IEEE P802.11
Wireless LANs

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| ARC SC Meeting Minutes May 2015 |
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Abstract

Minutes of the IEEE 802.11 ARC Standing Committee meeting held on 12th and 13th of May 2015, in Vancouver, Canada. Note: minutes for the joint meeting with TGak minutes held on 14th of March 2015 are not provided in this document.

**Tuesday 12 May 2015, AM2, 8:00 (PDT) ARC SC Meeting**

**Administration: Chair: Mark Hamilton, Spectralink, 802.1AC**

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

**Meeting call to order by Mark Hamilton 10:35 AM, 12 May 2015**

**Proposed Agenda** [11-15-0566-01-0arc-arc-sc-agenda-may-2015.ppt](https://mentor.ieee.org/802.11/dcn/15/11-15-0566-01-0arc-arc-sc-agenda-may-2015.ppt) **, updated during the meeting to r2**

**Tuesday, May 12, AM2**

* **Administrative: Minutes**
* **Updates, no action expected:**
	+ **IEEE 1588 mapping to IEEE 802.11**
	+ **IETF/802 coordination (PAWS, CAPWAP)**
	+ **MIB attributes Design Pattern -** [**11-15/0355r2**](https://mentor.ieee.org/802.11/dcn/15/11-15-0355-02-0arc-mib-truthvalue-usage-patterns.docx)
	+ **Updates to REVmc Figure 5-1, et al -** [**11-15/0540r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0540-00-0arc-updates-to-revmc-5-1-5.docx)

**Wednesday, May 13, AM1**

* + **802.11 as a component in a (larger) system:** [**11-15/0593r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0593-00-0arc-802-11-as-a-component.ppt)
	+ **802.1AC draft review/discussion, as needed**
	+ **AP/DS/Portal architecture and 802 concepts**
		- **DSAF concept, DS\_SAP normative, Annex R updates:** [**11-15/0555r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0555-00-0arc-normative-ds-sap-proposal.docx)
	+ **Future sessions / SC activities**

**Joint session with TGak, Thursday, May 14, AM1**

* + **Architectural view of 11ak Bridged LAN -** [**11-15/0454r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0454-00-0arc-some-more-ds-architecture-concepts.pptx)

**Administration:**

The Chair reviewed the Administrative information in slides 5-9 in the Agenda document (11-15/0566r1)

**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 (11-15/0566r1) - copied above was reviewed, no comments or changes were proposed, the proposed agenda was approved by unanimous consent.

**Administrative: Minutes**

March Minutes:[11-15-0504-00-0arc-arc-sc-meeting-minutes-march-2015.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0504-00-0arc-arc-sc-meeting-minutes-march-2015.docx)

Approved by unanimous consent.

**Updates for: IEEE 1588 mapping to IEEE 802.11 and IETF/802 coordination (PAWS, CAPWAP)**

Noted that work is proceeding on IEEE 1588. A call for information was made and there was no response. ARC will continue to monitor this work.

Regarding IETF/802 coordination there is nothing of concern currently, a call for information was made, and there was no response. ARC will continue to monitor this work.

**MIB attributes Design Pattern**

Introduced on slide 14 of 11-15/0566r1. The following documents were referenced:

* [**11-14-1068-00-0arc-mib-attributes-design-pattern-background.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-1068-00-0arc-mib-attributes-design-pattern-background.docx)
* [**11-14-1281-04-0arc-mib-attributes-analysis.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-1281-04-0arc-mib-attributes-analysis.docx)
* [**11-15-0355-02-0arc-mib-truthvalue-usage-patterns.docx**](https://mentor.ieee.org/802.11/dcn/15/11-15-0355-02-0arc-mib-truthvalue-usage-patterns.docx)

Discussed 11-15-0355r2 MIB patterns:

Question on if <XXX> naming convention is included. Answer was no.

Discussion on the phrase:

DESCRIPTION: "This is a capability variable. Its value is determined by device capabilities. This attribute, when true, indicates that the XXX feature is implemented and operational."

There is no discussion regarding what it means if it is false or not present. –It is proposed this should be clarified.

Also discussing implemented and operational phrasing –

Conclusion: leave implemented and operational and have added a statement as to what false or not present indicates.

Agreed to add to the example to include the current preferred text for a MIB pattern of this type. Added. (See 11-15/0355r3)

Agreed to make similar changes going forward.

Changed the example to be only the better example: dot11GeolocationCapabilityActivated.

No example was agreed.

Discussed the third case – went round and round and reached no agreement on the names to be used.

Moved on to discuss/review REVmc Clause 5 in document 11-15/0540r00.

**Wednesday, May 13, AM1 (note Agenda reordered to accommodate presenter availability)**

* + **AP/DS/Portal architecture and 802 concepts**
		- **DSAF concept, DS\_SAP normative, Annex R updates:** [**11-15/0555r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0555-00-0arc-normative-ds-sap-proposal.docx)
	+ **802.11 as a component in a (larger) system:** [**11-15/0593r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0593-00-0arc-802-11-as-a-component.ppt)
	+ **802.1AC draft review/discussion, as needed**
	+ **Future sessions / SC activities**

**Normative DS SAP proposal**

Discussed [11-15-0555-00-0arc-normative-ds-sap-proposal.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0555-00-0arc-normative-ds-sap-proposal.docx).

Comments:

1. With this as a new main clause (after clause 6), there are four similar (“SAP or SAP-like”) clauses in a row in the Standard.  After discussion, agreed on this.
2. In the proposed new drawing for Figure R-1 (which will be renamed when it moves), make the bold outline lines darker.
3. Try adding a horizontal line, or a line with vertical ends, or maybe shading/texture, to the DS box.  Something to make it more obvious that it is one continuous box.  After discussion, decided maybe consider a different shape – a “cloud” perhaps?

With the above considerations, approved sending this document to TGmc for their consideration for incorporation into REVmc.

**MIB Attributes Design Pattern (cont.)**

Discussion and agreement/suggestions as follows:

1. Collapse the two “Dynamically operational” patterns into one.  Simply describe that it might be externally activated or not, and list the format differences for each.
2. Use the name “Activated” for this merged set.  That is, all dynamic attributes will be named “<XXX>Activated” and don’t use “Enabled”.  This was a suggestion, not really completely agreed, yet.
3. Editorial changes suggested.  Mark captured these, and will post an updated version.
4. Continue adding examples.
5. Realized that “status” attributes are completely missing.  Mark will take a stab at adding those.

Will bring this back in July for another review.

**802.11 as a component in a (larger) system:** [**11-15/0593r0**](https://mentor.ieee.org/802.11/dcn/15/11-15-0593-00-0arc-802-11-as-a-component.ppt) – was presented by Adrian Stevens

Discussion and agreements/suggestions as follows:

1. If there were SME there at the SAP the lack of timing would make this impossible.
2. Management Plane is necessary for integration with 3GPP, etc. The Data plane is ok now. So we need a standardized interface.
3. Customer, is someone who will use our component. E.G. 3GPP or ITS NGMN
4. Straw Poll: This idea is worth pursuing?

Yes 8, No 1, Abstain 1

1. Possible next steps:
* Polish up this message in 802.11
* Identify “customers” – i.e. those organizations that define an architecture we might want to fit into.
* Go speak to the customers and identify requirements
* Determine schedule that meets customer requirements.
* Identify what standards for interfaces already exist
* Choose a technology for interface
* Create a task group to write the “stuff”
* Relax and have a nice cup of tea.
1. We should use standardized interface where possible, we should take on board a frame work. One that is agnostic to the technology.
2. We have a lot of work to do here to find out where we are. But, we need to talk to our customers to find out what we need.
3. Support for the view of the iterative nature of this work. All the questions are not yet on the table, nor are all the solutions. How do we know the demand to change channel is the level we want to work at. There are algorithms in our systems which manage channel changes.
4. It was question/suggested that considering the time frame, and the nature of this problem, the scope has to be limited so that it will fit in the allowed time frame. So if we define the time frame, we would know which technologies are applicable.
5. The customers like the PKIs (performance key indicators) – looking at the characteristics with a common view. So looking at it from the management side. E.g. what are the fences around the technology? NGMN provides a view/some information.
6. What is implied here is a hierarchy of interfaces. – the level at which management is done and what the interfaces are is critical. Omni Ran is working this way. My point is that all interfaces are not external interfaces, there are internal interfaces.
7. One can define interfaces till you are blue in the face, this has been done and it is very frustrating, Support for the idea of PKIs. How is the system behaving?
8. The next steps were updated in [11-15-0593-01-0arc-802-11-as-a-component.ppt](https://mentor.ieee.org/802.11/dcn/15/11-15-0593-01-0arc-802-11-as-a-component.ppt), slide 10.
9. 802.1 and 802.21 should be involved in these discussions, support for this concept must be generated. Propose to have a tutorial – on this for July meeting. It is desired to have a specific output from the tutorial and a specific execution plan.
10. Suggested participants for the July tutorial: Adrian (based on 11-15/0593), Max (OmniRAN inputs/views), and Dick (practical case/example).

Planning for July 2015:

1. Plan for one or two individual meeting slots
	1. Usual slot on Wed AM1
	2. Another slot for standalone ARC work (Tuesday?)
	3. Another slot joint with 802.11ak/802.1 (Thursday’s slot)?
2. Individuals interested in ARC work are encouraged to also attend other TGak sessions
3. Teleconferences
	1. One planned to discuss 802.11 as a component tutorial June 3, 11am EDT.

**Recessed 10:08, 11 March 2015**

**Note there was also a joint meeting with TGak and 802.1 on Thursday, May 14, AM1, please see the TGak minutes.**

**Note:** ARC Closing Report in:[11-15-0670-01-0arc-arc-closing-report-may-2015.pptx](https://mentor.ieee.org/802.11/dcn/15/11-15-0670-01-0arc-arc-closing-report-may-2015.pptx)

**Also note:** updates to the Normative DS/SAP Proposal on the above discussions can be found in: [11-15-0555-01-0arc-normative-ds-sap-proposal.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0555-01-0arc-normative-ds-sap-proposal.docx)