IEEE P802.11  
Wireless LANs

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| MIB attribute proposal for TGah | | | | |
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Abstract

This submission contains a proposed comment resolution for TGah LB 207 CID 6162:

R0 – Initial discussion document. No specific proposal yet, until TGah discussion.

# CID 6162

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| 6162 | 324.40 | 9.51 | The usage (and names) of dot11RelaySupport, dot11RelaySTACapable, dot11RelaySTAOperation, and dot11RelayAPOperation is confusing, and inconsistent in spots. Align these names with ARC's MIB proposals. Make the usage clear, and consistent. | See 11-15/259 for a proposal. |

**Discussion:**

Current usage of these attributes in TGah D4.0 is in:

* dot11RelaySupport For the both STAs of a relay
* dot11RelaySTAOperation For the non-AP STA side of a relay
* dot11RelaySTACapable For the non-AP STA side of a relay
* dot11RelayAPOperation For the AP side of a relay
* dot11RelayDiscoveryOptionImplemented

Places where they are used:

The general flow to start up relay operations seems to be:

* A non-AP STA with dot11RelaySTACapable set to true, may try to start relay operation by sending a Relay Activation element to its AP. (There are conditions on this process, which are ignored here.)
* If the AP is capable (a root AP or a relay AP, the latter meaning that dot11RelayAPOperation is true), it may complete the activation of this non-AP STA’s relay.
* The non-AP STA sets dot11RelaySTAOperation to true, to indicate that the relay is active.
* The AP co-located with the non-AP STA becomes active as part of the relay, and sets dot11RelayAPOperation to true.

The work in the ARC SC is still ongoing, but the direction at this point seems to be:

For any given feature, only one of these is appropriate:

- dot11XxxActivated: if the feature can be externally turned on/off – read-write

- dot11XxxEnabled if it the feature is internally turned on/off – read-only

- dot11XxxImplemented if the feature is either present or not – read-only

So:

* dot11RelaySupport appears to be a static indication of the feature being present. ARC’s guidelines would suggest this should be dot11RelayImplemented.
* dot11RelaySTACapable is similarly a static indication of the feature being present. Again, ARC’s guidelines suggest this should be dot11RelaySTAImplemented.
* dot11RelaySTAOperation appears to be enabled by the successful completion of the Relay Activation procedure. Thus, it is internally turned on and off. ARC’s guidelines would suggest this should be dot11RelaySTAEnabled.
  + The description in Annex C says this is enabled by an external management entity. This seems inconsistent with the text description of the Activation procedure.
* dot11RelayAPOperation is similar to dot11RelaySTAOperation. It seems this should be dot11RelayAPEnabled, to follow the ARC guidelines.

This naming is admittedly to a set of guidelines that have not been agreed, so it may be premature. TGah should discuss.

The other inconsistency is between the AP side of these attributes and the non-AP STA side. On the AP side, the general attribute “dot11RelaySupported” is used to indicate the feature is present. On the non-AP STA side, both dot11RelaySupported and dot11RelaySTACapable appear to be set to true. Then, both sides have the …Operation attribute. The only value of the two different types of “the feature is present” attributes seems to be a bit of short-hand in clause 6 and clause 8 where some parameters/fields are dependent on these – in confusing ways. It would be more consistent to have dot11RelaySTACapable and dot11RelayAPCapable, and no general-purpose dot11RelaySupported. Alternatively, it might be simpler to have just dot11RelaySupported, and have neither of the dot11Relay<STA|AP>Capable attributes, letting the distinction be clear because of the nature of the STA (AP, or non-AP). TGah should discuss.

**Proposed changes:**

Correct the typos in 6.3.3.2.3 (P15L29), 6.3.7.2.2 (P22L36), 6.3.7.3.2 (P24L24), 6.3.7.4.2 (P26L36), 6.3.7.5.2 (P29L32), 6.3.8.2.2 (P31L36), 6.3.8.2.2 (P33L50), 8.3.8.4.2 (P35L42) and 6.3.8.5.2 (P38L32):

Replace “dot11RelaySupported” with …

Replace “dot11RelaySTACapable” with …

Replace “dot11RelaySTAOperation” with …

Replace “dot11RelayAPOperation” with …

**Proposed resolution: Revised**

Make the changes as shown in 11-15/0257r0.