IEEE P802.11  
Wireless LANs

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| ARC Minutes May 2013 | | | | | |
| Date: 2013-05-16 | | | | | |
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Abstract

Minutes of the IEEE 802.11 ARC Standing Committee held 14-15 May 2013, in Kona, Hawaii, USA.

**Tuesday, 14 May 2013 –** Joint session with TGak

Agenda is in the TGak agenda deck: 11-13/0404r4.

The TGak Chair made the call for Patents. There was no response.

The Chairs reviewed the agenda. No changes were suggested.

TGak’s secretary is unable to attend this week, and ARC doesn’t have a regular secretary. So, a request for volunteer secretary was made. Steve Pope (unaffiliated) volunteered. Thank you Steve!

Donald Eastlake noted that the 802.1 meeting is also happening this week, in Victoria, Canada. They are working Tuesday to Friday this time, so they are just getting started there. Thus, there is no information to report on any related activities of interest to 802.11 TGak or ARC.

Donald took a minute to ask to finalize the TGak teleconference schedule now, as that would allow them to adjourn for the week at the end of this slot. See TGak minutes for details.

There was no one available to present 11-13/406r4, so that document is shelved for now.

Mark Hamilton presented 11-13/479r0. He noted explicitly that this is \_not\_ an architectural model diagram, but rather is an example of one particular deployment scenario, and how that scenario would map to our architectural concepts. Discussion. Also reviewed 802.11-2012 Figure 4-6, and 11-13/406r4 slide 6. Suggested that it might help understanding to not try to show the DS, non-802.11 LAN and Portal concepts as if they map onto the physical topology. Rather they are concepts that map onto portions of the topology. Perhaps a “key” on the left side with this indication would be less confusing. Mark did some redrawing on the screen, and took an action item to work on this off-line and post an update for later discussion.

Also reviewed 11-13/115r4, just as background on 802.11’s current definitions and architectural descriptions.

Recess ARC SC until Wednesday AM1. Adjourn TGak for the week.

**Wednesday, 15 May 2013**

Agenda deck is 11-13/0399r1.

The Chair made the call for Patents. There was no response.

The Chair reviewed the agenda. No changes were suggested.

The Minutes of the March 2013 session, were approved as posted (11-13/367r0).

**IETF/802 coordination, lead by Dorothy Stanley (Aruba Networks).**

* Activities of joint interest to IETF and IEEE 802:
  + Noted that a “Joint registry” work item has been completed and closed.
  + 802.15 is doing a “Mesh under routing” project, and IETF is doing their 6tsch project, which appears to be closely related. The need for coordination between these has been noted, and will be pursued.
  + Two CAPWAP extensions are proceeding: one to define some profiles for different options of AP/controller split of functions in implementations; and one to add 11n-specific support items.
* RFC4441:
  + Rev4 has updates per our (802.11’s) previous comments.
  + One IAB issue has been raised recently. At this time, it appears this might be the last significant item to address before this document is considered completed.
  + Discussed our opinion of how much more work needs to be done to this document. Concluded that it is very close to complete from our point-of-view. Noted that this isn’t a normative document, but it is a great symbol of how far we’ve come in creating a close working relationship and liaison with the IETF. We couldn’t identify anything further that needed to be added to the document.
  + One correction was identified, around the paragraph that describes how 802.11 submission documents are posted to Mentor (clause 3.3.1.2, item 4). Dorothy took the details of the rewording, and will submit as part of her liaison report in the mid-week plenary, as well as take to the RFC4441 editing committee. It does not seem at all controversial – just a clean up and clarification.
  + At the mid-week, Dorothy will present clearly that we now believe we (802.11) are done with our review of Rev4, unless anyone else speaks up at that time. This can then be reported back to the IETF – that we have finished our review, and have only the one comment described above.

**802 Overview and Architecture**

* First sponsor ballot closed on March 22. In comment resolution now.
* Three 802.11 comments related to fixing things in the second figure in Annex B.2, which is the discussion of the 802.11 architecture. Mark Hamilton presented an updated figure which will address all three comments. This updated figure (with graphical details cleaned up) is posted in 11-13/115r5 on page 15. Agreed to send this figure to 802.1 for suggested resolution to the Sponsor Ballot comments.
* Reviewed the rest of the 802.11 comments (those from Mark Hamilton or David Hunter in <https://mentor.ieee.org/802-ec/dcn/13/ec-13-0018-03-00EC-802-overview-and-architecture-sb1-comments.ods>. Noted that 802.1’s use of “station” and 802.11’s use of “station/STA” do not align. This is unfortunate. Probably too late/hard to change 802/802.1. 802.11 actually rarely uses the word “station”, using “STA” instead almost everywhere. Perhaps there is an option to change “STA” to be based on a slightly different term in 802.11, and avoid the conflict. 802.11ak could make this change. Or, REVmc might want to consider it. No changes will be recommended for the 802 O&A at this time. No other concerns were raised from the comment review.
* James Gilb (editor for 802 O&A) noted that he intends to have the Sponsor Ballot recirc close before the July meeting. All comments from the first SB have resolution, or are assigned to someone for resolution.

**802.11 TGak (“Enhancements For Transit Links Within Bridged Networks”) and 802.1Qbz on “802.11 bridging” update.**

* Donald Eastlake, 802.11 TGak Chair, reported informally on the status: Progress is being made, and a number of good submissions have been made and discussed.
* Noted that 802.1Qbz Draft 0.1 has been posted.
* The biggest challenge for the group seems to be around the questions about the architectural concepts of AP/DS/Portal. The rest of the work has solutions identified (sometimes more than one, but that’s just a matter of picking one) and is stabilizing.

**AP/DS/Portal architecture**

* Reviewed document <https://mentor.ieee.org/802.11/dcn/13/11-13-0115-04-0arc-considerations-on-ap-architectural-models.doc> , posted by Mark Hamilton
* Quickly jumped to where we left off last time, at page 13.
* Mark has gone forward from there, and as the next step has “slammed the two sides together”, so the RX and TX paths are part of the same, single MAC layer “stack”. This new picture is on page 14. There was general support that this helps clarify that there are not two entities within a STA’s MAC, so this is accepted as an improvement.
* Mark noted that he added a horizontal dashed line, showing that 802.11 discusses or creates the concepts below the line, and other things define the concepts above the line. He labelled this line “802.11 Scope” for the part below the line. But, this is a controversial and confusing term. Note also that the 802.1X controlled/uncontrolled port filter is not really an 802.11 concept, but 802.11 only discusses how this 802.1X concept is mapped to the 802.11 architecture. Agreed to just say “802.11” on the “below this line arrow”, with no adjective.
* Asked: are any other 802.1 concepts needed or helpful in this picture, beyond 802.1X? Nothing was identified. There clearly are 802.1Q concepts that need to be related to this picture, but we don’t know how to do that yet, and TGak is working on that.
* Should we add a Portal to this picture? If we do, Mark thinks it goes further to the right of the Distribution System cloud, and still below the “802.11” line. Not sure that adds enough value for the confusion and complexity it adds. We’ll consider this off-line. We could also add a non-802.11 LAN, then, and somehow show the 802.11/beyond 802.11 line as a vertical line (or something similar) at the point where the Portal touches the non-802.11 LAN. We could also try to do something similar for the non-AP STAs, showing that their 802.11 MAC provides service to an LLC sublayer and higher layers which are beyond 802.11. For now, though, agreed that all this is too complex to do right now. We’ll all think about it off-line.

**Future**: ARC meets ad hoc but seems to always have plenty to discuss. One slot planned at July meeting. If anyone has agenda topics, contact the Chair (Mark Hamilton).

One **teleconference** will be needed to prepare comments on the next 802 O&A ballot. The timing of that can’t be determined until we know when the ballot we happen. This teleconference will be scheduled with 10 days’ notice, as soon as the timing is known.

No other business. Adjourned.