

Comments on P802.15 PARs & CSDs

From 802.1

CSD

Title

- CRITERIA FOR STANDARDS DEVELOPMENT (CSD) IEEE 802.15.11 Standard for Multi-Gigabit/s Optical Wireless Communications
- This project is for IEEE 802.15.13. Change 802.15.11 to 802.15.13 in the title

CSD

1.2.2 Compatibility

- a) Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? **Yes**
- The 802.1 WG would like a clarification of compatibility. In particular:
 - Is the 802.15.13 MAC substantially the same as the 802.15.3 MAC which is currently being added to IEEE Std 802.1AC by P802.1ACct? If it is different, do we need a project to add MAC service definitions to IEEE Std 802.1AC?
 - Can you clarify the supported MTU sizes for 802.15.13 frames? Other 802.15 MACs have restricted MTU sizes making bridging to other 802 Media impossible without suitable fragmentation/reassembly support.

CSD

1.2.2 Compatibility

- a) Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? No. While the amendment shall comply with IEEE Std 802, it cannot comply with IEEE Std 802.1Q and IEEE Std 802.1AC because IEEE Std 802.15.4 uses 64-bit MAC addresses.
- IEEE 802.1 believes there are additional issue with compatibility that are not listed. In particular:
 - 802.15.4 has a restricted MTU size which makes bridging to other IEEE 802 media impossible without suitable fragmentation/reassembly support
 - The use of other Addressing Modes beyond the extended address (64-bit) are also incompatible with IEEE Std 802.1Q and IEEE Std 802.1AC
 - Provide a complete list of all aspects of IEEE Std 802.15.4 that do not comply with IEEE Std 802.1Q and IEEE Std 802.1AC

PAR

8.1 Additional Explanatory Notes:

- The first sentence, “*P802.15.6a addresses EMC and EMI for both HBAN and VBAN.*” does not reference a previous section for which it is providing explanatory notes.
- The sentence “*Support for synchronization infrastructure, for instance 802.1 TSN MAC Bridge, to enhance dependability and reliable latency.*” seems out of context in Section 8.1. Is this intended to be part of 5.2.b Scope of the project?
- The acronym TSN should be spelled out on first use.
- The text at the end of this section regarding 5.4 Purpose is not written in complete sentences and is unclear what is being explained. Re-write this text and indicate what part of Section 5.4 is being further explained.

PAR

5.2 Scope of proposed standard:

- The scope states, “This standard specifies the physical layer (PHY) and **data link layer** for impulse radio ultra wideband (UWB)...”. To be consistent with other IEEE 802 standards defining both the PHY and MAC, the scope should say, “This standard specifies the physical layer (PHY) and **media access control (MAC) sublayer** for impulse radio ultra wideband (UWB)...”
- Change “data link layer” to “media access control (MAC) sublayer”

PAR

5.5 Need for the Project:

- The references to standards 802.15.4-2020, 805.15.4w-2020, 802.15.4y-2021, and 802.15.4z-2020 are not proper references to IEEE Standards.
- Precede the referenced standards with “IEEE Std” in each case. NOTE: changes in sections 7.1 and 8.1 are also needed.
- We suggest removing the list of amendments that have been rolled into IEEE Std 802.15.4-2020. This detail is not important in the PAR

CSD

1.2.2 Compatibility

- a) Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? No. While the standard shall comply with IEEE Std 802, it does not intend to comply with IEEE Std 802.1Q and IEEE Std 802.1AC to maintain backwards compatibility with IEEE Std 802.15.4 which uses 64-bit MAC addresses.
- IEEE 802.1 believes there maybe additional issues with compatibility that are not listed. Please clarify:
 - Will 802.15.14 use a restricted MTU size? Restricted MTU sizes make bridging to other IEEE 802 media impossible without suitable fragmentation/reassembly support
 - Will 802.15.14 have other Addressing Modes beyond the 64-bit address that are also incompatible with IEEE Std 802.1Q and IEEE Std 802.1AC?
 - Provide a complete list of all aspects of IEEE Std 802.15.14 that do not comply with IEEE Std 802.1Q and IEEE Std 802.1AC

PAR

5.5 Need for the Project:

- The references to standards 802.15.4-2020, 805.15.4w-2020, 802.15.4y-2021, and 802.15.4z-2020 are not proper references to IEEE Standards.
- Precede the referenced standards with “IEEE Std” in each case. NOTE: changes in sections 7.1 and 8.1 are also needed.
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CSD

1.2.2 Compatibility

- a) Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? No. While the standard shall comply with IEEE Std 802, it does not intend to comply with IEEE Std 802.1Q and IEEE Std 802.1AC to maintain backwards compatibility with IEEE Std 802.15.4 which uses 64-bit MAC addresses.
- IEEE 802.1 believes there maybe additional issues with compatibility that are not listed. Please clarify:
 - Will 802.15.14 use a restricted MTU size? Restricted MTU sizes make bridging to other IEEE 802 media impossible without suitable fragmentation/reassembly support
 - Will 802.15.14 have other Addressing Modes beyond the 64-bit address that are also incompatible with IEEE Std 802.1Q and IEEE Std 802.1AC?
 - Provide a complete list of all aspects of IEEE Std 802.15.15 that do not comply with IEEE Std 802.1Q and IEEE Std 802.1AC