IEEE P802.11  
Wireless LANs

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| ARC SC May 2017 Meeting Minutes | | | | |
| Date: 2017-05-12 | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11 ARC SC meeting sessions held on 9 May 2017, at 10:30 KST, 10 May 2017 at 8:00 KST, and 11 May 2017 at 8:00 KST in Daejeon Korea.

Note: Highlighted text are action items.

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# Tuesday, 9 May 2017, at 10:30 KST

**Administration:**

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

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

**Meeting call to order by Chair 10:31 KST, 9 May 2017**

**Proposed Agenda slide deck:** [11-17/0556r2](https://mentor.ieee.org/802.11/dcn/17/11-17-0556-02-0arc-arc-sc-agenda-may-2017.pptx) **, proposed agenda copied here for reference:**

Tuesday, May 9, AM2

* Administrative: Minutes
  + IEEE 1588 mapping to IEEE 802.11
  + 802 activities
  + IETF/802 coordination
  + MIB attributes Design Pattern - [11-15/0355r4](https://mentor.ieee.org/802.11/dcn/15/11-15-0355-04-0arc-mib-truthvalue-usage-patterns.docx), [11-17/0475r3](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-03-0arc-mib-pattern-analysis.xlsx), [11-09/0533r1](https://mentor.ieee.org/802.11/dcn/09/11-09-0533-01-0arc-recomendation-re-mib-types-and-usage.ppt)
  + YANG/NETCONF modeling discussions – [11-16/1436r1](https://mentor.ieee.org/802.11/dcn/16/11-16-1436-01-0arc-yang-modelling-and-netconf-protocol-discussion.pptx)
  + AP/DS/Portal architecture and 802 and GLK concepts - [11-17/0136r2](https://mentor.ieee.org/802.11/dcn/17/11-17-0136-02-0arc-bridging-architecture-considerations.docx), [11-16/0720r0](https://mentor.ieee.org/802.11/dcn/16/11-16-0720-00-0arc-stacked-architecture-discussion.pptx), [11-15/0454r0](https://mentor.ieee.org/802.11/dcn/15/11-15-0454-00-0arc-some-more-ds-architecture-concepts.pptx), [11-14/1213r1](https://mentor.ieee.org/802.11/dcn/14/11-14-1213-01-0arc-ap-arch-concepts-and-distribution-system-access.pptx) (slides 9-11)
  + “What is an ESS?”

Wednesday, May 10, AM1

* + MIB attributes Design Pattern (cont.)
  + AP/DS/Portal architecture and 802 and GLK concepts (cont.)
  + “What is an ESS?” (cont.)

Thursday, May 11, AM1

* + MIB attributes Design Pattern (cont.)
  + AP/DS/Portal architecture and 802 and GLK concepts (cont.)
  + “What is an ESS?” (cont.)
  + Future sessions / SC activities

**Administration:**

The Chair reviewed the Administrative information in slides 5-10 in Agenda document, [11-17/0556r2](https://mentor.ieee.org/802.11/dcn/17/11-17-0556-02-0arc-arc-sc-agenda-may-2017.pptx)

**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 Chair called for comments or amendments to the agenda – there was no response to the call

The proposed agenda was approved by unanimous consent.

**ARC Minutes:**

**March 2017 Minutes:** [**11-17/0531r0**](https://mentor.ieee.org/802.11/dcn/17/11-17-0531-00-0arc-arc-sc-march-2017-meeting-minutes.docx) approved by unanimous consent.

**IEEE 1588 mapping to IEEE 802.11**

The Chair reported:

* Still tracking this activity
* The Chair is not aware of any issues related to 802.11
* The Chair asked if anyone was aware of any issues?
  + An attendee commented that: 802.1AS is being updated, this is an update to the 802.1 timing document in the 802.1AS REV project: <http://www.ieee802.org/1/pages/802.1AS-rev.html>. The current draft can be found in the 802.1 member’s area: The 802.1AS REV D4.5: <http://www.ieee802.org/1/files/private/as-rev-drafts/d4/802-1AS-rev-d4-5.pdf>  
    (Need to sign in as an 802.1 or 802.11 member to access the draft.). It was suggested that there is potential for a joint 802.1/802.11 ARC meeting to discuss this topic at the July 802 meeting in Berlin. The attendee agreed to provide a contribution that summarizes/reviews this activity, prior to the July 802 meeting.

**IEEE 802 Activity**

The Chair reported:

* 802.1Q revision is still underway, 2017, to roll in:
  + IEEE Std Qcd-2015,
  + IEEE Std 802.1Qca-2015,
  + IEEE Std 802.1Q-2014 Cor 1-2015,
  + IEEE Std 802.1Qbv-2015,
  + IEEE Std 802.1 Qbu-2016,
  + IEEE Std 802.1Qbz-2016
* 802.1AC-2016 published
* 802.1Qbz has published
* An attendee reported 802.1C has been set to REVCOM and that 802.1CF is not currently progressing, though it is anticipated that progress will be made soon.

**IETF/802 coordination:**

An attendee reported an IETF topic of interest to the ARC SC: Yang models work has happened over the last two IETF meetings. Please see the IETF, Chair’s Blog: YANG Catalog Latest Development (IETF 98 Hackathon): <https://www.ietf.org/blog/2017/04/yang-catalog-latest-development-ietf-98-hackathon/>

An attendee reported that the EC Standing Committee will be meeting in July. The attendee did not attend the March meeting and is unaware of anything of interest to 802.11 happening at the March meeting. IPWave activity was added at the March Joint Directors IETF/802 meeting and may be of interest to 802.11 members.

**Other Activities:**

The Chair called for additional activities that may be of interest, there was no response.

**MIB attributes Design Pattern -** [11-15/0355r4](https://mentor.ieee.org/802.11/dcn/15/11-15-0355-04-0arc-mib-truthvalue-usage-patterns.docx), [11-17/0475r3](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-03-0arc-mib-pattern-analysis.xlsx), [11-09/0533r1](https://mentor.ieee.org/802.11/dcn/09/11-09-0533-01-0arc-recomendation-re-mib-types-and-usage.ppt)

The Chair provided a review of the documents and an introduction to the ongoing work.

An attendee questioned how 802.11 can get something of value out of this activity. The attendee also stated that there is value in MIB analysis activity that was done at the last meeting. The Chair responded that it’s up to REVmd to decide how to use this work and get value out of it. The Chair then explained some of the terms being used in MIB analysis spreadsheet ([11-17/0475r3](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-03-0arc-mib-pattern-analysis.xlsx)): deprecating allows for noting that something is no longer used and would allow for future removal.

The Chair will update TGmd during the TGmd session on Tuesday or Wednesday, reviewing 11-15/0355r4 and 11-17/0475.

It was agreed via discussion that an external entity, is not the SME – but some other entity managing/viewing the STA/AP configuration.

The Chair –stated that we should take small steps towards Yang.

An attendee stated that – Yang may not be up to managing 802.11.

It was discussed that in addition to MIB interfaces, 802.11 also has SAP interfaces. So we have two interfaces.

It was agreed by discussion that the activity of working through the MIBs (completing [11-17/0475r3](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-03-0arc-mib-pattern-analysis.xlsx)) is useful, so will continue for the two additional time slots.

**Recessed 12:32**

# Wednesday, 10 May 2017 at 8:00 KST

**Administration:**

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

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

**Meeting call to order by Chair 8:09 KST, 10 May 2017**

**Proposed Agenda slide deck:** [11-17/0556r2](https://mentor.ieee.org/802.11/dcn/17/11-17-0556-02-0arc-arc-sc-agenda-may-2017.pptx) **, proposed agenda copied here for reference:**

Wednesday, May 10, AM1

* + MIB attributes Design Pattern (cont.)
  + AP/DS/Portal architecture and 802 and GLK concepts (cont.)
  + “What is an ESS?” (cont.)

**Administration:**

The Chair reviewed the Administrative information in slides 5-10 in the Agenda document

**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 Chair called for comments or amendments to the agenda – there was no response to the call

The proposed agenda was approved by unanimous consent.

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

The Chair continued the reviewed the MIB attributes discussion, [11-17/0475r4](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-04-0arc-mib-pattern-analysis.xlsx) starting on line 83. Resulting in [11-17/0475r5](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-05-0arc-mib-pattern-analysis.xlsx).

Notes:

dot11RM3rdPartyMeasurementActivated - can’t decide if A or D – action to check with Brian Heart.

dot11QMFActivated – can’t decide RW, RO, ARC. Considering a new pattern

**Recessed 10:02 KST**

# Thursday, 11 May 2017 at 8:00 KST

**Administration:**

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

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

**Meeting call to order by Chair 8:05 KST, 11 May 2017**

**Proposed Agenda slide deck:** [11-17/0556r2](https://mentor.ieee.org/802.11/dcn/17/11-17-0556-02-0arc-arc-sc-agenda-may-2017.pptx) **, proposed agenda copied here for reference:**

Thursday, May 11, AM1

* + MIB attributes Design Pattern (cont.)
  + AP/DS/Portal architecture and 802 and GLK concepts (cont.)
  + “What is an ESS?” (cont.)
  + Future sessions / SC activities

**Administration:**

The Chair reviewed the Administrative information in slides 5-10 in the Agenda document

**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 Chair called for comments or amendments to the agenda – there was no response to the call

The proposed agenda was approved by unanimous consent.

The Chair then provided a brief review of the week’s ARC activities.

**On Yang Models:**

An attendee provided a brief introduction to Arbour charts (dynamic Arbour charts) see [https://www.yangcatalog.org/yang-search/impact\_analysis.php?modules[]=ietf-routing@2016-11-04.yang&modules[]=ietf-ipv4-unicast-routing@2016-11-04.yang&modules[]=ietf-ipv6-unicast-routing@2016-11-04.yang&recurse=0&rfcs=1&show\_subm=1](https://www.yangcatalog.org/yang-search/impact_analysis.php?modules%5b%5d=ietf-routing@2016-11-04.yang&modules%5b%5d=ietf-ipv4-unicast-routing@2016-11-04.yang&modules%5b%5d=ietf-ipv6-unicast-routing@2016-11-04.yang&recurse=0&rfcs=1&show_subm=1) for an example of a dynamic Arbour chart. The chart is designed so centre the node of interest and then dynamically place the other nodes so that it is possible to see the nodes close to the node of interest and their interconnections. Allowing one to reconfigure the chart based on one’s interest. The length of the interconnections has no meaning and are simply due to the way the chart is drawn, allowing as many nodes/interconnections to be shown as possible.

**Admin – next meeting:**

Chair raised the question as to if 802.11 will need a TGba architecture. The Chair will discuss this with the TGba Chair. This may be new work activity.

An attendee pointed out that there is also a new class of multi radio types being discussed, e.g. 28 GHz (Phazr.net) and Light Wave that may also create new work activity.

How many sessions do we need for next meeting? It is a possible we may need a joint session with TGba. No joint sessions are anticipated for TGak, TGaq, 802.1.

Current plan for possible TGba joint session – ask a few individuals experts from TGba to come talk to ARC to define questions, then present questions by ARC in TGba to stimulate discussion.

Teleconferences: planned 2 – May 30 @ 9am, June 27 @ 9am

Review of the to be supplied contribution on the status and details of 802.1ASrev use of FTM (802.1AS is currently using TM not FTM), the rev is anticipated to move to FTM.

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

The Chair continued the reviewed the MIB attributes discussion of [11-17/0475r5](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-05-0arc-mib-pattern-analysis.xlsx). Resulting in [11-17/0475r6](https://mentor.ieee.org/802.11/dcn/17/11-17-0475-06-0arc-mib-pattern-analysis.xlsx).

**Adjourned 10:00 KST**