IEEE P802.11
Wireless LANs

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| IEEE 802.11 Task Group AYJuly 2015 Waikoloa Village Meeting Minutes |
| Date: 2015-07-16 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Yan Xin | Huawei Technologies |  |  | yan.xin@huawei.com |
| Edward Au | Marvell Semiconductor |  |  | edwardau@marvell.com |

Abstract

Task Group AY meeting minutes from the IEEE 802.11 Waikoloa Village session, July 12-17, 2015.

**IEEE 802.11 Task Group AY**

**July 2015 Waikoloa Village Plenary**

**July 12-17, 2015**

**Monday, July 12, 2015, AM1 ad-hoc session (08:00-10:00)**

1. The meeting was called to order at 08:00 Hawaii local time by Edward Au (Marvell Semiconductor), the chair pro-tem for Task Group AY.
2. Agenda Doc. IEEE 802.11-15/0718r1
3. Chair pro-tem reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics
	1. Chair pro-tem asked if anyone has any questions about the IEEE-SA patent policy, logistics or reminders. No questions.
	2. Chair pro-tem reminded all to record their attendance.
4. Chair pro-tem reviewed the task group meeting time slots and agenda items for this ad-hoc session and the week.
5. Chair pro-tem proceeded to discuss the appointment of a secretary for the July 2015 Waikoloa Village ad-hoc session.
	1. Yan Xin (Huawei) volunteered.
	2. There were no other volunteers.
	3. Yan Xin was appointed as the secretary for this ad-hoc session.
	4. No objections noted on Yan Xin’s appointment.
6. Review of submissions for the ad-hoc session and the week
	1. 14 presentations identified for review for the week, no presentation identified for ad-hoc.
	2. Chair pro-tem asked if there were more submissions to upload them to mentor.
7. Chair pro-tem reviewed the detailed meeting plan for the week.
8. Ad-hoc meeting adjourned at 08:23 Hawaii local time.

**Tuesday, July 13, 2015, AM1 session (08:00-10:00)**

1. The meeting was called to order at 08:00 Hawaii local time by Edward Au (Marvell Semiconductor), the chair pro-tem for Task Group AY.
2. Agenda Doc. IEEE 802.11-15/0718r2
3. Chair pro-tem reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics
	1. Chair pro-tem asked if anyone has any questions about the IEEE-SA patent policy, logistics or reminders. No questions.
	2. Chair pro-tem reminded all to record their attendance.
4. Chair pro-tem reviewed the task group meeting time slots and agenda items for the week.
5. Chair pro-tem proceeded to discuss the appointment of a secretary for the July 2015 Waikoloa Village session.
	1. Yan Xin (Huawei) volunteered.
	2. There were no other volunteers.
	3. Yan Xin was appointed as the secretary for the week.
	4. No objections noted on Yan Xin’s appointment.
6. Chair pro-tem reviewed the summary from the May 2015 IEEE 802.11 Task Group AY Vancouver interim.
7. Motion to approve the May 2015 Vancouver meeting minutes
	1. Move: Sean Coffey (RealTek)
	2. Second: Yan Xin (Huawei)
	3. Motion to approve: Approved with unanimous consent.
8. Laurent Cariou (Intel) presented his submission titled “TGay evaluation methodology” with document number 15/0866r1
	1. Chair pro-tem opened the floor for questions
		1. Suggested to align use cases with evaluation methodology and further suggested to have some discussion on wearable in airplanes as well as compressed versus uncompressed video.
		2. Discussed on whether the energy efficiency model from IEEE 802.11ax would be directly applied to IEEE 802.11ay, and whether the value of energy efficiency ratio is required to be less than 1.
		3. Discussed on whether the traffic model table is applied for system-level simulation and/or P2P simulation.
		4. Discussed on the table with link budget parameters and maximum transmit power for a few scenarios. Commented on whether a few factors, such as weather, configuration of antenna arrays, MPD versus average/maximum transmit power limits, should be taken into account.
		5. Discussed on the usage models for dual-polarized antennas.
		6. Suggested to consider channel bonding and MIMO.
		7. Commented that there are lots of TBD values in this draft submission and further commented that single-hop and/or multi-hop relay use cases need to be addressed.
9. Kyungtae (LG Electronics) presented his submission titled “Consideration on evaluation methodology for 11ay” with document number 15/0863r0
	1. Chair pro-tem opened the floor for questions
		1. Commented on whether measuring fairness is the takeaway message of this contribution.
		2. Discussed on whether MIMO capability is important in system-level simulation because MIMO capability may be constrained in specific usage scenarios.
		3. Suggested to consider more scenarios.
10. Solomon Trainin (Intel) presented his submission titled “Docking usage model” with document number 15/0830r0
	1. Chair pro-tem opened the floor for questions
		1. Asked whether mobility is taken into account for the mobile, or only semi-static movement is considered.
		2. Discussed on the difference between home and office environments.
		3. Asked about the purpose of showing slide 4 and how the values stated in this slide be derived.
11. Meeting recessed at 10:03 Hawaii local time and will be resumed on Tuesday PM3.

**Tuesday, July 13, 2015, PM3 Session (19:30-21:30)**

1. The meeting was called to order at 19:30 Hawaii local time by Edward Au (Marvell Semiconductor), the chair pro-tem for Task Group AY.
2. Agenda Doc. IEEE 802.11-15/0718r3
3. Chair pro-tem reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics
	1. Chair pro-tem asked if anyone has any questions about the IEEE-SA patent policy and logistics.
	2. Chair pro-tem reminded all to record their attendance.
4. Alexander Maltsev (Intel) presented his submission titled “mmWave small cell reconfigurable backhauling with steerable lens-array antennas (LAA)” with document number 15/0815r0
	1. Chair pro-tem opened the floor for questions
		1. Asked about the definition on maximum lens gain of antenna and discussed on the simulation configurations and results.
		2. Asked about whether any change in specification is required and whether it is a contribution that presents feasibility of the use cases.
		3. Commented on the abbreviation LAA should be avoided.
5. Robert Muller (Ilmenau University of Technology) presented his submission titled “Channel sounding for 11ay” with document number 15/0879r3
	1. Chair pro-tem opened the floor for questions
		1. Asked about the reasons that the output of the channel sounder is not a function of receive elevation position
		2. Asked about whether two different kinds of polarization are considered.
6. Camillo Gentile (NIST) presented his submission titled “NIST preliminary channel measurements at 83 GHZ” with document number 15/0840r1
	1. Chair pro-tem opened the floor for questions
		1. Asked about whether there are any measurement for polarization diversity.
		2. Asked about whether there is any error alignment.
		3. Asked about whether the channel measurements can be applied for short-range usage and outdoor scenarios.
7. Sung Jin Park (LG Electronics) presented his submission titled “11ay functional requirements for channel bonding” with document number 15/0861r1
	1. Chair pro-tem opened the floor for questions
		1. Asked about the definition of “contiguous channel bonding” and discussed on whether it is better to use an alternative term “channel bonding”.
8. Meeting recessed at 21:10 Hawaii local time and will be resumed on Wednesday AM1.

**Wednesday, July 14, 2015, AM1 Session (08:00-10:00)**

1. The meeting was called to order at 08:03 Hawaii local time by Edward Au (Marvell Semiconductor), the chair pro-tem for Task Group AY.
2. Agenda Doc. IEEE 802.11-15/0718r5
3. Chair pro-tem reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics
	1. Chair pro-tem asked if anyone has any questions about the IEEE-SA patent policy, logistics or reminders. No questions.
	2. Chair pro-tem reminded all to record their attendance.
4. Task group chair recommendation
	1. Chair pro-tem explained the options and corresponding process for task group chair recommendation. There is no objection from the task group in following option 1.
		1. Working Group Chair, Adrian Stephens, conducted the task group election. There is only one candidate, Edward Au (Marvell Semiconductor). There is no objection from the task group. The Working Group Chair declared that Edward Au matches with the qualification as a task group chair. Confirmation vote will be conducted in Working Group Closing Plenary.
5. Chair pro-tem discussed about the task group leadership nominations, including Vice Chair(s), editor, secretary, and leads for task group documents. There is no objection that a call for nomination will be sent to the task group email reflector in the next two weeks.
6. Dmitry Chemiavsky (SiBEAM, Inc.) presented his submission titled “Beamforming to enable concurrent links for 802.11ay” with document number 15/0809r0
	1. Chair pro-tem opened the floor for questions
		1. Asked about how the STAs would be synchronized to respond and how we know which interferer creates interference.
		2. Commented that the overhead is a main concern.
		3. Commented that the setup procedure should be described clearly and in details though it is a conceptual presentation.
7. Songnam Hong (Ericsson) presented his submission titled “Frequency-independent digital precoder for hybrid MIMO precoding” with document number 15/0808r0
	1. Chair pro-tem opened the floor for questions
		1. Asked about how the upper bound in slide 12 can be achieved.
		2. Asked about how the beam be defined in simulation.
		3. Discussed on why the effective channel is flat, as it is different from that obtained from channel measurement campaign.
		4. Asked about the simulation configurations, with emphasis on the difference between LOS and NLOS scenarios.
8. Thomas Handte (Sony) presented his submission titled “Potential of non-uniform constellations with peak power constraint” with document number 15/0835r1
	1. Chair pro-tem opened the floor for questions
		1. Asked about what kind of phase noise and non-linearity considered in simulation.
		2. Discussed on how a particular MCS is chosen.
9. Meeting recessed at 10:00 Hawaii local time and will be resumed on Thursday AM2.

**Thursday, May 14, 2015, AM1 Session (10:30-12:30)**

1. The meeting was called to order at 10:30 Hawaii local time by Edward Au (Marvell Semiconductor), the chair pro-tem for Task Group AY.
2. Agenda Doc. IEEE 802.11-15/0718r6
3. Chair pro-tem reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics
	1. Chair pro-tem asked if anyone has any questions about the IEEE-SA patent policy and logistics.
	2. Chair pro-tem reminded all to record their attendance.
4. Myeong-Jin Kim (Korea University) presented his submission titled “Feedback of channel state information for hybrid beamforming in 802.11ay” with document number 15/0793r0
	1. Chair pro-tem opened the floor for questions
		1. There were no questions from the floor.
5. Myeong-Jin Kim (Korea University) presented his submission titled “Discussion on MU-MIMO based on hybrid beamforming system in 802.11ay” with document number 15/0799r0
	1. Chair pro-tem opened the floor for questions
		1. There were no questions from the floor.
6. Ji-Ho Lee (Korea University) presented his submission titled “Effective noise figure in hybrid BF system” with document number 15/0889r0
	1. Chair pro-tem opened the floor for questions
		1. Asked about the assumption being made to model the noise from LMA to different antennas.
7. Rob Sun (Huawei) walked through the liaison received from the Wi-Fi Alliance on IEEE 802.11ay use cases, titled “20150707 Wi-Fi Alliance feedback on 802.11 Task Group AY usage models” with document number 15/0934r0
	1. Chair pro-tem opened the floor for questions and emphasized that there are two action items for the task group, namely, (1) to consider addition of new use cases based on the feedback, removal or revision of existing use cases; and (2) to rank the importance of the use cases
		1. Suggested to review all use cases and merge those with similar requirements.
		2. Suggested to review the liaison feedback in the next few weeks and finalize the usage model slide deck by the end of the September interim.
8. Chair pro-tem proceeded to discuss a straw poll regarding the submission 15/0830r0 that Solomon Trainin presented on Tuesday AM1
	1. Do we agree to integrate the docking usage model (c.f., 15/0830r0) into the IEEE 802.11 TGay Use Cases slide deck (c.f. 15/0625r2), with an understanding that further modification on the values in slide 4 of 15/0830r0 is possible?
		1. Chair asked if there are any further questions
			1. None noted.
		2. Chair asked if there is any objection to the straw poll
			1. No objection noted.
9. Chair pro-tem proceeded to discuss Motion #8 regarding the submission 15/0830r0 that Solomon Trainin presented on Tuesday AM1
	1. Do we agree to integrate the docking usage model (c.f., 15/0830r0) into the IEEE 802.11 TGay Use Cases slide deck (c.f. 15/0625r2), with an understanding that further modification on the values in slide 4 of 15/0830r0 is possible?
		1. Move: Rob Sun (Huawei)
		2. Second: Laurent Cariou (Intel)
		3. Chair asked if there is any objection to the motion
			1. Motion passes with unanimous consent.
10. Chair pro-tem proceeded to discuss the teleconference call schedule, which is scheduled for September 1 (Tuesday) from 10:00am ET to 11:00am ET
	1. No objections or comments noted.
11. Chair pro-tem proceeded to discuss the Goals for September 2015 interim
	1. No comments noted.
12. Chair pro-tem proceeded to discuss on whether the next session on Thursday PM1 can be cancelled
	1. No objections or comments noted. The session on Thursday PM1 is cancelled.
13. Task Group AY Waikoloa Village meeting adjourned at 12:01 Hawaii local time.