

802.3dj D3.1

Comment Resolution

Logic Topics

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Introduction

- This slide package was assembled by the 802.3dj editorial team to provide background and detailed resolutions to aid in comment resolution.
- Specifically, these slides are for the various logic-topic comments.

ER1 FEC Flows

Comments #81

ER1 FEC Flows

Comment #R1-81 - Related comment R1-82

CI 186 SC 186.2.3.2 P652 L51 # 82

He, Xiang

Huawei Technologies Co., Ltd

Comment Type T Comment Status D (B) (L)

"The stream of 257-bit blocks shall be distributed to 8 FEC flows in a round-robin manner" is not clear.

1. It only stated there are 8 FEC flows but not the numbering of them.
2. It should clearly state where the 257-bit blocks from flow 0 and flow 1 go to, in order to match the statement on the Rx side (186.2.4.10.1)

Suggested Remedy

Change:

"The stream of 257-bit blocks shall be distributed to 8 FEC flows in a round-robin manner" to:

"The stream of 257-bit blocks shall be distributed to 8 FEC flows (0 through 7) in a round-robin manner, with 257-bit blocks from flow 0 distributed to even numbered FEC flows and 257-bit blocks from flow 1 distributed to odd numbered FEC flows."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

This comment does not apply to the substantive changes between IEEE P802.3dj D3.0 and D3.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot. However, the proposed change improves the clarity of the draft.

Implement the suggested remedy with editorial license.

Comment #R1-81 is related to comment #R1-82. (accepted in bucket)

Comment #82 updates 186.2.3.2 to make the distribution of blocks to FEC flows more exact by numbering the FEC flows from 0 to 7 and describing which flows go where (even FEC flows from PCS flow 0, and odd FEC flows from PCS flow 1).

ER1 FEC Flows

Comment #R1-81 – comment and suggested remedy

CI 186

SC 186.2.4.10.1

P666

L48

81

He, Xiang

Huawei Technologies Co., Ltd

Comment Type T

Comment Status D

ER1 FEC flows (L)

The requirement “The first 257-bit block of each 800GBASE-ER1 tributary multi-frame is distributed to flow 0” is incorrect.

For the eight 800GBASE-ER1 FEC flows, each FEC flow has its own frame and multi-frame. With the round-robin distribution on Tx side (186.2.3.2), blocks from PCS flow 0 always go to FEC flow <0,2,4,6> (assuming we are numbering the eight FEC flows as 0 to 7 - this is also a problem that we only stated there are 8 FEC flows but not the numbering/index of them), and blocks from PCS flow 1 always go to FEC flow <1,3,5,7>. It is a valid requirement to align the first block from each multi-frame to the correct PCS flow. We should use more precise description on the Rx side.

SuggestedRemedy

Change

“The first 257-bit block of each 800GBASE-ER1 tributary multi-frame is distributed to flow 0”
to:

“The first 257-bit block of each 800GBASE-ER1 tributary multi-frame from even FEC flow is distributed to flow 0, and the first 257-bit block of each 800GBASE-ER1 tributary multi-frame from odd FEC flows is distributed to flow 1 ”.

ER1 FEC Flows

Comment #R1-81 – proposed response

Proposed Response

Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

This comment does not apply to the substantive changes between IEEE P802.3dj D3.0 and D3.1 or the unsatisfied negative comments from previous drafts. Hence it is not within the scope of the recirculation ballot.

However, the proposed change would improve the clarity of the text.

Per 186.2.4.9, the 8 FEC flows are interleaved to form a single stream of blocks, which is then distributed to two flows per the rules in 186.2.4.10. That text should be clarified. In 186.2.4.10.1, the text should be revised to say that the first blocks from instances 0,2,4,6 go to flow 0, and blocks from instances 1,3,5,7 go to flow 1.

In 186.2.4.9, change:

"The 257-bit blocks from each of the eight FEC flows are interleaved to form a single stream of 257-bit blocks."

to:

"The 257-bit **clocks** from each of the eight FEC flows are interleaved on a round-robin basis, starting with flow 0 and ending with flow 7, to form a single stream of 257-bit blocks."

In 186.2.4.10.1, change:

"The stream of 257-bit blocks is distributed to two flows on a round-robin basis. The first 257-bit block of each 800GBASE-ER1 tributary multi-frame is distributed to flow 0."

to

"The stream **is** 257-bit **blocls** is distributed to two flows on a **ronud** robin basis, with blocks from FEC flow 0, 2, 4, and 6 distributed to flow 0."

The clarification needed is which FEC flows go to flow 0 and which go to flow 1, but the change text for 186.2.4.10.1 left out the flow 1 information,

Several typos need to be fixed (highlighted),

ER1 FEC Flows

Comment #R1-81 – update to change instructions in comment response

In 186.2.4.9, change:

"The 257-bit blocks from each of the eight FEC flows are interleaved to form a single stream of 257-bit blocks."

To:

"The 257-bit blocks from each of the eight FEC flows are interleaved, starting with flow 0 and ending with flow 7, to form a single stream of 257-bit blocks."

In 186.2.4.10.1, change:

"The stream of 257-bit blocks is distributed to two flows on a round-robin basis. The first 257-bit block of each 800GBASE-ER tributary multi-frame is distributed to flow 0."

To:

"The stream of 257-bit blocks is distributed to two flows in a round-robin manner, with blocks from FEC flow 0, 2, 4, and 6 distributed to flow 0, and blocks from FEC flows 1, 3, 5, and 7 distributed to flow 1."

ER1 MNT bits

Comments #R1-258

ER1 MNT bits
Comment #258

- Comment #R1-258 has two suggested changes
 - [1] Fill in missing (XREF) cross-references
 - These two XREF are fixed by bucket comments R1-138 and R1-139

CI 186	SC 186.2.2	P651	L 15	# 138
Huber, Thomas		Nokia		
Comment Type	ER	Comment Status	D	(B) (L)
Missing crossreference 'XREF'				
SuggestedRemedy				
This should be pointing to 186.2.3.5.11; add the cross-reference				
Proposed Response	Response Status		W	
PROPOSED ACCEPT.				

ER1 MNT bits
Comment #258

- The second XREF should needs a different target than the suggested remedy to reference the RX path rather than the TX path definition of these bits.

CI 186	SC 186.2.2	P651	L 34	# 139
Huber, Thomas		Nokia		
Comment Type	ER	Comment Status	D	(B) (L)
Missing crossreference 'XREF'				
SuggestedRemedy				
This should be pointing to 186.2.4.7.6; add the cross-reference				
Proposed Response	Response Status		W	
PROPOSED ACCEPT.				

ER1 MNT bits

Comment #258

- The second suggested fix [2] needs to be done to define the MNT field name used in 186.2.2.

In 186.2.3.5.11, page 660, line 10:

Change the text:

“Bits 1-3 are used to convey the SIGNAL_OK status as described in Table 186–1.”

To:

“Bits 1-3 are the Maintenance (MNT) bits and are used to convey the SIGNAL_OK status as described in Table 186–1.”

ER1 payload

Comments #R1-68

ER1 payload

Comment #68

- The updated Table 186–1 will look like this with new GMP payload column:

FEC:IS_SIGNAL.request	IFEC_align_status	Transmitted MNT field	GMP payload
OK	true	000 (OK)	FEC:IS_UNITDAT A.request
OK	false	001 (READY)	Scrambled IDLE
READY	don't care	001 (READY)	Scrambled IDLE
IN_PROGRESS	don't care	010 (IN_PROGRESS)	Scrambled IDLE
FAIL	don't care	011 (FAIL)	Local Fault

FEC Degrade capitalization

Comments #R1-67

FEC Degrade Capitalization

Comment #67

Cl 174	SC 174.2.13	P279	L7	# 67
Bruckman, Leon		NVIDIA		
Comment Type	E	Comment Status	D	(B) (CG)
Although in the base standard in similar setions titles the word "Degrade" is capitalized, it seems not necessary.				
SuggestedRemedy				
Change: "FEC Degrade" to "FEC degrade"				
Proposed Response	Response Status W			
PROPOSED ACCEPT IN PRINCIPLE.				
Implement the suggested remedy in 174.2.13 and 175.3.				

FEC Degrade Capitalization - Comment #67

- Comment initially accepted and put in bucket
- Comment pulled by Piers Dawe with this reason:
 - On 67: difficult to deal with these editorially. Either it's "FEC Degrade" or it's "FEC degrade": no room for editorial discretion.
 - It seems that it is a proper name, and it is useful to make that clear so that readers don't try to parse the words and imagine something different to what is meant, so it should have capitals.
 - This is to do with a consistent 802.3 house style. One for editors in the background (not just the editors of this project).

FEC Degrade Capitalization - Comment #67

Current uses in 802.3dj and the base 802.3-2022 & 802.3df-2024

- In the baseline 802.3-2022
 - 116.6 FEC Degrade
 - 118.2 FEC Degrade
 - 118.2.1 DTE XS FEC Degrade signaling
 - 118.2.2 PHY XS FEC Degrade signaling
- In 802.3df-2024
 - 169.6 FEC Degrade
 - 171.6 FEC degrade
 - 171.6.1 DTE 800GXS FEC degrade signaling
 - 171.6.2 PHY 800GXS FEC degrade signaling
- In 802.3dj
 - 174.2.13 FEC Degrade
 - 175.3 FEC Degrade

In clause headings:
Mostly “FEC Degrade” only
171.6 uses “FEC degrade”

In all paragraph text it is written
as “FEC degrade”

Clauses 116, 118, 169 and 171
are out of scope for 8023dj.

Editorial suggestion: REJECT.
No changes since it is already
consistent with most of the
baselines. Leave it to
maintenance to clean it up over
the entire standard.