IEEE P802.11  
Wireless LANs

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| IEEE 802.11 TGax, MAC Ad hoc  March 2015 Berlin TGax MAC Ad hoc Meeting Minutes | | | | |
| Date: 2015-03-10 | | | | |
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Abstract

TGax, MAC Ad Hoc meeting minutes from the IEEE 802.11 Berlin session, March 9th – 13th, 2015.

**IEEE 802.11 Task Group ax, MAC Ad hoc**

**March 2015 Berlin Meeting**

**Estrel Hotel, Berlin, Germany**

**January 12th – 16th, 2015**

**Tuesday, March 10th, 2015, AM2 TGax Session (10:30-12:30)**

1. **The meeting called to order by Brian Hart (Cisco Systems), the co-chair of the TGax MAC Ad hoc**
   1. About 70 people are in the room.
2. **Announcement**
   1. Agenda Doc.11-15/392 on the server. Rev. 0 is the working document.
   2. Meeting Protocol: The Chair asked to state name and affiliation when speaking for the first time.
   3. Attendance reminder.
      1. The attendance server: https://imat.ieee.org/
3. **The chair reviewed the mandatory 5 slides of P&P.**
   1. Instructions from the WG Chair. [reviewed~~, did not review~~]
   2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
   3. Patent Related Links. [reviewed, ~~did not review~~]
   4. Call for potentially essential patents.
      1. Chair asked if anyone is aware of potentially essential patents

[Asked. ~~Did not ask~~]

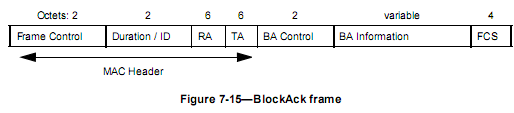
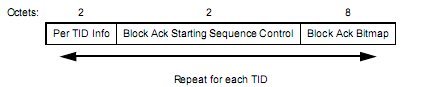
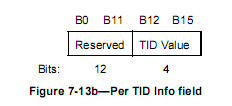
* + 1. Potentially essential patents

[None reported. ~~Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.

1. **The Chair called for presentations**
   1. The Chair was asked to add the following contributions to agenda:15/376, 15/365, 15/331
   2. The Chair updated the agenda with above contribution items
2. **The Chair asked for approval of the agenda**
   1. No objection raised
3. **Presentation of contributions**
   1. “GCR-BA Performance with Measurement Report in OBSS”
      1. 15/320r1, Yusuke Tanaka (Sony)
   2. “MAC Overhead Analysis of MU Transmissions”
      1. 15/336r1 Xiaofei Wang (Interdigital)
   3. “Multi-STA Acknowledgment”
      1. 15/366r2, Simone Merlin (Qualcomm)
      2. Strawpoll 1 in slide 15
         1. “X.y.z The spec shall define a multi-STA BA frame by using the Multi-TID BlockAck frame format with the following changes:

* Add an indication that the frame is a multi-STA BA (TBD)
* Each BA Information field can be addressed to different STAs
* B0-B10 of the Per TID Info field carry a (Partial) AID identifying the intended receiver of the BA Information field”



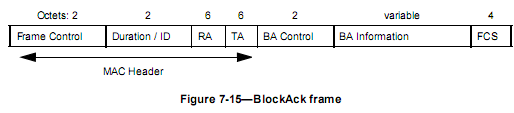
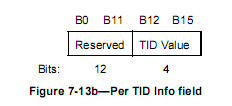
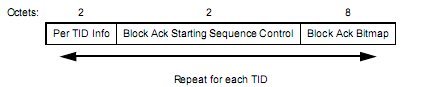
B0-B10= AID



* + - 1. Vote: Y/N/A=48/0/16
    1. Strawpoll 2 in slide 16
       1. “Do you agree to add the following to the SFD:

The spec shall define a signaling in the Multi-STA BA frame that can indicate an ACK, as follows:

* If B11 in the per-TID info field is set, then the BlockAck bitmap and the SC subfields in the BA Info field are not present and this BA Info field indicates an ACK for the STA with AID indicated in the per-TID info field
* Instruction to the Editor: replace the Multi-STA BA figure from straw poll 1 with the following”



B0-B10= AID

B11= ACK/BA

* + - 1. Vote: Y/N/A=43/0/16
  1. “Beacon Transmission Issues”
     1. 15/362r0, Yonggang Fang (ZTE)
  2. “UL MU MAC Throughput under Non-Full Buffer Traffic”
     1. 15/376r2, Tatsumi Uwai (Radrix Co. Ltd)
     2. Strawpoll in slide 15
        1. “Do you agree to add to the TGax Specification Framework:

x.y.z The amendment shall define a mechanism for both AP and non-AP STA to initiate a UL MU transmission.”

* + - 1. The strawpoll deferred to the TG due to time limit and due to several contributions being on the same topic.
  1. “UL MU Procedure”
     1. 15/365r0, Kiseon Ryu (LGE)
     2. Strawpoll in slide 15
        1. “Do you agree to add to the spec framework?

The spec shall define the following mode of operation: An UL MU PPDU (MU-MIMO or OFDMA) is sent as an immediate response (IFS TBD) to a Trigger frame (format TBD) sent by the AP.”

* + - 1. The strawpoll deferred to the TG due to time limit and due to several contributions being on the same topic.
  1. “Uplink Multi-user MIMO Design”
     1. 15/331r0, Yongho Seok (Newracom)
     2. Strawpoll in slide 11
        1. “Do you agree to add the TGax Specification Framework:

4.x Uplink Multi-user (MU) MIMO frame exchange sequence

* HE AP transmits a trigger frame (the detailed frame format is TBD) to initiate one or more uplink MU-MIMO PPDUs transmission.
* One or more uplink MU-MIMO PPDUs are transmitted after a SIFS once receiving the trigger frame”
  + - 1. The strawpoll deferred to the TG due to time limit and due to several contributions being on the same topic.

1. The Chair announced the end of the MAC ad hoc session.