IEEE P802.11  
Wireless LANs

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| ARC SC 18 December and 8 January Teleconference Minutes | | | | |
| Date: 2024-12-18 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 ARC SC held on 18 December 13:00-15:00 h ET and 8 January 13:00-15:00 h ET.

Note: Highlighted Yellow 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 18 December 13:00-15:00 h ET

## Administration:

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

**Vice Chair: Joseph Levy, InterDigital**

**Secretary: Joseph Levy, InterDigital**

**Meeting called to order by the Chair 13:04 h ET**

Agenda slide deck: [11-23/2198r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2198-00-0arc-arc-sc-agenda-december-18-2023.pptx)

**Agenda Slides 4-14:**

**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 15)**

* **Attendance, noises/recording, meeting protocol reminders**
* **Policies, duty to inform, participation rules**
* **December/January plan reminder:**
  + **Teleconferences on December 18 and January 8, to consider letter ballot on REV802**
    - [**11-23/2199r0**](https://mentor.ieee.org/802.11/dcn/23/11-23-2199-00-0arc-epd-and-lpd-concepts.pptx)– “EPD and LPD concepts”
  + **Annex G and WBA liaison discussions to resume at January interim**
  + **Note: New ARC topic is proposed, to discuss definition of non-infrastructure BSS. May consider on January 8, if there is time, otherwise, at Jan F2F session. (If there is time, any interest in starting this discussion today?)**

* + **[11-23/2207r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2207-00-0arc-channel-usage-clarity.docx)**

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

Discussion an [**11-23/2207r0**](https://mentor.ieee.org/802.11/dcn/23/11-23-2207-00-0arc-channel-usage-clarity.docx) – Brian Heart – will lead with this. To provide an introduction to the issue.

Agenda approved by consent.

The Chair reviewed slide 16.

**11-23/2207r0**

Brian Heart presented [**11-23/2207r0**](https://mentor.ieee.org/802.11/dcn/23/11-23-2207-00-0arc-channel-usage-clarity.docx), providing an overview. The document is looking to improve the definition and use of the term: “noninfrastructure BSS”. There are locations (2) where it is used correctly, but it is used elsewhere and in the other location it is not clear what type of BSS is being described. In these other locations the suggestion is to replace the term with “Stable BSS”

C – There are two concepts: 1) the “stable” nature and 2) the coordination between non-mobile APs and retail APs

A – It’s not impossible that the APs coordinate, but it is unlikely.

A – I am proposing two new definitions to increase the clarity of the specification, and also the 4 items proposed in the contribution.

Discussion was also had regarding clause 9.4.2.84 – channel usage.

## Considerations on the 802REVc letter ballot

Reviewed comment resolutions – spent some time discussing TSN, text and how 802.11 can work with it.

5.3.2.6 – TSN – was also reviewed. Some discussion on bounded and noting that 802.11 may have problems meeting a bounded limit.

## EPD and LPD concepts

[11-23/2199r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2199-00-0arc-epd-and-lpd-concepts.pptx) – presented by Mark Hamilton

Maybe the way to avoid the conflict is to remove the use of EPD or LPD in the specifications – a critical sentence is in 802REVc: “New IEEE 802 standards shall support protocol discrimination in the LLC sublayer using EPD. IEEE 802 standards should support protocol discrimination in the LLC sublayer using LPD.”

5.2.2 LLC sublayer clause – p32.24 (34.4 in the redline).

## Adjourned: 15:00 h ET

Final Agenda: [11-23/2198r2](https://mentor.ieee.org/802.11/dcn/23/11-23-2198-02-0arc-arc-sc-agenda-december-18-2023.pptx)

# Monday 8 January 13:00-15:00 h ET

## Administration:

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

**Vice Chair: Joseph Levy, InterDigital**

**Secretary: Joseph Levy, InterDigital**

**Meeting called to order by the Chair 13:05 h ET**

Agenda slide deck: [11-24/0023r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0023-00-0arc-arc-sc-agenda-january-8-2024.pptx)

**Agenda Slides 4-14:**

**Attendance 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 15)**

* **Attendance, noises/recording, meeting protocol reminders**
* **Policies, duty to inform, participation rules**
* **December/January plan reminder:**
  + **Teleconferences on December 18 and January 8, to consider letter ballot on REV802**
* **REV802c updates – 802.11’s comment collection on D1.2**
* **New ARC topic is proposed (**[**11-23/2207r2**](https://mentor.ieee.org/802.11/dcn/23/11-23-2207-02-0arc-channel-usage-clarity.docx)**), to discuss definition of non-infrastructure BSS - ? minutes**
  + **Introduced briefly on Dec 18, may consider further on January 8, if there is time/interest, otherwise, at Jan F2F session.**
  + **Two topics: Definition of non-infrastructure BSS; scope of Channel Usage**
* **Annex G and WBA liaison discussions to resume at January interim**

**Agenda today:**

* + **Draft:** [**https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/P802-REVc-d1.2.pdf**](https://www.ieee802.org/1/files/private/802-REVc-drafts/d1/P802-REVc-d1.2.pdf)
  + **Review comments from CC46 (802.11 comment collection on the draft)**
  + **Note the EPD/LPD discussion – a contribution is being worked, off-line**

The Chair reviewed the agenda, corrected the date typo, and called for comments and additions.

Rearranged the order to move 802REVc first – as the author of [**11-23/2207r2**](https://mentor.ieee.org/802.11/dcn/23/11-23-2207-02-0arc-channel-usage-clarity.docx)was not present in the meeting.

Agenda approved by consent.

The Chair reviewed slide 16.

## Considerations on the 802REVc letter ballot

Review of [11-24/0036r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0036-00-0arc-hamilton-comments-on-cc46.xls) – Mark Hamilton’s comments of 802REVc.

A long discussion was had on “bridge”, bridgeable, and “bridgeable IEEE 802 network.

There was some consensus on considering removing the term “bridgeable IEEE 802”. Potentially, changing it to be simply “bridgeable”. Work to ensure the language is clear with this change needs to be done – there needs to be a precise definition.

Possible way forward: on page 35 5.3.2.1 – make first sentence a stand-alone paragraph. While removing IEEE 802 from the following 2 sentences.

Some discussion on 6.1 – EtherTypes, was had. Why just EtherTypes - - this is an LLC requirement –

Proposal to delete “and support the use of EtherTypes for protocol identification at the LLC sublayer.” As this has nothing to do with being bridgeable. There was agreement that is an acceptable way forward.

Additional discussion on the definition of bridgeable:

* removing EtherTypes from this definition seems to help.
* what aspects of bridging are addressed by this spec: any networks, 802.1 bridging, LLC layer?
* Is .15 bridgeable? - 64 bit addresses – we don’t have a specification for this. There are other technologies beside .15 that are not addressed – but the main impact .15 and if .15 bridgeable. The question came up as to what is it that .15 doesn’t do? Is it just bridging to .3? What is missing in the .15 MAC frames.

Discussion of other comments from [11-24/0037r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0037-00-0000-cc46-p802-revc-d1-2-comments.xlsx):

**CID 3** - 35.19 – delete IEEE 802.1Q - there was general agreement, also the deletions proposed in 6.1 39.7 were supported.

**CID 5** – Discussion on if an 802.1Q bridge supporting the use of EtherTypes for protocol identification. It was agreed that the bridge does not use EtherTypes for protocol identification – they use it for bridging – no support for adding the sentence – Suggest just deleting “and support the use of Ethertype …”

**CID 1** - 5.3.3 – This comment proposed resolution should be clarified and cleaned up. Suggest that it should be clear in the last sentence that we are talking about network layer interconnection, reference figure 3 (stack), also “for the IP” -change to “internet protocol (IP)” and also add reference to bibliography for IP.

## EPD and LPD concepts

[**11-24-0035r0**](https://mentor.ieee.org/802.11/dcn/24/11-24-0035-00-0arc-proposed-protocol-identification-updates-to-ieee-std-802.pdf) **–** presented by Roger Marks

A revision of 5.2.2 - removes all discussion about EPD/LPD. This maybe a way to avoid the conflict as to how EPD or LPD is currently used in the specifications. A critical sentence is in 802REVc: “New IEEE 802 standards shall support protocol discrimination in the LLC sublayer using EPD. IEEE 802 standards should support protocol discrimination in the LLC sublayer using LPD.”

5.2.2 LLC sublayer clause – p32.24 (34.4 in the redline).

This document will be discussed on the 802.1 802REVc call on 9 Jan 2024.

## Adjourned: 15:00 h ET

Final Agenda: [11-24/0023r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0023-01-0arc-arc-sc-agenda-january-8-2024.pptx)

# Meeting Attendance:

## Attendance 18 December 2023 Teleconference

(From IMAT)

|  |  |
| --- | --- |
| **Name** | **Affiliation** |
| Fang, Yonggang | MediaTek Inc. |
| Hamilton, Mark | Ruckus/CommScope |
| Hart, Brian | Cisco Systems, Inc. |
| Levy, Joseph | InterDigital, Inc. |
| Li, Weiyi | Spreadtrum Communication USA, Inc |
| Marks, Roger | EthAirNet Associates |
| Petrick, Albert | InterDigital, Inc. |
| Taori, Rakesh | Infineon Technologies |

## Attendance 8 January 2024 Teleconference

(From IMAT)

|  |  |
| --- | --- |
| **Name** | **Affiliation** |
| Hamilton, Mark | Ruckus/CommScope |
| Levy, Joseph | InterDigital, Inc. |
| Li, Weiyi | Spreadtrum Communication USA, Inc |
| Marks, Roger | EthAirNet Associates |
| Rosdahl, Jon | Qualcomm Technologies, Inc. |
| Stacey, Robert | Intel |

**References:**