

## Approved Responses

## IEEE P802.3cx D0.3 ITSA Task Force 1st Task Force review comments

CI 00 SC 0 P0 L0 # 5

Hajduczenia, Marek

Charter Communications

Comment Type ER Comment Status A

No line numbers in most clauses

*SuggestedRemedy*

Add line numbers to individual clauses: 30, 45, 90

Response Response Status C

ACCEPT.

CI 30 SC 30.13.1.3 P26 L # 3

Hajduczenia, Marek

Charter Communications

Comment Type TR Comment Status A

#UpdatesTo45

Multiple Clause 30 attributes need to be updated to match the set of changes already in place in subclauses 45.2.3.66/67/68 and potentially - my other comment (see comment tagged #UpdatesTo45)

*SuggestedRemedy*

Apply changes to 30.13.1.3, 30.13.1.4, 30.13.1.5, and 30.13.1.6 as shown in the diff highlight in P8023cx\_2101\_hajduczenia\_2.pdf

Response Response Status C

ACCEPT.

CI 45 SC 45.2.?? P L # 7

Tse, Richard

Microchip Technology

Comment Type TR Comment Status A SFD

Add writable register bits to select which message timestamp point to use (if available).

*SuggestedRemedy*

Add two writeable register bits to the new TimeSync message timestamp point capability register (see earlier comment):

Name and Description:

Select beginning of SFD as message timestamp point

Select beginning of symbol after SFD as message timestamp point

Selection enables the corresponding message timestamp point. The register bit is only valid if the corresponding message timestamp point is supported (see corresponding read-only register bit in my previous comment).

Only one of these two register bits can be set to 1 at any time.

Definition for each bit:

0 = not selected

1 = selected

Default value is not defined by the standard. It is set by the implementation.

Response Response Status C

ACCEPT IN PRINCIPLE.

Create a new register 3.1813 covering PCS TimeSync Configuration Register.

Apply changes to 3.1813.13 (Beginning of SFD message timestamp point support) and 3.1813.12 (Beginning of first symbol after SFD message timestamp point support). These are configuration registers (type R/W).

## Approved Responses

## IEEE P802.3cx D0.3 ITSA Task Force 1st Task Force review comments

Cl 45	SC 45.2.??	P	L	# 6
Tse, Richard		Microchip Technology		
Comment Type	TR	Comment Status	A	SFD
Add read-only register bits to indicate which message timestamp points are supported.				
SuggestedRemedy				
A new register category (e.g., TimeSync message timestamp point capability) needs to be created for these read-only register bits.				
Add the following two register bits:				
Name and Description:				
Beginning of SFD message timestamp point support				
Beginning of symbol after SFD message timestamp point support				
Definition for each bit:				
0 = not supported				
1 = supported				
Response	Response Status C			
ACCEPT IN PRINCIPLE.				
Apply changes to 3.1800.13 (Beginning of SFD message timestamp point support) and 3.1800.12 (Beginning of first symbol after SFD message timestamp point support). These are capability registers only (type R).				

Cl 45	SC 45.2.3.66	P	L	# 9
Tse, Richard		Microchip Technology		
Comment Type	TR	Comment Status	A	
Add read-only register bit to indicate whether 802.3cx TimeSync multi-PCS lane distribution path data delay mechanism is supported.				
SuggestedRemedy				
Add read-only register bit to TimeSync PCS capability register.				
Register bit name::				
TimeSync 802.3cx multi-PCS lane path data delay mechanism support				
Definition:				
0 = not supported				
1 = supported				
Note: Writeable selection between the two modes is not needed. It is assumed that if the 802.3cx mode is supported, then it is used. if it is not supported, then the operation is specific to the implementation (since 802.3bf did not define how the PCS path data delay is dealt with for the multi-PCS lane distribution operation).				
Response	Response Status C			
ACCEPT IN PRINCIPLE.				
Use register 3.1800.11				
No need to propagate this change to other sublayers.				

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CI 45	SC 45.2.3.66	P	L	# 8
Tse, Richard		Microchip Technology		
Comment Type	TR	Comment Status	A	
Add read-only register bit to indicate whether TX_num_blk_change and RX_num_blk_change are supported.				
SuggestedRemedy				
Add read-only register bits to TimeSync PCS capability register.				
Name and Description:				
TX_num_blk_change_support				
RX_num_blk_change_support				
Definition for each bit:				
0 - does not support the *_num_blk_change function				
1 - supports the *_num_blk_change function				
Note: Writeable selection between the two modes is not needed. It is assumed that if the *_num_blk_change function is supported, then it is used. If it is not supported, then the operation is specific to the implementation (since 802.3bf did not define how PCS path data delay is dealt with for AM/CWM operations).				
Response	Response Status		C	
ACCEPT IN PRINCIPLE.				
Use register 3.1800.10 for TX/RX_num_blk_change indication capability.				
No need to propagate to other subclauses.				

CI 45	SC 45.2.3.66	P30	L	# 4
Hajduczenia, Marek		Charter Communications		
Comment Type	TR	Comment Status	A	
There are a number of changes in .3cx relative to .3bf, including timestamp reference point, new calculation rules, as well as support for sub-ns register portions. These need to be properly signalled to the system integrator so that calculations are performed correctly. The easiest way to achieve that is to have additional capability register embedded in the given sublayer to signal whether the given sublayer does support .3bf or .3cx models.				
SuggestedRemedy				
Implement changes per P8023cx_2101_hajduczenia_3.pdf shown in highlight. If consented, similar changes need to be implemented in 45.2.1.146 (PMA/PMD), 45.2.2.20 (WIS), 45.2.4.28 (XS), 45.2.5.28 (DTE), and 45.2.6.14 (TC) subclauses, respectively. Add editorial note in aTimeSyncCapabilityTX and aTimeSyncCapabilityRX to make updates to logic calculating values of the given attributes in function of .3bf or .3cx support (likely a function representation with pseudo-code will be needed). This definition will be likely added next cycle when and if changes in this comment are accepted.				
Add editorial note to add aTimeSyncCapabilityTypeTX and aTimeSyncCapabilityTypeRX indicating .3bf and .3cx capability for the given system (likely a function representation with pseudo-code will be needed). This definition will be likely added next cycle when and if changes in this comment are accepted.				
Response	Response Status		C	
ACCEPT.				

CI 45	SC 45.2.3.66	P30	L	# 1
Hajduczenia, Marek		Charter Communications		
Comment Type	TR	Comment Status	A	
#UpdatesTo45				
Draft R0.3 introduced a number of consented changes to register 3.1800 adding .2 and .3 registers indicating support for fine resolution (sub-nanosecond) registers at the PCS layer. It also added new registers in 45.2.3.67 and 45.2.3.68 to support fine resolution registers. Now the same set of changes needs to be done to other layers as well, for functional parity.				
SuggestedRemedy				
Propagate changes from 45.2.3.66/67/68 into the following subclauses 45.2.1.146/147/148 (PMA/PMD), 45.2.2.20/21/22 (WIS), 45.2.4.28/29/30 (XS), 45.2.5.28/29/30 (DTE), and 45.2.6.14/15/16 (TC) subclauses, respectively				
Response	Response Status		C	
ACCEPT.				

## Approved Responses

## IEEE P802.3cx D0.3 ITSA Task Force 1st Task Force review comments

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Cl	90	SC	90.6	P	45	L	#	2
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Hajduczenia, Marek

Charter Communications

Comment Type	TR	Comment Status	A
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#UpdatesTo45

Table 90-1 needs to be updated to match the set of changes already in place in subclauses 45.2.3.66/67/68 and potentially - my other comment (see comment tagged #UpdatesTo45)  
Note that even though we show ns and sub-ns registers in Clause 45, we do not show anywhere or reference to anywhere that shows how the resulting number is produced. a

*SuggestedRemedy*

Add new lines into table 90-1 as shown in the diff highlight in  
P8023cx\_2101\_hajduczenia\_1.pdf  
Add editorial note into 90.7 requesting a link to where explanation on ns and sub-ns  
number representation is defined, perhaps in IEEE Std 1588?

Response	Response Status	C
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ACCEPT.

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Cl	XX	SC	XX	P	L	#	10
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Tse, Richard

Microchip Technology

Comment Type	TR	Comment Status	R
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Informative text is needed to help a user understand the consequences of 802.3cx.

*SuggestedRemedy*

See tse\_3cx\_01\_0121 for overview of what can be placed in this annex

Response	Response Status	C
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REJECT.

No changes to draft at this time.