



# 802.5t/D2.1B Comment Report

802.5/98/07-08r2

## Comment NAJ-27

Section 0.0 Line 1 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** Title does not reflect the new 802.5t PAR

**Solution:** Fix it

**Response:** Question is on line 10 (and others) over the term "Multimode". Delete 9 and 10.

## Comment NAJ-28

Section 0.0 Line 1 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** IEEE copyright notice missing

**Solution:** Add one.

**Response:**

## Comment ANF-01

Section 1.0 Line 354 Severity Q Type TECH Status OPEN

Highlight To Committe ☒ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** "Provide static impedance capability defined in 8."

What is this and where is it defined?

**Solution:** This is copied straight from 1.8.2.2 & 1.8.3.2, so I guess it's actually a maintenance item?

**Response:** 1. Maintenance item on the Amd1 document subclauses 1.8.2.2 & 1.8.3.2.

2. Tue 7Jul - Andy Fierman to provides words by 9Jul98 for 1.9 and give them to KTWilson.

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**Comment BBT-10**

**Section** 1.4    **Line** 56    **Severity** A/C    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** The reference is the Ethernet base standard, we are only using 802.3u (in 9.8 is the only reference used 802.3u)

802.3u-1995 IEEE Standards for Local and Metropolitan Area Networks: Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units, and Repeater for 100 Mb/s Operation, Type 100 Base-T (Clauses 21-30)

**Solution:**

**Response:** First decision is whether reference [17] be eliminated. I do not think so. Thus, add the following reference after line 59 and renumber the items in lines 60, 62, 63 and 66 to items [19], [20], [21] and [22] respectively.

[18] 802.3u-1995 IEEE Standards for Local and Metropolitan Area Networks: Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Media Access Control (MAC) Parameters, Physical Layer, Medium Attachment Units, and Repeater for 100 Mb/s Operation, Type 100 Base-T (Clauses 21-30).

802.3u will be referred to in the following manner:  
"[802.3u]".

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**Comment NAJ-30**

**Section** 1.8    **Line** 71    **Severity** Q    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Why do we have these sections in our document. This is a duplication of Annex A in words \*and it is wrong\*.

**Solution:** I suggest we remove these sections, and refer the reader to Annex A.

**Response:** Disagree - Annex A is based on 1.x, not the other way around.

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**Comment NAJ-31**

**Section** 1.9    **Line** 421    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** << Note the comment database doesn't allow 1.10 as a section number. This needs to be fixed by NAJ>>

You can't replace 1.6.1.2 with 13.9.8.1.5, and then delete 1.6.1.2 items g) and h).

**Solution:** Remove bullet items on lines 422 and 423

**Response:**

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**Comment NAJ-33**

**Section** 2.2    **Line** 1    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Page numbering is not consistent with document.

**Solution:** Should be 2-x.

**Response:** KTWilson to fix.

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**Comment** RJK-01

**Section** 2.2    **Line** 10    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Comment still outstanding from Draft 2.1.

This section is not "High Media Rate". The description of the MII and the diagrams 2.2.1 and 2.2.2 are only valid at 100Mbit/s. "High Media Rate" is a term used for 100 and higher. The text and diagrams are wrong for 1000Mbit/s.

**Solution:** Either:

1. Change title of section (and diagrams on lines 55 and 57) from "High Media Rate" to "100Mbit/s", and add a placeholder for clause 2.2.3 1000Mbit/s like we did for 9.8.2.

Or:

2. Keep the title and change the text to remove specific 100Mbit/s bits. Remove over-detailed specific references to MII, MLT-3, (de)scrambler, phantom etc in Figs 2.2.1 and 2.2.2. This level of detail is shown later in diagrams in clause 9.7.

**Response:** Solution 1 accepted by committee.

The committee decided that KTWilson was to be given the "opportunity" to own this clause.

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**Comment** NAJ-29

**Section** 2.2    **Line** 17    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This introduction does not reflect the new 802.5t PAR. For example mulitmode fibre is mentioned, which is not in the PAR.

**Solution:** Fix it.

**Response:**

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**Comment** NAJ-32

**Section** 2.2    **Line** 22    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** List item a) seems to have been subsumed into the paragraph.

**Solution:** Fix it.

**Response:**

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**Comment ANF-02**

**Section** 2.2    **Line** 33    **Severity** A/C    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Reference here to PM\_STATUS.indication is wrong.

PM\_STATUS.indication is only defined within 9.7.2.

**Solution:** Remove reference to PM\_STATUS.indication and reword lines 33 - 36 to read:

"The PMAC/SMAC/PHY internal service interface (PM\_CONTROL.request) provides the control mechanism of the PHY functions by the MAC protocol."

**Response:** Andy and Ken to come up with words for lines 22 through 36 by 9Jul1998.

Andy supplied the following words on 7Jul98:

- a. The PMC/PSC internal service interface (PM\_UNITDATA.request; PM\_UNITDATA.indication) defines the information exchange between the physical media components (PMC) specified in 9.7 and 9.8 and the physical signalling components (PSC) specified in 9.8. This service interface is defined in 9.8.
- b. The PSC/MAC internal service interface (PS\_UNITDATA.request, PS\_UNITDATA.indication) defines the information exchange between the physical signalling components (PSC) specified in 9.8 and the MAC sublayer specified in clauses 9 and 14. Clause 14 defines frame formats and station facilities. Clause 9 also specifies the C-Port's PMAC and Station's SMAC protocol that uses the formats and facilities defined in clause 14 to receive and transmit information. This service interface is defined in 9.8.
- c. The PMAC/SMAC/PHY internal service interface (PM\_CONTROL.request, PS\_CONTROL.request, and PS\_STATUS.indication) provides the mechanism for controlling the PHY functions by the MAC protocol and the mechanism for indicating the status of the PHY functions to the MAC protocol. PM\_CONTROL.request is defined in 9.7. PS\_CONTROL.request and PS\_STATUS.indication are defined in 9.8.

As the result of the above words, the PSC block in figures 2.2-1 and 2.2-2 have been changed to refer to (9.8).

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**Comment RJK-02**

**Section** 2.2    **Line** 50    **Severity** DIS    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Comment still outstanding from draft 2.1.

The abbreviation for physical media components is not PHY, it's PMC!

**Solution:** Change line 50 to read:

"The physical layer (PHY) of the Station and C-Port consists of the physical media components (PMC), specified in ..."

**Response:** OK - KTWilson will correct.

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**Comment NAJ-34**

**Section** 2.2    **Line** 54    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Figure 2.2-1 should have a Ring Access Control (RAC) box and an optional Phantom Function box.

Both Stations and C-Ports must support RAC at all rates and media types. From my reading of 5.9, a RAC only supplies the interface to the MAC, and signals the PHY to perform actions. Therefore the RAC is always required, but the PHY may or may not support the actions.

**Solution:** Add RAC box.

**Response:** The problem of RAC for DTR has been added as a Amd1 maintenance item list. No changes have been made to 2.2.

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**Comment NAJ-36**

**Section** 2.2    **Line** 54    **Severity** A/C    **Type** TECH    **Status** REJECTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Figure 2.2-1.

Boxes "MLT-3 Decoder..." and "Scrambler & MLT-3..." do not add anything to this picture, except clutter.

**Solution:** Remove them.

**Response:** Committee rejects this comment because they are from [802.3u]. "MLT-3 Decoder" and "Scrambler & MLT-3" are required for copper, but are not used by Fibre (see figure 2.2-2).

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**Comment NAJ-35**

**Section** 2.2    **Line** 56    **Severity** DIS    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Figure 2.2-2.

Figure needs a Ring Access Control (RAC) box. See comment NAJ-35.

**Solution:** Add one.

**Response:** Withdrawn by Neil Jarvis - refer to NAJ-34 for resolution.

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**Comment SJH-01**

**Section** 9.0    **Line** 70    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** TKP Access Protocol isn't defined by 9.3 - only the entry points into other tables are defined. Text is misleading.

**Solution:** change to "...and entry into the TKP Access Protocol tables when operating at 4 Mbit/s or 16 Mbit/s."

**Response:**

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**Comment NAJ-37**

**Section** 9.1    **Line** 108    **Severity** Q    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Doesn't this section, in conjunction with item ii) on line 80 mandate that an abort sequence must be transmitted on an octet boundary?

**Solution:**

**Response:** Neil has put together Document 07-20 which defines our interpretation of how different transmit and receive abort sequences are handled. This will be sent to implementors via the reflector and the Web-site for their input. Response is needed by 9Jul98.

Vote 07-23 asks for the following words to be added to 802.5t:

"An abort sequence shall be transmitted on an octet boundary, but may optionally be transmitted on any nibble boundary in the case of a STATION\_ERR or PORT\_ERR.

An implementation shall be capable of receiving an abort sequence on any nibble boundary. An implementation may optionally count a frame received with an abort sequence on a non-octet boundary as a line error."

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**Comment SJH-02**

**Section** 9.1    **Line** 148    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** This section talks about FPRPT directly controlling the C-Port's hardware repeat function and transmit state machine. All of these actions occur only when a hardware repeat path is in place. Since we have decided that FPRPT will be set and reset regardless of the type of repeat path in use, the descriptions here need updating to gate on FPRPTO=1.

**Solution:** Messy. Change FPRPT=1 (line 149) to FPRPT=1 & FPRPTO=1. Similarly with FPRPT=0 on line 151. And on through the text - lines 157, 158, 172, 173

**Response:** Reword lines 139 and 140 as follows.

KTWilson to revisit (FPRPTO conditioning is too broad). Simon and Ken to thrash it out at UNH.

From: "6. The C-Port repeat function, when using the TXI Access Protocol and operating at the 4 Mbit/s and 16 Mbit/s media rates or the High Media Rates, is performed as follows."

To: "6. The C-Port repeat function, when using the TXI Access Protocol and operating at the 4 Mbit/s and 16 Mbit/s media rates, or operating at the High Media Rates and the C-Port's option flag FPRPTO=1 (indicating the hardware repeat path is supported), is performed as follows."

Reword line 148 as follows.

From: "The following flag, defined in 9.3, is used to control the C-Port's repeat function."

To: "The following flag, defined in 9.3, is used to control the C-Port's repeat function when the C-Port's option flag FPRPTO=1."

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**Comment SJH-03**

**Section** 9.1    **Line** 170    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Repeat path isn't allowed to set A and/or C bits in the repeated frame. Implementations must be allowed to set the A & C bits in a repeated frame - especially since this paragraph applies to 4/16 speeds as well as HMR.

**Solution:** Change line 171 to "...of the E-bit, A bits and C bits, which, if present, may or may not be set)."

**Response:** Accepted: Change line 171

From: "of the E-bit, which, if present, may or may not be set)."

To: "of the A-bits, the C-bits and the E-bit, which may or may not be set)."

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**Comment NAJ-38**

**Section** 9.1    **Line** 209    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** 9.1.1.2 should be part of 9.1.1.9, not a subclause on its own.

**Solution:** Move it?

**Response:**

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**Comment NAJ-39**

**Section** 9.1    **Line** 277    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Missing from this list is:  
\* FA(xxx) set to 0.  
\* No frames queued for transmission  
\* No frames queued for reception

**Solution:** Add items.

<<This is also a maintenance PAR item>>

**Response:** This will be added to the base and Amd1 maintenance lists.

Add after line 284 the following bullets.  
\* FA(LMT) and FA(monitor) shall be set to 0.  
\* All transmit and receive queues shall be flushed.

---

**Comment RJK-03**

**Section** 9.1    **Line** 317    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Properties B and D are still on the same line.

**Solution:** <CR>

**Response:**

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**Comment** SJH-04

**Section** 9.1    **Line** 325    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** FR\_WITH\_ERR is broken. It requies a FR\_WITH\_ERR to have at least one code violation immediately preceding the ESD.

**Solution:** Condition M should be changed to:  
"Ends with a code violation in both code symbols preceding a valid ESD signal."  
And the two conditions on lines 332 and 334 should be:  
A & F & H & -M & (-E or -G or -J or -K)

A & -F & H & -M & (-E or -J)

**Response:** Refer to NAJ-40 for solution.

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**Comment** NAJ-40

**Section** 9.1    **Line** 325    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Oh dear, this looks like a failure to negate a boolean expression!

M as stated mandates that all FR\_WITH\_ERR shall have a violation in the last two symbols preceding the ESD signal. NO! Please refer back to RJK-01, which caused this change. Richards words for M were correct.

**Solution:** Change M to read

M - Ends with at least one hexadecimal value (0 through F) in the two code symbols preceding a valid ESD signal.

**Response:** Accepted - change line 325 to:

M - Ends with at least one hexadecimal value (0 through F)  
in the two code symbols preceding a valid ESD signal.

---

**Comment** RJK-05

**Section** 9.1    **Line** 332    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** This line currently states that \*every\* FR\_WITH\_ERR must have a code violation in one of the two code symbols preceding a valid ESD. This is still wrong!

However, there are 2 alternative ways to fix it.

Ideally we would keep definitions exactly as we had for 16/4 so that:

```
FRAMEa .../D/D/T/R/ = FR/FR_WITH_ERR
FRAMEb .../D/V/T/R/ = FR_WITH_ERR
FRAMEc .../V/V/T/R/ = Aborted so undefined
FRAMED .../D/D/I/   = Imperfect ESD so undefined
```

The problem is that we cannot distinguish between FRAMEb and FRAMEe at the MII level. So we cannot have those definitions. There are therefore 2 questions we need to answer:

Q1 - Should we change FRAMEe to be FR\_WITH\_ERR (ie not what we did for 16/4)? Or should we change FRAMEb to be unclassified/aborted (therefore allowing a single bit error to abort the frame and to not report code violations in ET as FR\_WITH\_ERR)?

Q2 - How should FRAMEc be classified?

**Solution:** Line 325 should be:  
M - Ends with a code violation in ONLY ONE of the two code symbols preceding a valid ESD signal.

Depending upon our answer to the question above, lines 332-334 should be either:

```
A & F & H & (M or L) & (M or -E or -G or -J or -K ))
    (for MAC and LLC frames)
A & -F & H & (M or L) & (M or -E or -J)
    (for undefined frame formats)
```

OR

```
A & F & H & L & ( -E or -G or -J or -K )
    (for MAC and LLC frames)
A & -F & H & L & (-E or -J)
    (for undefined frame formats)
```

In the latter case, M is not used and it's definition can be deleted.

**Response:** Resolved by NAJ-40.

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**Comment** NAJ-41

**Section** 9.1    **Line** 346    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Line errors are only counted if E=0.

**Solution:** Add text explaining this.

**Response:** Change line 346 as follows.

From: "Media Rate), the frame is not processed other than to count the error condition (e.g., Line Error, etc.)."

To: "Media Rate), the frame is not processed other than to count the error condition (e.g., Line Error when the E-bit=0, etc.)."

---

**Comment NAJ-42**

Section 9.1 Line 347 Severity A/C Type ED Status MODIFIED

Highlight To Committe ☐ Commenter Agrees? ☒ Editing Complete ☐

**Concern:** The bullet item "Transmission Errors" is a duplicate of what is stated in 9.1.1.1

**Solution:** Remove it.

**Response:** Agreed. KTWilson will rework lines 342 through 346 on page 9.1-10 and delete lines 347 on page 9.1-10 through 367 on page 9.1-11.

---

**Comment SJH-05**

Section 9.1 Line 353 Severity DIS Type TECH Status WITHDRAWN

Highlight To Committe ☒ Commenter Agrees? ☒ Editing Complete ☐

**Concern:** At HMR, for all types of abort it is permissible to send a frame with an invalid FCS and the E bit set.

**Solution:** Descriptions starting at lines 353 and 356 need to include a second option for FMRO>1 (in a similar way to option 3, line 359, which includes two options for FPASO).

**Response:** This item was withdrawn because of the solution provided by item NAJ-42.

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**Comment NAJ-43**

Section 9.1 Line 427 Severity DIS Type TECH Status MODIFIED

Highlight To Committe ☒ Commenter Agrees? ☒ Editing Complete ☐

**Concern:** Reading this made me realise that TXI protocol checking is not performed in JS=xSHMRTU. Is this intentional? If yes, then make a statement here. If no, then add the new states here, and add a whole bunch more transitions to 9.2 and 9.3

**Solution:**

**Response:** Words will be added to 9.1.2 on page 9.13 to indicate that during the JS=xHMRTU state all frames are ignored.

---

**Comment SJH-06**

Section 9.1 Line 516 Severity A/C Type TECH Status ACCEPTED

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** The C-Port also stores the PD value from the REG\_REQ frame.

**Solution:** Add at line 521:  
4. C-Port saves the Station's requested Phantom Drive (PD) in its Stored Phantom Drive (SPD).

**Response:** Add the following after line 520 on page 9.1-16.

4. C-Port saves the Station's Phantom Drive (PD) subvector value in its Stored Phantom Drive (SPD).

---

**Comment SJH-07**

Section 9.1 Line 520 Severity A/C Type TECH Status WITHDRAWN

Highlight To Committe ☐ Commenter Agrees? ☒ Editing Complete ☒

**Concern:** It says the C-Port doesn't support multiple Individual Addresses. Is this correct?

**Solution:** Remove sentence if wrong.

**Response:** This item was withdrawn because it is true that the C-Port does not support multiple individual addresses.

---

**Comment SJH-08**

Section 9.1 Line 523 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** Start of line is indented too far.

**Solution:** Remove indent.

**Response:**

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**Comment SJH-09**

Section 9.1 Line 529 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** Doesn't include the response when tradeup is about to start.

**Solution:** Add:  
"...for the TXI Access Protocol, or a value of X'0004' for the High Media Rate Tradeup Protocol."

**Response:**

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**Comment SJH-10**

Section 9.1 Line 536 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** The text here wants AP\_RSP to be equal to its AP\_REQ in order for the TXI access protocol to start. In the case where tradeup is denied, AP\_RSP (=0002) will not be equal to AP\_REQ (=0006) but the TXI access protocol will still be established.

**Solution:** Change text to say "...and its AP\_RSP subvector is equal to 0002, the C-Port has accepted..."  
This is what the state tables actually check.

**Response:**

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**Comment NAJ-44**

Section 9.1 Line 553 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** Transition 3182 needs to be documented here.

**Solution:** Do it.

**Response:**

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**Comment NAJ-45**

Section 9.1 Line 592 Severity A/C Type ED Status OPEN

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☐

**Concern:** The state change is delayed until after the frame is transmitted.

**Solution:** End first sentence at X'0004' (line 592). Delete "then", and start next sentence with "After the frame has been transmitted"

**Response:**

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**Comment SJH-11**

**Section** 9.1    **Line** 607    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Missing "'s" on "Station request"

**Solution:** Change to "Station's request"

**Response:**

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**Comment SJH-12**

**Section** 9.1    **Line** 689    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This sentence is misleading because when a hardware repeat path is in operation, it will be established throughout PREG and PLT. Therefore the C-Port does not start its support of a repeat path on receipt of a LMTN frame.

**Solution:** Change to "...to request the C-Port to prepare for the LMT Testing Stage."

**Response:**

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**Comment DWW-03**

**Section** 9.1    **Line** 715    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** In the case where replacement frames are generated there is no repeat path during lobe test - general frames are not repeated, lobe test frames may be repeated or responded to by the port. Given the history of token ring, the phrase 'repeat path' implies that all frames will be repeated which is misleading and potentially confusing.

**Solution:** It would be better if 'repeat path' was in quotes when describing lobe test. Even then, the term is misleading and confusing, a better term may be 'lobe test path'

**Response:** I like the term as follows.

Change line 715 as follows.

From: "1. If FPRPTO=0, then the C-Port shall provide a PMAC repeat path as follows."

To: "1. If FPRPTO=0, then the C-Port shall provide a PMAC Lobe Media Test repeat mechanism as follows."

---

**Comment SJH-13**

**Section** 9.1    **Line** 853    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** This transmit function description is completely missing the repeat state TS=PRPT.

**Solution:** Add the description and entry for TS=PRPT, gating it on FPRPTO=1.

**Response:** Agreed.

Add the following after line 869.

o Transmit Repeat (TS=PRPT):

This state is used by the C-Port to provide a repeat path when FPRPTO=1 to support the Station's TXI LMT function defined in 9.1.6.

This repeat path, which is activated by the Transmit Normal state (TS=PTXN) detecting the flag FPRPT=1 and FPRPTO=1, is not required to examine data being repeated, but the C-Port must receive any frame with a destination address equal to any of its addresses.

This repeat path is deactivated upon detection of the flag FPRPT being set to 0. The C-Port starts transmitting idles (FPTI=1) and returns to the Transmit Normal state (TS=PTXN).

The characteristics of the repeat path used by the C-Port are found in 9.7.2.

Also, to be more correct for 4 Mbit/s and 16 Mbit/s, change reference in line 851 from "9.7." to "9.7.1".

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**Comment SJH-14**

**Section** 9.1    **Line** 918    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Missing word, "to".  
Also line 924.

**Solution:** Add word: "...conditions to occur."  
Also on line 924

**Response:**

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**Comment SJH-38**

**Section** 9.1    **Line** 964    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Station Wire Fault Delay usage is very inconsistent. It was decided to make the station always go through SWFD during hard error recovery to avoid timer complications. The description on 9.1.25 is correct, but on page 9.1.27 line 964, the text says SWFD is only entered if phantom is active (FSPDA=1). This is wrong. Diagram on 9.2.4 fig 9.2-3 is wrong because it shows a path to SIT avoiding SWFD. The state description on 9.2.13 is correct, as are the state table transitions on page 9.2.29.

**Solution:** Fix incorrect descriptions and diagram.

**Response:** 1. Fixed Diagram 9.2-3 on page 9.2-4 to agree with state tables.

2. Changed line 964 as follows.

From: "When FSPDA=1 (Wire Fault is active), the Station's Wire Fault Delay state is entered when the Station "

To: "The Station's Wire Fault Delay state is entered when the Station "

---

**Comment SJH-16**

**Section** 9.1    **Line** 993    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Two commas after (SPD=0001)

**Solution:** Remove one.

**Response:**

---

**Comment SJH-15**

**Section** 9.1    **Line** 997    **Severity** A/C    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Incorrect description. "Phantom is not supported (SPD=0002)" is wrong. It should read "Phantom detection is not supported (FPINSLE=0)".

Additionally, the paragraph would make more sense if it mentioned that it is the reception of an LMTN frame which kicks off these events.

**Solution:** Change paragraph to:  
When operating at the High Media Rate and Phantom detection is not supported (FPINSLE=0), the C-Port performs the following actions on reception of a Lobe Media Test Notification frame from the Station. It transmits a Lobe Media Test Notification frame if its PMAC repeat path is being supported (FPRPTO=0). It informs its Join Machine to re-enter the C-Port's Lobe Test state (JS=PLT) by setting FPBNT=1 (see 9.3.3.2).

**Response:** KTWilson here. Words for lines 997-1000.

Change 993:  
"When operating at any media rate and Phantom detection is supported, the C-Port waits for"

Change paragraph 997-1000 to:  
When operating at the High Media Rate and Phantom detection is not supported, the C-Port performs the following actions on reception of a Lobe Media Test Notification frame from the Station. It transmits a Lobe Media Test Notification frame if its PMAC repeat path is being supported (FPRPTO=0). It informs its Join Machine to re-enter the C-Port's Lobe Test state (JS=PLT) by setting FPBNT=1 (see 9.3.3.2).

---

**Comment DWW-01**

**Section** 9.1    **Line** 1085    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** General Concern The trade up mechanism description in 9.1 is inaccurate, referring to an option flag which does not exist. The whole mechanism appears to be a rush job which has not been thought through properly. However, my understanding (or lack of understanding) of the mechanism as documented (see other comments) may be as a result of the poor description. For example, 9.1 states that the station has been asked by management to open at 4/16, but is allowed to operate at 100. Why would management do that? I thought the purpose of trade up was to cope with the situation when you accidentally end up at a lower speed than the link could operate at - does it allow this?

**Solution:** Correct the section in 9.1 so that it is an accurate description of the trade up mechanism. Also this needs to be referenced in 9.1.4, otherwise comments such as on line 589 are unclear.

**Response:** Work to be done. KTWilson here.

---

**Comment DWW-02**

**Section** 9.1    **Line** 1085    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Section 14 provides values for AP\_MASK which allow for Gigabit. As 9.1 is describing trade up with respect to "higher media rates" rather than 100 Mbit/s, the description of trade up could provide an outline of how trade up will work when Gigabit happens. Maybe this description is not needed in the standard, but I would like to see some evidence that the issue has been thought through and we will not need to have an even bigger bodge for Gigabit.

**Solution:** Explain to me how trade up will work when Gigabit TR happens

**Response:** Clause 14 to remove gigabit definitions.

802.5v needs to evaluate changing the Port and Station Operation Tables to eliminate the misuse of bit-masks.

---

**Comment SJH-17**

**Section** 9.1    **Line** 1137    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Two wrong states mentioned (PRAP and SRAP).

**Solution:** Change to PRAW and SRAW.

**Response:**

---

**Comment KTW-01**

**Section** 9.2    **Line** 96    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Line 96 on page 9.2-7 shows the beginning of the definition of "Counter, Remove Alert Transmit (CSRAT)". This should be a new line.

**Solution:** Well, this is correct in the Master used to produce this output. So, I guess no correction is necessary.

**Response:**

---

**Comment SJH-18**

Section 9.2    Line 97    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** Description of CSRAT incomplete.

**Solution:** Change to "Counter, Station Remove Alert Transmit (CSRAT)."

**Response:**

---

**Comment SJH-19**

Section 9.2    Line 98    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** Wrong description (FSLMTO=1). It has nothing to do with lobe test method. It should be conditioned on FSMR>1.

**Solution:** Change it.

**Response:**

---

**Comment SJH-20**

Section 9.2    Line 140    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** Cut'n'paste failure. FSHMRTUA has inherited FSHBA's description. It is also only set when running at 4/16Mbit/s.

**Solution:** Change to:  
Flag, Station High Media Rate Trade-up Active (FSIRD), 4 Mbit/s and 16 Mbit/s only.

**Response:**

---

**Comment SJH-21**

Section 9.2    Line 184    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** Text is inaccurate. FSPDC is only set to 0 by set\_initial\_conditions. The text talks about a link-status assertion signal during SREG which is wrong - the station wouldn't be in SREG unless link status was asserted.

**Solution:** Fix by changing description:  
Flag FSPDC is set to 0 by the set\_initial\_conditions action.

**Response:**

---

**Comment KTW-02**

Section 9.2    Line 297    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** Lines 297 through 306 should be together.

**Solution:** I have corrected the text by putting pagination control in place, but the Master has a different pagination format (9.2.4 header is at top of page), so I will just assume this correct the PDF output.

**Response:**

---

**Comment SJH-22**

**Section** 9.2    **Line** 307    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This paragraph talks about remove alert being activated because of an error condition. A management request may also activate Remove Alert and this should be mentioned.

**Solution:** Changes:  
"...because of an error condition or management request..."  
Also in all the other places "error condition" is mentioned (or change the wording to avoid too much repetition).

**Response:**

---

**Comment SJH-33**

**Section** 9.2    **Line** 372    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Phantom/remove alert in the Station can cause the C-Port management to see false open attempts.

If phantom is active until the end of the Remove Alert transmit sequence, then you could get a situation where a C-Port goes into bypass after the first Remove Alert from a closing Station, but the Station continues to transmit Remove Alert until CSRAT=0 (possibly 9 further frames). If the C-Port's management issues a Connect.PMAC immediately after the C-Port goes into BP, the C-Port will see phantom and assume a classic open is being attempted, resulting in JS=PANNC.

Additionally, to an auto-detect C-Port algorithm, phantom could look like the start of a 16/4 join.

This could generate spurious open failures, as seen by the C-Port management.

**Solution:** I can see two solutions to this problem.  
1) The C-Port enters bypass through a remove-alert-bypass-wait state which guarantees that either a) there is time enough for the station to have removed phantom, or b) phantom has been "undetected" - which has lockup implications.  
2) The station drops phantom before remove alert is transmitted.

Number 2 sounds good to me.  
This would require changes to:  
9.2.16: 3180 Add action: Remove\_station  
9.2.19: 3185 Add action: Remove\_station  
9.2.22: 3187 Remove "Remove\_station" from action.  
9.2.24: 3192 Remove "Remove\_station" from action.

**Response:** KTWilson will make the changes as per solution 2.

---

**Comment SJH-23**

**Section** 9.2    **Line** 395    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Description in table's n8 entry:  
"...transmitted by the Station's High Media Rate before exiting..."  
We say:  
"...transmitted by the Station at High Media Rate before exiting..."

**Solution:** Change "'s" to " at"

**Response:**

---

**Comment SJH-27**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** 3171 (9.2.20), processing of Remove Alert reception, should really be conditioned on FSMR>1 since this protocol is only defined to run at High Media Rates.

**Solution:** Add FSMR>1 to conditions.  
Also for 1120 in 9.3.21; add FPMR>1.

**Response:** Committee agreed with this change for 9.2 and 9.3.

---

**Comment SJH-26**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** 3150 (9.2-18) doesn't need SPV(PD)=0001 because if SPV(PD) is not equal to 0001 then FSPDC will be 1 and the transition will not fire.

**Solution:** Remove condition.

**Response:** Accepted.

---

**Comment SJH-25**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** <<Protocol Errors>> are inconsistent:  
[Page 9.2.17]  
3138, 3112, 3103, 3101: <<OPEN ERROR = Protocol Error>>  
3146, 3137, 3107, 3167: <<Protocol Error>>  
And other transitions.

**Solution:** Make consistent.

**Response:**

---

**Comment SJH-24**

**Section** 9.2    **Line** 398    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Station remains operational during Remove Alert transmission. Should set FSOP=0 during this process. Compare with TKP going into Bypass Wait.

**Solution:** Add new transition in Monitor Machine (9.2.29):  
Event/Conditions: JS=RAW & FSOP=1  
Actions/Outputs: FSOP=0

**Response:** Agree with problem, but not solution. Only two transitions cause entry into JS=RAW: 3180 on page 9.2-16 and 3185 on page 9.2-19. It is my belief that creating a new transition to set FSOP=1 is more confusing than adding "FSOP=0" to REF 3180 and 3185 actions.

Committee accepted changing REFs 3180 and 3185.

This change needs to be made in the C-Port (see SJH-29).

---

**Comment KTW-06**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3183 on page 9.2-20 has an incorrect S/T entry. Should be the same as REF 3149 (for example). Only impact is to annex L.

**Solution:** Change REF 3183 S/T from "JD0" to "JD0C".

**Response:**

---

**Comment KTW-07**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3186 on page 9.2-30 action column has an extra ";".

**Solution:** Remove it.

**Response:**

---

**Comment IKN-09**

**Section** 9.2    **Line** 398    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** This proposal was generated as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following proposal.

Overview of Proposal:

Subclauses 9.2 and 9.3 activate the 100 Mbit/s PHY as part of the Trade-up process. However, REFs 3178 on page 9.2-19 and 1141 on page 9.3-17 accomplish this activation through words of explanation rather than using an interface signal defined in 9.8.

9.8.1.1.4 defines the interface signal "PS.CONTROL.request(Initialize)" to initialize the PHY and the signal "PS.CONTROL.request(Medium\_rate)" to set the media rate.

It is proposed that 9.2, 9.3 and 9.8 be modified to use this PS.CONTROL.request signal in such a way that it is expandable to support not only 100 Mbit/s but 1000 Mbit/s operation.

**Solution:** Solution part 2 of 3 - See IKN-08 and IKN-10 for other parts of this solution.

9.2 REF 3178 on page 9.2-19 has words of explanation for the activation of the PHY at 100 Mbit/s. It is proposed that the following replace the action column of 3178.

```
JS=SHMRTU; TSHMRW=R;
PS_CONTROL.request
  (Initialize, Media_rate=2)
```

```
<< Station activates the 100 Mbit/s link and enters High
Media Rate Wait state to wait for Link activation as
follows.
o If Link activation occurs before TSHMRW timer expires,
then enter the Registration state (JS=SREG).
o If Link activation does not occur, then enter the Bypass
state (JS=BP). >>
```

**Response:** The committee accepted this change.

---

**Comment SJH-35**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** The Station uses a policy flag FSHMRTUO to decide whether to request tradeup. This is inconsistent with the C-Port which uses a bit in PPV(AP\_MASK) to determine the same thing. Should the station use a bit in SPV(AP\_MASK) instead of FSHMRTUO? It may make gigabit tradeup easier to add.

**Solution:** The solution would require a number of changes - it is probably not worth the risk and effort of changing something like this so far down the line, unless someone feels strongly that it should be fixed.

**Response:** Discussion required.

This will be considered by 802.5v and has been added to the meeting minutes for work to be done.

---

**Comment KTW-05**

**Section** 9.2    **Line** 398    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3181 on page 9.2-16 has an incorrect S/T entry. Should be the same as REF 3149 (for example). Only impact is to annex L.

**Solution:** Change REF 3181 S/T from "JD0" to "JD0C".

**Response:**

---

**Comment NAJ-46**

**Section** 9.2    **Line** 400    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Refs 3207, 3204, 3213, 3213, 3214

All these transitions send an abort sequence, but do not count it in CxABE. Now at the back of my mind, there was an issue in 4/16 DTR, where aborted cut-through frames could not be counted by some vendors. But for HSTR, we should mandate this counter. Shouldn't we?

**Solution:**

**Response:** 1. Add the counting of the abort sequence (CSABE) to 3213 and 3214.

2. Have added a maintenance item to cover 4 and 16 Mbit/s change for Amd1.

---

**Comment** KTW-10

**Section** 9.2    **Line** 400    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3205 on page 9.2-26 is incorrect. Counter CSTFQ is used only for 4 and 16 Mbit/s, but is always decremented when supporting the High Media Rate. Needs to be broken into two REFS (second half of change).

**Solution:** Add new REF 3221 to operate only at the High Media Rate as follows and modify REF 3205 (done by item KTW-09).

```
S/T:      TBAB
REF:      3221
Event:    EOD & FSMR>1 & TS=STXD
          << The last octet of the Frame's Information
              Field has been transmitted. >>
          << High Media Rate only >>
Action:   TS=STXN; TX_FCS; TX_EFS(E=0);
          FSTI=1
```

**Response:**

---

**Comment** KTW-11

**Section** 9.2    **Line** 400    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3215 on page 9.2-27 is incorrect. Counter CSTFQ is used only for 4 and 16 Mbit/s, but is always decremented by this High Media Rate reference.

**Solution:** Remove from REF 3215 "; If JS=SDAC then CSTFQ(CSTFQ-1)

**Response:**

---

**Comment** KTW-12

**Section** 9.2    **Line** 400    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** REF 3219 on page 9.2-28 is incorrect. Counter CSTFQ is used only for 4 and 16 Mbit/s, but is always decremented by this High Media Rate reference.

**Solution:** Remove from REF 3219 "; If JS=SDAC then CSTFQ(CSTFQ-1)

**Response:**

---

**Comment KTW-09**

**Section** 9.2    **Line** 400    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** REF 3205 on page 9.2-26 is incorrect. Counter CSTFQ is used only for 4 and 16 Mbit/s, but is always decremented when supporting the High Media Rate. Needs to be broken into two REFS (First half of change).

**Solution:** Modify REF 3205 to operate only for 4 Mbit/s and 16 Mbit/s as follows and add new REF 3221 (done by item KTW-10).

```
S/T:      TBAB
REF:      3205
Event:    EOD & FSMR<2 & TS=STXD
          << The last octet of the Frame's Information
              Field has been transmitted. >>
          << 4 Mbit/s and 16 Mbit/s only >>
Action:   TS=STXN; TX_FCS;
          TX_EFS(I=E=0);
          FSTI=1;
          If JS=SDAC then CSTFQ=(CSTFQ-1)
```

**Response:** Accepted.

---

**Comment SJH-28**

**Section** 9.2    **Line** 403    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Transition to start beacon test is missing.

**Solution:** Add transition 3322:  
Event: TSLMT=E & MS=SIT  
Action: FSBNT=1

**Response:** Agreed. Also see KTW-08.

---

**Comment KTW-08**

**Section** 9.2    **Line** 403    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Monitor Station Operation Table on page 9.2-29 is missing transition "REF 3322".

**Solution:** Add REF 3322 inadvertently deleted between Draft 1 and Draft 2.0 as follows.

```
S/T:      Blank
REF:      3322
Event:    TSLMT=E & MS=SIT
Action:   FSBNT=1
```

**Response:** Agreed. Also see SJH-28.

---

**Comment JLM-01**

**Section** 9.2    **Line** 405    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Transitions 3409, 3410, 1606, 1607 have not been made compatible with FxASO=1 (alternative way of aborting frames). I have entered this comment twice, once for 9.2 and once for 9.3.

**Solution:** In order to support operation with FxASO=1, transitions 3409, 3410, need to be gated with "E=0". Change "FR\_WITH\_ERR" to "FR\_WITH\_ERR(E=0)".

**Response:** Agreed:

1. This is an error in Amd1, but is correct in base 1998 standard.
2. Change 3409 and 3410 on page 9.2-31 by changing "FR\_WITH\_ERROR" to "FR\_WITH\_ERROR(E=0)".

---

**Comment DWW-04**

**Section** 9.3    **Line** 1    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** General comment The times when remove alert frames are transmitted in the state tables has changed significantly between draft 2 and 2.1b. However this has not be reflected in the resolution of ballot comments against draft 2 - eg DWW-16 on draft 2 stated that the action on ref 1052 p 9.3-20 should send remove alert frames and the comment was accepted. However, in 2.1b - the subsequent document we are balloting on, this change has not been made and a number of other states which previously caused remove alert frames to be sent have been modified.

**Solution:** Please explain the rationale being used for remove alert frames - ie what are the general principles guiding the decisions for which transitions should cause remove alert frames to be sent?

**Response:** Add to 9.1 a rationale paragraph for using the Remove Alert process.

Note: DWW-16 was agreed to by KTWilson, but another item changed how we handled Remove Alert - KTWilson forgot to update DWW-16 (actually quite difficult to do this).

---

**Comment SJH-29**

**Section** 9.3    **Line** 372    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** C-Port should cease to be operational when entering Remove Alert Wait (c.f. BPW in TKP).

**Solution:** Add transition:  
Event: JS=PRAW & FPOP=1  
Action: FPOP=0

**Response:** Agree with problem, but not solution. Only two transitions cause entry into JS=PRAW: 1118 on page 9.3-16 and 1130 on page 9.3-24. It is my belief that creating a new transition to set FPOP=1 is more confusing than adding "FPOP=0" to REF 1118 and 1130 actions. Also add to the High Media Rate transition for 1129 (page 9.3-24)

---

**Comment SJH-34**

**Section** 9.3    **Line** 372    **Severity** A/C    **Type** TECH    **Status** OPEN

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** No assured delivery for HSTR trade-up protocol.

At the moment all registration response frames are sent using an assured delivery mechanism. This is not true of HSTR tradeup response frames. Losing this one response frame will cause at least the station to fail, and probably the port as well, depending on whether the station retries at 100Mbit/s quickly enough.

**Solution:** It is tricky to implement an assured delivery mechanism because of the speed change involved. I can think of two ways of implementing this:  
1) Transmit a block of paced frames before changing speed - in the same way as Remove Alert  
2) Go into a wait state and delay the speed change. During the wait state, a transition similar to 1025 (pg 9.3-21) can provide responses for any request frames received as the station retries.

**Response:** Discussion required.  
Thinking about this: NAJ, KTW, SJH, KR and IMJ - answer by 9JUL98.

Vote 07-25 asks the mechanism to be added.

---

**Comment IKN-02**

**Section** 9.3    **Line** 372    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 1:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPLD only to detect the absence of Phantom loss. However, the purpose of this detection is to determine whether the C-Port's Ring Recovery should proceed or the C-Port should enter the bypass state (JS=BP). At 100 Mbit/s, phantom detection may or may not be supported by the C-Port. When the C-Port does not support phantom detection, another detection mechanism must be used to make this determination. It has been assumed (but missing from Draft 2.1B) this mechanism would be the absence of the LMTN MAC frame. Further, it was determined the duration of TPPLD needed to be extended to handle the various forms of failure.

**Solution:** Solution part 2 of 4 - See IKN-01, IKN-03 and IKN-04 for other parts of this solution.

Make the following editorial change to REF 1130 on page 9.3-24 action column to clarify the explanation in the action column.

From:    << Expected Phantom loss is not detected. Attempt to notify Station C-Port is returning to Bypass. >>

To:       << Expected Phantom loss or LMTN MAC frame is not detected. Attempt to notify Station C-Port is returning to Bypass. >>

**Response:**

## Comment IKN-05

Section 9.3    Line 372    Severity DIS    Type TECH    Status ACCEPTED

Highlight To Committe ☒    Commenter Agrees? ☒    Editing Complete ☐

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 2:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPD to detect the failure of phantom presence. However, at 100 Mbit/s, phantom detection may or may not be supported by the C-Port. Draft 2.1B fails to take this into account and starts timer TPPD whether or not the C-Port supports phantom detection. This causes an unexpected condition and causes the C-Port to enter the bypass state (JS=BP) in error. This requires a clarification in the definition of the timer TPPD.

**Solution:** Solution part 1 of 3 - See IKN-06 and IKN-07 for other parts of this solution.

Add conditioning to action "TPPD=R" found in REFs 1039, 1047 and 1076 found on page 9.3-23. The conditioning consists of determining whether the C-Port supports phantom drive detection (SPD=0001 is yes, other SPD values are no).

Change REFs 1039, 1047 and 1076 as follows:

From: "... TPPD=R; ..."

To: "... If SPD=0001 then TPPD=R; ..."

**Response:** Accepted.

## Comment IKN-10

Section 9.3    Line 372    Severity A/C    Type ED    Status OPEN

Highlight To Committe ☐    Commenter Agrees? ☐    Editing Complete ☐

**Concern:** This proposal was generated as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following proposal.

Overview of Proposal:

Subclauses 9.2 and 9.3 activate the 100 Mbit/s PHY as part of the Trade-up process. However, REFs 3178 on page 9.2-19 and 1141 on page 9.3-17 accomplish this activation through words of explanation rather than using an interface signal defined in 9.8.

9.8.1.1.4 defines the interface signal "PS.CONTROL.request(Initialize)" to initialize the PHY and the signal "PS.CONTROL.request(Medium\_rate)" to set the media rate.

It is proposed that 9.2, 9.3 and 9.8 be modified to use this PS.CONTROL.request signal in such a way that it is expandable to support not only 100 Mbit/s but 1000 Mbit/s operation.

**Solution:** Solution part 3 of 3 - See IKN-08 and IKN-09 for other parts of this solution.

9.3 REF 1141 on page 9.3-17 has no action but only words of explanation for the activation of the PHY at 100 Mbit/s. It is proposed that the following replace the action column of 1141.

```
PS_CONTROL.request
  (Initialize, Medium_rate=2)
```

```
<< C-Port activates the
    High Media Rate link >>
```

**Response:**

---

**Comment** IKN-06

**Section** 9.3    **Line** 372    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 2:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPD to detect the failure of phantom presence. However, at 100 Mbit/s, phantom detection may or may not be supported by the C-Port. Draft 2.1B fails to take this into account and starts timer TPPD whether or not the C-Port supports phantom detection. This causes an unexpected condition and causes the C-Port to enter the bypass state (JS=BP) in error. This requires a clarification in the definition of the timer TPPD.

**Solution:** Solution part 2 of 3 - See IKN-05 and IKN-07 for other parts of this solution.

Change the description of the event in REF 1129 on page 9.3-24 as follows.

From: << Station has approval to insert, but the Station has failed to provide Phantom in allotted time. >>

To: << Station has approval to insert and C-Port supports phantom drive detection, but the Station has failed to provide Phantom in allotted time. >>

**Response:**

---

**Comment** SJH-37

**Section** 9.3    **Line** 372    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** 1130 (9.3.24) can fire for all media rates but the remove alert protocol it starts should only be used at higher media rates.

**Solution:** Split into two transitions conditioned on FPMR, one which starts off the remove alert protocol and the other that just does JS=BP

**Response:** Accepted. KTWilson to add and update database with change.

---

**Comment** SJH-36

**Section** 9.3    **Line** 372    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** 1129 (9.3-24) should use the Remove Alert protocol, not just bypass, because there is a good chance that the Station will respond to the RMV\_ALERT frames and this will be better from a management perspective.

**Solution:** Make 1129 conditional on FPMR<2. Make another transition conditional on FPMR>1 which starts up the remove alert protocol, as in 1130.

**Response:** Committee agrees.

---

**Comment NAJ-47**

**Section** 9.3    **Line** 374    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Refs 1203, 1215, 1210, 1209, 1209, 1216.

All these transitions send an abort sequence, but do not count it in CxABE. Now at the back of my mind, there was an issue in 4/16 DTR, where aborted cut-through frames could not be counted by some vendors. But for HSTR, we should mandate this counter.

**Solution:**

**Response:** 1. Add the counting of the abort sequence (CPABE) to 1215 and 1216 (page 9.3-25).  
2. Have added a maintenance item to cover 4 and 16 Mbit/s change for Amd1.

---

**Comment IKN-01**

**Section** 9.3    **Line** 376    **Severity** DIS    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 1:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPLD only to detect the absence of Phantom loss. However, the purpose of this detection is to determine whether the C-Port's Ring Recovery should proceed or the C-Port should enter the bypass state (JS=BP). At 100 Mbit/s, phantom detection may or may not be supported by the C-Port. When the C-Port does not support phantom detection, another detection mechanism must be used to make this determination. It has been assumed (but missing from Draft 2.1B) this mechanism would be the absence of the LMTN MAC frame. Further, it was determined the duration of TPPLD needed to be extended to handle the various forms of failure.

**Solution:** Solution part 1 of 4 - See IKN-02, IKN-03 and IKN-04 for other parts of this solution.

Add a new REF (assigned as 1410) to the Monitor Port Operation Table on page 9.3-27 to cause the flag, FPPLD to be set to 0. The setting of FPPLD to 0 indicates that either the C-Port has detected phantom or the reception of the LMTN MAC frame and prevents REF 1130 on page 9.3-24 reacting to the TPPLD=E event. This is the only technical change made to resolve this problem.

Add the following transition to the Monitor Port Operation Table on page 9.3-27:

S/T:     Blank  
REF:     1410  
Event:   FR\_LMTN(DA=broadcast) & MS=PIT & JS=PJCI  
Action:   FPPLD=0  
         << Reset protocol loss detection function. >>

**Response:** Withdrawn in favor of SJH-31.

---

**Comment** IKN-03

**Section** 9.3    **Line** 376    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 1:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPLD only to detect the absence of Phantom loss. However, the purpose of this detection is to determine whether the C-Port's Ring Recovery should proceed or the C-Port should enter the bypass state (JS=BP). At 100 Mbit/s, phantom detection may or may not be supported by the C-Port. When the C-Port does not support phantom detection, another detection mechanism must be used to make this determination. It has been assumed (but missing from Draft 2.1B) this mechanism would be the absence of the LMTN MAC frame. Further, it was determined the duration of TPPLD needed to be extended to handle the various forms of failure.

**Solution:** Solution part 3 of 4 - See IKN-01, IKN-02 and IKN-04 for other parts of this solution.

Make the following editorial changes to REFs 1401, 1404 and 1403 on page 9.3-27.

Add the following words of explanation immediately following the current actions in the action column.

<< Start protocol loss detect function (TPPLD=R) >>

**Response:**

---

**Comment** SJH-31

**Section** 9.3    **Line** 376    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** 1407 (9.3.27) doesn't disable the phantom loss protocol. Nor does it fire at the correct time (eg it should fire when phantom is being used by the station but the C-Port doesn't support detection).

**Solution:** Change condition SPD=0002 to FPINSLE=0.  
Add action: FPPLD=0.

**Response:** IKN-01 was withdrawn in favor of this solution. It can be shown that FPINSLE=0 is a better indicator that Phantom Drive detection is not being used.

See Meeting paper 07-21 for explanation of why FPINSLE=0 is the correct signal to use.

---

**Comment JLM-02**

**Section** 9.3    **Line** 378    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Transitions 3409, 3410, 1606, 1607 have not been made compatible with FxASO=1 (alternative way of aborting frames). I have entered this comment twice, once for 9.2 and once for 9.3.

**Solution:** In order to support operation with FxASO=1, transitions 1606, 1607 need to be gated with "E=0". Change "FR\_WITH\_ERR" to "FR\_WITH\_ERR(E=0)". Copy the definition of FR\_WITH\_ERR(criteria) currently present on page 9.2-43 and add it to page 9.3-35.

**Response:** Agreed:

1. This is an error in Amd1, but is correct in base 1998 standard.
2. Change 1606 and 1607 on page 9.3-28 by changing "FR\_WITH\_ERROR" to "FR\_WITH\_ERROR(E=0)".
3. KTWilson to correct 9.2 and 9.3 definitions of FR\_WITH\_ERR and FR\_WITH\_ERR(criteria) in the precise spec sections (add and new references for 100 Mbit/s).

---

**Comment DWW-04**

**Section** 9.3    **Line** 1108    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Note references are against draft 2 as this comment is outstanding. ref 1108 page 9.3-17, 1109 on 9.3-18, 1110 on 9.3-19 and throughout state tables. The modification which have been made are incorrect as there is not always a general repeat path available. The use of FPRPT=1 in the case of the MAC lobe test path is misleading - it was better when the state tables distinguished between these cases. The description of FPRPT does not discuss what happens when a MAC lobe test path is used. It should either describe this, or FPRPT should not be used in the state tables in this case.

**Solution:** Preferably modify the state tables so that FPRPT is not set in actions when the MAC lobe test path is being used. Alternatively, modify the description of FPRPT to describe what happens (ie nothing) when the MAC lobe test path is in use and add "& FPRPT0=1" to the condition in ref 1213 on page 9.3-25

- Response:**
1. Update the description of FPRPT on page 9 to include definition of the impact of FPRPT0=0 upon FPRPT.
  2. Adding "& FPRPT0=1" ato REF 1213 is incorrect and is not made.

---

**Comment KTW-13**

**Section** 09.7    **Line** 46    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Subclause 9.7.1.2.2 is not up-to-date. Lines 46 through 57 on page 9.7-2 need to be changed to agree with the agreements made as it relates to the PM\_CONTROL.request(..) and PS\_CONTROL.request(..) signals.

**Solution:** The following changes are needed in 9.7.1.2.2 on page 9.7-2.

1. Line 49: Change "Remove\_Station" to "Remove\_station"
2. Lines 50 and 51: Change "Medium\_Rate" to "Media\_rate"
3. Lines 51 and 55: Change "Repeat\_Mode" to "Transmit\_mode"

**Response:** Done.

---

**Comment RJK-04**

**Section** 9.7    **Line** 51    **Severity** A/C    **Type** ED    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Carriage return required before "Medium Rate is specified..."

**Solution:** <CR>

**Response:** There's one there in W97 ...

So were'd it go in Agrobrat?

---

**Comment NAJ-48**

**Section** 9.7    **Line** 62    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Update Figure 9.7-2 with the result of NAJ-34

**Solution:**

**Response:** Waiting for confirmation of change from RDL.

---

**Comment ANF-19**

**Section** 9.7    **Line** 76    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** References still very variable: sometimes 'clause' sometimes 'section' and so on.

**Solution:** Correct references to clauses etc., to bring into line with IEEE 802.5 Editorship rules for committee editors in 00-04rl.

**Response:**

---

**Comment KTW-14**

**Section** 9.7    **Line** 95    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Definition is hard to read because it crosses page boundary.

**Solution:** Keep together lines 95 through 102.

**Response:** Page break inserted at line 95.

---

**Comment KTW-15**

**Section** 9.8    **Line** 1    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** This document uses different font sizes at random. An example is lines 16 through 22 where two different font sizes are used.

**Solution:** Fix it for the whole document.

**Response:** I'll fix it but can somebody explain to me what the difference is between:

'Times New Roman' and 'TimesNewRoman' is, and how someone is daft enough to produce a WP that allows this sort of dim confusion to arise?

---

**Comment ANF-20**

**Section** 9.8    **Line** 4    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** References still very variable: sometimes 'clause' sometimes 'section' and so on.

**Solution:** Correct references to clauses etc., to bring into line with IEEE 802.5 Editorship rules for committee editors in 00-04r1.

**Response:**

---

**Comment NAJ-49**

**Section** 9.8    **Line** 35    **Severity** Q    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** What ISO layers? Should the title not be about the comparison with 802.3?

**Solution:**

**Response:**

---

**Comment ANF-03**

**Section** 9.8    **Line** 97    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Delete barren wasteland between line 97 & 98.

**Solution:** Done.

**Response:**

---

**Comment RJK-06**

**Section** 9.8    **Line** 97    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Big space

**Solution:** Delete big space

**Response:** See ANF-03.

## Comment IKN-08

Section 9.8 Line 150 Severity DIS Type TECH Status ACCEPTED

Highlight To Committe ☐ Commenter Agrees? ☐ Editing Complete ☒

**Concern:** This proposal was generated as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following proposal.

Overview of Proposal:

Subclauses 9.2 and 9.3 activate the 100 Mbit/s PHY as part of the Trade-up process. However, REFs 3178 on page 9.2-19 and 1141 on page 9.3-17 accomplish this activation through words of explanation rather than using an interface signal defined in 9.8.

9.8.1.1.4 defines the interface signal "PS.CONTROL.request(Initialize)" to initialize the PHY and the signal "PS.CONTROL.request(Medium\_rate)" to set the media rate.

It is proposed that 9.2, 9.3 and 9.8 be modified to use this PS.CONTROL.request signal in such a way that it is expandable to support not only 100 Mbit/s but 1000 Mbit/s operation.

**Solution:** Solution part 1 of 3 - See IKN-09 and IKN-10 for other parts of this solution.

The term "Medium\_rate" used in the PS.CONTROL.request signal should be changed to "Media\_rate" to be consistent with the rest of 802.5t.

Change line 124 on page 9.8-5 from "Medium\_rate" to "Media\_rate".

The 9.8 definition of Medium\_rate found on page 9.8-6, lines 150 and 151, needs to be replaced with the following.

"Media\_rate is a request from the PMAC or SMAC for the PHY to operate at a specified rate. Media\_rate has the following values.

- o Media\_rate=2
- o other values reserved

Media\_rate=2 causes the PHY to operate at 100 Mbit/s. The 100 Mbit/s rate is supported by setting bit 0.13 of the [802.3u] clause"

This concept would also apply to 1000 Mbit/s (Richard Knight's 802.5v, Draft 0.1, June 1998 document on pages 9.8-13 and 9.9-14). It is proposed that the words on page 9.9-14, lines 444 and 445 be changed to the following.

"Media\_rate is a request from the PMAC or SMAC for the PHY to operate at a specified rate. Media\_rate has the following values.

- o Media\_rate=2 (100 Mbit/s)
- o Media\_rate=3 (1000 Mbit/s)
- o other values reserved

Media\_rate=3 causes the PHY to operate at 1000 Mbit/s. The 1000 Mbit/s rate is supported by setting bit 0.13 to a

**Response:** Done.

---

**Comment** KTW-16

**Section** 9.8    **Line** 154    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** To me, the definition of Crystal\_transmit is confusing. Why do we insist on defining a Crystal\_transmit state that is not used in the support of 100 Mbit/s?

**Solution:** I would prefer the removal of the state "Deasserted".

**Response:** Reword to say that

```
After 'local crystal' on line 154;
    add, Therefore Crystal Transmit is always asserted.'

and delete lines 155 and 156.
```

---

**Comment** BBT-16

**Section** 9.8    **Line** 161    **Severity** DIS    **Type** TECH    **Status** REJECTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** lines 161 to 180  
Here we define actions between layers located between the MII and the wire. All the actions between MII and wire is detailed descreibed in 802.3u and TP-PMD standards. I think we should descreibed our standard only at the MII.

**Solution:**

**Response:** Leave standard as is because all the work has already been done and leaving this stuff in does no harm.

In addition, the solution implicit in your concern requires a lot of work to recast the standard in terms of the MII.

---

**Comment** ANF-04

**Section** 9.8    **Line** 171    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Delete line.

**Solution:** Done.

**Response:**

---

**Comment** ANF-05

**Section** 9.8    **Line** 180    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Insert line or change paragraph format to increase spacing between lines 180 & 181.

**Solution:** Line inserted.

**Response:**

---

**Comment** NAJ-50

**Section** 9.8    **Line** 212    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** "maximum frame size" entry needs to say 18207 for HSTR.

**Solution:** Do it.

**Response:** 18207 it is.

---

**Comment ANF-06**

**Section** 9.8    **Line** 213    **Severity** Q    **Type** ED    **Status** ANSWERED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** In table 9.8-4, should maximum frame size be 18207 octets (c.f. discussion on IFG etc.)?

**Solution:**

**Response:** See NAJ-50.

---

**Comment ANF-08**

**Section** 9.8    **Line** 238    **Severity** DIS    **Type** TECH    **Status** OPEN

**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** In view of the cable length and impedance matching issues raised and the comments received from participants in this discussion - particularly with respect to the experiences of a number of implementors regarding the extended operating distance achieved over STP cabling in a 100 ohm impedance environment - the measurement environment for receive return loss as specified in TP-PMD should be relaxed so that the return loss limits for both UTP and STP can be met using a single impedance.

**Solution:** Add new paragraph:

9.8.1.12 Replacement of 9.2.2 "Differential input impedance"

The differential input impedance of the UTP and STP Active Input Interface shall be such that the following return loss characteristics are satisfied for each of the specified line impedances.

Greater than 16 dB from 2MHz to 30 MHz.

Greater than  $(16 - 20 \log(f/30\text{MHz}))$  dB from 30MHz to 60MHz

Greater than 10 dB from 60MHz to 80MHz

The impedance environment for the measurement of the UTP AOI return loss shall be 100+/-1 Ohms; the environment for the STP AOI return loss shall be 150+/-1.5 Ohms. The impedance environments shall be nominally resistive, with a magnitude of phase angle less than 3 degrees over the specified frequency range.

**Response:** Discussion to be continued after conference call to IBM.

---

**Comment ANF-09**

**Section** 9.8    **Line** 238    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** If ANF-07 & ANF-08 are accepted then paragraph numbering needs to be changed and any references to these paragraphs updated.

**Solution:** Renumber existing paragraphs 9.8.1.11 to 9.8.1.17 as a result of ANF-13 & ANF-14. Check that references elsewhere in document are updated as necessary.

**Response:**

**Comment** ANF-07**Section** 9.8    **Line** 238    **Severity** DIS    **Type** TECH    **Status** OPEN**Highlight To Committe** ☒    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** In view of the cable length and impedance matching issues raised and the comments received from participants in this discussion - particularly with respect to the experiences of a number of implementors regarding the extended operating distance achieved over STP cabling in a 100 ohm impedance environment - the measurement environment for transmit return loss as specified in TP-PMD should be relaxed so that the return loss limits for both UTP and STP can be met using a single impedance.

**Solution:** Add new paragraph:

9.8.1.11 Replacement of 9.1.5 "Return loss"

The UTP and STP Active Output Interface shall be implemented such that the following return loss characteristics are satisfied for each of the specified line impedances.

Greater than 16 dB from 2MHz to 30 MHz.

Greater than  $(16 - 20 \log(f/30\text{MHz}))$  dB from 30MHz to 60MHz

Greater than 10 dB from 60MHz to 80MHz

The impedance environment for the measurement of the UTP AOI return loss shall be 100+/-1 Ohms; the environment for the STP AOI return loss shall be 150+/-1.5 Ohms. The impedance environments shall be nominally resistive, with a magnitude of phase angle less than 3 degrees over the specified frequency range.

**Response:**

---

**Comment** BBT-03

**Section** 9.8    **Line** 259    **Severity** DIS    **Type** TECH    **Status** REJECTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** In the TR standard is the polarity of the connector interface not defined, and a compliant implementation can have both. Autonegotiation requires a defined polarity.

**Solution:** Most of the PHY's can correct polarity errors automatically. It might require enabling of the function.

Put in a comment about this issue, so implementors know the problem.

**Response:** Of all the Phy chips that do Auto-polarity detection and / or correction, \*very\* few do this for 100BASE-TX.

It would appear that this function is only required for correct LINK INTEGRITY operation at 10BASE-T using Normal Link Pulses (NLP).

802.3u says (28.1.4.1):

"NOTE: Auto-Negotiation does not support the transmission of the NLP sequence. The 10BASE-T PMA provides this function if it is connected to the MDI. In the case where an Auto-Negotiation able device without a 10BASE-T PMA is connected to a 10BASE-T device without Auto-Negotiation, the NLP sequence is not transmitted because the Auto-Negotiation function has no 10BASE-T PMA to enable that can transmit the NLP sequence."

This implies that Auto-negotiation at 100BASE-TX is \*not\* polarity sensitive. Since we do not operate with any form of a 10BASE-T Phy, there is no requirement for us to either implement or be concerned about polarity detection or correction.

This is not currently an issue since Auto-negotiation is not yet defined. Any necessary notes and cautions will be added to Annex Z when Auto-negotiation is defined.

This item has been opened as a maintenance item against 802.5t.

---

**Comment** NAJ-13

**Section** 11.0    **Line** 1    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** MGT\_ACTION need to support speed trade-up.

**Solution:** Lots of work - someone go and do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment** NAJ-01

**Section** 11.1    **Line** 232    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

RequestMediumRate has not been updated for 100 Mbit/s

**Solution:** Add appropriate text.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-08**

**Section** 11.1    **Line** 232    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

With the new SPV(PD) values added for HSTR, we need to add a new actionRequestType to MGT\_ACTION.request and add a new actionResponseType to MGT\_ACTION.response

**Solution:**    Add new actionRequestType:

RequestPhantomMethod which tracks SPV(PD).

Add new actionResponseType:

ResponsePhantomMethod which tracks SPV(PD).

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-06**

**Section** 11.1    **Line** 232    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

RequestAccessProtocolMask has not been updated with HSTR. In particular, trade-up is missing.

**Solution:**    Add appropriate words.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-02**

**Section** 11.1    **Line** 233    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

ResponseStatus is missing the new HSTR failure cases.

**Solution:**    Update table 11-4

Add:

Link\_Status missing

Remove Alert MAC received

Update refs for:

sLobeTestFailure

sLobeTestTimeout

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-03**

**Section** 11.1   **Line** 234   **Severity** DIS   **Type** TECH   **Status** ACCEPTED

**Highlight To Committe** ☐   **Commenter Agrees?** ☒   **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

ResponseMediaRate does not support HSTR.

**Solution:** Add appropriate text.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-05**

**Section** 11.1   **Line** 236   **Severity** DIS   **Type** TECH   **Status** ACCEPTED

**Highlight To Committe** ☐   **Commenter Agrees?** ☒   **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

Event Status has not been updated for HSTR

**Solution:** Update table 11-6 with

LINK\_STATUS deasserted  
Remove Alert received

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-04**

**Section** 11.2   **Line** 1   **Severity** DIS   **Type** TECH   **Status** ACCEPTED

**Highlight To Committe** ☐   **Commenter Agrees?** ☒   **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

ResponseStatus does not have new HSTR codes, nor the maintenance item against DTR which adds the TPPD and TPPDL timers.

**Solution:** Update table 11-12:

Add:

Link\_status loss  
Remove Alert received  
Phantom not detected (TPPD)  
Hard Error Recovery Protocol not operating (TPPLD)

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-09**

**Section** 11.2    **Line** 242    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

With the new PPV(PD\_MASK) values added for HSTR, we need to add a new  
actionRequestType to MGT\_ACTION.request and add a new actionResponseType to  
MGT\_ACTION.response

**Solution:** Add new actionRequestType:

RequestPhantomMethodMask which tracks PPV(PD\_MASK).

Add new actionResponseType:

ResponsePhantomMethodMask which tracks PPV(PD\_MASK).

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove  
by 13th July.

---

**Comment NAJ-07**

**Section** 11.2    **Line** 242    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

RequestAccessProtocolMask has not been updated for HSTR. In particular, trade-up  
is missing.

**Solution:** Add appropriate words.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove  
by 13th July.

---

**Comment NAJ-10**

**Section** 11.2    **Line** 243    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

RequestMediumRate has not been updated for 100 Mbit/s

**Solution:** Add appropriate words.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove  
by 13th July.

---

**Comment NAJ-11**

**Section** 11.2    **Line** 245    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

ResponseMediumRate has not been updated for 100 Mbit/s

**Solution:** Add appropriate words.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove  
by 13th July.

---

**Comment NAJ-12**

**Section** 11.2    **Line** 246    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

Event Status has not been updated for HSTR

**Solution:**    Update table 11-6 with

LINK\_STATUS deasserted  
Remove Alert received  
TPPLD/TPPD expired

**Response:**

---

**Comment NAJ-19**

**Section** 11.3    **Line** 1    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrStationPhantomDriveSupport needs new HSTR values.

**Solution:**    Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-14**

**Section** 11.3    **Line** 257    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

txiProtocolJoinState missing new HSTR states.

**Solution:**    Add them.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-15**

**Section** 11.3    **Line** 259    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

txiProtocolEventStatus needs HSTR values

**Solution:**    Add:

Link status deasserted  
Remove Alert received  
TPPD expired  
TPPLD expired

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-17**

**Section** 11.3    **Line** 261    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrStationAccessProtocolResponse needs HSTR values

**Solution:**    Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-16**

**Section** 11.3    **Line** 261    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrStationRequestedAccessProtocol needs HSTR values.

**Solution:**    Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-18**

**Section** 11.3    **Line** 262    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrStationAccessProtocolMask needs HSTR values

**Solution:**    Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-20**

**Section** 11.3    **Line** 262    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrStationMaxFrameSize needs to be increased to 18207 for HSTR.

**Solution:**    Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-21**

**Section** 11.3    **Line** 263    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

Items missing for new HSTR option flags.

**Solution:**    Add (or updated) items for:

FSANO, FSASO, FSHMRTUO, FSLMTO, FSMRO

for both dtrStationAdminXXXOption and dtrStationOpenXXXOption.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-25**

**Section** 11.3    **Line** 268    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

Items missing for new HSTR option flags.

**Solution:**    Add (or updated) items for:

FPANO, FPASO, FPHMRTUO, FPMRO

for both dtrCportAdminXXXOption and dtrCportOpenXXXOption.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-24**

**Section** 11.3    **Line** 268    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrCportPhantomDriveMask needs HSTR values.

**Solution:**    Add them.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-22**

**Section** 11.3    **Line** 268    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:**    << Note "Line number" is Amd. 1 page number >>

dtrCportAccessProtocolMask needs HSTR values.

**Solution:**    Add them.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment NAJ-23**

**Section** 11.3    **Line** 268    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

dtrCportMaxFrameSize needs to be increased to support 18207.

**Solution:** Do it.

**Response:** NAJ to generate an updated clause 11 from sources of draft 7.1 supplied by RDLove by 13th July.

---

**Comment ANF-21**

**Section** 13.9    **Line** 3    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** References still very variable: sometimes 'clause' sometimes 'section' and so on.

**Solution:** Correct references to clauses etc., to bring into line with IEEE 802.5 Editorship rules for committee editors in 00-04rl.

**Response:**

---

**Comment NAJ-51**

**Section** 13.9    **Line** 25    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** "maximum frame size" entry needs to say 18207 for HSTR.

**Solution:** Do it.

**Response:** And there are 18207 octets: count them kids!

---

**Comment NAJ-52**

**Section** 14.1    **Line** 25    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** Abort sequence must be transmitted on octet boundaries, but may be received on any boundary. Say so.

**Solution:**

**Response:** This will be updated with words from 07-20, as modified by discussion on Thursday, 9 July.

Words from 07-20 to be used.

---

**Comment KTW-17**

**Section** 14.1    **Line** 26    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☐

**Concern:** I am concerned over the words "The abort sequence may occur anywhere after the SSD".

I believe this should be changed to indicate that the abort sequence is octet aligned after the SSD.

**Solution:** I would like to discuss the words to be written.

**Response:** This is covered by NAJ-52. The solution will be captured there.

---

**Comment NAJ-53**

**Section** 14.2    **Line** 98    **Severity** DIS    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☒    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Is the IFG length of 12 octets on the MII, or on the wire? Discuss and fix.

**Solution:**

**Response:** Complete solution is captured in BBT-11.

---

**Comment BBT-11**

**Section** 14.2    **Line** 100    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** We originally defined the IFG to be 12 Bytes at the MII. The definition of IFG in clause 14 is on the wire. 24 idle symbols require 26 IDLE nibbles at the MII (IFG equal to 13 bytes).

**Solution:** Change the number of IDLE symbols to 22, and note that this requires 24 Nibbles at the MII.

**Response:** New words:

"For TXI Access Protocol operation, the IFG shall be transmitted on the wire as a minimum of 24 /I/ symbols. Note that if an MII device is being employed, then a minimum of 26 symbols are required at the MII interface to satisfy the IFG requirement, as the first two symbols on the interface are converted into the End-of-Sequence Delimiter, /T/R/, by the MII device."

---

**Comment SJH-30**

**Section** 14.3    **Line** 124    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Missing word "entity" between "receiving" and "receives".

**Solution:** Add it.

**Response:** Done it.

## Comment IKN-07

Section 14.4 Line 228 Severity A/C Type ED Status ACCEPTED

Highlight To Committe ☐ Commenter Agrees? ☒ Editing Complete ☒

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 2:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPD to detect the failure of phantom presence. However, at 100 Mbit/s, phantom detection may or may not be supported by the C-Port. Draft 2.1B fails to take this into account and starts timer TPPD whether or not the C-Port supports phantom detection. This causes an unexpected condition and causes the C-Port to enter the bypass state (JS=BP) in error. This requires a clarification in the definition of the timer TPPD.

**Solution:** Solution part 3 of 3 - See IKN-05 and IKN-06 for other parts of this solution.

To avoid definition problems in the future, the following change needs to be added as the last sentence of the definition of FPPD found on page 14-10, lines 228 through 231.

"This timer is only used when phantom detection is supported by the C-Port."

**Response:** New TPPD definition:

"Each C-Port shall have a timer TPPD. This timer is used to ascertain if a C-Port fails to detect phantom being raised by the Station after the two entities have entered their Join complete states. The value of TPPD shall be between 1.8s and 2.2s. A value of 2s is recommended. This timer is only used when phantom detection is supported by the C-Port."

## Comment IKN-04

Section 14.4 Line 232 Severity DIS Type TECH Status ACCEPTED

Highlight To Committe ☐ Commenter Agrees? ☒ Editing Complete ☒

**Concern:** This problem was found and resolved as part of the UNH Interoperability Testing. This set of words will be repeated in each item opened against the following general problem.

General Problem 1:

An unexpected expiration of the timer TPPLD causes the C-Port to enter Bypass instead of continuing Ring Recovery.

Overview of Problem:

Draft 2.1B uses TPPLD only to detect the absence of Phantom loss. However, the purpose of this detection is to determine whether the C-Port's Ring Recovery should proceed or the C-Port should enter the bypass state (JS=BP). At 100 Mbit/s, phantom detection may or may not be supported by the C-Port. When the C-Port does not support phantom detection, another detection mechanism must be used to make this determination. It has been assumed (but missing from Draft 2.1B) this mechanism would be the absence of the LMTN MAC frame. Further, it was determined the duration of TPPLD needed to be extended to handle the various forms of failure.

**Solution:** Solution part 4 of 4 - See IKN-01, IKN-02 and IKN-03 for other parts of this solution.

The timer TPPLD has been changed in both its meaning and its duration.

1. The meaning has been changed to include the the time it takes to detect either of the following two conditions.
  - A) When phantom drive detection is supported by both the C-Port and the Station, the failure of Station to assert phantom drive.
  - B) When phantom drive detection is not supported by the C-Port, the failure of the Station to start its Lobe Media Test.
2. The duration has been changed to cover both of the above two conditions.

The definition of TPPLD currently contained on page 14-10 and 14-11, lines 232 through 236, needs to be replaced with the following.

14.4.2.3 Timer, C-Port Protocol Loss Detect (TPPLD).

Each C-Port shall have a timer TPPLD. This timer is used during error recovery to ensure that the protocol is operating correctly. The timer expiring indicates that the protocol is not operating correctly, and the C-Port should return to bypass. The error conditions this timer catches are either phantom, if supported, not being deasserted, or the start of lobe media test not being detected. The value of TPPLD shall be between 15.8s and 16.2s. A value of 16s is recommended.

**Response:** New words:

14.4.2.3 Timer, C-Port Protocol Loss Detect (TPPLD).

Each C-Port shall have a timer TPPLD. This timer is used during error recovery to ensure that the protocol is operating correctly. The timer expiring indicates that the protocol is not operating correctly, and the C-Port should return to bypass. The error conditions this timer catches are either phantom, if supported, not being deasserted, or the start of lobe media test not being detected. The value of TPPLD shall be between 15.8s and 16.2s. A value of 16s is recommended.

---

**Comment NAJ-54**

**Section** 14.4    **Line** 232    **Severity** DIS    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Timer renamed to be "C-Port Protocol Loss Detect"

**Solution:** Update description.

**Response:** See IKN-04 for complete solution.

---

**Comment SJH-32**

**Section** 14.4    **Line** 235    **Severity** DIS    **Type** TECH    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** TPPLD is too short. It breaks hard error recovery because it can time out before the beacon/lobe test process has had time to start.

**Solution:** Increase in value from 8s nominal to 16s.

**Response:** See IKN-04 for a complete solution.

---

**Comment NAJ-55**

**Section** 14.4    **Line** 235    **Severity** DIS    **Type** TECH    **Status** WITHDRAWN

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Timer value is wrong. Detailed analysis shows that it should be 16s.

**Solution:** Fix values.

**Response:** See IKN-04 for complete solution.

---

**Comment MJH-01**

**Section** A.0    **Line** 1    **Severity** DIS    **Type** TECH    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☒

**Concern:** Following Station Policy Flags should be added to Annex A :-  
FSANO, FSASO, FSLMTO

**Solution:** Do it!

**Response:** Neil has completely rewritten Annex A, after discovering that it was very broken in Amd 1 and would be very difficult to update for 100 Mbit/s

Detailed review required!

---

**Comment ANF-12**

**Section** A7.2    **Line** 1    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Title of A.7.2.3 is wrong.

**Solution:** Change 100BASE-TX to 100BASE-FX.

**Response:** Yes, and done it.

---

**Comment NAJ-26**

**Section** K.6   **Line** 341   **Severity** DIS   **Type** TECH   **Status** ACCEPTED

**Highlight To Committe** ☐   **Commenter Agrees?** ☒   **Editing Complete** ☐

**Concern:** << Note "Line number" is Amd. 1 page number >>

dtrCRFMaxInfo needs to be updated to support new HSTR MAX\_TX.

**Solution:** Do it.

**Response:** Vote 07-24 directs Neil to generate an Annex K change page.

---

**Comment NAJ-56**

**Section** L.0   **Line** 1   **Severity** A/C   **Type** ED   **Status** OPEN

**Highlight To Committe** ☐   **Commenter Agrees?** ☐   **Editing Complete** ☐

**Concern:** Out of date.

**Solution:**

**Response:**

---

**Comment NAJ-57**

**Section** M.0   **Line** 1   **Severity** A/C   **Type** ED   **Status** OPEN

**Highlight To Committe** ☐   **Commenter Agrees?** ☐   **Editing Complete** ☐

**Concern:** Out of date.

**Solution:**

**Response:**

---

**Comment ANF-13**

**Section** U1.0   **Line** 23   **Severity** Q   **Type** ED   **Status** OPEN

**Highlight To Committe** ☐   **Commenter Agrees?** ☐   **Editing Complete** ☐

**Concern:** Should maximum frame size be 18207 octets (c.f. discussion on IFG etc.)?

**Solution:**

**Response:**

---

**Comment RJK-07**

**Section** W.0   **Line** 10   **Severity** A/C   **Type** ED   **Status** REJECTED

**Highlight To Committe** ☐   **Commenter Agrees?** ☒   **Editing Complete** ☐

**Concern:** Remove carriage(s) return after ISO/IEC

**Solution:** Press delete key

**Response:** This appears to be an issue related to document formatting in word. When revision history is turned off this formats correctly.

---

**Comment** RJK-08

**Section** W.0    **Line** 12    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Spelling of supplement

**Solution:** Change i to e

**Response:** except after c.  
Will do.

---

**Comment** ANF-14

**Section** W0.0    **Line** 11    **Severity** Q    **Type** ED    **Status** ANSWERED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Why is the ISO/IEC 802.3-1996 reference here different from that used elsewhere in the document? Do this mean that we need to change all other references to this?

**Solution:**

**Response:** Will change to match other references in document.

---

**Comment** ANF-15

**Section** W1.1    **Line** 28    **Severity** A/C    **Type** ED    **Status** MODIFIED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Wording needs clarification.

**Solution:** Change words so that the text in lines 28 - 29 reads;

This section addresses MII signals that support 100 Mbit/s token ring functions, but which do not exist in all 100Base-X implementations, or 100Base-X functions that do not exist in 100 Mbit/s token ring.

**Response:** will add "all" before "100Base-X" on line 29.

---

**Comment** ANF-16

**Section** W2.0    **Line** 47    **Severity** A/C    **Type** ED    **Status** REJECTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Does W.2 need to start on a new page?

**Solution:** If accepted, remove preceding page break.

**Response:** Again this is related to word reformatting the document with revision history turned on. When turned off this appears OK.

---

**Comment** ANF-17

**Section** W2.2    **Line** 66    **Severity** A/C    **Type** ED    **Status** ACCEPTED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Reference to Annex Y should be to Annex Z.

**Solution:** Change Y to Z.

**Response:** Will do.

---

**Comment ANF-18**

**Section** W2.3    **Line** 71    **Severity** Q    **Type** ED    **Status** ANSWERED

**Highlight To Committe** ☐    **Commenter Agrees?** ☒    **Editing Complete** ☒

**Concern:** Has frame size has increased to 18207 octets(c.f. discussion on IFG etc.)?

**Solution:**

**Response:** If it has, this will be modified accordingly.

---

**Comment KTW-03**

**Section** Y.1    **Line** 53    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** Timer notations are incorrect.

**Solution:** Change to define timers TASC and TARFRW.

**Response:**

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**Comment KTW-04**

**Section** Y.1    **Line** 54    **Severity** A/C    **Type** ED    **Status** OPEN

**Highlight To Committe** ☐    **Commenter Agrees?** ☐    **Editing Complete** ☐

**Concern:** AS=SDET is incorrect.

**Solution:** Change "AS=SDET" to "AS=SDetect".

**Response:**



# Comment Summary

Total Comments:: 161