IEEE P802.11  
Wireless LANs

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| Wireless Next Generation (WNG) Standing Committee Meeting Minutes for November-2020 Electronical Meeting | | | | |
| Date: 11-02-2020 | | | | |
| Author(s): | | | | |
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Abstract

Meeting Minutes for the WNG SC meeting held electronically, on November 2nd, 2020.

**WNG Session: November 2nd, 2020, 11:15AM to 12:10PM ET**

Chair: Jim Lansford (Qualcomm)

Vice Chair & Secretary: Lei Wang (Futurewei)

**Meeting Agenda:**

The meeting agenda is shown below, and also published in the agenda document:

<https://mentor.ieee.org/802.11/dcn/20/11-20-1721-00-0wng-agenda-for-wng-sc-2020-november.pptx>

* Call Meeting to Order
* Agenda approval
* Attendance reminder
* Documentation reminder
* Announcements
* Approval of Previous meeting minutes
  + Minutes from July WNG Meeting
    - <https://mentor.ieee.org/802.11/dcn/20/11-20-1075-00-0wng-wng-meeting-minutes-2020-july-electronic-meeting.docx>
* Presentations
  + Monday 2 November 2020, 11:15 – 13:15 EDT
* Plans for January 2021
* Adjournment

**Meeting Minutes:**

* Chair called the meeting to order at 11:15am ET on Monday, November 2nd, 2020.
* Chair reminded the group to record the attendance of this meeting by using the IEEE Attendance Tool. The link to the attendance tool is also provided in the chat window of the electronical meeting.
* Agenda approval:

<https://mentor.ieee.org/802.11/dcn/20/11-20-1721-00-0wng-agenda-for-wng-sc-2020-november.pptx>

* The agenda was approved by unanimous consent
* Chair also noted the affiliation FAQ, anti-trust FAQ, ethics code, IEEE 802.11 policies and procedures, and IEEE 802 policies and procedures
* Chair covered the voting rules for WNG SC, being a standing committee
* Approval of previous meeting minutes
  + Minutes from 2020-July WNG Electronical Meeting

<https://mentor.ieee.org/802.11/dcn/20/11-20-1075-00-0wng-wng-meeting-minutes-2020-july-electronic-meeting.docx>

* + The 2020-July WNG SC meeting minutes was approved by unanimous consent
* Approximately 292 people attended the WNG Session electronically.
* Presentation: “EHT via Reconfigurable Surfaces”, Salah Eddine Zegrar (VESTEL, IMU)

<https://mentor.ieee.org/802.11/dcn/20/11-20-1720-01-0wng-eht-via-reconfigurable-surfaces.pptx>

* + Notes: The contribution 20/1720r0 was presented at the WNG meeting, without document number specified in the header of the pages. It has been fixed after the presentation and uploaded as 20/1720r1 as shown in the link above.
  + Summary of Discussion
    - Discussed the mechanism used to control the Surfaces; clarified that the AP is linked to the Surfaces through backhaul link and also assume that the channel information is known to AP. The channel from the Surfaces to the target STA will be estimated regularly, while the channel from the AP to the Surfaces is fixed.
    - Questioned if any comparison study has been done regarding throughput gains between MIMO and this proposal. The presenter indicated that the gain is big and will include such comparison results next time. In addition, clarified that this proposal is targeted for high frequency bands, such as mmWave bands for 802.11ay, while it also works for sub-6Ghz bands.
    - Discussed the 2nd bullet on slide 8 regarding time-varying channels, clarified that it is needed to track the channel variation in time at beginning, assuming quasi-stationary channel in a limited time.
    - Discussed the sizes of Surfaces: relatively small for high frequency bands, e.g., 50cm by 50cm, but relatively large for low frequency bands, e.g., 1m by 1m, or 2m by 2m.
    - Clarified that the Surface is not a relay; not completely passive, although relatively passive; AP knows the presence of the Surface; and the most important feature is reconfigurable, having the ability to reflect the environment.
    - Had a discussion on comparison between Relay and Surface: delay in store-&-forward type of Relay, power consumption, and frequency bands.
    - Questioned that how this proposal works in indoor dense multiple APs deployments with lots of interference. Clarified that the Surface proposal does not need multiple APs, trying to eliminate the need of Multi-APs.
    - Commented that the basic idea of Surface is not new, which has been studied for a while. The key point of this proposal is reconfigurable, then seems an implementation issue, not a standard issue. Suggested to conduct a gap analysis to identify what can be done in current 802.11ad/11ay standards and what needs to be introduced to the standards to support this proposal.
    - Commented on the numbers of phase elements needed on the Surface: for mmWave 0.5m by 0.5m Surface, thousands or tens of thousands of phase elements are needed to be configured and controlled.
* Plans for January 2021:
  + Call for contributions: WNG chair will issue a call for contributions before January 2021.
* Any other business: none
* Adjourned at 12:10pm ET.