IEEE P802.11
Wireless LANs

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| ARC SC Meeting Minutes July 2014 |
| Date: 2014-7-15 |
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Abstract

Minutes of the IEEE 802.11 ARC Standing Committee meeting and Joint meetings held on 15, 16, 17 July 2014, in San Diego, California.

**Tuesday 15 July 2014, AM2, 11:00 AM (PDT) Joint 802.11 ARC SC and 802.1AC Meeting**

**Co-Chairs: 802.11 ARC Chair: Mark Hamilton, Spectralink, 802.1AC Chair: Norman Finn, Cisco**

**ARC Vice-Chair/Secretary: Joseph Levy, InterDigital**

**Meeting call to order by Mark Hamilton 11:00 AM, 15 July 2014**

**Agenda – 11-14/0753r2** (<https://mentor.ieee.org/802.11/dcn/14/11-14-0753-02-0arc-arc-sc-agenda-july-2014.ppt>):

* + **802.1AC revision**
		- DS and Portal architecture (and Annex R), with 802.1 (802.1AC and Bridge) concepts: <https://mentor.ieee.org/802.11/dcn/14/11-14-0497-02-0arc-802-11-portal-and-802-1ac-convergence-function.pptx>
	+ Review/Discussion of 802.1AC draft

**Administration:**

The Chair reviewed the Administrative information in slides 6-10 in the Agenda document (11-14/0753r2)

**Call for Patents:**

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

**Approval of the Agenda:**

The proposed Agenda slide 11 of the Agenda document (11-14/0753r2) - partially copied above and below was approved.

**Approved Agenda:**

**Tuesday, July 15, AM2 – Joint 802.11 ARC and 802.1AC meeting**

* + **802.1AC revision**
		- DS and Portal architecture (and Annex R), with 802.1 (802.1AC and Bridge) concepts: <https://mentor.ieee.org/802.11/dcn/14/11-14-0497-02-0arc-802-11-portal-and-802-1ac-convergence-function.pptx>
		- Review/Discussion of 802.1AC draft

**Wednesday, July 16, AM1 – 802.11 ARC**

* **Updates, no action expected:**
	+ 802 O&A sponsor ballot
	+ IEEE 1588 mapping to IEEE 802.11
	+ IETF/802 coordination (RFC 4441, PAWS)
	+ **IETF/802 coordination**
		- CAPWAP 802.11n extensions review
	+ **AP/DS/Portal architecture and 802 concepts**
	+ **Future sessions / SC activities**

**Thursday, July 17, AM1 – Joint: 802.11 ARC, 802.11 TGak, 802.1Qbz, 802.1 IWK meeting.**

* + **Architectural view of 11ak Bridged LAN**

**Mark Hamilton: Presentation of document 11-14/0497r2: 802.11 Portal and 802.1ac Convergence Function**

Presentation – 11-14/0497r2, talking 12.1

Starting on slide 3 –

AP is in quotes – because we are not talking the technical term of AP just a generic box that would commonly be called an AP.

Slide 4 – layering – you talk by sending things down the stack and receive by things coming up the stack – neither 802.11 nor 802.1 have been rigours about this.

Slide 5 – logical blocks – layered properly. .11 has left the DS definition vague on purpose to allow for various implements.

C- Pointing out that the STAs only talk to the APs not to each other.

A - This is generally true – but there are some mechanisms that allow for direct flow.

Q – You made a comment that there is only one PHY in .11?

A – Don’t confuse physical with logical –

C – An AP has a PHY for this purpose

A – The DS integrates the 802.11 stuff to the portal

Slide 6 – this is a simple view of the how the portal works and connections to 802.3 are made.

C - .1 is interested when the bridge in inside the box.

A – 802.11 current talks about multiple portals – no one understands how the DS can route packets when there are multiple portals.

Slide 7 – the DS to portal interface (DS\_SAP) is defined in annex R

C – What is currently in 802.11-2012 – illustrating the issues in clause of R

Slide 8 – this is an 802.1Q bridge relay – this is a valid substantiation of a portal. Also a router would be a valid portal. Anyone can define a DS-SAP. Many people may find it useful to use the ISS – and the MAC service.

Slide 10 – I don’t see a need for a normative SAP –

C – Our other normative specifications, describe the behaviour of the SAP.

A - Conformance is based on behaviour.

Q – This is the same for the SAP or state machine.

A – When you say normative – you have a PIX – conceptually.

C – Not necessarily – there is other normative text beside the PIX.

C – The SAP has a set of parameters, you need to take the parameters and pass them along. This makes normative,

Q – You have interfaces and behaviour – you can only test behaviour as seen by the outside world. If you have a stimulus that moves across a SAP you can test if the stimulus comes out, but you can’t test the SAP.

C – you can’t test the what goes between the blocks – you can only test service primitives -

Based on actions.

Q – We are changing the internals – but we don’t test this directly, we end up with the external test of the PIX.

A – I don’t believe that this step is actual testable.

A – The DS-SAP is defined as the simplest SAP in all of 802 – source address, destination address, data.

C – But this is the part we are trying to normalize things – proposing this as the solution.

C - .11 folks don’t care about SAPs in general, the only ones that do are probably in the room.

Q - What is the action plan?

A – We will take this information into .11 and use this to normalize the definitions. But, it is informative text.

Q - So to get the .1AC revision out. So once we have this done, we should be able to use this.

A – We will update annex R to correct the diagrams.

A – But .1 needs to fix .1Q so that the shorthand of passing things up the stack to communicate is corrected to be down and then up the stack.

**Recessed Tuesday, July 15, AM2 @ 11:30 AM**

**Wednesday, July 16, AM1 802.11 ARC SC**

Chair: Mark Hamilton, SpectraLink

Vice-Chair/Secretary: Joseph Levy, InterDigital

Called to order 8:00 AM

**Administration:**

The Chair reviewed the Administrative information in slides 6-10 in the Agenda document (11-14/0753r2)

**Call for Patents:**

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

**Minutes** –

**May Minutes:** [**https://mentor.ieee.org/802.11/dcn/14/11-14-0749-00-0arc-arc-sc-minutes-may-2014.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0749-00-0arc-arc-sc-minutes-may-2014.docx) **-** approved

**IEEE 1588 mapping to IEEE 802.11**

No new business – there was some 802.1 concerns, but these were settled.

Update: no action expected.

**802 O&A sponsor ballot**

Done

**IETF/802 coordination (RFC 4441, PAWS)**

No update, as there was no new information.

**CAPWAP 802.11n extensions review**

Dorothy Stanley (Aruba Networks) reporting:

Extension for 802.11n and Power/channel Auto configuration: <http://tools.ietf.org/html/draft-ietf-opsawg-capwap-extension-04>

A lot of changes have been made and now the document is ready to review, it has been reviewed Mark and Dorothy went through the document generating comments in the document.

Q – What level is the element at?

A - Between the access controller and the device containing the radio.

Dorothy reviewed the comments in the document.

Comment on number of antennas supported, currently 8, see no need for the restriction, comment modified. Extended discussion on the comments. Many edits provided and the document was updated.

Reviewed and edited the Liaison Response text in 11-14/0913r1.

**Motion as shown on slide 25 of 11-14/0753r3:**

Motion: Approve the Response to the IETF, with comments on CAPWAP Extensions draft, as contained in 11-14/0913r1 and request that it be sent by the IEEE 802.11 WG Chair, and grant the WG Chair editorial license.

Moved: Donald Eastlake

Seconded: Richard Roy

Yes 8/ No 0/ Abstain 1 – Motion Passes

To be motioned in the 802.11 WG Friday closing plenary.

**AP/DS/Portal architecture and 802 concepts**

802.1AC revision (slide 26 11-14/0765r3):

802.1AC D1.0 text review – Chair requested .11 voting members should just vote independently.

The ballot closes – on July 18 (Friday) – from the 802.1 page. As per e-mail sent to the 802.11 WG on June 18 from Adrian Stevens (802.11 WG Chair).

11-14/0497r3: “802.11 Portal and 802.1AC Convergence Function”, this is an update of yesterday’s presentation of 11-14/0497r2.

Long discussion on the slides 7/8 – on SAP interfaces, DS-SAP and it’s interconnection to the AP\* box, 1AC box, and portal. No conclusions will continue discussion in future meetings.

Slide 27, 28 – 11-14/0753r3.

**Future sessions / SC activities**

Slide 29 (11-14/0753r3) topic was introduces – MIB attributes – need to work a Design Pattern for MIB attributes. Basically a design model/use case to clarify the use of the MIB attributes.

CC’s – one likely for Design Patterns and one to progress the SAP interface work/architecture.

**Recessed Wednesday, July 16, 10:03AM.**

**Thursday, July 17, AM1 – Joint meeting 802.11TGak, 802 .11 ARC SC, 802.1Qbz, 802.1 IWK**

Chairs: Donald Eastlake, Huawei (802.11 TGak Chair), Norm Finn, Cisco (802.1Qbz Chair), Mark Hamilton, SpectraLink (802.11 ARC Chair)

Secretary: Joseph Levy, InterDigital (ARC Vice-Chair)

Call to order 8:10AM

IPR and Attendance Recording Reminder:

Donald Eastlake went through the intro slides 11-14/0742r7

Called for IPR – no response

802.1Qbz/802.1AC/802.11ak status:

Norm Finn provided a status of the other work done this week in various meeting and joint meeting:

Donald Eastlake – provided 802.11ak status and technical summary

Q - We aren’t making your our devices non-compliant because we are making them to the earlier specification are we?

A - Clarified we are looking for technical solutions

Norm Finn – provided a status on 802.1Q and 802.1Qbz - showing 802.1Qbz d1.4

Reviewed section 9.4, described the various formats LPD (LLC), EPD (either type)

802.11-2012 Annex P – figure above P.4 needs to change

802.11-14/0562r1 slide 9 reviewed

802.1ac rev d1.0 – figure 12-2 has some errors, figure 12-4,

802.11-14/0562r1 slide 12 reviewed, slide 13 reviewed

C- Should the ISS which is the .group agnostic interface and it is undefined who is to do the translation. We should say the world is EPD.

Donald Eastlake reviewed teleconferencing schedule for 802.11 TGak and 802.1Qbz proposing 28 July, 11 August, and 25 August at the usual time (5pm Easter US time)

No request to move the dates.

**Adjourned Thursday, July 17 @ 9:23 AM**