IEEE P802.11
Wireless LANs

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| TGaq Minutes - January 2015 Session |
| Date: 2015-01-19 |
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Abstract

This document contains the minutes of the TGaq session that was held during the January 2015 IEEE 802.11 Interim meeting.

# Monday January 12, 13:30-15:30

### Stephen McCann, BlackBerry – Chair

1. Meeting called to order at 13:31 EST.
2. Agenda Review
	* Updated and approved Agenda as in 11-14/1586r2.
3. Review IEEE Patent Policy and Duty to Inform
	* Chair asks if there are any essential patents - None indicated.
4. Approval of minutes from November session – document 11-14/1549r0
	* Approved by unanimous consent.
5. Review of current status of TGaq
	* Reviewed closing report from November - document 11-14/1532r0. No changes are made.
6. Document R-cap/Editor’s Report
	* Dan (Editor) summarized the status of D0.03 and D0.04.
7. Comment Collection 21
	* Technical issues arising from editor in D0.03
		+ The Task Group went through D0.04 and made changes online to resolve the issues that had been highlighted by the editor.
			- Removed definition and acronym of ANDSF due to a lack of use of it elsewhere in the text.
			- Removed clause 3.2 since no changes are made in this clause.
			- In Table 8-83, renumbered the referenced clause numbers of 4 elements.
			- In 8.4.5a.1 and Figure 8-576g, changed “PAD element” to “Info ID” and changed “PAD element name” to “Information” to be consistent with REVmc.
			- In Figure 8-576j, changed “Detailed Service Information Descriptor element” to “Detailed Service Information Descriptor field”. Deleted the sentence “The Detailed …” above Figure 8-576j.
			- In Figure 576k, changed “<TBD>” to “Payload”.
	* Process to resolve comments
8. Presentation

***Yunsong Yang, the TGaq Vice Chair acts as Chair while Stephen McCann is presenting the next document.***

* + PADP elements in ANQP (11-14-1491r2) by Stephen McCann (BlackBerry)
		- The proposal is to reuse ANQP for PAD. The PADP-elements are changed to ANQP-elements. The proposal is backward compatible with 802.11 ANQP, and 802.11 RLQP and HS2.0 in WFA.
		- Question: Currently, an AP forwards an ANQP query to the ANQP server based on Advertisement Protocol ID. The question is how the AP routes the service query to the service proxy? Does the AP route the query to the ANQP server first and the ANQP server re-route the service query to the service proxy?
		- Response: The AP is using Info ID to directly forward the query to the Service Information Server. This would require the AP to parse the content of the GAS frame and then route to the appropriate servers (as it is done in many implementations today).
		- Comment: This would mandate the AP to parse the Query Request field in the GAS Initial Request frame. And if the new query element contains a mixture of legacy and new ANQP-elements, the AP is also required to re-package the query into two and send them to different severs. This will significantly complicate the AP.
		- Stephen will come back at a later session.

***Stephen McCann resumes role as the Chair.***

1. The TG recessed at 15:32 EST.

# Tuesday January 13, 16:00-18:00

### Stephen McCann, BlackBerry – Chair

1. Meeting called to order at 16:00 EST
2. Agenda Review
	* Updated and approved Agenda as in 11-14/1586r3.
3. Presentation of document 11-15/0111r0 by SK Yong (Apple)
	* Annex A.1 Bloom filter
		+ Question: why do you need so many hash functions?
		+ Response: a large number of hash functions help to reduce false positive probability.
		+ Question: are these hash functions related to each other?
		+ Response: they will all be defined by our spec.
	* Annex A.2 PADP example
		+ Question: how does the STA know when the false probability is high and when it is low?
		+ Response: AP will indicate the values of m and n. Then, the STA can compute the probability p. Then, the STA decides whether to use probe request depending on the p and the upper layer application, for example, if the application is background search, then there is no hurry for the STA to query now.
		+ Question: Have you get the text that says the probe response size is limited?
		+ Response: currently the size added is 32 octets.
		+ Comment: we got three mechanism: Beacon, Probing, PAD service query, each provides more detailed service information. Because TGaq is working under unassociated mode, you can pick and choose among these three mechanisms.
	* The document was updated as r1 after some editorial changes.

MOTION: Request the TGaq editor to incorporate document 11-15-0111r1 in the current TGaq draft.

Moved: Chris Hartman

Seconded: Jin Rong Hsieh

Result: 8 - Yes; 1 - No; 1 - Abstain. Motion passes.

***Yunsong Yang, the TGaq Vice Chair acts as Chair while Stephen McCann is presenting the next document.***

1. Presentation of document 11-14/1490r1 by Stephen McCann (BlackBerry)
* GAS carries token that can match the GAS Req/Res.
* Depending on the advertisement protocol, the GAS will be routed to the appropriate server.
* Add ANQP SD with advertisement protocol ID 5 or ANQP Service Query Element.
* ANQP SD is the same as PADP SD except that the element will be ANQP element rather than PADP element.
* The proposal 1 is as in 11-14-1491r3, which is based on ANQP Service Query Element with the same advertisement protocol ID. Reviewed in Jan 12th.
* The proposal 2 is as in11-15-0130r0, which is based on ANQP SD Extension with different advertisement protocol ID. Stephen presented 11-15-0130r0.
	+ Allow the AP to route to the servers accordingly based on the advertisement protocol ID.
	+ Basically replacing the PAD element with ANQP element.
	+ Update section 10.25.3.2 ANQP Procedures.
	+ Insert section 10.25.3.2.11 ANQP for service discovery procedures.
	+ Modify section 10.25.3.3a Pre-association discovery (PAD) protocol procedures.
	+ add column to Table 10-10 to indicate the advertisement protocol lD.

***Stephen McCann resumes role as the Chair.***

1. The TG recessed at 17:59 EST.

# Wednesday January 14, 8:00-10:00

### Stephen McCann, BlackBerry – Chair

1. Meeting called to order at 8:01 EST
2. Review of Agenda
	* The Agenda is updated and approved as in 11-14/1586r4.
3. Next Step Discussion
	* The Chair: We are probably not ready for WG LB in this meeting, will target March meeting.
	* SK Yong (Apple) prefers to push for LB after this meeting and volunteers to help to achieve that.
4. Review of D0.05
	* The TG reviewed the D0.05b and made editorial changes on line.
		+ Will fill up clauses 1.1 and 1.2 with the text in PAR before LB.
		+ In clause 3.1, removed the definition of “proximity” since it is not used elsewhere in the spec.
		+ Typo in RLQR in Table 8-219 is there in REVmc D3.4. Stephen will submit a comment to TGm.
		+ In clauses 8.4.2.170a and 8.4.2.170b, removed “Information” from Service Hint Information element and Service Advertisement Information element, removed the abbreviation of “SAI”.
		+ In Figure 8-576b, changed ‘Bloom filter information element” to “Bloom Filter Information field”.
		+ In clause 8.4.2.170a, added a sentence defining m-bit Service Hint Map field and added a pointer to the related procedure in clause 10.
		+ In clause 8.4.2.170b, based on Adrian Stephens’ inputs on REVmc convention, delete “One or more” from Figure 8-576c and added the sentence “The Basic Service Information Descriptors field contains one or more Basic Service Information Descriptor fields.” below the figure.
		+ All PADP elements should have PAD-element after the name. Made a global change.
		+ In clause 8.4.5a.2, added the definitions of the Service Name Length, Service Name, and Service Information Query Request Length fields.
		+ In clause 8.4.5a.3, delete “One or more” from Figure 8-576i and added the sentence “The Detailed Service Information Descriptors field contains one or more Detailed Service Information Descriptor fields.” below the figure.
		+ In clause 10.25.3.3a.3, changed dot11PADActiviated to dot11SolictedPADActivated.
		+ Annex C: MIB variables: modified dot11PADActiviated into separate dot11UnsolicitiedPADActiviated and dot11Soliciited PADActiviated.
		+ Need to create PICS (focusing on the “shall” statements in the spec).
		+ Annex Z: removed USI and SIH as they are used elsewhere in the spec.
5. The TG recessed at 9:59 EST.

# Wednesday January 14, 13:30-15:30

### Stephen McCann, BlackBerry – Chair

1. Meeting called to order at 13:33 EST
2. Agenda Review
	* The Agenda is updated and approved in 11-14/1586r5.

***Yunsong Yang, the TGaq Vice Chair acts as Chair while Stephen McCann is presenting the next document.***

1. Presentation of document 11-15/0130r1 by Stephen McCann
	* Changes with respect to r0
		+ Added advertisement protocol ID 5 for ANQP-SD in Table 8-219.
		+ Added a column to Table 10-10 to indicate the advertisement protocol lD.
	* Editorial change on the fly: in Table 10-10, changed “AP ID” to “Advertisement “Protocol lD”. The document is updated to r2 with this change.

MOTION: Request the TGaq editor to incorporate document 11-15-0130r2 in the current TGaq draft.

Moved: Stephen McCann

Seconded: SK Yong

Discussion:

SK (Apple): I support this motion as the proposal is the cleanest way to reuse ANQP for PAD while preserving the existing alternatives for routing the query request.

Result: 7 – Yes; 0 – No; 0 – Abstain. Motion passes.

***Stephen McCann resumes role as the Chair.***

1. List of Features for PICS

The group discussed and came up with the following features:

* Unsolicited PAD
* Solicited PAD
* Encapsulation PAD
* Beacon (Service Hint, Service Hash)
* Probes (Service Hash, Service Advertisement)
* ANQP-SD

Emily Qi (Intel, WG co-editor) volunteers to produce the PICS table based on this list.

Later, before the TG recessed the current session, Emily presented document 11-15-0163r1 that she created based on the list. The plan is for the TG to consider adopting 11-15-0163r1 tomorrow.

1. Tidy up Draft 0.05.
	* Added the PAD capability bit in Capabilities field (clause 8.4.2.29).
	* Add that Service Hash element can be in Probe Request.
	* 10.25.3.3a.2: change Service Advertisement element to Service Hash element.
	* Removed PAD STA from definition.
2. The TG recessed at 15:08 EST.

# Thursday January 15, 10:30-12:30

### Stephen McCann, BlackBerry – Chair

1. Meeting called to order at 10:30 EST
2. Agenda Review
	* Added presentation of doc 11-15/0182r0.
	* The Agenda was updated and approved as in 11-14/1586r6.
3. Presentation of 0182r0 by Cheol Ryu (ETRI)
	* Comment: The Mom Service example given is not a service. It represents the content of the service.
	* Question: How do you see this fit into our protocol?
	* Response: I felt we are limiting the ULPs to certain protocols. We can use Encapsulation to support any ULP.
	* Comment: We can provide some guidance regarding the service naming convention. But exactly how to name a service is up to the APP developers.
	* Comment: Service name is not only used in Bonjour, but also in mDNS. We don’t need the color in the (printer) service name. Color is the second level of service information. If your concern is about the ULP encapsulation, this contribution didn’t address that.
	* Comment: First, parameters can be in the detailed service information response. Secondly, if you combine parameters with the service name, you will have a lot of service names to memorize and to compare with.
	* Question: Do we assume all service names will be IANA registered?
	* Response: Not limited to that, can also be developer assigned.
	* Question: Does anyone feel there is a need of device discovery? E.g., is a printer a device or a service?
	* Response: A printer is a service. We never want to discover a device in TGaq.
4. Motions 11-15/0167r0

MOTION: Request the TGaq editor to incorporate document 11-15-0163r1 in the current TGaq draft.

Moved: Emily Qi

Seconded: SK Yong

Result: 9 - Yes; 0 - No; 0 - Abstain. Motion passes.

MOTION: Approve the Draft D0.05 as modified on 14th January 2015.

Moved: Cheol Ryu

Seconded: SK Yong

Result: 9 - Yes; 0 - No; 0 - Abstain. Motion passes.

MOTION: Having approved changes (submissions 11-15-0111r1, 11-15-0130r2 and 11-15-0163r1) to 11aq D0.05, instruct the editor to prepare 11aq D1.0, and approve a 30 day Working Group Technical Letter Ballot asking the question “Should 11aq D1.0 be forwarded to Sponsor Ballot?”

Moved: SK Yong

Seconded: Yunsong Yang

Result: 8 - Yes; 0 - No; 0 - Abstain. Motion passes.

The motion document is updated as 11-15/0167r1 with the results.

1. Timeline
* Initial WG LB is changed to January 2015.
1. Teleconferences
* Tuesday February 17th, 12:00 noon EST for 1 hr.
1. Preparation for March 2015 Interim Session
* 5 time slots, room for 30.
1. AOB: none.
2. Meeting Adjourned at 11:50 EST.