

Common TSN for Converged Networks

Open workshop hosted by IEEE 802.1 and Avnu Alliance
introductory material

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Background

- Former workshops
 - [2022-02-09](#)
 - [2022-05-04](#)
 - [2022-10-12](#)
- Related presentations, discussion
 - Greg Schlechter, Tom Weingartner, and Henning Kaltheuner, “**TSN Across Markets – The Core Benefits of ‘One TSN’**,” TSN/A Conference, October 2020
 - Henning Kaltheuner, Genio Kronauer, Greg Schlechter, and Tom Weingartner, “**Insights and observations on TSN applied across ecosystems**,” IEEE 802 Plenary, March 2021 ([link](#))
 - Tom Weingartner, Henning Kaltheuner, Greg Schlechter, and Günter Steindl, “**Diffusion of TSN across markets and ecosystems: a roadmap forward**,” TSN/A Conference, September 2021
 - Greg Schlechter and János Farkas, “**Common TSN for Converged Networks – next steps**,” IEEE 802 Plenary, November 2021 ([link](#))
 - Greg Schlechter, and Günter Steindl, Jordon Woods, and Henning Kaltheuner, “**Common TSN for Converging Networks**,” TSN/A Conference, September 2022 ([link to revised version](#))
 - Günter Steindl, Dietmar Brickner, Tom Burke, Peter Lutz, Xaver Schmidt, and Jordon Woods, “**Is TSN a tool to enable secure converged networks?**,” panel discussion at TSN/A Conference, September 2022

Motivation and Objectives

- Motivation
 - Need for network convergence is market reality
 - Economies of scale from components and software
 - Ensure that different applications can share one network / one hardware
 - Increase the visibility and understanding of commonalities from multiple markets and applications
 - Ensure that the requirements from multiple markets and applications are met
- Workshop goals
 - Sharpening problem statement (common problem statement)
 - Clarify problems, actions, and their priorities

Example: updates to 802.1AS

- P802.1ASdm
 - makes BMCA optional (changes to conformance statements in subclause 5.4.1)
 - <https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-0.pdf>
 - makes Domain 0 optional (changes to relevant subclauses)
 - <https://www.ieee802.org/1/files/private/asdm-drafts/d1/802-1ASdm-d1-0-pdis-v05.pdf>
 - NOTE: P802.1ASdm is an ongoing project, draft is subject to change
- See also <https://www.ieee802.org/1/files/public/docs2023/dp-jabbar-domain0-aerospace-0423-v01.pdf>