IEEE P802.11
Wireless LANs

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| A CSD Proposal for Post-Quantum Cryptography (PQC) |
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Abstract

CSD proposal for IEEE 802.11 Post-Quantum Cryptography Security Enhancements.

# 1. IEEE 802 criteria for standards development (CSD)

The CSD documents an agreement between the Working Group and the IEEE 802 LMSC that provides a description of the project and the IEEE 802 LMSC's requirements more detailed than required in the PAR. The CSD consists of the project process requirements, 14.1, and the 5C requirements, 14.2.

## 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:

1. The definitions will be part of this project. **YES**
2. The definitions will be part of a different project and provide the plan for that project or anticipated future project.
3. The definitions will not be developed and explain why such definitions are not needed.

### 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.

1. Will the WG create a CA document as part of the WG balloting process as described in Clause 13? **NO**
2. If not, explain why the CA document is not applicable. **This project impacts MAC security operation only.**

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## 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.

(TBD)

b) Multiple vendors and numerous users.

(TBD)

## 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 Working Group prior to submitting a PAR to the IEEE 802 LMSC.

1. Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? **YES**
2. If the answer to a) is no, supply the response from the IEEE 802.1 WG.

The review and response is not required if the proposed standard is an amendment or revision to an existing standard for which it has been previously determined that compliance with the above IEEE 802 standards is not possible. In this case, the CSD statement shall state that this is the case.

## 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.

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(TBD)

## 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.

(TBD)

b) Proven similar technology via testing, modelling, simulation, etc.

(TBD)

**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).

(TBD)

1. b) Known cost factors.

(TBD)

c) Consideration of installation costs.

(TBD)

d) Consideration of operational costs (e.g., energy consumption).

(TBD)

1. Other areas, as appropriate.

(TBD)

**References:**