IEEE P802.11  
Wireless LANs

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| EHT TIG Teleconference Minutes, June 2018 | | | | |
| Date: 2018-06-18 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Dennis Sundman | Ericsson AB |  |  | dennis.sundman@ericsson.com |
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Abstract

This document contains minutes from the telephone conference held in June 2018.

# Teleconference Monday, May 18th , 2018, 10:00-11:00 (ET)

## Agenda:

0. Appoint a recording secretary.

1.       Call to order, attendance, and patent policy

a.       Call for potentially essential patents: **If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:**

                                                               i.      Either speak up now or

                                                             ii.      Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or

                                                           iii.      Cause an LOA to be submitted

b.      <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

2.       Introductions

3. Review operating rules for a TIG

“A “topic interest group” (TIG) is a standing committee of the 802.11 working group that is formed to progress a specific topic.

A TIG might be used prior to a formal study group to raise awareness and understanding of a potential study group.

A TIG follows all the rules for a WG11 standing committee.

A TIG is formed by WG motion and dissolved as determined by the WG chair.

A TIG group is formed after discussion during a WG plenary during which the goals of the TIG are identified, and a motion to form the TIG achieves a simple majority.

Typically a TIG will exist for no more than 6 months.”

4. EHT TIG objectives

* Motion that approved the EHT TIG:

“**Approve formation of an XT TIG to initiate discussion on new 802.11 features for bands between 1 and 7.125 GHz:** **with the primary objective to increase peak throughput** **candidate features include but are not limited to: 320 MHz bandwidth, multiband aggregation and operation, and 16 spatial streams, as described in**[**https://mentor.ieee.org/802.11/dcn/18/11-18-0789-10-0wng-extreme-throughput-802-11.pptx**](https://mentor.ieee.org/802.11/dcn/18/11-18-0789-10-0wng-extreme-throughput-802-11.pptx)**.** **To support high throughput applications such as video-over-WLAN, AR and VR”**

* The primary purpose of this group is to try to reach consensus on a motion to approve an EHT Study Group.

5.       Contributions

6. Plan for July (2 sessions) (at least 10 minutes prior to the end of the call)

7. Adjourn

Teleconferences are subject to applicable policies and procedures, see below.

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•       IEEE Code of Ethics

–       <http://www.ieee.org/about/corporate/governance/p7-8.html>

•       IEEE Standards Association (IEEE-SA) Affiliation FAQ

–       <http://standards.ieee.org/faqs/affiliation.html>

•       Antitrust and Competition Policy

–       <http://standards.ieee.org/resources/antitrust-guidelines.pdf>

•       IEEE-SA Patent Policy

–       <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html>

–       [https://development.standards.ieee.org/myproject/Public//mytools/mob/loa.pdf](http://standards.ieee.org/board/pat/pat-slideset.ppt)

–       <http://standards.ieee.org/board/pat/faq.pdf>

–       <http://standards.ieee.org/board/pat/pat-slideset.ppt>

•       IEEE 802 Working Group Policies &Procedures (29 Jul 2016)

–       <http://www.ieee802.org/PNP/approved/IEEE_802_WG_PandP_v19.pdf>

•       IEEE 802 LMSC Chair's Guidelines (Approved 09 Mar 2018)

–       <https://mentor.ieee.org/802-ec/dcn/17/ec-17-0120-26-0PNP-ieee-802-lmsc-chairs-guidelines.pdf>

•       Participation in IEEE 802 Meetings

–       <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

•       IEEE 802.11 WG OM: (Approved 10 Nov 2017)

–       <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>

## Minutes:

1. Dennis Sundman (Ericsson AB) appointed secretary.
2. 49 people on the call (probably many duplicates, people being both on phone and computer). Dennis sends an e-mail to the reflector so that people can register.
   1. Mike goes through the patent policies. No comments.
   2. Attendence:
      * Abhishek Patil (Qualcomm)
      * Alfred Asterjadhi (Qualcomm)
      * Allen D. Heberling (GenXcomm)
      * Artyom Lomayev (Intel)
      * Carol Ansley (ARRIS Enterprises)
      * Dennis Sundman (Ericsson)
      * Edward Au (Huawei)
      * Gaurav Patwardhan (HPE)
      * George Calcev (Huawei)
      * Jeongki Kim (LG Electronics)
      * Joseph Levy (Interdigital)
      * Junghoon Suh (Huawei)
      * Kazuto Yano (ATR)
      * Laurent Cariou (Intel)
      * Lili Hervieu (CableLabs)
      * Lisa Ward (Rhode and Schwarz)
      * Mark Rison (Samsung)
      * Massinissa Lalam (Sagemcom)
      * Matthew Fischer (Broadcom)
      * Michael Montemurro (Blackberry)
      * Ron Porat (Broadcom)
      * Rui Yang (InterDigital)
      * Sang Kim (LG Electronics)
      * Sigurd Schelstraete (Quantenna)
      * Stephan Sand (German Aerospace Center (DLR))
      * Stephane Baron (Canon)
      * William Carney (Sony)
      * Yasuhiko Inoue (NTT)
      * Youhan Kim (Qualcomm)
      * Yujin Noh (Newracom)
      * Yusuke Tanaka (Sony)
3. Michael Montemurro (Mike) is with Blackberry and appointed chair for this TIG.
4. Mike goes through the rules for a TIG as per the agenda points. We will try to wrap the TIG up in July.  
   - Q: (Mark Rison, Samsung) What do we need to achieve in July to close the TIG in July.  
   - A: (Mike) This brings us immediately to the next point.
5. We need to reach a consensus on a motion to approve an EHT study group (SG).  
   - Q: (Quantenna) What kind of submissions are appropriate at this point?  
   - A: (Mike) Anything that might help us define the scope. What types of things we want to consider when we start operating as a SG.  
   **Discussion:**  
   - (Laurent Cariou, Intel) I think we should operate this TIG as if it was a SG. I have a contribution on how precise we can make the scope.  
   - (Sigurd Schelstraete, Quantenna) The idea is to narrow the scope to implement this more agile ways of working to speed up the process of a new technology.  
   - (Mike) Is there any suggestion how this TIG should operate to reach consensus?  
   - (Allen Heberling, GenXcomm) There is a template from the VLC and FD groups. Should we use that?  
   - (Mike) Each TIG is formed for a different purpose. Our TIG is formed to reach consensus of what a SG should do.  
   - (Allen Heberling, GenXcomm) It would probably be helpful to have some document to follow. Once it is down on paper, we have a reference point we can start agreeing/disagreeing.  
   - (Edward Au, Huawei) Different TIGs have different purposes. For this TIG, I think the deliverable is should be a study group motion rather than a report/document.  
   - (Mike) We want to develop a motion text to the SG. Get an idea of how the PAR is. The document can’t be huge.  
   - (Laurent Cariou, Intel) We should try to operate as if we were in a SG. We should take a stab at initiating the PAR text and CSD. The motion should be a formality we need to do.  
   - (Allen Heberling, GenXcomm) State the technical focus we drive towards. Doesn’t need to be a long document.
6. **Presentations.**
   1. (Laurent Cariou, Intel) Presents document:  
      802.11-18/1088r0: Extremely High Throughput (EHT) 802.11 study group creation  
      - (Mike) Comments or questions.  
      - (Mark Rison, Samsung) I thought you were going to present more?  
      - (Laurent Cariou, Intel) There will obviously be more at the July meeting, but at this stage we only have a 1 hour meeting.  
      - (Mike) Do we have agreement on the 1 GHz to 7.125 GHz operating range? No comments.  
      - (Junghoon, Huawei) I have problem with the peak throughput. Is it system or point-to-point peak throughput? Some features are not targeted to the point-to-point.  
      - (Laurent Cariou, Intel) This is probably a discussion for the PAR. We don’t have to detail everything for the motion.  
      - (Joseph Levy, InterDigital) The same question again, is it point-to-point peak throughput or from the perspective from the AP?  
      - (Mark) Would there be anyone willing to put a presentation/slide to lead the discussion of the definition of peak throughput?  
      - (Laurent Cariou, Intel) I can assemble something for this.  
      - (Ron Porat, Broadcom) The system is limited by the backhaul. Therefore maybe we should talk about practical limitations on the system throughput because of the backhaul.  
      - (Laurent Cariou, Intel) We don’t work with the backhaul, so probably that would not fit here.  
      - (Ron Porat, Broadcom) Peak throughput is not relevant in reality.  
      - (Laurent Cariou, Intel) It is really the average throughput which is the reality.  
      - (Joseph Levy, Interdigital) I disagree with the backhaul limitation.  
      - (Joseph Levy, Interdigital) Will latency be discussed?  
      - (Laurent Cariou, Intel) There will probably be some discussion on this.  
      - (Joseph Levy, Interdigital) The latency goes down when the peak throughput goes up.  
      - (Mike) What would go into the motion to form a SG versus what do we really need to discuss in the SG?  
      - (Rui Yang, InterDigital) We should really clarify use-cases. Once we have agreed on the use-cases we can discuss the requirements to reach the use-cases.  
      - (Mike) Good point. We have 1 minute left. I sum up.
7. (Mike) We have 2 sessions in July. Objective is to discuss this to the point we reach consensus on what the motion should be. I would like to see volunteers on presentations.
8. (Mike) Thank you all for joining.