Wireless LANs

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| 802.11  [802.11az Annex B - PICS]  (relative to REVmd Dx.x) | | | | |
| Date: 2018-10-01 | | | | |
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Protocol Implementation Conformance Statement (PICS) -proforma

* PICS proforma—IEEE Std 802.11-<year>

Change B.4.3 as follows:

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| * IUT configuration | | | | |
| Item | IUT configuration | References | Status | Support |
|  | What is the configuration of the IUT? |  |  |  |
| CFRSTA | 11az RSTA operation | 11.22.6 (Fine timing measurement (FTM) procedure) | O  CFHE OR  CFVHT OR  CFDMG OR  CFEDMG | Yes  No  |
| CFISTA | 11az ISTA operation | 11.22.6 (Fine timing measurement (FTM) procedure) | O  CFHE OR  CFVHT OR  CFDMG OR  CFEDMG | Yes  No  |
| CFTB | support for 11az Trigge sounding | 11.22.6 (Fine timing measurement (FTM) procedure) | O  CFHE | Yes  No  |
| CFNTB | support for 11az Non Trigger Base sounding | 11.22.6 | O  CFVHT OR CFHE | Yes  No  |
| CFPASN | support for PASN | 12.13 | O  CFTB  CFNTB | Yes  No  |
| CFPSEC | Support for PHY security | 11.2.6.4.6  (Trigger Based and Non Trigger Based Secure LTF Measurement Exchange Protocol) | O  CFPASN | Yes  No  |

* MAC protocol

Change B.4.4.1 as follows:

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| * MAC protocol capabilities | | | | |
| Item | Protocol capability | References | Status | Support |
|  | Are the following MAC protocol capabilities supported? |  |  |  |
| FSTB  FSNTB | Support for Trigger Based ranging sounding exchange sequence | 11.22.6 | O  CFHE: M | Yes  No  |
| FSNTB | Support for EDCA based non trigger based ranging sounding exchange sequence. | 11.22.6 | O  CFVHT: M | Yes  No  |
| FSPASN | Pre-association security negotiation | 12.13 | O  CFPSAN:M AND  CFVHT OR  CFHE | Yes  No  |

Change B.4.4.2 as follows:

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| * MAC frames | | | | |
| Item | MAC frame | References | Status | Support |
|  | Is transmission of the following MAC frames supported? | 9 (Frame formats) |  |  |
| FT43 | Trigger frame | 10 ~~9~~ (Frame formats) | CFHE:M | Yes  No  N/A  |
| FT ANA + 0 | Fine Timing Measurement Request | 11.22.6.3 | CFISTA:M  CFTB:M OR  CFNTB:M | Yes  No  N/A  |
| FT ANA + 2 | Fine Timing Measurement | 11.22.6.3 | CFRSTA:M  CFTB:M OR  CFNTB:M | Yes  No  N/A  |
| FT ANA + 3 | Location Measurement Report | 9.3.6.7.37  11.22.6.4.3 | CFRSTA:M OR CFISTA:M  AND  CFTB OR  CFNTB | Yes  No  N/A  |
| Need to check on NDPA transmission and reception | Transmission of NDPA in the EDCA based non Trigger based ranging sounding |  | CFISTA  CFNTB  OR  CFRSTA  CFTB | TBD |
|  |  |  |  |  |
|  | Is reception of the following MAC frames supported? |  |  |  |
| FR44 | Trigger frame | 10 ~~9~~ (Frame formats) | CFHE:O | Yes  No  N/A  |
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| FR ANA + 0 | Fine Timing Measurement Request | 11.22.6.3 | CFRSTA:M AND  CFTB OR  CFNTB | Yes  No  N/A  |
| FR ANA + 2 | Fine Timing Measurement | 11.22.6.3 | CFISTA:M  AND  CFTB OR  CFNTB | Yes  No  N/A  |
| FR ANA + 3 | Location Measurement Report | 9.3.6.7.37  11.22.6.4.3 | CFRSTA:M OR CFISTA:M  AND  CFTB OR  CFNTB | Yes  No  N/A  |



Insert a new subclause B.4.28 as follows:

B.4.28 Next Generation Positioning (NGP) features

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| B.4.28.1 | | | | |
| Item | Protocol capability | References | Status | Support |
|  | Are the following MAC protocol features supported? |  |  |  |
| NGPM1 | NGP capability Signaling |  |  |  |
| NGPM1.1 | NGP FTM support signaling | 11.22.6.2  11.22.6.3.1 | (CFTB OR CFNTB):M | Yes  No  N/A  |
| NGPM1.2 | NGP FTM capability negotiation | 11.22.6.3.1 | (CFTB OR CFNTB):M | Yes  No  N/A  |
| NGPM1.3 | NGP secured MAC operation | 12.13  11.22.6.4.6 | (CFTB OR CFNTB):M | Yes  No  N/A  |
| NGPM2 | Trigger Based Ranging Operation |  |  |  |
| NGPM2.1 | Secured TB Ranging Operation | 12.13  11.22.6.4.6 | (CFHE AND CFTB):M | Yes  No  N/A  |
| NGPM3 | Non Trigger Based Location Operation |  |  |  |
| NGPM3.1 | Secured Non Trigger Based Ranging Operation | 12.13  11.22.6.4.6 | CFVHT :M | Yes  No  N/A  |
| NGPM4 | Passive Location operation |  |  |  |
| NGPM4.1 | Operation as RSTA | 11.22.6.4.9 | CFTB:M | Yes  No  N/A  |
| NGPM4.2 | Operation as ASTA | 11.22.6.4.9 | CFTB:M | Yes  No  N/A  |
| NGPM4.3 | Operation as Passive ISTA | 11.22.6.4.9 | CFTB:M | Yes  No  N/A  |
| NGPM5 | EDMG/DMG operation | 11.22.6.4.7 | O | Yes  No  N/A  |
| NGPM5.1 | EDMG/DMG Direction Measurement as ISTA | 11.22.6.4.7.2 | CFISTA: O | Yes  No  N/A  |
| NGPM5.2 | EDMG/DMG Direction Measurement as RSTA | 11.22.6.4.7.2 | CFRSTA: O | Yes  No  N/A  |
| NGPM5.3 | EDMG FTM measurement with First Arrival Path as ISTA | 11.22.6.4.7.1 | (CFISTA and EMDG-M17.7): M | Yes  No  N/A  |
| NGPM5.4 | EDMG FTM measurement with First Arrival Path as RSTA | 11.22.6.4.7.1 | (CFRSTA and EMDG-M17.7): M | Yes  No  N/A  |
| NGPM5.5 | EDMG Direction measurement with First Arrival Path as ISTA | 11.22.6.4.7.2 | (CFISTA and EMDG-M17.7): O | Yes  No  N/A  |
| NGPM5.6 | EDMG Direction Measurement with First Arrival Path as RSTA | 11.22.6.4.7.2 | (CFRSTA and EMDG-M17.7): O | Yes  No  N/A  |
| NGPM5.7 | EDMG LOS Assessment as ISTA | 11.22.6.4.7.3 | (CFISTA and EMDG-M17.7 and EDMG-TBD):O | Yes  No  N/A  |
| NGPM5.8 | EDMG LOS Assessment as RSTA | 11.22.6.4.7.4 | (CFRSTA and EMDG-M17.7 and EDMG-TBD):O | Yes  No  N/A  |
| NGPM6 | Secure EDMG FTM operation | 11.22.6.4.8 | (CFEDMG and (CFISTA or CFRSTA) and NGPP5 and NGPM1.3):O | Yes  No  N/A  |

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| B.28.2 NGP PHY features | | | | |
| Item | Protocol capability | References | Status | Support |
|  | Are the following PHY protocol features supported? |  |  |  |
| NGPP1 | PHY operating modes |  |  |  |
| NGPP1.1 | Operation using management frames for sounding. | 11.22.6.4.2 |  | Yes  No  N/A  |
| NGPP1.2 | Trigger Based Ranging | 11.22.6.4.3 |  | Yes  No  N/A  |
| NGPP1.3 | Non Trigger Based Ranging | 11.22.6.4.4 |  | Yes  No  N/A  |
| NGPP2 | NGP PPDU formats | 28.3 |  |  |
| NGPP2.1 | TB SU sounding NDP PPDU | 28.3.17a |  | Yes  No  N/A  |
| NGPP2.2 | TB TB Sounding NDP PPDU | 28.3.17b |  | Yes  No  N/A  |
| NGPP2.3 | TB SU secured NDP | 28.3.17a |  | Yes  No  N/A  |
| NGPP2.4 | TB SU secured NDP | 28.3.17a |  | Yes  No  N/A  |
| NGPP4 | MIMO operation |  |  |  |
| NGPP4.1 | Multi transmit streams | 11.22.6.4.3  11.22.6.4.4 |  | Yes  No  N/A  |
| NGPP4.2 | Multi receive streams | 11.22.6.4.3  11.22.6.4.4 |  | Yes  No  N/A  |
| NGPP5 | Secure ranging EDMG TRN field | 29.9.3.5, 29.9.3.6, 29.9.3.7 |  | Yes  No  N/A  |