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| Comment Resolutions for Differentiated Link Setup  |
| Date: 2016-07-26 |
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**Comment LB3000:**

1. DILS functionally does not work because non-AP STAs can just claim they have priority ignore any indication by the AP to wait.
2. They can also easily change their MAC address to pass whatever filter the AP is indicating.
3. Now that it is optional it is even more useless because a non-AP STA might not implement it, thereby making any AP implementation be pointless! The non-AP STA will just ignore the DILS element because it didn't implement DILS.

**Proposed Change:**

Get rid of Differentiated Link Setup. Strike section 11.47.5 in its entirety and remove all the related components in section 9 and elsewhere in the draft.

**Proposed Resolution:** Reject.

Comments asking to delete or modify DILS were brought to the TGai multiple times, and it were previously rejected by the group every time in LB209, LB213, 1st SB.

The comments on security and cheating the implementation, comment on MAC spoofing and MAC filtering, comments on the optionality of this feature.

Comment such that the STA just could claim that has priority (therefore cheating) is not a valid comment for a STA that implements the standard and is certified based on the 802.11 standard implementation.

TGai has discussed the technical merits of DILS and does not agree to make changes to the current draft.

Document 11-16-1014-00-00ai contains further information on previous related comments previously rejected.

**Additional information:**

All other comments were extensively discussed in the group and rejected (see below)

Here are just few examples of all comments on this issue that were discussed and rejected by the group.

Comment related to the optionality of implementation: January 2015, LB209

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| 6447 | 10.45.5 | 102 | 42 | What is the incentive for a non-AP STA to use DILS? | Either provide evidence that DILS is to a STA's benefit even if other STAs don't implement DILS (such a claim was made during D2.0 comment resolution -- see http://www.ieee802.org/11/email/stds-802-11-tgai/msg00810.html -- but the evidence was never provided despite repeated requests) or get rid of the DILS feature | Reject. DILS provide system wide benefit especially for the stations already associated or with higher priority established by the parameters. Its implementation (certification) is out of the TGai scope. |

January 2016 1SB

Comment on the optionality of DILS feature:

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| 10472 | Differentiated link setup may be used to disallow FILS under given conditions. If disallowed, STAs may still continue with regular / non-FILS link set up. So what is the point in having DLS unless we make it mandatory and disallow link setup for all STAs (in a mandatory way) if disallowed by DLS. | Delete the concept of DLS | Reject. The group passed a motion to reject the deletion of the DILS concept. In 802.11 spec there are other features (for instance BSS Management Transition Request) where the stations are requested but not mandated to perform an action or behavior.  |

March 2015-LB209

Comment on MAC address spoofing:

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| 7265 | 10.45.5 | 108 | 54 | differentiated link setup is more trouble than it's worth. A STA can easily change it's MAC address or claim it has some user priority in order to connect when the AP is, otherwise, limiting connections from STAs. Imagining that APs will be configured with specified MAC ranges or bit patterns and will selectively apply them at some threshold of activity is crazy. That's just not gonna happen. | get rid of this entire section on Differentiated Initial link setup | Reject. When approving features for Tgai the task group discussed the benefits and disadvantages of technical features. That majority of the group was in favor of including DILS in the amendment. This position was confirm by a straw poll. |

November 2015

Comment on impossibility to filter on MAC address and complexity:

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| 1042 | 8.4.2.18.2 | 70 | Differentiated link setup is unworkable. MAC addresses are not IP addresses and it is not possible to mask them to achieve a rational purpose. Filtering on user priority will mean every STA is the highest priority. APs can already refuse connections. This capability is too complicated, serves no rational purpose, and is unnecessary. | get rid of differentiated link setup | "Reject. When a STA receives a frame, the STA will always match the frame against its own address or a broadcast/multicast address. Matching the MAC address against another MAC address or pattern is always possible. An AP could refuse connections for those who make such requests. However, here the goal is not to refuse connection, but to spread them in time to avoid clogging the channel with requests (FILS Authentication frame). These requests will be accepted, in this way avoid unnecessary signaling." |

July 2015, LB 213

Comment on complexity of implementation and RSN :

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| 8011 | complicated beyond value, we don't have such a capability for other RSN authentication protocols and FILS is supposed to be faster and more efficient so the need for this (only) for FILS does not exist | Remove section 8.4.2.182 entirely | The task group discussed the concept of Differentiated Link Setup. A straw poll probing the group to see if the concept of Differentiated Link Setup should be removed failed ("Should the concept of Differentiated Link Setup be removed from the draft?" Y/N/A: 1/6/4) |