P802.1Qc? Frame Replication and Elimination for Reliability

Draft PAR v3
2.1 Title:
- Standard for Local and Metropolitan Area Networks --- Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks - Amendment: Frame Replication and Elimination for Reliability

4.2 Expected Date of Submission for Initial Sponsor Ballot:
- 11/2014

4.3 Projected Completion Date for Submittal to RevCom:
- 10/2015

5.1 Approximate number of people expected to work on the project:
- 25
PAR - Scope

• 5.2 Scope:
  • This amendment specifies procedures, managed objects and protocols for bridges and end stations that provide:
    • Identification and replication of frames, for redundant transmission.
    • Identification of duplicate frames.
    • Elimination of duplicate frames.
PAR - Purpose

• **5.3** Is the completion of this document contingent upon the completion of another document:
  No

• **5.4 Purpose**: This document will not include a purpose clause.
PAR - Need

• **5.5 Need:**
  • There are no other 802-compatible solutions providing fault tolerance without failover. To achieve this, it is necessary to create and eliminate duplicate frames. This can be done in end stations and bridges.

• **5.6 Stakeholders for the Standard:**
  • Developers, providers, and users of networking services and equipment for Industrial Automation, In-vehicle networking, Professional AV and other systems requiring high availability traffic, including networking IC developers, bridge and NIC vendors, and users.
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: Yes

If Yes please explain: IEC 62439-3, Parallel Redundancy Protocol (PRP) and High availability Seamless Redundancy (HSR)

Explain: IEC 62439-3 defines high-availability mechanisms in automation networks. Unlike IEC 62439-3, which is restricted to ring topologies, this amendment will work on all LAN topologies.

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No