IEEE P802.11  
Wireless LANs

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| Proposed text to TGax Simulation Scenarios U-APSD test | | | | |
| Date: Jan 14, 2015 | | | | |
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# Summary:

The following changes are suggested for the MAC simulator section of the simulation scenario document [1]:

1. ProbeDelay
2. Remove 24kbps Codec
3. Change figure to add ProbeDelay
4. Remove Beacon
5. Suggest to use table instead of piecharts. Just tables of the operation time/energy in PHY states are more informative and are more convenient for comparing results from different contributors.

Strawpoll:

Do you agree to adopt the changes below to 11-14-980r5?

# Proposed text changes in <Test 5: Power Save Mechanism Test>

**U-APSD test**

 Figure 13 – Example of the frameflow and backoff in U-APSD scenario and non-AP STA Power fStates.

* MSDU length:  120 bytes with CWmin=15  (once every 40 ms) for both uplink and downlink

Power save test parameters

* AIFS=DIFS=34us
* RTS/CTS [ OFF ]
* MCS = [ 0 ]
* Beacon is not transmitted in U-APSD test
* Max SP Length = [ 4 ]
* ProbeDelay = 100µs

A STA that is changing from Doze to Awake in order to transmit shall perform CCA until a frame sequence is detected by which it can correctly set its NAV, or until a period of time equal to the ProbeDelay has transpired. If no valid NAV has been set during the period of ProbeDelay, the STA shall perform the Basic Access procedure as defined in 9.3.4.2 (Basic access) immediately after ProbeDelay’s transpiration.

Output:

* MAC throughput
* Table (breakdown) of percentage of time spent in each power state during the course of the simulation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | STA (%) | | | | AP (%) | | | |
|  | Listen | RX | TX | Sleep | Listen | RX | TX | Sleep |
| < Power Save Mechanism > On |  |  |  |  |  |  |  |  |
| < Power Save Mechanism > Off |  |  |  |  |  |  |  |  |

* Table (breakdown) of energy consumed in each power state during the course of the simulation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | STA (Watt) | | | | AP (Watt) | | | |
|  | Listen | RX | TX | Sleep | Listen | RX | TX | Sleep |
| < Power Save Mechanism > On |  |  |  |  |  |  |  |  |
| < Power Save Mechanism > Off |  |  |  |  |  |  |  |  |

# Reference

[1] 11-14/0980r05, “Simulation Scenarios”, Simone Merlin (Qualcomm)