IEEE P802.11  
Wireless LANs

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| TGbi Document Brainstorming | | | | |
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### Overview

This document provides a potential organization for the topics within TGbi requirements.

The requirements are taken from 21/1848r16.

# Topics

A potential organization for TGbi topics:

1. CPE - Prevent exposure of information during (re)association exchanges:
   1. Authentication exchanges
      1. obfuscated SAE credentials, [1]
      2. obfuscated PMKs, [2]
      3. used to establish keys for (re)association) [4]
      4. carry 802.1X EAPOL PDUs in Authentication frames [48]
   2. ‘Protect’ (re)association request/response [5], frame body specifically [21] [22], DS MAC address [24]
2. CPE active scanning enhancements
   1. Limited elements to probe request [3] [20]
   2. New mgmt frame request AP/AP MLD parameters in a protected unicast exchange [49][52]
3. CPE - Changing ‘OTA MAC Address’
   1. between associations to APs in same ESS [6], during BSS transition [25]
   2. while associated
      1. Single non-AP STA initiated [7]
      2. All non-AP STAs currently associated with a specific AP [8]
      3. Simultaneous changes to scrambler seed [9], transmitted SN [9], transmitted PN[10], transmitted AID [11], transmitted TID [30] for any of above
4. CPE - Prevent exposure of non-AP STA’s clients’ DS MAC [12] and SA/DA [13]
5. CPE - Allow encryption or obfuscation of MAC Header fields [31]
6. CPE - Management frames protection
   1. [~~Allow encryption or obfuscation of a portion of some mgmt frames]~~
   2. Protect unicast mgmt frames with specific list [26]
7. CPE - Mechanism to allow an AP to be identified without the STA exposing its identity [53]
8. BPE – prevent exposure of BPE AP ESS [15] , OTA MAC address
9. BPE beacon related
   1. Reduced Beacon element set [16], encryption/obfuscation of subset of beacon elements [50]
   2. Change Beacon TBTT with changes to AP ID info [35]
   3. Change OTA TSF [40a]
   4. Allow power optimization related to beacon (short, limited elements) [50]
   5. Provide mechanism to identify BPE AP in (new) Beacon [50]
   6. Provide mechanism to solicit a Beacon from an AP [51]
   7. communicating a unique ID for BPE AP [19]
10. BPE – Changing BPE AP’s OTA MAC address [18]
    1. also change BPE AP and BPE Client’s OTA MAC address, SN and PN [39]; scrambler seed [41], transmitted TID [44]
11. BPE – obfuscate information so non-AP STAs can’t tell if they belong to the same AP MLD [38]
12. BPE – obfuscate the RA, SN and PN of the group frames to avoid BPE AP tracking [40]
13. BPE – Allow encryption or obfuscation of a portion of MAC Header fields [45]
    1. BPE – allow encryption or obfuscation of HTC and +HTC fields [46]