IEEE P802.11
Wireless LANs

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| SB1 Comment Resolution Part5 |
| Date: 2016-03-16 |
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Abstract

This submission proposes resolutions of comments received from TGah 1st Sponsor Recirculation Ballot (TGah Draft 6.0).

* CIDs: 9055 (1 CID)

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGah Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGah Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGah Editor: Editing instructions preceded by “TGah Editor” are instructions to the TGah editor to modify existing material in the TGah draft. As a result of adopting the changes, the TGah editor will execute the instructions rather than copy them to the TGah Draft.***

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| --- | --- | --- | --- | --- | --- |
| 9055 | 75.00 | 9.2.3 | Modifications to MAC frame formats, and/or definition of new MAC frame formats, is out of scope of the amendment: The scope of the project SPECIFICALLY is limited to "enhancements to the IEEE 802.11Medium Access Control (MAC) to support this PHY". The changes in this clause are not required to support this PHY. | Remove 9.4.3 from this amendment (i.e. remove all changes to clause 9.4.3 of the base standard) | Rejected- The Ballot Resolution Committee (BRC) disagrees on the interpretation of the PAR. The BRC believes that the feature is in scope as it is an enhancement to the IEEE 802.11 Medium Access Control (MAC) to support a transmission range up to 1 Km and a various data rates (>100 kbit/s). In order to satisfy a transmission range and data rates specified in the PAR scope, a minimum channel bandwidth of TGah PHY has been determined to 1 MHz. Current 802.11 MAC frame format is inappropriate for 1MHz PHY because the MAC header (30-36 octets in 11n) is a significant overhead. A new MAC frame format is defining a short MAC header for an enhancement of 1 MHz PHY. Because it is hard to use 1 MHz PHY without defining the short MAC header, the BRC disagrees that a new MAC frame format (aka PV1 frame format) is out of scope of the TGah PAR. |

**Discussion:**

The PAR scope of TGah is as the following.

***5.2 Scope:*** *This amendment defines an Orthogonal Frequency Division Multiplexing (OFDM) Physical layer (PHY) operating in the license-exempt bands below 1 GHz, e.g., 868-868.6 MHz (Europe), 950 MHz -958 MHz (Japan), 314-316 MHz, 430-434 MHz, 470-510 MHz, and 779-787 MHz (China), 917 - 923.5 MHz (Korea) and 902-928 MHz (USA), and enhancements to the IEEE 802.11 Medium Access Control (MAC) to support this PHY, and provides mechanisms that enable coexistence with other systems in the bands including IEEE 802.15.4 and IEEE P802.15.4g.*

*The data rates defined in this amendment optimize the rate vs range performance of the specific channelization in a given band.*

*This amendment also adds support for:*

*-transmission range up to 1 km*

*-data rates > 100 kbit/s*

*while maintaining the IEEE 802.11 WLAN user experience for fixed, outdoor, point to multi point applications.*

According to the TGah PAR scope, TGah defines an OFDM PHY modes operating in Sub 1 GHz.

In order to satisfy a transmission range and data rates specified in the PAR scope, a minimum channel bandwidth of TGah PHY has been determined to 1 MHz.

Then, TGah amendment defines an enhancement to the IEEE 802.11 MAC to support this 1 MHz PHY.

Current 802.11 MAC frame format is inappropriate for 1MHz PHY because the MAC header (30-36 octets in 11n) is a significant overhead.

A new MAC frame format is defining a short MAC header for an enhancement of 1 MHz PHY.

Because it is hard to use 1 MHz PHY without defining the short MAC header, the BRC disagrees that a new MAC frame format (aka PV1 frame format) is out of scope of the TGah PAR.