

# **Making BMCA and Domain 0 optional**

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# Background

- There are on-going discussions in 60802 regarding the applicability of the BMCA and domain zero to industrial applications.
  - Industrial applications largely use engineered sync trees, so support BMCA is considered an unnecessary resource and conformance cost.
  - Some devices require only a working clock so support of domain 0 is considered an unnecessary resource and conformance cost.
- The direction from 802.1 leadership to the 60802 Joint Project, at least to this contributor's understanding, has been to identify these features in the base standard and then initiate work to modify the base standard.
- Regardless of the outcome of these discussions, they raise the larger question of whether a profile can “override” the mandatory features of a base standard.
- This presentation is intended to generate discussion on the topic.

# Precedent

- A profile overriding a base standard is not without precedent in IEEE 802.1. Per IEEE Std 802.1CM-2018:
  - f) Meet the VLAN Bridge requirements stated in items a) through f) in 5.4 of IEEE Std 802.1Q-2018;
  - g) Support an active topology enforcement mechanism;
  - h) Meet the VLAN Bridge requirements stated in items g) and h) in 5.4 of IEEE Std 802.1Q-2018 if the supported active topology enforcement mechanism is the Rapid Spanning Tree Protocol (RSTP);
  - i) Meet the VLAN Bridge requirements stated in items i) through n) in 5.4 of IEEE Std 802.1Q-2018;
- This text makes RSTP, a mandatory feature of IEEE Std 802.1Q-2018, optional.

# Advantages and Concerns

- Advantages:
  - Allows profile projects to rapidly address application-specific use cases
  - Allows for cost-optimized solutions
  - Lowers conformance cost.
- Concerns
  - What then, is the purpose of the base standard?
  - Adds risk to interoperability. There is a price to be paid for the converged network
  - Sets a precedent for profiles developed outside of IEEE 802.1.

**Thank you**