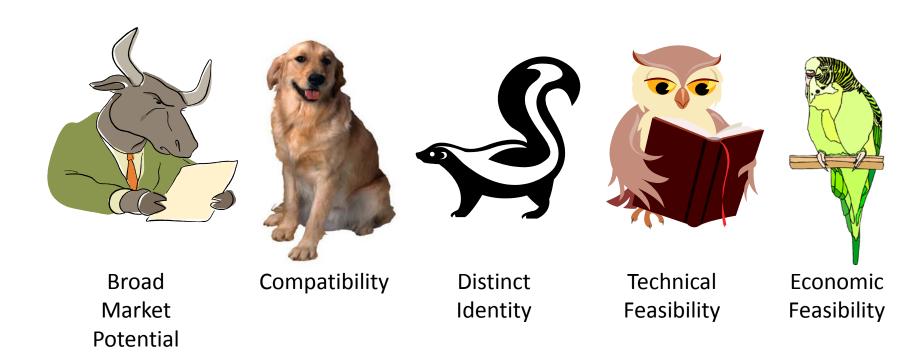# P802.1Qcc – Draft 5C
Stream Reservation Protocol (SRP) Enhancements and performance improvements

Version 2

The 5 Critters

Broad Market Potential

Compatibility

Distinct Identity

Technical Feasibility

Economic Feasibility

Broad Market Potential

a. The proposed amendment would apply to 802 networks composed of full duplex IEEE 802.3, and Coordinated Shared Networks (CSN) such as: IEEE 802.11 networks and Multimedia over Coax Alliance (MoCA) networks.

b. This amendment is proposed based on requests from customers, equipment providers, and silicon providers who want to employ SRP in new and varied ways. This includes uses in small automotive networks up through extremely large installed sound installations and industrial networks.

Compatibility

IEEE 802 LMSC defines a family of standards. All standards should be in conformance: 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. In order to demonstrate compatibility with this criterion, the Five Criteria statement must answer the following questions.
  a. Does the PAR mandate that the standard shall comply with IEEE Std 802, IEEE Std 802.1D and IEEE Std 802.1Q?
  b. If not, 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?

a. This is an amendment to IEEE Std 802.1Q and will be internally consistent.

b. (Not applicable)

Distinct Identity

a. There is no existing 802 standard or approved project that provides the SRP enhancements specified in the Scope of this project.

b. The proposed amendment will consist of a single set of specifications for the enhancements. There is other work currently underway (IEEE P802.1Qca) that will enhance the path selection used by SRP, however that project does not address the SRP enhanced services specified in this project.

c. The proposed project will be formatted as an amendment to IEEE 802.1Q-2011.

Technical Feasibility

a. Demonstrated system feasibility

b. Proven technology, reasonable testing

c. Confidence in reliability

a. The first generation of the Stream Reservation Protocol (SRP) has been accepted by the Professional Audio, Consumer, and Automotive markets and is included in AVB Compliance and Interoperability certification program specified by the AVnu Alliance. This set of enhancements extends the capabilities of SRP as requested by the above mentioned markets. (The Avnu Alliance is an industry alliance that promotes industry standards for AV, including the AV support provided by IEEE Std 802.1Q – see www.avnu.org.)

b. This amendment is based on mature virtual LAN bridging protocols and is expected to be included in future AVnu Alliance's conformance & interoperability testing criteria.

c. This project represents a set of incremental changes to existing mechanisms. Those existing mechanisms have been standardized and implemented and have demonstrated reliability in the field.

Economic Feasibility

a. This enhancement would add no hardware costs beyond the minimal and well-known resources consumed by an enhanced software protocol whose requirements are firmly bounded.

b. Adding the enhancements will have a negligible impact on the cost of 802 networks.

c. It will be possible for configuration related to the enhancements to be automatic and require no action by the user; therefore, there are no incremental installation costs for the provision of these enhancements.