

From: Glenn Parsons, IEEE 802.1 WG Chair  
To: Hörcher, Günter, IEC SC65C WG15 Convener  
Cc: John Messenger; Jodi Haasz; Paul Nikolich; A. C. (Tony) Capel; Valérie Demassieux  
Subject: IEEE 802.1 and IEC SC65C WG15: Review of IEEE P802.1CB/D2.3  
Date: July 28, 2016

Dear Mr. Hörcher,

Let us expand on our previous liaisons, and try to answer your questions in your July 18 liaison to us.

We recognize that our question about compatibility of P802.1CB and IEC 62439-3 was open-ended and difficult to answer in a brief liaison. We have received comments on Draft 2.1 of P802.1CB from a few individuals familiar with both documents, including some very helpful comments from Timo Koskiahde, which we believe improved the alignment of the documents.

The goals expressed in P802.1CB, in terms of compatibility, are that:

- 1) An interworking function could be built that allows end systems implementing IEC 62439-3 HSR tags or PRP trailers, with no knowledge of P802.1CB, to exchange data with systems implementing the P802.1CB redundancy tag, with no knowledge of IEC 62439-3.
- 2) End systems conformant to IEC 62439-3 and employing HSR tags or PRP trailers, with no knowledge of P802.1CB, could communicate normally and successfully over an arbitrary mesh network of bridges implementing P802.1CB and IEEE Std 802.1Q.
- 3) The IEEE 802.1 Time-Sensitive Networking Task Group (TSN) standards that provide very low or zero packet loss due to congestion can be applied to almost any network of IEEE 802.3 media, whether it is an IEC 62439-3 network or an IEEE 802.1Q network.

An example of P802.1CB avoiding inhibition of IEC SC 65C WG15:

The reverse type of compatibility, P802.1CB end stations communicating over an IEC 62439-3 network employing redboxes, for example, is not a goal of P802.1CB. That would require specifying how a redbox should deal with the P802.1CB redundancy tag, which is clearly beyond the scope of P802.1CB.

We agree that further technical cooperation will be necessary to ensure both compatibility and avoidance of the inhibition of the evolution of both standards. Please consider this liaison a first step in that direction. We hope that we can

continue to cooperate, both by liaison messages and by common participation of individuals in the two committees.

Regards,  
Glenn Parsons