

1.1 Broad Market Potential

A standards project authorized by IEEE 802 LMSC shall have a broad market potential. Specifically, it shall have the potential for:

- a) Broad sets of applicability
- b) Multiple vendors and numerous users.
- c) ~~Balanced costs (LAN versus attached stations).~~

Rationale: Balanced costs doesn't apply to much of what we do today. However, the broad set of applicability and multiple vendors is still relevant.

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802.3 feels that this particular point still has value for a significant portion of the dot 3 projects, thus this point should not be eliminated from the 5 Criteria.

We would be willing to update "LAN" to "infrastructure".

We would also be willing to consider moving this point to another Criteria, e.g. Economic Feasibility.

1.2 Compatibility and Coexistence

IEEE 802 LMSC defines a family of standards. All standards should be in conformance with :- IEEE Std 802, IEEE 802.1D, and IEEE 802.1Q. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with IEEE 802.1 Working Group prior to submitting a PAR to the Sponsor. ~~In order to demonstrate compatibility with this criterion, the Five Criteria statement must answer the following questions:~~

a) ~~Will Does~~ the proposed standard ~~PAR mandate that the standard shall~~ comply with IEEE Std 802, IEEE Std 802.1D and IEEE Std 802.1Q?

b) If the answer to a) is no, not, supply the response ~~how will the Working Group ensure that the resulting draft standard is compliant, or if not, receives appropriate review~~ from the IEEE 802.1 Working Group.

Rationale: Modified by the group.

If the PAR proposes a wireless standard for unlicensed operation, the a WG proposing a wireless project is required to demonstrate coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable. Accordingly, the Five Criteria statement shall answer the following questions:

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Change to:

1. Explain how the proposed standard will be compliant to IEEE Std 802.
2. Explain how the proposed standard will be compatible with 802.1D and 802.1Q

Any issues regarding compliance or compatibility must be reviewed by 802.1.

For any issues reviewed by 802.1, please include their response.

1.3 Distinct Identity

Each IEEE 802 LMSC standard shall have a distinct identity. To achieve this, each authorized project shall ~~be:~~ state why it is substantially different from other IEEE 802 LMSC standards.

- ~~a) Substantially different from other IEEE 802 LMSC standards.~~
- ~~b) One unique solution per problem (not two solutions to a problem).~~
- ~~c) Easy for the document reader to select the relevant specification.~~

Rationale: b) applies more to the finished draft, rather than the PAR. Plus, I think that a lot of our standards violate the letter of this, there are often multiple options in a standard that solve basically the same problem. This seems to be an outgrowth of our desire to obtain consensus.

Rationale: c) doesn't make sense, this implies that it is the title that matters.

Finally, if we delete 2 out of the 3 list items, we should make it just single sentence.

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John's

Each IEEE 802 LMSC standard shall have a distinct identity. Each authorized project shall state why it is substantially different from other IEEE 802 LMSC or external standards or standards projects.

1.4 Technical Feasibility For a project to be authorized, it shall be able to show its technical feasibility. At a minimum, the proposed project shall show:

- a) Demonstrated system feasibility.
- b) Proven similar technology, reasonable testing, via testing, modeling, simulation, etc.
- c) Confidence in reliability.

Rationale: Typically we specify standards for emerging technology, which has not yet been proven when the PAR is proposed. Similar technology typically has been demonstrated. The term "reasonable testing" seems very difficult to quantify. Finally, with respect to reliability, I will simply quote Gilb's 4th law on unreliability (distant relation, we think), "Investment in reliability will increase until it exceeds the probable cost of errors, or until someone insists on getting some useful work done."

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Power considerations.

1.5 Economic Feasibility

For a project to be authorized, it shall be able to show economic feasibility (so far as can reasonably be estimated) for its intended applications. At a minimum, the proposed project shall show:

- a) Known cost factors, ~~reliable data~~.
- b) Reasonable cost for performance.
- c) Consideration of installation costs.

Rationale: For a), the cost factors would be “known” only for similar systems as the proposed system may not yet exist. As far as “reliable data”, I will quote Gilb's 2nd law of unreliability, “Any system which depends on human reliability is unreliable.”

For c), I don't think we have the expertise to analyze this for the cases where it would matter (e.g., for base stations). Most of our development now goes into closets or is mounted on the wall or ceiling. Installation costs tend to be constant, regardless of the technology that is selected. Hence, it does not really belong here.