

P802.20.1 PAR - Minimum Performance Specifications for IEEE 802.20 Systems

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Five Criteria Statement for P802.20.1 PAR Proposal for Minimum Performance Specifications for IEEE 802.20 Systems

CRITERIA FOR STANDARDS DEVELOPMENT (FIVE CRITERIA)

Broad Market Potential

A standards project authorized by IEEE 802 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).

- a) All equipment suppliers can use this standard to develop compatible terminals and/or base stations for the 802.20 air interface standard.*
- b) This standard is needed so that independent equipment suppliers can provide compatible 802.20 compliant terminals and/or base stations that can be used in all 802.20 compliant networks all supporting the same mode of operation. Additionally network operators can use the standard to optimize and plan and communicate requirements for emerging 802.20 networks to their vendors, thus assuring a stable multi-vendor environment*
- c) The Minimum Performance Specifications for IEEE 802.20 Systems will be specified for both the mobile station (MS) and the base station (BS).*

Compatibility

IEEE 802 defines a family of standards. All standards shall be in conformance with the IEEE 802.1 Architecture, Management and Interworking documents as follows: 802.Overview and Architecture, 802.1D, 802.1Q and parts of 802.1f. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with 802. Each standard in the IEEE 802 family of standards shall include a definition of managed objects which are compatible with systems management standards.

IEEE 802.20 air interface standard is compatible with the IEEE 802 family of standards. This new standard will provide detailed definitions, method of measurements, minimum performance characteristics, including transmit fidelity requirements for IEEE 802.20 MBWA terminals and base stations.

Distinct Identity

Each IEEE 802 standard shall have a distinct identity. To achieve this, each authorized project shall be:

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

a) No other IEEE 802 standard addresses minimum performance characteristics for the IEEE 802.20 air interface standard.

b) This standard only applies to the IEEE 802.20 air interface standards. Therefore it is unique to IEEE 802.20.

c) The project will produce detailed definitions, method of measurements and minimum performance characteristics, including transmit fidelity requirements that are clearly identified as applicable to IEEE 802.20 MBWA terminals and base stations

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 technology, reasonable testing.
- c) Confidence in reliability
- d) Coexistence of 802 wireless standards specifying devices for unlicensed operation

a) Not applicable since this project is not for an air interface.

b) The technology for this project is consistent with past industry efforts and is well known.

c) The technical efforts for developing method of measurements and use of minimum performance characteristics, including transmit fidelity requirements are in line with current industry practices for cellular type systems.

d) Not applicable since the project is only for licensed operation.

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.

a) The economic viability is consistent with past industry efforts and well known. The anticipated costs for implementing methods of measurements and minimum performance characteristics, including transmit fidelity requirements are in line with current industry practices for cellular type systems.

b) The anticipated costs for method of measurements and use of minimum performance characteristics, including transmit fidelity requirements by equipment suppliers are in line with current industry practices for cellular type systems. The standard will reduce equipment suppliers costs in their development and deployment of terminals and base stations for 802.20 air interface standard by providing standardized sets of tests and performance requirements.

c) Installation costs do not apply to this standard.