

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

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

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

- 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:

CI 46 SC 46.1.7 P24 L24 # 9

Seewald, Maik Cisco

Comment Type TR Comment Status A Configuration Domain

What management entites, are there more entites required in addition to CUC and CNC?

SuggestedRemedy
Please clarify.

Response Response Status C

ACCEPT IN PRINCIPLE.
The CNC and the CUCs required for the configuration of a Configuration Domain, are part of the Configuration Domain.

CI 46 SC 46.1.7 P24 L25 # 39

Dorr, Josef Siemens AG

Comment Type TR Comment Status A Configuration Domain

a Configuration Domain is defined as a set of stations; a CNC is not a station, but a function; thus it cannot be part of a Configuration Domain.

SuggestedRemedy
A CNC need not reside in an IA-station of the Configuration Domain; remove the sentence.

Response Response Status C

ACCEPT IN PRINCIPLE.
Change the sentence "The management entites required for the configuration of a Configuration Domain, e.g., a CNC, are considered to be part of the Configuration Domain." to read
"The management entites required for the configuration of a Configuration Domain, e.g., a CNC, affect one Configuration Domain."

Text in P802.1Qdj/D1.1

22 46.1.7 Configuration Domain

23 A Configuration Domain provides boundary information for the common management scheme and
24 responsibility of Streams. Whether a CNC and one or more CUCs are present in a Configuration Domain
25 depends on the TSN configuration model (46.1.3) that is used in the domain (e.g., whether the fully
26 centralized model or a different configuration model is used). The CNC and the CUCs required for the
27 configuration of a Configuration Domain affect only one Configuration Domain.

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

CI 46 SC 46.2.3.10 P27 L6 # 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 P27 L13 # 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 correspond 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

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

- 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**

<i>Cl</i> 48	<i>SC</i> 48.6.3	<i>P</i> 34	<i>L</i> 43	# 143
Fedyk, Don		LabN Consulting LLC		
<i>Comment Type</i>	TR	<i>Comment Status</i>	A	
Stream-id use the deprecated stream-id type				
<i>SuggestedRemedy</i>				
Use the stream-id-type-upper				
<i>Response</i>	<i>Response Status</i>			W
ACCEPT IN PRINCIPLE.				
The current solution of maintenance item 0312 (https://www.802-1.org/items/423) breaks compatibility with IETF MAC address format. Therefore revert back to the original module of ieee802-dot1q-tsn-types.yang by removing the module from P802.1Qdj.				

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

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

- In deviation from the response to **comment #136**
 - *Replace all occurrences of "Centralized User Configuration (CUC)" with either "CUC" or "Centralized User Configuration", as appropriate, 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).

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

- 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.

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

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

1 **5. Conformance**

2 **5.29 TSN CNC station requirements**

3 *Change item d) in 5.29, as follows*

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

36 **46.3 YANG for TSN user/network configuration**

37 *Change 46.3, as follows:*

1 In order to support the use of YANG-based protocols for the fully centralized model (46.1.3.3), 48.6.3 and
2 48.6.23 specifies-aspecify YANG modules.

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

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

10 YANG identifiers use a naming convention of hyphens between lowercase names (e.g., “mac-address”).
11 Identifiers for elements and groups in 46.2 use a naming convention of camel case (e.g., “MacAddress”).

12 The specifications for an identifier in 48.6.3 and 48.6.23 shall be interpreted as applying to the
13 corresponding identifier in 46.2 regardless of differences in naming convention (e.g., requirements for
14 “MacAddress” in 46.2 apply to “mac-address” in 48.6.3).

15 In the YANG module definitions of 48.6.3 and 48.6.23, if any discrepancy between the “description” text
16 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.

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

- 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

Thank you!