Provider Bridging -- Remote Customer Service Interface 5c

Version 4

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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:

- ## Broad sets of applicability.
  - The commercial provision of Metro Ethernet services is a large and growing business involving cooperative arrangements between service providers to offer end-to-end service.

- ## Multiple vendors and numerous users.
  - The same large body of vendors and users having a requirement for IEEE 802.1Q in service provider networks.

- ## Balanced costs (LAN versus attached stations).
  - This project does not materially alter the existing cost structure of bridged networks.

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.

    - This PAR is for an enhancement to Provider Bridging that is intended to be fully compatible with the currently specified Provider Bridging functionality.

- Each standard in the IEEE 802 family of standards shall include a definition of managed objects that are compatible with systems management standards.

    - Such a definition will be included.

Distinct Identity

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

- Substantially different from other IEEE 802 standards.
  - There are no IEEE standards specifying the functionality required for handling out-of-footprint customer traffic at the interface between two Provider Bridged Networks.
- One unique solution per problem (not two solutions to a problem).
  - There are no other standard solutions addressing Provider Bridging remote access.
- Easy for the document reader to select the relevant specification.
  - This project will amend the only IEEE 802 standard defining Provider Bridged Networking.

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:**

- Demonstrated system feasibility.
  - The function is similar in complexity to existing functions in 802.1Q, which have been successfully implemented.
- Proven technology, reasonable testing.
  - The function can be implemented using existing frame formats. Compliance with the project can be tested using straightforward extensions of existing test tools for bridged networks.
- Confidence in reliability.
  - The reliability of the modified protocols will be not be measurably worse than that of the existing bridged networks.

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:

- Known cost factors, reliable data.

  – This project introduces no significant frame processing beyond that currently specified for VLAN aware bridge components.

- Reasonable cost for performance.

  – Pre-standard deployments of similar functionality have been deployed at reasonable cost.

- Consideration of installation costs.

  – The cost of installing enhanced software and/or hardware, in exchange for improved network functionality, is familiar to vendors and users of bridged networks.