Cl 9 SC 9.4.3.3.2 P56 L38 # 21

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

Condition for generation of Tx\_num\_blk\_change needs to be described

SuggestedRemedy

Also need to update name of Tx num blk change to Tx num unit change.

Tx\_num\_unit\_change is generated for every Tx xMII word. It indicates what the change in the Tx PHY's path data delay will be due to AM insertion, CWM insertion, and/or Idle rate adaptation insertion/removal" for the xMII word.

Tx\_num\_unit\_change is a 16-bit signed integer, whose value ranges from -32768 to +32767.

Proposed Response

Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Update name of Tx\_num\_blk\_change to Tx\_num\_unit\_change (global change)

Use the following text:

Tx\_num\_unit\_change is generated for every Tx xMII word. It indicates what the change in the Tx PHY's path data delay due to AM insertion, CWM insertion, and/or Idle rate adaptation insertion/removal for the xMII word.

Tx\_num\_unit\_change is a 16-bit signed integer, whose value ranges from -32768 to +32767.

C/ 9 SC 9.4.3.4.2

P**57** 

L6

# 25

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

Condition for generation of Rx\_num\_blk\_change needs to be described

SuggestedRemedy

Also need to update name of Rx\_num\_blk\_change to Rx\_num\_unit\_change.

Rx\_num\_unit\_change is generated for every Rx xMII word. It indicates what the change in the Rx PHY's path data delays was due to AM inemoval, CWM removal, and/or Idle rate adaptation insertion/removal" for the Rx xMII word.

Rx\_num\_unit\_change is a 16-bit signed integer, whose value ranges from -32768 to +32767.

Proposed Response

Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Update name of Rx\_num\_blk\_change to Rx\_num\_unit\_change (global change)

Use the following text:

Rx\_num\_unit\_change is generated for every Rx xMII word. It indicates what the change in the Rx PHY's path data delay due to AM removal, CWM removal, and/or Idle rate adaptation insertion/removal for the Rx xMII word.

Rx\_num\_unit\_change is a 16-bit signed integer, whose value ranges from -32768 to +32767.

Cl 45 SC 45.2.1.146 P30 L11 # 27

Lv, Jingfei Huawei

Comment Type TR Comment Status D

IEEE 802.3bf has been combined into a full version of IEEE 802.3, and when IEEE 802.3cx is published and after some time, IEEE 802.3cx could be merged into another version of 802.3.

So, it could be not suitable to use 802.3bf or 802.3cx.

SuggestedRemedy

Propose that the IEEE 802.3bf could be replaced with "the clause 90 of IEEE 802.3-2018", and IEEE 802.3cx could be replaced with "the clause 90 of IEEE 802.3-20xx"

If this is accepted, need to do the same change for the table and other sub-clauses of Clause 45.

Proposed Response

Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Replace IEEE 802.3bf with "IEEE Std 802.3-2018, Clause 90", and IEEE 802.3cx with "IEEE Std 802.3, Clause 90" (global change)

### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

Cl 45 SC 45.2.1.147 P31 L8 # 28

Lv, Jingfei Huawei

Comment Type TR Comment Status D

How to confirm the sets of registers to be valid, based on table 45-110.

My understanding is, if the register 1.1800.15 is 0, the registers 1.1801, 1.1802, 1.1803 and 1.1804 are valid; otherwise if the gister 1.1800.15 is 1, these registers are invalid. If the register 1.1800.14 is 0, the registers 1.1809 and 1.1810 are valid; otherwise they are invalid.

Hope to make it more clear.

SuggestedRemedy

Propose to clarify "both sets of registers are valid (see Table 45-110)"

Proposed Response Status W

PROPOSED REJECT.

Comment position is against D0.4

Registers 1.1801, 1.1802, 1.1803 and 1.1804 are valid and always there for both versions. If .3cx is indicated as supported,1.1809 and 1.1810 and then added.

Existing text is clear IMO and does not require any additional changes

Cl 45 SC 45.2.1.147 P31 L10 # 29

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Based on my understanding, the sentence means, the corresponding value is invalid, but not included.

Propose to rephrase this sentence.

SuggestedRemedy

Propose to change

"then the corresponding value is not included in the maximum PMA/PMD transmit path data delay"

as

"then the maximum PMA/PMD transmit path data delay is not provided."

If this is accepted, need to do the same change for the next paragraph and other subclauses of Clause 46

Proposed Response Status W

PROPOSED REJECT.

Comment position is against D0.4

Proposed change is not correct. Maximum PMA/PMD transmit path data delay is provided either way, it might just not have sub-ns portion of it. All the target sentence says is that if the encoded value does not make any sense, do not use it.

Cl 45 SC 45.2.2.21 P33 L43 # 30

Lv, Jingfei Huawei Comment Type TR Comment Status D

The status of WIS layer should be bit 2 in Register 2.1 (see 45.2.2.2.2)

SuggestedRemedy

Propose to change

"bit 2 in Register 1.1 (see 45.2.1.2.4)"

"bit 2 in Register 2.1 (see 45.2.2.2.2)"

Same change for Clause 45.2.2.2.22

Proposed Response Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

It is also an error in published 802.3-2018

Make link live

Cl 45 SC 45.2.3.66 P36 L15 # 31

Lv, Jingfei Huawei

Comment Type TR Comment Status D

"PCS does not support or support multi-PCS lane path data delay mechanism" are not

My understanding is, this register will indicate whether PCS support the report of multi-PCS lane path data delay"

SuggestedRemedy

Propose to change as,

0 = PCS does not support the report of multi-PCS lane path data delay

1 = PCS supports the report of multi-PCS lane path data delay

Proposed Response Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

C/ 45 SC 45.2.3.67 P37 **L1** # 32

Lv, Jingfei Huawei

Comment Status D The status of PCS layer should be bit 2 in Register 3.1 (see 45.2.3.2.7)

SuggestedRemedy

Comment Type TR

Propose to change

"bit 2 in Register 1.1 (see 45.2.1.2.4)"

"bit 2 in Register 3.1 (see 45.2.3.2.7)"

Same change for Clause 45.2.3.68

Proposed Response Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

It is also an error in published 802.3-2018

Make link live

C/ 45 SC 45.2.3.68a P38 L43 # 33

Lv, Jingfei Huawei

Comment Type Comment Status D TR

The configuration of 3.1813.13 (timestamp reference point at SFD) and 3.1813.12 (timestamp reference point at the first symbol after the SFD) can not be 1 at the same time.

Propose to add a note at the end.

SuggestedRemedy

Propose to add one sentence at the end.

"Note, the configuration of Register 3.1813.12 and 3.1813.13 can not be 1 at the same time.

Proposed Response Response Status W

PROPOSED REJECT.

Comment position is against D0.4.

We usually avoid adding such notes.

CI 45 SC 45.2.3.68a P42 L22 # 13
Tse, Richard Microchip Technology

Comment Type TR Comment Status D

"timestamp reference point" should be "message timestamp point"

SuggestedRemedy

This change also applies to the descriptions of the registers in Table 45-237a.

The register names in the Table should be changed as follows:

-from "Timestamp reference SFD" to "Message timestamp point, SFD"

-from "Timestamp reference, first symbol after SFD" to "Message timestamp point, first symbol after SFD"

Proposed Response Status W

PROPOSED ACCEPT.

Cl 45 SC 45.2.4.29 P40 L6 # 34

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The status of PHY XS transmit layer should be bit 2 in Register 4.1 (see 45.2.4.2.7)

SuggestedRemedy

Propose to change

"bit 2 in Register 1.1 (see 45.2.1.2.4)"

as

"bit 2 in Register 4.1 (see 45.2.4.2.7)"

Proposed Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

It is also an error in published 802.3-2018

Make link live

Cl 45 SC 45.2.4.30 P41 L6 # 35

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The status register of PHY XS receive layer is not found.

Need to double check.

SuggestedRemedy

Propose to check the status register of PHY XS receive layer.

Proposed Response Response Status W

PROPOSED REJECT.

No specific change proposed

C/ 45 SC 45.2.5.29 P42 L45 # 36

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The status register of DTE XS transmit layer is not found.

Need to double check.

SuggestedRemedy

Propose to check the status register of DTE XS transmit layer.

Proposed Response Response Status W

PROPOSED REJECT.

No specific change proposed

# 37

Cl 45 SC 45.2.5.30 P43 L45

Comment Status D

Lv, Jingfei Huawei

The status of DTE XS receive layer should be bit 2 in Register 5.1 (see 45.2.5.2.7)

SuggestedRemedy

Comment Type TR

Propose to change

"bit 2 in Register 1.1 (see 45.2.1.2.4)"

as

"bit 2 in Register 5.1 (see 45.2.5.2.7)"

Proposed Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

It is also an error in published 802.3-2018

Make link live

Cl 45 SC 45.2.6.15 P45 L38 # 38

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The status register of TC layer is not found.

Need to double check.

SuggestedRemedy

Propose to check the status register of TC layer.

Same for the Clause 45.2.6.16

Proposed Response Status W

PROPOSED REJECT.

No proposed change

Cl 90 SC 90.4.2 P51 L13 # 39

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Since TX\_num\_blk\_change and RX\_num\_blk\_change are newly defined, these two signals may be also listed.

SuggestedRemedy

Propose to add

"TX\_num\_blk\_change RX\_num\_blk\_change"

Proposed Response Status W

PROPOSED ACCEPT.

Comment position is against D0.4.

C/ 90 SC 90.4.3.1.1 P51 L25 # 40

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Since 802.3cx includes the first symbol after SFD as a timestamp generation point. Should TS\_TX.indication include the detection of the first symbol after SFD?

SuggestedRemedy

Propose to discuss this comment.

Proposed Response Response Status W

PROPOSED REJECT.

No specific remedy proposed.

Cl 90 SC 90.4.3.1.1 P55 L25 # 14

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

SFD should be changed to MTP, which stands for message timestamp point

#### SuggestedRemedy

Also mention in this sub-clause that the message timestamp point selection is via the Message timestamp point register bits (SFD per register 3.1813.13 or first symbol after SFD per register 3.1813.12), which are described in 45.2.3.68a.

Note that I am using my suggested new name, "Message timestamp point", for the register bits in subclause 45.2.3.68a.

Proposed Response

Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 90.4.3.1.1 to the following. Note that I am using the suggested new name, "Message timestamp point", for the register bits in subclause 45.2.3.68a.

""The semantics of the primitive are as follows:

TS\_TX.indication(MTP, MM)

The message timestamp point (MTP) parameter can take two possible values, DETECTED and NOT\_DETECTED. When asserted (MTP = DETECTED), the TimeSync Client is notified that a valid message timestamp point was detected by the gRS sublayer TS\_MTP\_Detect\_TX function (see 90.5.1) in the xMII transmit signals. When not asserted (MTP = NOT\_DETECTED), the TimeSync Client is not notified that a valid message timestamp point was detected by the gRS sublayer TS\_MTP\_Detect\_TX function in the xMII transmit signals.

The MM parameter is mandatory when the MAC Merge sublayer (see Clause 99) is instantiated and the SFD is chosen as the message timestamp point (see registers 3.1813.12 and 3.1813.13 in 45.2.3.68a). The MM parameter, when present, can take one of two possible values, i.e., PMAC or EMAC. The value EMAC indicates the SMD-E (SFD) value has been detected at the xMII. The value PMAC indicates that an SMD-S value has been detected at the xMII (see Table99�1). The MM parameter is not provided when MAC Merge sublayer is not instantiated or when the SFD is not chosen as the message timestamp point.

Cl 90 SC 90.4.3.1.2 P55 L39 # 15

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

SFD should be changed to MTP, which stands for message timestamp point

SuggestedRemedy

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 90.4.3.1.2 to the following:

"This primitive is generated by the gRS sublayer in response to detection of a valid message timestamp point in the data stream transmitted across the xMII transmit signals. Specific conditions for generation of this primitive are described in 90.5.1."

Cl 90 SC 90.4.3.3 P56 L23 # 18

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

For lower Ethernet rates, the size of an Idle is smaller than one block. Thus, the unit of delay for this primitive should be smaller than one block.

#### SuggestedRemedy

It appears that the smallest unit that is needed is one xMII word. So, this primitive could be renamed Tx\_num\_unit\_change and "unit" could be described as being equal to the size of one xMII word.

The change should be propagated throughout the document and to Figures 90-1 and 90-2.

In 90.4.3.3.1, change "Tx\_num\_blk\_change(BLK\_CNT)" to "Tx\_num\_unit\_change(UNIT\_CNT)".

In 90.4.3.3.1, change

"The BLK\_CNT parameter indicates how many blocks of delay change are to be performed in the Tx PHY (e.g., for AM insertion, CWM insertion, or Idle rate adaptation removal)."

to

"The UNIT\_CNT parameter indicates how many units of delay change are to be performed in the Tx PHY (e.g., for AM insertion, CWM insertion, or Idle rate adaptation insertion/removal), where one unit is equivalent to the size of one word at the xMII."

Proposed Response Response Status W
PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ **90** SC **90.4.3.3**  Page 6 of 13 5/10/2021 7:37:59 PM Cl 90 SC 90.4.3.3 P56 L25 # 19

Tse, Richard Microchip Technology

TR Comment Status D Comment Type

"TBD" needs to be replaced and be specific regarding the direction of the transfer

SuggestedRemedy

Change

"This primitive defines the transfer of {TBD} between gRS and the TimeSync Client."

C/ 90

"This primitive defines the transfer of Tx PHY path data delay variation information from the aRS to the TimeSvnc Client."

Proposed Response

Response Status W

PROPOSED ACCEPT.

Lv, Jingfei Huawei

Comment Type TR Comment Status D

If it's required to report how many blocks of delay change are to be performend, it possibly needs to define the time slot, from when to when.

P**52** 

L33

# 41

SuggestedRemedy

Propose to discuss this comment.

SC 90.4.3.3.1

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #20

C/ 90 SC 90.4.3.3.1 P56

L34

# 20

Tse, Richard

Microchip Technology

Comment Type TR Comment Status D

Idle rate adaptation can cause an idle to be either inserted or removed in the Tx PHY

SuggestedRemedy

As per my earlier comment, change

"The BLK CNT parameter indicates how many blocks of delay change are to be performed in the Tx PHY (e.g., for AM insertion, CWM insertion, or Idle rate adaptation removal)."

to

"The UNIT CNT parameter indicates how many units of delay change are to be performed in the Tx PHY (e.g., for AM insertion, CWM insertion, or Idle rate adaptation insertion/removal), where one unit is equivalent to the size of one word at the xMII."

Proposed Response

Response Status W

PROPOSED ACCEPT.

C/ 90 SC 90.4.3.4 P56

L44

# 22

Tse. Richard

Microchip Technology

Comment Type TR

Comment Status D

For lower Ethernet rates, the size of an Idle is smaller than one block. Thus, the unit of delay for this primitive should be smaller than one block.

SugaestedRemedy

It appears that the smallest unit that is needed is one xMII word. So, this primitive could be renamed Rx num unit change and "unit" could be described as being equal to the size of one xMII word.

The change should be propagated throughout the document and to Figures 90-1 and 90-2.

In 90.4.3.4.1, change "Rx\_num\_blk\_change(BLK\_CNT)" to "Rx\_num\_unit\_change(UNIT\_CNT)".

In 90.4.3.4.1, change

"The BLK\_CNT parameter indicates how many blocks of delay change were performed in the Rx PHY (e.g., for AM removal, CWM removal, or Idle rate adaptation insertion)."

to

"The UNIT CNT parameter indicates how many units of delay change are to be performed in the Rx PHY (e.g., for AM removal, CWM removal, or Idle rate adaptation insertion/removal), where one unit is equivalent to the size of one word at the xMII."

Proposed Response

Response Status W

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 90

Page 7 of 13

SC 90.4.3.4

5/10/2021 7:37:59 PM

#### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

C/ 90 SC 90.4.3.4 P56 L46 # 23

Tse, Richard Microchip Technology

TR Comment Status D Comment Type

"TBD" needs to be replaced and be specific regarding the direction of the transfer

SuggestedRemedy

Change

"This primitive defines the transfer of {TBD} between gRS and the TimeSync Client."

"This primitive defines the transfer of Rx PHY path data delay variation information from the aRS to the TimeSvnc Client."

Proposed Response

Response Status W

PROPOSED ACCEPT.

C/ 90 SC 90.4.3.4.1

Microchip Technology

**L1** 

# 24

Tse, Richard Comment Type TR Comment Status D

Idle rate adaptation can cause an idle to be either inserted or removed in the Rx PHY

P57

SuggestedRemedy

As per my earlier comment, change

"The BLK CNT parameter indicates how many blocks of delay change were performed in the Rx PHY (e.g., for AM removal, CWM removal, or Idle rate adaptation insertion)."

to

"The UNIT CNT parameter indicates how many units of delay change were performed in the Rx PHY (e.g., for AM removal, CWM removal, or Idle rate adaptation insertion/removal), where one unit is equivalent to the size of one word at the xMII."

Proposed Response

Response Status W

PROPOSED ACCEPT.

C/ 90 SC 90.4.4.1.1 P56 **L1** # 16

Tse, Richard Microchip Technology

Comment Type Comment Status D TR

SFD should be changed to MTP, which stands for message timestamp point

SuggestedRemedy

Also mention in this sub-clause that the message timestamp point selection is via the Timestamp reference register bits (SFD per register 3.1813.13 or first symbol after SFD per register 3.1813.12), which are described in 45.2.3.68a.

Proposed Response

Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 90.4.3.2.1 to the following. Note that I am using the suggested new name, "Message timestamp point", for the register bits in subclause 45.2.3.68a.

""The semantics of the primitive are as follows:

TS RX.indication(MTP, MM)

The message timestamp point (MTP) parameter can take two possible values, DETECTED and NOT DETECTED. When asserted (MTP = DETECTED), the TimeSync Client is notified that a valid message timestamp point was detected by the gRS sublayer TS\_MTP\_Detect\_RX function (see 90.5.2) in the xMII receive signals. When not asserted (MTP = NOT\_DETECTED), the TimeSync Client is not notified that a valid message timestamp point was detected by the gRS sublayer TS MTP Detect RX function in the xMII receive signals.

The MM parameter is mandatory when the MAC Merge sublaver (see Clause 99) is instantiated and the SFD is chosen as the message timestamp point (see registers 3.1813.12 and 3.1813.13 in 45.2.3.68a). The MM parameter, when present, can take one of two possible values, i.e., PMAC or EMAC. The value EMAC indicates the SMD-E (SFD) value has been detected at the xMII. The value PMAC indicates that an SMD-S value has been detected at the xMII (see Table99�1). The MM parameter is not provided when MAC Merge sublayer is not instantiated or when the SFD is not chosen as the message timestamp point

C/ 90 SC 90.4.4.1.2 P56 L15 # 17

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

SFD should be changed to MTP, which stands for message timestamp point

SuggestedRemedy

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change 90.4.3.2.2 to the following:

"This primitive is generated by the gRS sublayer in response to detection of a valid message timestamp point in the data stream received across the xMII receive signals. Specific conditions for generation of this primitive are described in 90.5.2."

Cl 90 SC 90.5 P57 L20 # 26

Tse, Richard Microchip Technology

Comment Type TR Comment Status D

The TS\_SFD\_Detect\_TX and TS\_SFD\_Detect\_RX functions in all clauses and in Figure 90-2 need to be renamed to reflect the new symbol-after-SFD message timestamp point.

SuggestedRemedy

Rename TS\_SFD\_Detect\_TX and TS\_SFD\_Detect\_RX to TS\_MTP\_Detect\_TX and TS\_MTP\_Detect\_RX, where MTP stands for message timestamp point, in Figure 90-2 and throughout the document.

The "SFD=DETECTED" events also need to be renamed to "MTP=DETECTED".

Proposed Response Response Status W

PROPOSED ACCEPT.

C/ 90 SC 90.5.1 P53 L25 # 42

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The output of TS\_SFD\_Detect\_TX function also includes TX\_num\_blk\_change. Should the clause 90.5.1 define the generation of TX\_num\_blk\_change?

SuggestedRemedy

Propose to discuss this comment.

Proposed Response Status W

PROPOSED REJECT.

No proposed change suggested

Cl 90 SC 90.5.2 P53 L40 # 43

Lv, Jingfei Huawei

Comment Type TR Comment Status D

The output of TS\_SFD\_Detect\_RX function also includes RX\_num\_blk\_change. Should the clause 90.5.2 define the generation of RX\_num\_blk\_change?

SuggestedRemedy

Propose to discuss this comment.

Proposed Response Status W

PROPOSED REJECT.

No proposed change suggested

Cl 90 SC 90.6 P54 L41 # 44

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Need to add 3.1813 (TimeSync PCS configuration register)

SuggestedRemedy

Propose to add 3.1813, e.g.,

"1.1800, 2.1800, 3.1800, 3.1813, 4.1800, 5.1800 and 6.1800"

Proposed Response Response Status W

PROPOSED ACCEPT.

Comment location is against D0.4

Cl 90 SC 90.6 P54 L45 # 45

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Need to add sub-nanosecond registers for each layer

SuggestedRemedy

Propose to add the sub-nanosecond registers of each layer

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Comment location is against D0.4

Add correct references to sub-ns registers for each sublayer.

#### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

Cl 90 SC 90.6 P54 L51 # 46

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Need to add sub-nanosecond registers for each layer

SuggestedRemedy

Propose to add the sub-nanosecond registers of each layer

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Comment location is against D0.4

Add correct references to sub-ns registers for each sublayer.

Cl 90 SC 90.7 P56 L38 # 47

Lv, Jingfei Huawei

Comment Type TR Comment Status D

In order to make more clear, propose to add one sentence to indicate that, the dynamic delay of AM/CWM insertion or removal is reported by the TX\_num\_blk\_change and RX\_num\_blk\_change events

SuggestedRemedy

Propose to add one sentence at the end.

"The dynamic delay variance is represented and reported by the event TX num blk change and RX num blk change."

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Add the following sentence: "The dynamic delay variance is reported by the TX\_num\_blk\_change and RX\_num\_blk\_change primitives."

Cl 90 SC 90.7 P56 L51 # 48

Lv, Jingfei Huawei

Comment Type TR Comment Status D

If the transmit skew is minimized, or ideally to zero, the effect of time error should be also minimized or ideally to zero.

Propose to add sentences about the effect of time error.

SuggestedRemedy

Propose to add a phrase after the sentence,

"Transmit skew should thus be minimized, ideally to zero, and this would be an ideal case for the accuracy of TimeSync Client".

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Add the following sentence at the end of the para.

"Transmit skew is expected to be minimized, ideally to zero, representing an ideal case for the accuracy of TimeSync Client".

Cl 90 SC 90.7 P56 L52 # 49

Lv, Jingfei Huawei

Comment Type TR Comment Status D

It seems that the NOTE 4 does not aim to address the case "If the transmit skew is not zero". So, it may be inappropriate to refer to NOTE 4.

SuggestedRemedy

Propose to remove (see NOTE 4)

Proposed Response Response Status W

PROPOSED REJECT.

It does reference to transmit skew

#### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

Cl 90 SC 90.7 P57 L33 # 52

Lv, Jingfei Huawei

Comment Type TR Comment Status D

"For example, the TimeSync Client may need to subtract the value of the delay associated with the TS\_SFD\_Detect\_TX function from the sum of the minimum transmit data delay values reported by individual MMD(s)"

Based on the equation described in IEEE 1588-2008 Clause 7.3.4.2, the TX side should add the egressLatency, not subtract.

#### SuggestedRemedy

Propose to change the sentence as,

"For example, the TimeSync Client may need to add the value of the delay associated with the TS\_SFD\_Detect\_TX function from the sum of the minimum transmit data delay values reported by individual MMD(s)"

If this comment is accepted, change the word "add" of Line 35 of page 57 to be "subtract".

Proposed Response

Response Status W

PROPOSED ACCEPT.

Cl 90 SC 90.7 P57 L34 # 53

Lv, Jingfei Huawei

TR

"For example, the TimeSync Client may need to subtract the value of the delay associated with the TS\_SFD\_Detect\_TX function from the sum of the minimum transmit data delay values reported by

Comment Status D

individual MMD(s)"

In order to reduce the effect of variable latency, my understanding is to compensate the mean of the minimum and maximum data delay instead of the minimum delay.

#### SuggestedRemedy

Comment Type

Propose to change the sentence as,

""For example, the TimeSync Client may need to subtract the value of the delay associated with the TS\_SFD\_Detect\_TX function from the mean of the sum of the minimum transmit data delay values and the sum of the maximum transmit data delay reported by individual MMD(s)"

If this is accepted, modify a similar way for line 36 about RX side.

Proposed Response

Response Status W

PROPOSED ACCEPT.

CI 90 SC 90.7 P57 L40 # 50

Lv, Jingfei Huawei

Comment Type TR Comment Status D

NOTE 4 is one specific case that the transmit skew is strictly additive to any medium skew.

Propose to move NOTE 4 at the end of the paragraph addressing the lane skew on a multilane transmitter.

#### SuggestedRemedy

Propose to move NOTE 4 at the end of line 2 of page 57, e.g.,

"For specific cases when transmit skew is strictly additive to any medium skew, it is appropriate to report the transmit path delay as if the message timestamp point departed the MDI output on the last-departing lane"

Proposed Response

Response Status W

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Clause, Subclause, page, line

Cl 90 SC 90.7 Page 11 of 13 5/10/2021 7:37:59 PM

#### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

C/ 90 SC 90.7 P57 L40 # 51 Lv, Jingfei Huawei

Comment Type TR Comment Status D

For the case of NOTE 4, if the transmit path delay is reported as if the message timestamp point departed the MDI output on the last-departing lane, whether the effect of time error will be zero?

SuggestedRemedy

Propose to discuss this comment, and add clarification based on meeting results.

Proposed Response Response Status W

PROPOSED REJECT.

No specific changes proposed

Cl 90 SC 90.7 P60 L23 # 56

Tse, Richard Microchip Technology

Comment Type TR Comment Status D post-deadline

Idle rate adaptation should not be limited to those corresponding to AM/CWM insertion

SuggestedRemedy

Change paragraph from

"For a PHY that inserts alignment markers or codeword markers and performs rate adaptation (e.g., removes Idles) to accommodate the AM or CWM insertion, the transmit path data delay measurement starting point (the PTP message timestamp point at the xMII input) should be adjusted to account for the AM or CWM insertion and the corresponding rate adaptation that occurs in the PHY (between the xMII input and the MDI output). Based on this adjustment, the result is a transmit path data delay measurement that appears as if the AM or CWM insertion and the corresponding rate adaptation had been performed before the Tx xMII."

to

"For a PHY that inserts alignment markers or codeword markers and/or performs rate adaptation (e.g., adds/removes Idles), the transmit path data delay measurement starting point (the PTP message timestamp point at the xMII input) should be adjusted to account for the AM or CWM insertion and any Idle addition/removal that occurs in the PHY (between the xMII input and the MDI output). Based on this adjustment, the result is a transmit path data delay measurement that appears as if the AM or CWM insertion and any Idle addition/removal had been performed before the Tx xMII."

Proposed Response

Response Status W

PROPOSED ACCEPT.

Cl 90 SC 90.7 P60 L31 # 57

Tse, Richard Microchip Technology

Comment Type TR Comment Status D post-deadline

Idle rate adaptation should not be limited to those corresponding to AM/CWM removal

SuggestedRemedy

Change paragraph from

"For a PHY that removes alignment markers or codeword markers and/or performs rate adaptation (e.g., adds/removes Idles), the receive path data delay measurement ending point (the PTP message timestamp point at the xMII output) should be adjusted to account for AM or CWM removal and the corresponding rate adaptation that occurs in the PHY (between the MDI input and xMII output). Based on this adjustment, the result is a receive path data delay measurement that appears as if the AM or CWM removal and the corresponding rate adaptation had been performed after the Rx xMII."

to

"For a PHY that removes alignment markers or codeword markers and/or performs rate adaptation (e.g., adds/removes Idles), the receive path data delay measurement ending point (the PTP message timestamp point at the xMII output) should be adjusted to account for AM or CWM removal and any Idle addition/removal that occurs in the PHY (between the MDI input and xMII output). Based on this adjustment, the result is a receive path data delay measurement that appears as if the AM or CWM removal and any Idle addition/removal had been performed after the Rx xMII."

Proposed Response

Response Status W

PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SORT ORDER: Clause, Subclause, page, line

Cl 90 SC 90.7 Page 12 of 13 5/10/2021 7:37:59 PM

### IEEE P802.3cx D0.5 ITSA Task Force 1st Task Force review comments

CI 90 SC 90.7 P60 L38 # 55

Tse, Richard Microchip Technology

Comment Type TR Comment Status D post-deadline

Idle rate adaptation should not be limited to those corresponding to AM/CWM insertion/removal

SuggestedRemedy

Change paragraph from

"The dynamic delay variance of AM or CWM insertion or removal or that of the corresponding rate adaptation is not to be included in the TimeSync PCS transmit path data delay or the TimeSync PCS receive path data delay registers."

to

"The dynamic delay variance of AM, CWM, or Idle insertion or removal is not to be included in the TimeSync PCS transmit path data delay or the TimeSync PCS receive path data delay registers."

Proposed Response Response Status W

PROPOSED ACCEPT.

C/ 90 SC 90.8.3 P59 L26 # 54

Lv, Jingfei Huawei

Comment Type TR Comment Status D

Should the TX\_num\_blk\_change and RX\_num\_blk\_change events be added in this table.

SuggestedRemedy

Propose to discuss this comment.

Proposed Response Response Status W

PROPOSED REJECT.

There are no requirements associated with thes primitives right now