

CRITERIA FOR STANDARDS DEVELOPMENT (CSD)

Based on IEEE 802 LMSC Operations Manuals approved 15 November 2013
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**Amendment to IEEE Standard 802.1AC-2016:
Standard for Local and metropolitan area networks -- Media Access Control
(MAC) Service Definition**

Amendment to include a mapping to the 802.15.3 MAC entity

1. IEEE 802 criteria for standards development (CSD)

The CSD documents an agreement between the WG and the Sponsor that provides a description of the project and the Sponsor's requirements more detailed than required in the PAR. The CSD consists of the project process requirements, 1.1, and the 5C requirements, 1.2.

1.1 Project process requirements**1.1.1 Managed objects**

Describe the plan for developing a definition of managed objects. The plan shall specify one of the following:

- a) The definitions will be part of this project.
- b) The definitions will be part of a different project and provide the plan for that project or anticipated future project.
- c) The definitions will not be developed and explain why such definitions are not needed.

This project will use method c). IEEE 802.1AC is a service interface specification and has no managed objects.

1.1.2 Coexistence

A WG proposing a wireless project shall demonstrate coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable.

- a) Will the WG create a CA document as part of the WG balloting process as described in Clause 13? (yes/no) **No**
- b) If not, explain why the CA document is not applicable.

This is not a wireless project. It concerns the interface to the wired network.

1.2 5C requirements**1.2.1 Broad market potential**

Each proposed IEEE 802 LMSC standard shall have broad market potential. At a minimum, address the following areas:

- a) Broad sets of applicability.

There is a need for increased wireless data rates to service aggregated data streams in wireless point-to-point applications in data centers. A literature study has revealed that data centers need to be reconfigured frequently. In data centers wireless links will make frequent reconfiguration easier and more cost-effective compared to e. g. fiber and copper twin/ax deployments. Attaching IEEE 802.15.3 media to a MAC bridge makes this possible.

- b) Multiple vendors and numerous users.

Multiple participants of IEEE 802.15 have shown interest in communications capabilities of this type. These include international wireless carriers/service providers, academic researchers, semiconductor manufacturers, communication equipment manufacturers, system integrators and end users.

1.2.2 Compatibility

Each proposed IEEE 802 LMSC standard should be in conformance with IEEE Std 802, IEEE 802.1AC, and IEEE 802.1Q. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with IEEE 802.1 WG prior to submitting a PAR to the Sponsor.

- a) Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q?

Yes. As an amendment to 802.1AC, the proposed standard shall comply with IEEE Std 802, IEEE Std 802.1AC and IEEE 802.1Q.

- b) If the answer to a) is no, supply the response from the IEEE 802.1 WG.

1.2.3 Distinct Identity

Each proposed IEEE 802 LMSC standard shall provide evidence of a distinct identity. Identify standards and standards projects with similar scopes and for each one describe why the proposed project is substantially different.

No other standard provides compatibility between IEEE 802.15.3 and IEEE 802.1 MAC bridges.

1.2.4 Technical Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence that the project is technically feasible within the time frame of the project. At a minimum, address the following items to demonstrate technical feasibility:

- a) Demonstrated system feasibility.

This project is closely analogous to the clauses in IEEE 802.1AC-2016 supporting IEEE 802.11 media.

- b) Proven similar technology via testing, modeling, simulation, etc.

See a)

1.2.5 Economic Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence of economic feasibility.

Demonstrate, as far as can reasonably be estimated, the economic feasibility of the proposed project for its intended applications. Among the areas that may be addressed in the cost for performance analysis are the following:

- a) Balanced costs (infrastructure versus attached stations).
Not applicable
- b) Known cost factors.
Similar to existing wireless mappings to IEEE 802.1AC
- c) Consideration of installation costs.
See b)
- d) Consideration of operational costs (e.g., energy consumption).
See b)
- e) Other areas, as appropriate.