrative items, placing emphasis on his responsibility to deliver a quality draft standard in a timely fashion, as outlined in the WG P&P, asking that comments and comment resolutions be in the best interest of the standard, and presented the links for accessing the related documents.
	2. Chair reviewed the patent policy and meeting guideline slides. Chair asked: “Are there any questions on the slides?” None.
	3. Chair asked: “Are there any patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard?” None.
	4. Chair reviewed other guide lines of the IEEE WG meetings.
	5. Chair reviewed task group chair functions.
4. **Wookbong Lee (LGE) presented document 802.11-12/1013r2 for NON-HT DUP related comment resolutions.**
	1. **Motion to approve the comment resolutions in document 802.11-12/1013r2.**
	2. **Moved by Tom Kolze (Broadcom), Seconded Wookbong Lee (LGE)**
	3. **Discussions: None**
	4. **Passes with 19 YES, 0 NO and 4 ABSTAIN.**
5. **Motion to approve the comment resolutions on the Editorial tab in document 11-12/1017r10.**
	1. **Moved by Peter Ecclesine (Cisco systems), Seconded by Zhou Lan (NICT)**
	2. **Discussions: None**
	3. **Passes with 23 YES, 0 NO and 1 ABSTAIN.**
6. **Review of the final status of the week.**
7. **Meeting adjourned at 3:30 pm Local time.**
8. **References:**
	1. <https://mentor.ieee.org/802.11/dcn/12/11-12-1017-11-00af-tgaf-wg-lb-comment-resolutions.xlsx>
	2. <https://mentor.ieee.org/802.11/dcn/12/11-12-1011-03-00af-clause-3-2-proposed-modifications.doc>
	3. <https://mentor.ieee.org/802.11/dcn/12/11-12-1013-02-00af-tvht-non-ht-duplicate-modification-proposal.doc>
	4. <https://mentor.ieee.org/802.11/dcn/12/11-12-1119-01-00af-gen-comment-resolution.doc>
	5. <https://mentor.ieee.org/802.11/dcn/12/11-12-1013-01-00af-tvht-non-ht-duplicate-modification-proposal.doc>
	6. <https://mentor.ieee.org/802.11/dcn/12/11-12-1014-03-00af-proposed-modification-for-11af-specification.doc>
	7. <https://mentor.ieee.org/802.11/dcn/12/11-12-1109-01-00af-d20-sigb-comment-resolutions.docx>
	8. <https://mentor.ieee.org/802.11/dcn/12/11-12-1110-02-00af-d20-scrambler-seed-comment-resolutions.docx>
	9. <https://mentor.ieee.org/802.11/dcn/12/11-12-1014-02-00af-proposed-modification-for-11af-specification.doc>
	10. <https://mentor.ieee.org/802.11/dcn/12/11-12-1012-02-00af-tvht-bss-operation-and-channelization-modification-proposal.doc>
	11. <https://mentor.ieee.org/802.11/dcn/12/11-12-1124-02-00af-multi-band-comment-resolution-lb189.doc>
	12. <https://mentor.ieee.org/802.11/dcn/12/11-12-1070-03-00af-phy-comment-resolution-transmit-center-freq-and-clock-frequency-tolerance.docx>
	13. <https://mentor.ieee.org/802.11/dcn/12/11-12-1090-01-00af-meeting-plan-and-agenda-palm-springs-2012.ppt>
	14. <https://mentor.ieee.org/802.11/dcn/12/11-12-1070-02-00af-phy-comment-resolution-transmit-center-freq-and-clock-frequency-tolerance.doc>
	15. <https://mentor.ieee.org/802.11/dcn/12/11-12-1068-02-00af-phy-comment-resolution-guard-interval-modes.doc>