IEEE P802.11
Wireless LANs

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| LB 203 NDP probe request comment resolution |
| Date: 2014-08-16 |
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Abstract

This submission proposes comment resolutions of MAC comments from TGah Draft 2.0.

* CIDs: 3852, 3853, 3308, 3309, 3852, 3853, 3173 (7 CIDs)

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGah Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGah Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGah Editor: Editing instructions preceded by “TGah Editor” are instructions to the TGah editor to modify existing material in the TGah draft. As a result of adopting the changes, the TGah editor will execute the instructions rather than copy them to the TGah Draft.***

| **CID** | **Commenter** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- | --- |
| 3308 | Alfred Asterjadhi | 217.00 | 8.9.2.1.1 | "The SSID Internetworking present field indicates the desired criteria of the probe response." Not really. It indicates whatever the items that are below this sentence indicate. Also suggest renaming the field to "CSSID/ANO Present". Also note that LSB terminology is not correct because it refers to least significant bit. | Replace SSID/Internetworking Present" with "CSSID/ANO Present" throughout the draft. And replace this sentence (and the same for NDP\_2M Probe Request in 8.9.1.1.2) with " The CSSID/ANO Present field indicates if the NDP Probe Request frame contains a Compressed SSID field or an Access Network Option field. Similarly change the next two paragrapsh to reflect these changes making sure that the LSB is expanded to least significant octet. | Accepted- Agree in principle.  |
| 3309 | Alfred Asterjadhi | 217.00 | 8.9.2.1.1 | The Requested Probe Response Type indicates the requested response type not what the AP responsds with. | Set to 0 if the STA requests a Short Probe Response, Set to 1 if the STA requests a Probe Response frame. Idem in 8.9.1.2. | Accepted- Agree in principle.  |
| 3852 | Liwen Chu | 319.00 | 10.1.4.3.4b | It is not necessary to make reception of NDP Probe Request mandatory. There are other methods to save power of scanning BSS, e.g. passive scanning. | Change to "Upon receipt of the MLME-SCAN.request primitive with ScanType indicating a NDP Probing, a STA for which dot11NDPProbingActivated is true may transmit a NDP Probe Request frame that has either a compressed" | Rejected-According to the implemention cost, the STA can choose one scanning method among several ways. In that sense, the NDP Probe Request is an optional feature of TGah.And, a reception capability of a optional feature is a minimum requirement. It seems that a comment is to delete a NDP Probe Request from TGah.The commenter must provide the more detailed technical reason to reverse the existing consensus.  |
| 3853 | Liwen Chu | 320.00 | 10.1.4.3.4b | It is not necessary to make reception of NDP Probe Request mandatory. There are other methods to save power of scanning BSS, e.g. passive scanning. | Change to "APs that support NDP Probe Request and receives a NDP Probe Request frames shall respond with a (Short) Probe Response frame only if:" | Rejeted-According to the implemention cost, the STA can choose one scanning method among several ways. In that sense, the NDP Probe Request is an optional feature of TGah.And, a reception capability of a optional feature is a minimum requirement. It seems that a comment is to delete a NDP Probe Request from TGah.The commenter must provide the more detailed technical reason to reverse the existing consensus. |
| 3173 | Alfred Asterjadhi | 320.00 | 10.1.4.3.4b | This subclause contains some grammatical errors and the references need to be updated. | Fix grammatical errors (in general describe the behavior of a single STA not multiple STAs, check the use of "a" and "the" etc.) and fix the references including the heading of the reference. Also for consistency replace "respond with a (Short) Probe Response frame" with transmit a broadcast probe response" in P320L5 and in the paragraph of P320L10 list the two cases along the lines (replacing the next paragraph with the following): " The response frame shall be a Short Probe Response if the AP has dot11ShortProbeResponseOptionImplemented equal to true and the Requested Probe Response Type field of the NDP Probe Request is 0. Otherwise the probe response shall be a Probe Response frame. The AP shall follow the channel access procedure defined 9.3.4.2 (Basic access) to transmit the probe response." | Revised-Agree in principle. TGah editor to make changes shown in 11-14/1049r2 under the heading for CID 3173. |

**Propose:**

Revised for CID 3173, per discussion and editing instructions in 11-14/1049r2

***TGah editor: Change these subclauses (10.1.4.3.4b) as follows:*** *(CID 3173)*

**10.1.4.3.4b NDP Probing**

An ~~The~~ NDP Probing procedure is used to reduce the energy consumption during the scanning procedure. Upon receipt of the MLME-SCAN.request primitive with ActiveScanType indicating an NDP ~~Probing~~, a STA for which dot11NDPProbingActivated is true shall transmit an NDP Probe Request frame that has either a compressed SSID or an access network option. The NDP probing procedure is allowed when an S1G STA knows the operating frequency bands and regulatory domains. A non-S1G STA shall not transmit an NDP Probe Request frame~~s~~.

APs receiving an NDP Probe Request frame~~s~~ shall transmit a broadcast ~~respond with a (Short)~~ Probe Response only if:

* The compressed SSID in the NDP Probe Request frame is the specific compressed SSID of the AP.
* The access network option in the NDP Probe Request frame is the access network option of the AP.

~~If the Requested Probe Response Type field in the NDP Probe Request frame is equal to 0, the responding AP with dot11ShortProbeResponseOptionImplemented equal to true shall respond with a Short Probe Response frame. Otherwise, the AP that responds to an NDP Probe Request shall transmit a Probe Response frame. When an AP responds with a (Short) Probe Response frame, it shall perform the Basic Access procedure as defined in 9.3.4.2.~~ The probe response shall be a Short Probe Response if the AP has dot11ShortProbeResponseOptionImplemented equal to true and the Requested Probe Response Type field of the NDP Probe Request is 0. Otherwise the probe response shall be a Probe Response frame. The AP shall follow the channel access procedure defined in 9.3.4.2 (Basic access) to transmit the probe response. Because an NDP Probe Request frame does not have a MAC Address of STA requesting an NDP Probing procedure, the RA address of the (Short) Probe Response frame shall be broadcast.

If PHY-CCA.indication (busy) primitive has not been detected before the ProbeTimer reaches MinChannelTime, then set NAV to 0 and scan the next channel. Otherwise, if it receives (Short) Probe Response frame, the STA may transmit a Probe Request frame/Association Request frame or listen to a full Beacon frame for obtaining the more information.

An illustration of the NDP probing procedure is shown in Figure 10-5a (NDP Probing Procedure).