IEEE P802.11
Wireless LANs

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| 802.11ak January 2014 Minutes |
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Abstract

Minutes of the IEEE 802.11 Task Group “ak” meeting, January 2014, at the Hyatt Regency Century Plaza, Los Angeles, California, by temporary Secretary Mark Hamilton, edited by Chair Donald Eastlake.

# TGak minutes, Monday PM2 (Jan 20, 2014)

Park Room, Hyatt Regency Century Plaza

Donald Eastlake (Huawei) Chair called the meeting to order.

The Task Group Secretary was unable to attend this 802.11 meeting so the Chair asked for a volunteer to be Secretary for this session. Mark Hamilton (SpetraLink) volunteered.

The Chair reviewed Patent policy.

Call for Potentially Essential Patents: No responses.

The Chair reminded attendees to record their attendance.

The Chair reviewed the agenda for the week (11-13/1504r2).

Approved by Unanimous Consent.

Approval of minutes from Dallas meeting (11-13/1235r0):

Approved by Unanimous Consent.

Approval of minutes from teleconferences since Dallas:

* + “11ak Telecon Minutes 20131130”, 11-13/1492r0
	+ “11ak Telecon Minutes 20131209”, 11-13/1508r0
	+ “11ak Telecon Minutes 20140106”, 11-14/0077r0

Approved by Unanimous Consent.

Consideration of the question: “Should TGak have a Vice Chair?”

Donald: If we think yes, then we’ll put out a call for candidates, and anticipate a vote in March. (We’ll have to approve whoever is selected again in May, when TG officer elections occur, but that’s okay.)

Donald: Someone to provide backup, for times when the Chair is not available. And, there are times (potentially) when the Chair should temporarily recuse himself, and a Vice Chair could run the meeting.

No objection to the idea. Will consider the response to be “yes”.

Schedule:

Current TGak timeline calls for going to WG Ballot in July. Agenda Slide 7 presents a plan that is roughly what is required to get there in time. That plan starts with producing a D0.1 out of this (January) meeting.

It was suggested that we need to get agreement (or close) on a list of the work that is to be included in the draft, so we can know when it is complete. (See 11-13/406, 11-13/185)

Reviewed 11-13/406: Multiple links model question (including how/if the DS fits into the model); 4 address format question; sub-setting problem; solve the reflection problem.

Reviewed 11-13/0185: Addressing problem; reflection problem; Blocked AP port problem; Per port VLAN mapping; Ethertyping versus LLC; handling QoS and queuing; link metrics; direct link between non-AP STAs. This seems like the complete list in one place.

We have a tentative agreement to not handle direct links, at least in the first iteration of TGak, partly because setting up or tearing down a direct link would typically mean a change in topology.

One thing is not on the above list: timing synchronization mechanisms. The timing measurement feature in 11v, to support 802.1AS, has assumptions about the maximum “time distance” or limits number of hops, to work correctly.

We have material, or at least agreed concepts, for most of these sub-items of work. We’re really only missing the link metrics; and the timing synchronization items.

Given that above list of work, the schedule outline seems achievable.

To get more done sooner, an Ad Hoc meeting was proposed: Kaua‘i, the end of the week before the May 802.11 WG meeting in Waikoloa

11-14/0050r0. “May 2014 Ad Hoc Meeting Proposal”, was presented.

**Motion: Approval of a TGak ad hoc meeting in Hawaii at the end of the week before the Waikoloa meeting in May.**

**Moved: Dick Roy; Second: Mark Hamilton.**

**Yes: 7, No: 0, Abstain: 2.**

**Motion PASSES.**

Reviewed proposed text for EtherType Frame Encoding (11-14/0004r2):

Discussion about where (or whether) we should reference the source of the terms “EtherType protocol discrimination” and “LLC protocol discrimination”. These terms are in the latest drafts of 802 (O&A), and 802.1Qbz. For now, we’ll put in our own definitions (there doesn’t actually seem to be a formal definition anywhere). Wordsmithed the definitions.

Removed the acronym for DEI (Drop Eligibility Indicator) since it is already in the base document.

Did a quick overview pass through the rest of the document, to familiarize everyone with the content, without a lot of detailed discussion.

Donald will make updates based on the above and comments mentioned, and post an updated version.

The Chair Recessed TGak until 8:00 Tuesday

# TGak minutes, Tuesday AM2 (January 21, 2014)

Park Room, Hyatt Regency Century Plaza

Donald Eastlake (Huawei), Chair, called TGak to order.

Mark Hamilton (SpectraLink) agreed to continue as temporary Secretary.

Reviewed Patent policy. Call for Potentially Essential Patents: No responses.

The Chair reminded people to record their attendance.

Reviewed updated agenda for the week (11-13/1504r3):

Added 11-14/130r0 for this time slot’s agenda.

Added an “architecture” topic to this time slot.

Added status reports (for 802.1Qbz and 802.11ak) to Thursday’s (joint session) tentative agenda.

Added the “Timing, number of 11ak hops, and 802.1AS” to Thursday’s agenda.

Agenda approved by Unanimous Consent.

Reviewed 11-14/130r0:

No need for the first set of changes in 8.3.2.1. Agreed to delete it.

Discussion about the value of the Infix data feature. This doesn’t obviously seem to be an 11ak concept, but is a general concept for 802.11. If it is really useful, should it be general? Or, is the complexity too high compared to the benefits?

Extended discussion about the features that TGak A-MSDUs need (or want/should) support. Are we trying to invent a specific-usage (and therefore can be simplified) facility? Are we trying to invent a general-purpose, new A-MSDU facility, whose first use happens to be for TGak?

The Chair recessed TGak until 8:00 Wednesday

# TGak minutes, Wednesday AM1 (January 22, 2014)

Park Room, Hyatt Regency Century Plaza

Donald Eastlake (Huawei), Chair, called TGak to order.

The Chair noted that, unfortunately, this TGak session is opposite the ARC SC session. ARC has been asked to put TGak relevant items towards the end of the ARC agenda and the Chair will try to recess TGak early so people can go to the ARC session.

Given that this session will probably be a bit short and in the absence of our permanent Secretary and of Mark Hamilton, who has volunteered to be temporary Secretary at the first two sessions, the Chair said he would keep notes of this session.

Reviewed Patent policy. Call for Potentially Essential Patents: No responses.

The Chair reminded people to record their attendance.

Teleconferences were discussed. It was suggested that, between now and the March 2014 plenary, TGak hold teleconferences at the usually day and time, Monday 5pm US Eastern Time, on 10 February, 24 February, and 10 March.

This was approved by unanimous consent.

11-14/0004r4, “Some 11ak EtherType Frame Encoding Text ”, Donald Eastlake (Huawei), was presented and discussed.

11-14/0130r0, “Some Subsetting and Addressing Text”, Donald Eastlake (Huawei), was presented and discussed.

Donald Eastlake will update 14/0130 as discussed and will produce a merged document from 14/0004 and 14/0130.

The Chair recessed TGak until 8:00 Thursday.

# TGak minutes, Thursday AM1 (January 23, 2014)

Olympic 2 Room, Hyatt Refency Century Plaza

The Chairs (Donald Eastlake (Huawei), Norm Finn (Cisco)) called joint session of 802.1 IWK and 802.11ak to order.

Mark Hamilton (SpectraLink) agreed to act as temporary Secretary.

Reminder of IEEE 802 IPR Policy. Call for Potentially Essential Patents: No responses.

People were reminded to record their attendance.

Reviewed agenda (11-13/1504r6):

Norm: add a presentation on changes needed in 802.1AC for this topic.

Add a presentation on SRP over wireless

Agenda approved by Unanimous Consent.

IEEE 1905.1a update – None

802.11ak status:

11-14/0004r4, “Some 11ak EtherType Frame Encoding Text”

11-14/0130r1, “Some Subsetting and Addressing Text”

802.1 attendee thoughts on Control Block stuff: Discussion on how the Inclusion/Exclusion lists work. Seems okay. Data infix concept that applies to all receivers’ copy of the frame seems useful. Maybe more fine-grained (different data to different receivers) may be overly complicated for its value. Could make it a capability (optional). After discussion, agreed the complexity of this being an optional or signaled capability was worse than the complexity of doing the feature in all implementations. So, agreed to put it in, as a mandatory feature to receive, optional to transmit.

Tentative TGak short term schedule:

January – produce a candidate D0.01

March – produce a D0.02 and issue a WG call for comments

Ad-hoc meeting before May meeting

May – resolve comments and produce a D0.03

July – produce a D1.0 and go to WG Ballot

802.1Qbz status:

Norm Finn (Cisco) presented 11-14/0168r1, “802.1 / 802.11 Formal Interface”:

Two possibilities for handling the bundle of ports concept at the 11ak AP MAC-SAP: modify the data.request primitive (MA-UNITDATA.request) to add a port vector parameter, which takes the equivalent of the array of ports concept from 802.1Q. Or, 11ak AP presents a bunch of SAPs to the bridge. Could look at 802.1BR, too, perhaps?

Make this a topic for teleconference calls.

Craig Gunther (Harman), presentation on SRP over wireless (802.11, in particular):

<http://www.ieee802.org/1/files/public/docs2014/at-cgunther-srp-for-802-11-0114-v01.pdf>

Professionals want AVB over wireless; some automotive is starting to be interested; consumers might be next (Apple is heading there)

AVnu Alliance is analogous to Wi-Fi Alliance, but for AVB. Open Alliance is in this area, too.

AVB is defined in 802.1AS, 802.1Qat, 802.1Qav, 802.1BA. See also 802.11v, 802.11aa, IEEE 1722, IEEE 1722.1, IEEE 1733.

Proposal: EDCA-AC and HCCA are difficult; don’t require them yet, if ever. When wireless is goods, it just works anyway. Support SRP now, without performing the reservation actions.

One message: strongly suggest that people should use 802.11ac, to get better chance of quality experience (5GHz). Second message is 802.11ad with 802.11ak.

Discussion about whether EDCA-AC is hard or not, or why it isn’t being widely deployed. Understanding that would be fine. Just want to get a solution to avoid sending all the data twice and get the solution to the customer – any ideas help.

Plans for Beijing, and telecons between now and then:

Plan for teleconferences for 1 hour, 5:00 pm Eastern time, 10 Feb, 24 Feb, 10 March.

Discussion of 802.11ak / 802.1Qbz joint session in March:

Unanimous agreement.

We want to settle the concepts to support 802.11ak in 802.1AC by March

There are other 802.11 topics in the 802.1AC draft, and 802.11 should review and comment, and those might also need discussion in March

For now, plan for one joint session, with 802.11ak, 802.11 ARC, 802.1AC and 802.1Qbz in March.

Adjourn TGak for the week.

Recess IWK.