IEEE P802.1Qdj
Status Overview

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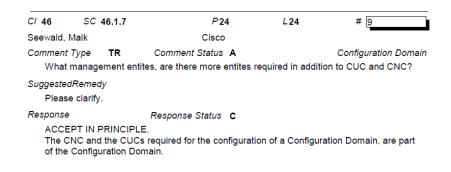# IEEE P802.1Qdj – Status Overview

- Draft D1.1 is ready for second Working Group (WG) ballot
  - It is the intention to start the ballot during the May 2023 Interim week

- Project PAR expires December 31, 2023 – A PAR extension is being prepared during the May 2023 Interim week

- Next steps
  - Depending on ballot results there will be WG recirculation ballots or a third full WG ballot

HIRSCHMANN
A **BELDEN** BRAND
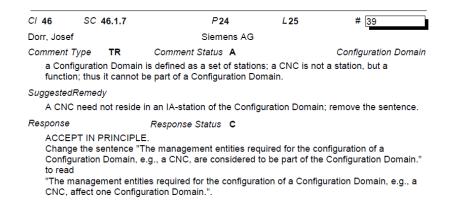
P802.1Qdj/D1.1 – Points to note for the WG

- The editor would like to bring the following points to the attention of the WG and briefly discuss them before starting the ballot on P802.1Qdj/D1.1.

- They are currently also intended to be present in the "*Editor's Introduction to historical draft changes*" section of D1.1

- Some comments in the comment resolution provided different wording for the same parts of the document in their respective responses. The current wording in D1.1 is an attempt of the editor to satisfy the spirit of all of the comments relating to the same text. This is the case for the following comments:

Text in P802.1Qdj/D1.1

CI 46   SC 46.2.3.10   P 27   L 6   # 20

Congdon, Paul   Congdon Consulting, LLC

Comment Type **TR**   Comment Status **A**
    The description could provide more useful information.

SuggestedRemedy
    Replace the two short sentences with, "StreamStatus is an enumeration specified in Table 46-12 that indicates the status of a Stream."

Response   Response Status **C**
    ACCEPT.

CI 46   SC 46.2.3.10   P 27   L 13   # 64

Ferreira Coelho, Rodrigo   Siemens AG

Comment Type **TR**   Comment Status **A**
    The state "modified" must be removed: the properties of a stream in state modified does not correspont to the properties of the respective established stream, i.e. CNC view != network view. This condition must not occur.

SuggestedRemedy
    Remove state "modified"

Response   Response Status **W**
    ACCEPT IN PRINCIPLE.
    The state "modified" is required by the RPC "ComputePlannedAndModifiedStreams". So the CNC knows which Streams have been modified and should be computed, triggered by this RPC.
    Change 46.2.3.10 as follows:
    "StreamStatus provides the status of a Stream. The status is maintained by the CNC and is used to determine which Streams are computed by calling the RPC ComputePlannedAndModifiedStreams (46.2.7.2).
    StreamStatus uses the enumeration specified in Table 46-12."
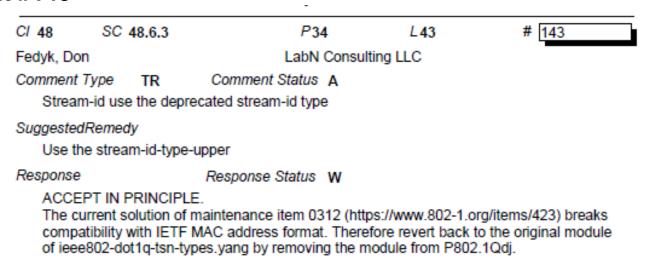
Text in P802.1Qdj/D1.1

1 **46.2.3.8 StreamStatus**

2 StreamStatus is an enumeration specified in Table 46-12 that indicates the status of a Stream. The status is
3 maintained by the CNC and is used to determine which Streams are computed by calling the RPC
4 ComputePlannedAndModifiedStreams (46.2.7.2).

5

- The responses of **comment #10, comment #125, comment #126, comment #138, and comment #24** (make changes to the editing instructions for 48.6.3, adding the clause title, and providing a diff-marked version of the YANG module showing the changes made) have been made obsolete by the response to **comment #143**

The response to **comment #143** is the one being implemented.

- In deviation from the response to **comment #136**

    - Replace all occurrences of "Centralized User Configuration (CUC)" with either "CUC" or "Centralized User Configuration", as approriate, except the first occurrence in 46.1.5.

  the first occurrence of "Centralized User Configuration (CUC)" has been kept in 1.3. This is in line with the introduction of other abbreviations in this clause. For the CNC only the abbreviated form is used because it has been introduced in IEEE Std 802.1Q-2022 in the bullet point cq) already.

802.1Q-2022

cp) Specifies enhancements to the managed objects for SRP.

cq) Specifies managed objects for configuration of Bridges by a Centralized Network Configuration (CNC) component.

P802.1Qdj/D1.1

24 *Insert the following items after item cq) in 1.3 and renumber the items in the lettered*
25 *list, as necessary:*

26 a) Defines the Centralized User Configuration (CUC) (46.1.5), and the CNC (46.1.6).
27 b) Specifies a Configuration Domain (46.1.7).
28 c) Defines YANG configuration and operational state models (48.6.23) in support of the UNI (Clause
29   46).

- For the group of comments on Clause 5 and Annex A and B (PICS proforma), **comment #16, comment #27, comment #98, comment #104, comment #109, comment #111, comment #112, comment #118, and comment #134** there seems to be an easy fix. However, before finalizing the draft, the editor would like feedback if the fix is considered acceptable by the WG.
Currently *5.29 TSN CNC station requirements* in 802.1Q-2022 states in item d)

> d) If a YANG-based protocol is supported by the TSN CNC for the User/network configuration information, that protocol shall use the YANG module specified in 46.3.

and in *46.3 YANG for TSN user/network configuration*

> In order to support the use of YANG-based protocols for the fully centralized model (46.1.3.3), 48.6.3 specifies a YANG module.
>
> If a YANG-based protocol is specified by another standard for the TSN user/network configuration information (46.2), that specification shall use the YANG module specified in 48.6.3 [see item d) in 5.29].
>
> The YANG module of 48.6.3 provides YANG text for each group of elements in 46.2. Each element is specified using a YANG `leaf`. Each group is specified as a YANG `typedef` or `grouping`. The YANG module for user/network configuration imports the YANG module of 48.6.3 and uses the `typedef` and `grouping` nodes in order to specify the schema tree used for communication between CUC and CNC.
>
> YANG identifiers use a naming convention of hyphens between lowercase names (e.g., "mac-address"). Identifiers for elements and groups in 46.2 use a naming convention of camel case (e.g., "MacAddress"). The specifications for an identifier in 48.6.3 shall be interpreted as applying to the corresponding identifier in 46.2 regardless of differences in naming convention (e.g., requirements for "MacAddress" in 46.2 apply to "mac-address" in 48.6.3).
>
> In the YANG module definitions of 48.6.3, if any discrepancy between the "description" text and the corresponding specifications in 46.2 occurs, the specifications in 46.2 take precedence.

- The suggested changes to 5.29 and 46.3 would look as follows:

5. Conformance

5.29 TSN CNC station requirements

Change item d) in 5.29, as follows

d) If a YANG-based protocol is supported by the TSN CNC for the User/network configuration information, that protocol shall use the YANG modules specified in 46.3.

46.3 YANG for TSN user/network configuration

Change 46.3, as follows:

In order to support the use of YANG-based protocols for the fully centralized model (46.1.3.3), 48.6.3 and 48.6.23 specifies a specify YANG modules.

If a YANG-based protocol is specified by another standard for the TSN user/network configuration information (46.2), that specification shall use the YANG modules specified in 48.6.3 and 48.6.23 [see item d) in 5.29].

The YANG module of 48.6.3 provides YANG text for each group of elements in 46.2. Each element is specified using a YANG leaf. Each group is specified as a YANG typedef or grouping. The YANG module for user/network configuration (48.6.23) imports the YANG module of 48.6.3 and uses the typedef and grouping nodes in order to specify the schema tree used for communication between CUC and CNC.

YANG identifiers use a naming convention of hyphens between lowercase names (e.g., "mac-address"). Identifiers for elements and groups in 46.2 use a naming convention of camel case (e.g., "MacAddress"). The specifications for an identifier in 48.6.3 and 48.6.23 shall be interpreted as applying to the corresponding identifier in 46.2 regardless of differences in naming convention (e.g., requirements for "MacAddress" in 46.2 apply to "mac-address" in 48.6.3).

In the YANG module definitions of 48.6.3 and 48.6.23, if any discrepancy between the "description" text and the corresponding specifications in 46.2 occurs, the specifications in 46.2 take precedence.

- With these suggested changes, no further changes to the PICS are required.

- Two additional comments on 5.29 and the PICS:
  - 5.29 states that the *CNC station component is implemented within an end station or Bridge*.
    - However, there is only an entry in the PICS in Annex A *PICS proforma—Bridge implementations.*
      → **Is this intentional?**

  - A.5 item CNC-S points to A.17 in the "References" column. This is an error, as A.17 is "Extended Filtering Services". The correct reference would be A.49.

P802.1Qdj/D1.1 – Points to note for the WG

- **Comment #137**: Removal of the term "TSN" from P802.1Qdj text where it is not required for consistency or clarity.
- The editor has gone through P802.1Qdj/D1.1 and checked the occurrence of the term TSN with the following results:
  - 96 occurrences in P802.1Qdj/D1.1 vs. 408 occurrences in 802.1Q-2022
    - 8 occurrences in the ToC
    - 41 occurrences in YANG
    - 15 occurrences in text from 802.1Qcc (changes should be done in a general cleanup for consistency, not in P802.1Qdj)
    - 9 occurrences in boilerplate text or historical information in the introduction
    - 15 occurrences in the definitions or Annex X
      → Total of 88 occurrences where the editor feels changing/removing the term would be inappropriate
    - 4 occurrences where changing might be OK
    - 4 occurrence where changing is no issue

Thank you!