P802.1Qee Traffic Engineering for Bridged Networks that include Wireless Technologies

Resolution of Comments on

Project Authorization Request (PAR) and Criteria for Standards Development (CSD)

• Comment:

5.2b Scope. Suggest "This amendment specifies procedures and YANG to..." should be "This amendment specifies procedures and YANG data models to..." (YANG is a data modelling language as described in 8.1, YANG data models are what may be specified...)

Response:

The suggested change has been made.

Comment:

5.2b Scope. "to extend bridge attributes for traffic engineering for bridged networks with delay variance beyond that supported by the existing specification." – suggest that SOME boundary on the delay variance targeted or some additional information would be useful. Simply saying anything outside the existing specification, in conjunction with the ability to make technical corrections to the existing specification (next sentence) makes the scope the entire world.

• Response:

- 5.2.b has been revised to read: "This amendment specifies procedures and YANG data models to extend bridge attributes for traffic engineering for bridged networks that include wireless technologies whose delay variance is beyond that of point-to-point wireline MAC technologies."
- Please see, e.g., page 6 in https://www.ieee802.org/1/files/public/docs2025/new-farkas-control-plane-extensions-for-wireless-aware-TE-0325-v03.pdf for illustration on differences between wireline and wireless.

• Comment:

5.2b Scope. It is noted that the "technical ... corrections to existing IEEE ... functionality". Is this related to the difference in characteristics between wireless and wireline systems described in 5.5?

• Response:

The sentence "Additionally, this amendment addresses technical and editorial corrections to existing IEEE Std 802.1Q functionality." is to enable an amendment to address Maintenance Items (https://www.802-1.org/items) on which the IEEE 802.1 WG has reached consensus.

Comment:

5.3. Is the term "roll up" revision a standardized term? Consider removing the term "roll up".

• Response:

5.3 has been revised to read: "This amendment depends on the completion of the ongoing revision of the base standard."

Comment:

6.1.2 Explanation – it is best not to promise future action. While it is FAIRLY SURE that URNs and OUIs will be used, it is better to say "is expected to use". (the text for CID is fine).

• Response:

The suggested change has been made.

Comment:

1.2.

The way the text of 1.2.1 and 1.2.3 is currently written. It does not explain what specifically the scope of the work is. For example, it isn't clear to use as to whether this project addresses more than just wireless network technologies? Would you please provide specific examples of wired network, if intended to be included?

• Response:

- The goal is to address wireless technologies.
- The project title has been revised to read: "Traffic Engineering for Bridged Networks that include Wireless Technologies".
- The first sentence in item f) in 1.2.1 has been revised to read: "The current bridge attributes are not adequate to describe the characteristics of bridged networks that include wireless technologies, e.g., IEEE 802.11 WLAN and 3GPP technologies, whose delay variance is typically orders of magnitude larger than that of point-to-point wireline MAC technologies."
- 1.2.3 has been revised to read: "No existing IEEE 802 standard or standard project addresses traffic engineering for bridged networks that include wireless technologies whose delay variance is beyond that of point-to-point full duplex wireline MAC technologies."

• Comment:

1.2.1a

The phrase "these markets" in the last sentence was confusing as to what it specifically refers to. Is it wireless and wired bridged network markets? Or is it a traffic engineering application markets? The suggested change is to combine these into one sentence, such as "The need for supporting wireless and wireline systems in the same bridged network is increasing in markets and applications that use traffic engineering; including professional audio/video and industrial automation for applications such as flexible factory automation"

Response:
 The suggested change has been made.

Comment:

1.2.4 Technical Feasibility:

The responses to technical feasibility speak ONLY to the capabilities in the base standard, yet the amendment seeks to extend those capabilities to links "with more uncertain delays" than those in the base standard, something it claims is not in there. Therefore, these responses are not relevant to the amendment being proposed. Please provide some support that the suggested delays can be supported. (note – this may also be useful in setting some boundary to the scope as suggested above).

• Response:

- Item j) has been revised to read: "The basis for the proposed project is bridge attributes and corresponding YANG modules for bridge delay. They have been implemented, deployed and tested. The proposed amendment would extend the basic bridge attributes by providing refinements to be able to capture wireless characteristics. Thus, system feasibility has been demonstrated."
- Item k) has been revised to read: "The base bridge attributes have been implemented and tested. Thus, similar technology has been proven via implementations and testing."
- Please note that this project would extend the existing bridge exposure towards traffic engineering to be able to capture wireless delay characteristics that are already out there in real networks. It is not about the support of delays but the support of description and exposure of delays.

• Comment:

1.2.5 Economic Feasibility:

• (a) to say that it "will not add hardware cost" is to promise future action, and may not be true. For example, management extensions might require additional memory of monitoring functionality. Suggest "are not expected to add".

Also, "beyond the minimal and firmly bounded resources consumed by additional management modules" doesn't really have meaning. If I take this to an extreme, such resources are not obviously "firmly bounded" or even "minimal". Suggest delete, or replace by "beyond the resources consumed by management modules required for the existing specification", or, if this phrasing is needed, additional explanation as to what "minimal" is relative to and what "firm bounds" are meant.

• Response:

The suggested changes have been made.

- Comment:
 - 1.2.5 Economic Feasibility:
 - (b) (c) (d) replace "will" which promises an outcome or future action where possible, suggest "is not expected to" unless it is bounded by the scope. (potentially "c" is)

• Response:

The suggested change has been made.

802.11 comments on the PAR and their resolution

Comment:

Please Add to 8.1 in the PAR, a reference to applicable network examples as you have in the CSD.

- Note that the PAR indicates: "traffic engineering for bridged networks with delay variance"
- But the CSD indicates: a connection of 802.11 WLAN and 3GPP

• Response:

The term "wireless technologies" has been added to 2.1 and 5.d.2 in the PAR, and a corresponding note on 2.1 has been added to 8.1: "Wireless technologies can be, for instance: IEEE 802.1 WLAN or 3GPP technologies."

802.11 comments on the CSD and their resolution

• Comment: The CSD should be using the updated CSD form – May 2025.

• Response: The CSD has been moved to the 2025-05-20 template.

802.15 comments on the PAR and CSD and their resolution

PAR

Question: 5.2.b Scope of the project: states Additionally, this amendment addresses technical and editorial corrections to existing IEEE Std 802.1Q functionality. But, there is a

current roll-up – does this not fix any corrections?

• Response:

This amendment would amend the revision of the base standard that is published upon completion of the ongoing revision project of the base standard. The given sentence in 5.2.b aims to enable an amendment to address Maintenance Items (https://www.802-1.org/items) on which the IEEE 802.1 WG has reached consensus.

- CSD
 - No comments.