IEEE P802.11  
Wireless LANs

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| D2 Comment Resolution, brianh, part 1 | | | | |
| Date: 2012-04-12 | | | | |
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##### Baseline is 11ac D2.1. Changes indicated by a mixture of Word track-changes and instructions. For equation changes, Latex notation is sometimes used. E.g. a\_{xyz}^b denotes axyzb

MAC CIDs addressed: 5367, 4273, 4274,

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| 5367 | 6.3.11 | 20 | 49 | Add Quiet Channel element into MLME-START.request primitive. | As per comment. | Declined: 11h never explicitly defined whether the SME or the MLME was responsible for issuing Quiet elements. Ditto 11k. Then, since no MLME-SAP interface (or MIB variables) were provided for controlling the Quiet element, therefore implicitly the MLME must autonomously decide how/when/if to send Quiet elements.  By extension, no MLME interface is needed for the Quiet Channel element either. |

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| 4273 | 6.3.11.2.2 | 19 | 62 | Extended BSS Load and Extended Power Constraint change during BSS lifetime, so need to passed via more than just the start request. | Find a better interface - e.g. a) generated entirely inside MLME, b) sent via MIB variable, c) some other SME-driven config operation. Check what happened for Legacy Power constraint and BSS Load elements | Revised: Remove Extended Power Constraint (it is an MLME function). Extended BSS Load is already removed under CID 4018. See changes under this CID in 12/494r<motionedRevision#> | |
| 4274 | 6.3.11.2.2 | 20 | 34 | Power constraint is also optionally present if dot11RadioMeasurementActivated is true | Optionally allow if dot11RadioMeasurementActivated is true | | Revised: Remove Extended Power Constraint (it is an MLME function). See changes under this CID in 12/494r<motionedRevision#> |

***Discussion:***

11h never explicitly defined whether the SME or the MLME was responsible for issuing the Power Constraint element, but certainly no MLME-SAP interface (or MIB variables) were provided. Further, there are shall’s on the AP: 10.8.4: “The Local Power Constraint field of any transmitted Power Constraint element shall be set to a value that allows the mitigation requirements to be satisfied in the current channel.”

Taken together, this indicates that implicitly the MLME must autonomously decide how/when/if to send the Power Constraint element.

This picture is confirmed by 11k, since:

* Although 11k added a lot of MAC-SAP clauses, and assumed that a lot of the RRM policy occurred in the SME, still 11k assumed that TPC functionality occurred within the MLME, and did not send Power Constraint from SME to MLME. See especially:
  + 6.3.13 Protocol layer model for spectrum management and radio measurement
  + 6.3.18 MLME-TPCADAPT.req/conf



* Note: MLME-TPCADAPT.req only contains “Peer MAC Address, Dialog Token, VendorSpecificInfo” – no Power Constraint or anything similar

This picture is somewhat complicated by 11v and 11y, but we can defer these complications to 11mc. E.g.

* Power Constraint does now appear the MLME interface for 11v timing measurement. But this seems to be for the Timing Measurement frame – which does not exist (11mc issue), so at present the inclusion of the Power Constraint element here makes no sense.
  + And since we’re leaning to the Power Constraint being generated by the MLME, then Power Constraint should be deleted from here (11mc issue).
* Power Constraint also appears in the MLME interface for 11v channel usage. This is for a non-serving channel so arguably this is just “different” than anything else we’re talking about.
* The 11y *DSE* power constraint is always from SME. But this is DSE, so again, arguably it is just different.

Summary: picking the power constraint is an MLME function, so delete it from any SME interface.

The comment also refers to Extended BSS Load in D2.0, but this is already removed in D2.1 by CID 4018 (which is the right decision, since BSS Load is not passed the SME to the MLME – so presumably the MLME calculates it – and certainly the MLME has all the info it needs to calculate it)

***Change:***

**6.3.11.2.2 Semantics of the service primitive**

**6.3.11.2 MLME-START.request**

**6.3.11.2.2 Semantics of the service primitive**

***Change the primitive parameter list and associated table, inserting the parameters shown together with associated table entries:***

The primitive parameters are as follows:

MLME-START.request(

SSID,

SSIDEncoding,

BSSType,

BeaconPeriod,

DTIMPeriod,

CF parameter set,

PHY parameter set,

IBSS parameter set,

ProbeDelay,

CapabilityInformation,

BSSBasicRateSet,

OperationalRateSet,

Country,

IBSS DFS Recovery Interval,

EDCAParameterSet,

DSERegisteredLocation,

HT Capabilities,

HT Operation,

BSSMembershipSelectorSet,

BSSBasicMCSSet,

HTOperationalMCSSet,

Extended Capabilities,

20/40 BSS Coexistence,

Overlapping BSS Scan Parameters,

MultipleBSSID,

InterworkingInfo,

AdvertismentProtocolInfo,

RoamingConsortiumInfo,

Mesh ID,

Mesh Configuration,

QMFPolicy,(11ae)

DBand Capabilities,(11ad)

Multi-band,(11ad)

Multiple MAC Addresses,(11ad)

DBand Operation,(11ad)

Clustering Control,(11ad)

CBAP Only,(11ad)

PCP Association Ready,(11ad)

VHT Capabilities,

VHT Operation,

(#4018)VHTBSSBasicMCSSet,

VHTOperationalMCSSet,

VendorSpecificInfo

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