IEEE P802.11  
Wireless LANs

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| ARC SC Teleconferences Minutes March 2022 - Plenary | | | | |
| Date: 2022-03-07 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 ARC SC teleconferences held on 7 March 13:30-15:30 h ET.

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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# Monday 7 March 2022 at 13:30-15:30 h ET

## Administration:

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

**Vice Chair: Joseph Levy, InterDigital**

**Secretary: Joseph Levy, InterDigital**

**Meeting called to order by the Chair 13:30 ET**

Agenda slide deck: [11-21/1994r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1994-01-0arc-arc-sc-agenda-jan-2022.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**

**7 March 2022, 13:30 ET:**

* **Reminder: 2 meetings this week: Monday 13:30 ET, Wednesday 11:15 ET**
* **Attendance, noises/recording, meeting protocol reminders**
* **Policies, duty to inform, participation rules**
* **Prior meeting minutes - defer**
* **Contribution/discussion topics:**
  + Clause 6
  + IEEE Std 802 project(s) update/discussion

**9 March 2022, 11:15 ET:**

* **Attendance, noises/recording, meeting protocol reminders**
* **Policies, duty to inform, participation rules**
* **Contribution/discussion topics:**
  + IEEE Std 802 project(s) update/discussion
  + Annex G way forward
  + Clause 6
  + TGbe informative annex (in particular MLO, ML architecture)
  + Other topics?
* **Next steps**

The Chair reviewed the agenda, removed the items with no contributions as above and called for comments or amendments to the agenda.

None were forthcoming.

Approved by unanimous consent.

## Clause 6

[11-22/413r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0413-00-0arc-clause-6-proposal.docx) – Graham Smith presented the document.

C- These figures are not clear to me – should they be updated, “fixed”

A – have at it.

C – Some of the figure styles are from (ITU-T X.210). The figure 3 style, where does this happen?

A – in the neighborhood report.

Discussion on associate.

C - If there is a malformed request, then there is an error and the confirm is sent back with the error code, otherwise the confirm is sent when association is completed or if there is a timeout case. We may have to sort these out.

Discussion on the TDLS direct link establishment

C - This looks confusing.

C – This is confusing – the indication seems to be wrong. This is 3 frame exchange (three model 1 type exchanges). The figure is kind of messy and there are 3 different primitives used to define the exchange. (type 4 exchanges).

Also, there are errors in the figure (6-7) – typo DLSSETUP instead of TDLSSETUP. The figure is wrong in its use of .indication, the text says it should be .confirm.

Case type 4) is shown in Figure 6-8.

The object is to eliminate these figures by making the behavior obvious.

C – These diagrams were added in response to comments in a ballot. The commentor demanded some of these diagrams, so they were added.

A – It is clearly described in the text. If I can get the general description correct, then we can simply refer to the specification text that clearly define the behavior. It is only what the MAC doesn’t know – that needs to be supplied by these primitives. If we keep my short list and get rid of the other 400 pages, with a general description and the existing specification outside of clause 6.

Figure 6-3 is the type 3 figure.

C – A general question: The SME and the MLME are across an internal interface in the device, is there an interface to the outside? Is there an interface between these two devices?

R – It would have to be over the air – or via a wire.

R – The SME – is out of scope we don’t talk about how it works. The MLME is defined to some degree. All of these things work together to manage the device in a non-specified way.

A – The SME is not specified – it is vaguely described.

A - My next step is to work through these figures and the text and see how essential these figures are. Maybe these figures may fit in the general form and therefore could be eliminated, if a general form can be described/defined.

**Way forward discussion:**

Chair – Support for the approach: “MLME-SAP primitives of type 1 and 3 are detailed in this clause only when they do not directly correspond to frame exchanges described in “Clause 9” or Clause 11 (note some might be elsewhere), or where the primitive parameters significantly differ significantly from the fields in the respective Request and Response Action frames.”

This is good stuff and should be continued.

Work to be done:

1. Review some of the additional “interesting cases” – that may require a diagram – but if they are well described in the text – diagrams may not be necessary.
2. There is a type that only has a request, is this correct? (SETPROTECTION)
3. All cases need additional review, so that a detailed proposal can be made.

A – Requesting help from anyone one who is interested.

Chair called for additional comments on this topic. None.

## IEEE Std 802 project(s) update/discussion

Update – on status – link to the Technical Plenary was supplied - <https://1.ieee802.org/2022-03-technical-plenary-agenda/>.

The ARC SC/802.11 are waiting for the deeper technical work to start before ARC reviews the technical material.

C – The PAR scope for the “Amendment PAR” may be of interest to 802.11 and the ARC SC, as the PAR scope will set what changes could be done to IEEE Std 802 and it may be in 802.11 and the ARC SC’s interest to help define the PAR scope. The current proposed PAR scope can be found in The ELLA Report: <https://mentor.ieee.org/802.1/documents?is_group=ICne&is_year=2021&is_dcn=0080>.

From R4 (black text existing PAR text, ~~red~~ deleted existing PAR text, light blue proposed PAR text:

**Amendment PAR text:**

**Scope of Standard:** Compared to IEEE Std 802 revision PAR (draft):

~~“This standard contains descriptions of the IEEE 802(R) standards published by the IEEE for frame-based data networks as well as a reference model (RM) for protocol standards. A specification for the identification of public, private, and standard protocols is included.~~

This standard describes the IEEE 802® family of networking standards and specifies [or describes] the IEEE 802 architecture, including the IEEE 802 link layer service provided to the network layer along with details of addressing and protocol identification.”

**Scope of Project:**

“This project specifies [or describes] the IEEE 802 architecture, including the IEEE 802 link layer service provided to upper layers and the architecture of the logical link sublayer. “

**Purpose:** Compared to IEEE Std 802-2014:

“This standard serves as the foundation for the family of IEEE 802 standards ~~published by IEEE for local area networks (LANs), metropolitan area networks (MANs), personal area networks (PANs), regional area networks (RANs), etc.~~ by providing a common IEEE 802 link layer service supporting compatibility of underlying networks.”

**Need:**

“The project fulfils the need for a unified view of the service provided to upper layer protocols at the interface to the IEEE 802 network, independent of the specific medium access method, and serves as a basis for enhanced capabilities of that service.”

Additional PAR text provided in the referenced document, not provided here.

## TGbe informative annex

C – This work is TGbe work, so unless or until the TGbe Chair asks for ARCs support or involvement, contributions on this topic should be made in TGbe or via comments to an 802.11be comment collection or letter ballot.

Completed the agenda for today.

## Discussion on the Wednesday meeting

Chair – We need to approve the minutes and teleconferences. Also, we should see anything else shows up.

C – Can’t we approve the minutes now?

Chair - Any objection to proceed with approving the minutes? None.

## Approval of Minutes

**Approval of Minutes (slide 19)**

Move to approve the minutes of:

Jan interim: [11-22/0092r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0092-00-0arc-arc-sc-teleconferences-minutes-january-2022-interim.docx)

Feb telecons:

* + Feb 24 [11-22/0385r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0385-00-0arc-arc-sc-teleconferences-minutes-24-feb-2022.docx)

Moved: Graham Smith

Second: Mark Emmelmann

Approved by unanimous consent.

## Next steps

Chair – Any desire to meet on Wednesday?

None.

Chair – Any objection to canceling Wednesday?

None.

## Adjourned: 14:48 h EDT

Final Agenda: [11-22/0261r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0261-02-0arc-arc-sc-agenda-mar-2022.pptx)

Closing Report: [11-22/0497r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0497-00-0arc-arc-closing-report-mar-2022.pptx)