IEEE P802.11  
Wireless LANs

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| ARC SC Mixed Mode Minutes March 2024 – Plenary | | | | |
| Date: 2024-03-14 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 ARC SC mixed mode meeting held on 14 March 2024 08:00-10:00 h MDT and 14 March 2024 13:30-15:30 h MDT.

Note: Highlighted text are action items. A- precedes comments from the document’s author, C- precedes comments, R- precedes responses to comments.

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# Thursday 14 March 2024 at 8:00-10:00 MDT

## Administration:

**Chair: Mark Hamilton, Ruckus/CommScope**

**Vice Chair: Joseph Levy, InterDigital**

**Secretary: Joseph Levy, InterDigital**

**Meeting called to order by the Chair at 8:03 MDT**

Agenda slide deck: [11-24/0263r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0263-01-0arc-arc-sc-agenda-mar-2024.pptx)

Agenda Slides 4-15:

Registration Reminder

Reminders to Attendees

Call for Patents:

The Chair reviewed the Patent policy and called for potentially essential patents – there was no response to the call.

IEEE SA Copyright Policy:

The chair reviewed the Copyright policy.

Participation:

The chair reviewed the participation policy.

## Approval of the Agenda (Slides 16)

* Two meeting slots this week, Thurs AM1 and Thurs PM1
  + Note: Wednesday AM1 is coincident with 802REVc, for the duration of their meeting
* Attendance, noises/recording, meeting protocol reminders
* Policies, duty to inform, participation rules
* Approve meeting minutes (slide 18)
* Contribution/discussion topics:
  + IEEE Std 802 project (slides 19-20)
  + Annex G way forward (slide 21)
  + WBA liaison on QoS, and L4S (slide 22)
* Next steps (slide 24)

The Chair reviewed the agenda and called for comments and additions.

Approved by unanimous consent.

The chair reviewed slide 17.

## Approval meeting minutes

Motion to approve the minutes of:

**Jan plenary:** [11-24/0024r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0024-00-0arc-arc-sc-mixed-mode-minutes-january-2024-interim.docx)

Discussion none. Some typos were found and will be corrected in r1.

Result: UC

## IEEE Std 802 project (slide 19)

The Chair reviewed status summarized on slide19 of the agenda deck.

The comments received on the current draft have all been resolved.

Plan is to have 1 or 2 more WG recirculation ballots and start SA Balloting in May 2024.

Other ARC Work (slide 20)

The Chair reviewed the topics on slide 20 of the agenda deck.

Highlighting future work to review/align of 802.11 to the updates being made to IEEE Spec 802, and IEEE 802.1 Specs.

A request to review the IEEE Std 802 changes/new text:

Review of the new IEEE Std 802 clause 9 text.

1-24-0010-02-Mntg-epd-lpd-proposed – was largely adopted.

Discussion on fitting into 802.1AC –

A question was raised about the Portal Concept – Reviewed 802.11me D5.0 – 4.3.7 – Figure 4-18 and then Figure 4-15 – for reference of a potential “style” change.

A long discussion on MLO and how it handles group traffic and sequence numbers – the MLD upper MAC handles the sequence numbers and then hands-off to the affiliated AP. The concepts that have led to implementations and the logical descriptions. Group traffic is sent to non-MLO STAs, and non-AP MLDs – MSDUs coming from the DS – may need to be sent to various non-MLO STAs and non-AP MLDs, the AP MLD is responsible properly transmitting these MSDUs.

C- Would an affiliated AP have to use the upper MAC to handle security?

R- A brief description of how packets flow over an AP MLD and it’s affiliated APs for legacy individually addressed traffic, group addressed traffic, and MLO individually addressed traffic was provided.

## Annex G way forward (slide 21)

An overview a possible way forward to describe “frame exchange sequence” and the types of “protection” of these exchanges. The goal is to provide a consistent view of what frame exchange sequences are and how they work, to be described in Annex G.

C- on portals – should how frame exchange sequences interact the portals be considered.

Some agreement that Annex G should be limited to frame exchange sequences.

C – A proposal was made to look at .15 for some insight as to how to describe frame exchange sequences.

Chair – This has been a helpful discussion – I am seeing potentially 3 annexes – 1) on frame exchange sequences (and channel access) – 2) the old Annex G information, an index of how frames inter-relate to each other and sequences of frames. A road map of basic frame exchanges (sequences). 3) Annex on MLO implementation that includes how individual addressed and group addressed frames are delt with.

C – Provided an overview of what has been done so far regarding frame exchanges and frame exchange sequences. While it would be great to have a complete list in the annex, maintenance of the list has proven not to be sustainable.

C – The concept of media has changes as there are now multiple APs with beam forming, so now there is a multiple number of media. Therefore, the management of the media and how the sequences work in this environment is complex.

C – Regarding the media it’s not the third party that is of concern, but the two parties who are exchanging the frames need to adhere to this concept.

C – Some of the more recent clauses have introduced aggregated MSDU transmission, which force multiple non-AP STAs to be involved is the same exchange, with responsibility to provide individual replies (ACKs). This impacts the concept of frame exchange sequences. TXOP behavior/function also should be addressed and may have many complex interactions. Support for a top down view was voiced.

C – Additional support view that a frame exchange sequence is between a pair of STAs having the exchange.

R – Agreeing, but the normative text is not clear on this.

Chair – Harry Bims needs help to get this work done. Contributions are requested to move this work forward.

## Next steps (slide 24)

Ongoing work:

* Monitor results of IEEE P802REVc recirculation ballot(s)
* Annex G replacement phase 2, continued
* WBA E2E QoS coordination, continued
* Monitoring/future activities, or other relevant topics, if any contributions

Teleconferences – None expected. If needed, will schedule with 10-days notice.

Two meeting slots requested in May

Cancel PM1 today.

## Adjourned 10:00 h MDT

Final Agenda: [11-24/0263r4](https://mentor.ieee.org/802.11/dcn/24/11-24-0263-04-0arc-arc-sc-agenda-mar-2024.pptx)

Closing Report: [11-24/0616r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0616-00-0arc-arc-closing-report-march-2024.pptx)