Draft Text for Beginning of 802.1AS-Rev/D4.2, Subclause 7.2.4

Geoffrey M. Garner
Huawei (Consultant)
gmgarner@alum.mit.edu

IEEE 802.1 TSN TG
2016.11.07
This presentation contains draft text for 802.1AS-Rev/D4.2, subclause 7.2.4 “Time-aware networks with redundant grandmasters and/or redundant paths”

The text is intended to be placed at the beginning of 7.2.4

The text is based on discussion in the October 31, 2016 TSN call, in which initial comment resolution for 802.1AS-Rev/D4.2 occurred

- The relevant comments that led to this discussion and text were 34 and 35
This standard describes a framework that can be used in the specification of network redundancy, i.e., redundant grandmasters and/or redundant paths. However, this standard does not itself specify redundancy; rather, the capabilities specified in this standard can be used, e.g., by other standards, to specify redundancy.

Figures 7-3 through 7-6 show examples of network redundancy that might be obtained using methods, techniques, and/or specifications that use the framework described in this standard but are outside the scope of this standard. It should be noted that the redundancy illustrated in these examples only comes into effect when the grandmaster clock completely fails and stops sending clock information. It does not come into effect if the stability of the grandmaster clock fails, the grandmaster time counter has glitches, the jitter or wander of the grandmaster clock increases beyond limits, the grandmaster clock loses its time source, or various other impairments occur in the grandmaster clock. There are techniques for handling these situations, but they are outside the scope of this standard.
Thank you