100 Mbit/s Dedicated Token Ring Operation 802.5t/LMSC (D2.4): Full Comment Report

Comment KD-06

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☑ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: Please use consecutive page numbers. The system used makes it impossible to know if the reader has a complete draft.

Solution:

Response: This will be resolved at time of publication.
For draft production, ensure that << end of sub/clause >> is used.

Comment GM-08

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Figures are not readable probably due to original using colored backgrounds.

Solution: Reformat the draft for black and white printing

Response: This is not an error in the files used to generate the document, but rather in the printer drivers used to print the PDF files.

This printing error was detected early in the original Ballot document and it was our understanding that all released ballot documents with the error were corrected. However, some document apparently escaped our notice.

Finally, those electing to print the PDF files from the 802.5 Website must use the correct print drivers (compatible with Adobe output).

Comment GM-01

Section Global **Line** 0 **Severity** DIS **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The intended ballot close date was printed incorrectly.

Solution: Close the ballot 30 October as printed.

Response: Two points must be made clear.

1. It was decided by the 802.5 committee that, in an attempt to produce a standard this year, to use the earliest possible valid Ballot closing date (19 October 98). This date would allow for a Recirculation Ballot, if necessary, prior to the 8 December 98 Standards Board meeting. Thus, the LMSC 802.5t Draft 2.4 closing date given to the IEEE group responsible for Ballots was 19 October 98, not 30 October 98.

2. The October 30, 1998 date printed (and changed to 19 October 1998) on the Ballot was an error on the part of the IEEE group responsible for printing ballots.

Comment BG-12

Section Global **Line** 0 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The use of symbol is confusing. Symbol is defined in clause 1 as a bit equilivent (0,1,J,K), and used in clause 5 in a similar way; but its usage here is something very different. Rcv_symbol and Tx_symbol are used in these primitives to convey a byte. Then in clause 14, symbol is used basically as defined in FDDI, where the Interpretation of FDDI Terms tables say it should be a nibble.

Solution: Don't use symbol for two different widths of information, find a new term (e.g., code_group).

Response: Symbol is being used incorrectly in a number of places in 802.5t

Document locations:

Clause/subclause 9.8, 13, Annex W: Replace "symbol" with "indicator" for PS_UNITDATA primitives and replace symbol with NRZI_bit for PM_UNITDATA primitives.

Also, make the following changes to 1.3, 9.1, 9.2, 9.3 and 14.

1. Subclause 1.3, lines 81 and 82 replace "symbols" with "indicators"
2. Subclause 9.1, line 79 Replace "Tx_symbol" with "Tx_indicator"
3. Subclause 9.1, line 329 Replace "code symbols" with "code-groups"
4. Subclause 9.2, line 376 Replace "Tx_symbol" with "Tx_indicator"
5. Subclause 9.3, line 356 Replace "Tx_symbol" with "Tx_indicator"
6. Clause 14.2.2.1, line 93, add a reference to [802.3].
7. Clause 14.2.2.1.1, line 96, replace "symbol sequence" with "code-group".
8. Clause 14.2.2.1.2, line 98, replace "symbol sequence" with "code-group".
9. Clause 14.2.2.1.3, line 100, replace "symbol sequence" with "code-group".
10. Clause 14.2.2.1.4, lines 102, 103 and 104 replace "symbol" with "code-group".
11. Clause 14.2.2.1.5, line 108, replace "symbol sequence" with "code-group".

Comment BG-07

Section Global **Line** 0 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: There is much in the document that is beyond the scope of the PAR. Most obvious to me, well-defined "hooks" for TPK operation at High Media Rates. For example, Properties of a Token (9.1-9 line 309).

From the PAR: "The Media Access Control (MAC) will operate a dedicated Token Ring link, using the Transmit Immediate (TXI) Access Protocol...". TPK operation is not mentioned in the scope.

Solution: Delete all specifications for TPK operation.

Response: All specifications for TKP Access protocol operation have been removed from the document as follows.

1. Subclause 9.1, Page 9.1-9, line 307: deleted "TK_AC, ".
2. Subclause 9.1, Page 9.1-9, deleted lines 309 through 317.
3. Subclause 9.1, Page 9.3-37, the definition of TK_AC has been changed as follows.
   a. Added "<< 4 Mbit/s and 16 Mbit/s only >>" in the Event/Condition Term column.
   b. Changed meaning of term column to: "A Token is received that meets the criteria specified in 4.3.1. (by deleting " for 4 Mbit/s and 16 Mbit/s and in 9.1.1.6 for the High Media Rate.").
4. Subclause 14.1, page 14-1, lines 13 and 14 have been deleted.
5. Subclause 14.1.3, Page 14-2, lines 32 through 36 have been deleted.
6. Subclause 14.1.4, page 14-2, line 37 has been renumbered to 14.1.3.

7. Subclause 14.2.1.1, Page 14-3, lines 46 through 68 have been deleted.
8. Subclause 14.2.1.1.2, page 14-4, line 69 has been renumbered and changed to the following.
   14.2.1.1 End Transmit (ET) for Frame Sequence using TXI Access protocol
9. Subclause 14.2.1.1.2.1, page 14-4, line 72 has been renumbered to 14.2.1.1.1.
10. Subclause 14.2.1.1.3, page 14-4, lines 79 through 88 have been deleted.

Comment KD-01

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The format does not conform to IEEE style, nor does it use the numbering conventions for tables used in the published 8802-5 standards. This needs to be completely updated to match the published standards, not the draft versions of them.

Solution:

Response: IEEE style to be applied at time of publication.
Tables and figures will be renumbered to be consistent with the base and amd. 1 documents. The new table in 9.2 can be numbered (for example) table 9-14a.

Comment KD-05

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☑ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: Please make sure separate graphics files in TIFF or EPS format are provided for all figures.

Solution:

Response: This requirement is to ease the production of electronic versions (PDF). It is requested that at least EPS versions of all embedded graphics be supplied at the time of publication.

Comment KD-08

Section Global **Line** 0 **Severity** Q **Type** ED **Status** ANSWERED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: How do you plan to number annexes after Z?

Solution:

Response: Annex Z will be followed by Annex AA.

Comment BG-03

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The document is internally inconsistent in the abbreviations for XX million bits per second. It uses 100Mbit/s (e.g., 13.9, Annex U), 100 Mbit/s (the most used convention with space between number and M), 10 Mb/s (Annex U, the 802.3 convention) and I think 100 Mbps (couldn't find it again).

Solution: Search for and change non-preferred abbreviations.

Response: We will search document for 100Mbit/s and change to 100 Mbit/s. Likewise for 4 and 16 Mbit/s.

Owner: All

Comment WB-01

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: Sometimes 100Mbit/s is written thus, sometimes 100 Mbit/s with space.

Solution: Please be consistent and leave space in all cases (write as 100 Mbit/s).

Response: Also see BG-03.

We will search document for 100Mbit/s and change to 100 Mbit/s. Likewise for 4 and 16 Mbit/s.

Owner: All

Comment HF-02

Section Global **Line** 0 **Severity** DIS **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: I can find no table of contents. This is a very large document, and it is very difficult to review it without a table of contents. I cannot perform an adequate review in the time allowed by reading it all page by page.

Solution: I would be able to review it with a specific concentration on my areas of expertise if a table of contents had been provided.

Response: The committee believes that the document can be adequately reviewed without a table of contents.

However, the following will be done on the next ballot to assist reviewer.

A section heading table of contents overview will be added to the next ballot, but because of document organization it will not have page numbers. A table of contents with page numbers will be added at time of publication by the IEEE.

Comment HF-04

Section Global **Line** 0 **Severity** DIS **Type** TECH **Status** MODIFIED

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

Concern: I do not understand why there is so much information reproduce in this document that appears to be unchanged from the base standard. This will make the editor's job very difficult. Worse still, the information which has changed from the base standard is not highlighted in any way that I can discern. Change bars and strikethru/underscore must be used so that readers can discern the changes.

Solution: If you want a careful review of your work, please show the reviewers some consideration by making your document legible, providing a table of contents and highlighting the changes in an obvious way.

Response: See responses to JC-02 and HF-02.

1. A new Annex, AA, explains the changes made to ISO/IEC 8802-5:1998 and ISO/IEC 8802-5:1998/Amd.1:1998 to support 100 Mbit/s.

2. A section heading table of contents overview will be added to the next ballot, but because of document organization it will not have page numbers. A table of contents with page numbers will be added at time of publication by the IEEE.

3. The committee made the decision to publish 802.5t without change bars, as the complete document is required to understand High Speed Token Ring.

Comment DWW-01

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: I believe that the decision to shorten the ballot period is wrong as it severly restricts the amount of time available to commenters outside of the US to provide a thorough review of the document. Given the rush with which this document was pushed through the 802.5 committee and some of the balloting irregularities which occurred, I feel that this document requires a thorough review and has not had the attention it deserves if it is to become an IEEE/IEC standard.

Solution:

Response: Two points must be made clear.

1. It was decided by the 802.5 committee that, in an attempt to produce a standard this year, to use the earliest possible valid Ballot closing date (19 October 98). This date would allow for a Recirculation Ballot, if necessary, prior to the 8 December 98 Standards Board meeting. Thus, the LMSC 802.5t Draft 2.4 closing date given to the IEEE group responsible for Ballots was 19 October 98, not 30 October 98.

2. The October 30, 1998 date printed (and changed to 19 October 1998) on the Ballot was an error on the part of the IEEE group responsible for printing ballots.

Comment BG-02

Section Global **Line** 0 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: 100BASE-X is frequently misused. The misuse of 100BASE- definitions is very apparent in Annex U. Since Auto-Negotiation is not defined for 100BASE-FX, the correct name on U.2 would be 100BASE-T, not 100BASE-X.
Since 10BASE-T, 100BASE-T2 and 100BASE-T4 do not use an FDDI developed PMD they do not belong under a 100BASE-X heading.

>From 802.3u (I don't yet have a copy of 802.3, 1998):

100BASE-T: IEEE 802.3 Physical Layer specification for a 100 Mb/s CSMA/CD LAN. (See IEEE 802.3 clauses 22 and 28.)

100BASE-X: IEEE 802.3 Physical Layer specification for a 100 Mb/s CSMA/CD LAN that uses the PMD sublayer and MDI of the ISO 9314 group of standards developed by ASC X3T12 (FDDI). (See IEEE 802.3 clause 24.)

100BASE-FX: IEEE 802.3 Physical Layer specification for a 100 Mb/s CSMA/CD LAN over two optical fibers. (See IEEE 802.3 clauses 24 and 26.)

100BASE-TX: IEEE 802.3 Physical Layer specification for a 100 Mb/s CSMA/CD LAN over two pairs of Category 5 UTP or shielded twisted-pair (STP) wire. (See IEEE 802.3 clauses 24 and 25.)

Solution: Search document for 100BASE- and where necessary correct usage, per the definitions above.

Response: The correct 100BASE-?? will be used throughout the document.

Sections impacted: Clause 9.8 and Annex U.

Comment BG-01

Section Global **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The use of 802.3 names like 100Base-X needs to be improved. Since no new definition for 100Base-X is given (a good thing), the 802.3 definitions and editorial conventions are assumed and should be followed.

Solution: Search document for and change 100Base- to 100BASE.

Response: 100BASE- will be used throughout the document.

Owner: All

Comment HF-01

Section Global **Line** 29 **Severity** DIS **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: Per page copyright/status notice is incorrect.

Solution: Should read:

Copyright © 1998 by the IEEE. All rights reserved. This is an unapproved IEEE Standards Draft, subject to change.

The important word here is "unapproved".

Response: All editors to ensure footers read as follows (text from IEEE editors):

Copyright © 1998 IEEE. All rights reserved.
This is an unapproved IEEE Standards Draft, subject to change.

Comment GM-02

Section Global **Line** 40 **Severity** DIS **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The title purports to change ISO/IEC 8802-5. If so this should be a SC 6 ballot, not an IEEE ballot except as a recommended position to the US national member body of SC 6.

Solution: Change the title to IEEE 802-5 or request a SC 6 ballot. Note the outcome of this comment could change some of the following comments.

Response: This is an Invalid DIS.

Kristin Dittmann (IEEE Standards Project editor) stated that the present title is appropriate even if it will be originally published as an IEEE standard. More to the point, this is strictly an editorial issue that is the responsibility of the IEEE editor, who will make the final determination as to whether this document, to be published as an IEEE standard, should refer to ISO/IEC in the title or not.

Comment HF-03

Section Global **Line** 51 **Severity** DIS **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Many of the figures in this document are illegible because of the shading style used. The figures came out black on the copy that was sent to me. I can not review a figure that I cannot read.

Solution: Fix figure shading.

Response: This problem was fixed, but apparently some copies of the draft got sent out without the fix. It is not a problem with the Word DOC files, but rather the printer driver that was used to print the PDF (requires Adobe compatible drivers).

Comment GM-10

Section 1.2 **Line** 0 **Severity** DIS **Type** TECH **Status** REJECTED

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

Concern: The standard includes two FDDI physical variants – FDDI PMD and FDDI TP-PMD. These two standards in turn call out normative references that are not listed (I presume).

Solution: Clarify exceptions to the normative requirements of the FDDI normative references unless PHY and MAC are intended to be normative requirements.

Response: These exception are appropriately listed in subclause 9.8.

Comment GM-09

Section 1.2 **Line** 0 **Severity** Q **Type** TECH **Status** ANSWERED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The standard includes two FDDI physical variants – FDDI PMD and FDDI TP-PMD. Was it intended that FDDI LCF-PMD and FDDI SMF-PMD are not to be used?

Solution: No change if the answer is Yes. Add them if the answer is No.

Response: Yes, they are not meant to be used.

Comment KD-03

Section 1.2 **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: I hope that the revised, incorporated 8802-5 & Amd. 1 will be available before this is approved. I do not know how this would be published with the two base standards still available only as separate documents.

Solution:

Response: 802.5t will be published before the incorporated standard.

The header will now say:

"Supplement to ISO/IEC 8802-5:1998 and ISO/IEC 8802-5:1998/Amd. 1:1998"

Comment KD-02

Section 1.2 **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☑ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: It is not appropriate to add the standard(s) to which this is a supplement as references (see 1.2). Delete 8802-5: 1998 and 8802-5: 1998/Amd. 1 from the list.

Solution:

Response: We talked to Kirsten and it was agreed the correct solution is to change the headers of the 802.5t document to be a supplement to both the base standard (ISO/IEC 8802-5:1998) and Amendment 1 (ISO/IEC 8802-5:1998/Amd.1:1998) as per item KD-03.

Subclause 1.2, page 1-3: deleted lines 60 through 66.

Comment BG-04

Section 1.2 **Line** 48 **Severity** A/C **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The 802.3 normative references are not current. 802.3u is no longer on the IEEE 802.3 catalog web page since it has been subsumed into 802.3, 1998. Deletion of the 802.3u reference is a global problem for the document since it is used so broadly, and when 802.5t is approved, an implementer will not be able to buy a copy of 802.3u.

Solution: Replace the two references with one to 802.3, 1998. Replace all uses of 802.3u with something generic and less prone to obsolescence. Acceptable possibilities include: 100 Mb/s 802.3, 100BASE-X or appropriate 802.3 clause references.

Response: 1. Changed line 48 from "ANSI/IEEE Std 802.3, 1996 Edition Information ..." to "ANSI/IEEE Std 802.3:1998 Information ...".
2. Deleted lines 52 though 56.

Comment GM-03

Section 1.2 **Line** 48 **Severity** DIS **Type** TECH **Status** MODIFIED

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

Concern: An ANSI reference should not be used in an ISO/IEC standard.

Solution: Replace IEEE 802.3 with the ISO/IEC 8802 equivalent.

Response: "802.3, 1996" is an ANSI/IEEE standard, not an ISO/IEC standard. Also, see item BG-04.

However, line 48 has been changed from "ANSI/IEEE Std 802.3, 1996 Edition Information ..." to "ANSI/IEEE Std 802.3:1998 Information ...".

Finally, it is the responsibility of the IEEE editors to publish the document with the correct references. If there is an international standard it will be so noted, otherwise the ANSI standard will be kept.

Comment GM-04

Section 1.2 **Line** 52 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: An ANSI reference should not be used in an ISO/IEC standard. In addition the callout is a different style than all the others.

Solution: Replace IEEE 802.3u with the ISO/IEC 8802 equivalent. Use the style of line 48

Response: See items GM-03 and BG-04.

The IEEE editiors will put into the published document the correct reference. If there is an international standard it will be so noted, otherwise the ANSI standard will be kept.

However, the reference to 802.3u in lines 52 through is not required anymore because the reference to ANSI/IEEE std. 802.3:1998 incorporates 802.3u. Thus, lines 52 through 56 have been deleted.

Comment GM-05

Section 1.2 **Line** 57 **Severity** DIS **Type** TECH **Status** REJECTED

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

Concern: An ANSI reference should not be used in an ISO/IEC standard.

Solution: Replace X3.263 with the ISO/IEC equivalent 9314-10.

Response: There is currently no ISO/IEC standard for this reference.

It is the responsibility of the IEEE editors to publish the document with the correct references. If there is an international standard it will be so noted, otherwise the ANSI standard will be kept.

Comment GM-06

Section 1.2 **Line** 58 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: ANSI standards are not approved. The so-called approval is merely an approval that accredited procedures were followed.

Solution: Delete “Approved September 25 1995.”

Response: Done.

Comment GM-07

Section 1.2 **Line** 59 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The title is incorrect.

Solution: Change “ISO” to “ISO/IEC” and add Part 3: Physical Medium Dependent (PMD)”.

Response: Changed subclause 1.2, page 1-3, line 59 to the following.

ISO/IEC 9314-3:1990, Information processing systems Fibre Distributed Data Interface (FDDI) - Part 3: Physical Layer Medium Dependent (PMD).

Comment RJK-03

Section 1.3 **Line** 70 **Severity** A/C **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: MII definition states that it is "...the complete interface between the MAC and PHY layers."
That is no longer true - see changes to architecture figures.

Solution: It should specify that the RS is now in the way, so
"...the complete interface between MAC and PHY (via the Reconciliation sublayer)."

Response: Done.

Comment BG-06

Section 1.6 **Line** 110 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: It is impossible to conform to clause 3 as written. The text and illustrations within clause 3.1 are no longer correct since the underlying physical layers may use a group code. An octet is 8-bits. In 4b/5b, it takes 10 bits to represent a JK and it is therefore oxymoronic to talk about a JK or SD octet. If I remember correctly from my early participation in 802.5, octet was used in the document because of the strong ISO dislike for byte (primarily because byte is imprecise as to its length, what is actually desired at 100 Mb/s). If it is intended to use
1000BASE-X for an additional speed of DTR, the problem becomes worse where IFG, SD and ED become ordered sets. In 100BASE-X the ED sequence of TR takes 10 code bits, while in 1000BASE-X, the ED sequence takes 20 code bits.

Solution: Remove the lengths from clause 3.1 on everything except the portions of frames that are data octets. Preferably, integrate the frame format portions of clause 14 into subclause 3.2. An alternative is to add a note to 3.2 indicating that it only specifies 4 and 16 Mb/s encodings; and also make the conformance statement more precise in the portions of clause 3 that are relevant.

Response: 1. Subclause 1.6 changes - pages 1-4 and 1-5

o Change lines 108, 119, 126 and 133 as follows.

From: "Clauses 3 and 10 ...."
To: "Clause 3 as amended by clause 10 ..."

o Change lines 110, 121, 128 and 135 as follows.

From: "Clauses 3, 10 and 14 for ..."
To: "Clause 3 as amended by clauses 10 and 14 for the ..."

2. Clause 14 changes - pages 14-1 and 14-3

o line 8 page 14-1

From: "This subclause defines ..."
To: "This subclause replaces subclause 3.1 and defines ..."

Comment BG-05

Section 2.2 **Line** 20 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Duplicate word (the the).

Solution: Delete one.

Response: Done.

Comment KD-04

Section 9 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The shading in tables (Clause 9) is too dark. Please use lighter shading to make text legible.

Solution:

Response: The shading used in 9.2 and 9.3 has been changed to 5% which is as light as possible and still see it is shaded.

Updated 9.2 (after line 387) as follows.

> Each Station Operation Table starting point has its event/condition shaded and each Station Operation Table exit point has its action/output shaded.

Updated 9.3 (after line 364) as follows.

> Each Port Operation Table starting point has its event/condition shaded and each Port Operation Table exit point has its action/output shaded.

Comment JC-02

Section 9 **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The clause from 802.5a:1998 is replaced in its entirety. It is not clear what sections of the protocol actually changed due to the new PHY and which sections of the protocol remained the same. Since this document will be published as a supplement, it is important that readers understand the major differences between clause 9 in 802.5a and clause 9 in 802.5t update.

Solution: Place a summary at the top of Page 9-1 indicating the major items in 802.5a that have changed in 802.5t so the implementer of 802.5a is aware of these.

Response: See comments JC-03 and HF-04.

The clause 9 and subclauses 9.1, 9.2 and 9.3 were replace in their entirety because of the number of changes required to support the High Media Rate.

Annex AA has been written to explain what has been changed.

Comment KTW-01

Section 9.0 **Line** 43 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Reference to 13.9.8 is incorrect (doesn't exsist).

Solution: Change 13.9.8 to 13.9.

Response: Changed line 43 from 13.9.8 to 13.9.

Comment KTW-02

Section 9.0 **Line** 46 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Reference to 13.9.8 is incorrect (doesn't exsist).

Solution: Change 13.9.8 to 13.9.

Response: Changed line 46 from 13.9.8 to 13.9.

Comment KTW-03

Section 9.0 **Line** 49 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Reference to 13.9.8 is incorrect (doesn't exsist).

Solution: Change 13.9.8 to 13.9.

Response: Changed line 49 from 13.9.8 to 13.9.

Comment KTW-04

Section 9.0 **Line** 57 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The Classic Station should be Classic station and should indicate that the TKP Access Protocol is only supported.

Solution: Change line 57 as follows.

From: The Classic Station, which only operates at 4 Mbit/s or 16 Mbit/s, is defined in clause 4.
To: The Classic station, which only uses the TKP Access Protocol operating at 4 Mbit/s or 16 Mbit/s, is defined in clause 4.

Response: Done.

Comment KTW-05

Section 9.0 **Line** 58 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The Classic Concentrator should indicate that the TKP Access Protocol is only supported.

Solution: Change line 58 as follows.

From: The Classic Concentrator, which only operates at 4 Mbit/s or 16 Mbit/s, is defined in clause 8.

To: The Classic Concentrator, which only uses the TKP Access Protocol operating at 4 Mbit/s or 16 Mbit/s, is defined in clause 8.

Response: Done.

Comment RF-01

Section 9.1 **Line** 632 **Severity** A/C **Type** ED **Status** ACCEPTED

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

Concern: pass/fai

Solution: pass/fail

Response: This is correct in the PDF I have and is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment RF-02

Section 9.1 **Line** 634 **Severity** A/C **Type** ED **Status** ACCEPTED

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

Concern: function th

Solution: function the

Response: This is correct in the PDF I have and is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment RF-03

Section 9.1 **Line** 645 **Severity** A/C **Type** ED **Status** ACCEPTED

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

Concern: defined i

Solution: defined in

Response: This is correct in the PDF I have and is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment RF-04

Section 9.1 **Line** 917 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: it reset the

Solution: it resets the

Response: Done.

Comment RF-05

Section 9.1 **Line** 998 **Severity** A/C **Type** ED **Status** ACCEPTED

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

Concern: The valu

Solution: The value

Response: This is correct in the PDF I have and is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment RF-06

Section 9.1 **Line** 1039 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: either 0, 3 or 7

Solution: 0, 3 or 7.

Response: Done.

Comment SAV-01

Section 9.1 **Line** 1097 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: This bullet discusses what happens when a Station is trying to connect to a C-Port and trade up to the High Media Rate. The Station sends a Registration Request MAC frame to the C-Port. The bulleted item is a bit vague and incorrect in what is described.

Solution: If another Registration Request MAC frame is received by the C-port from the Station before TPTUAD expires, then the C-Port transmits another Registration Response MAC frame.

Response: Done.

Comment **RF-21**

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-47, Entry 'DC<>RS'] Station class

Solution: Station class.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-22**

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-47, Entry 'DISCARD_PDU'] Discard the PDU

Solution: Discard the PDU.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-20**

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-47, Entry 'Variable=value'] specified value

Solution: specified value.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-19**

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-47, Entry '{counter}=({counter}-1)'] counter by one

Solution: counter by one.

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-18

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-45, Entry 'SC=CRS'] Report Server)

Solution: Report Server).

Response: Done. This is the first of over 100 comments that request a period be put at the end of a sentence. I made these changes as well as ones not identified. I used the following rules for putting periods after a statement.

1. It is a sentence.
2. It is a statement of why a condition or action is taking place.

Comment RF-16

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-44, Entry 'FR_WITH_ERR'] (see 4.3.2)

Solution: (see 4.3.2).

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-17

Section 9.2 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.2-45, Entry 'MRI_UNITDATA.request'] to be transmitted

Solution: to be transmitted.

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-15

Section 9.2 **Line** 356 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: (join complete)

Solution: (join complete).

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-07**

Section 9.2 **Line** 393 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: Parameter n6, n7 and n8

Solution: Parameters n6, n7 and n8

Response: Done.

Comment **SJH-03**

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

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Page 9.2-23, R3194

Inappropriate use of grey shading. (See R3117 for example of correct usage).

Solution: Remove shading.

Response: Done.

Comment **SAV-02**

Section 9.2 **Line** 418 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Ref 3802

TSLMTE is referenced as not having expired yet. However, there is no reference to TSLMTE anywhere else in the Standard. Therefore, it can only be assumed that TSLMTE is an error and should be replaced.

Solution: << Lobe Media Test Notification MAC Frame Pacing timer expired and TSLMT has not yet expired. >>

Response: The solution provided is almost right (missing a "P"). I made the following change.

<< Lobe Media Test Notification MAC Frame Pacing timer expired and TSLMTP has not yet expired. >>

Comment **RF-40**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1145'] not operational>>

Solution: not operational.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-41**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1136'] not operational>>

Solution: not operational.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-42**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1070'] Token failed>>

Solution: Token failed.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-43**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1081'] Token failed>>

Solution: Token failed.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-51**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-25, Entry '1127'] not been completed>>

Solution: not been completed.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-44**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1094'] lobe test>>

Solution: lobe test.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-49**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-24, Entry '1038'] by C-Port>>

Solution: by C-Port.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-46**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-24, Entry '1095'] test is disrupted>>

Solution: test is disrupted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-47**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-24, Entry '1096'] TS=PRPT>>

Solution: TS=PRPT.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-48**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-24, Entry '1039'] by C-Port>>

Solution: by C-Port.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-39**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1135'] not operational>>

Solution: not operational.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-50**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-24, Entry '1129'] not detected>>

Solution: not detected.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-29**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1114'] Phantom Drive>>

Solution: Phantom Drive.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-45**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1100'] restarting TPDLT>>

Solution: restarting TPDLT.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-38**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1134'] not operational>>

Solution: not operational.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-36**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1137'] initial entry>>

Solution: initial entry.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-34**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1149'] Media Rate>>

Solution: Media Rate.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-33**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1148'] Protocol request>>

Solution: Protocol request.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-32**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1132'] by this C-Port>>

Solution: by this C-Port.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-30**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1114'] path is supported>>

Solution: path is supported.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-28**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-20, Entry '1092'] Station to close>>

Solution: Station to close.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-27**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-20, Entry '1092'] Station error>>

Solution: Station error.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-26**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-20, Entry '1004'] unsupported protocol>>

Solution: unsupported protocol.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-25**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-19, Entry '1121'] INS_RSP>>

Solution: INS_RSP.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-24**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-19, Entry '1121'] Hard Error Recovery>>

Solution: Hard Error Recovery.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-52**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-25, Entry '1128'] has been completed>>

Solution: has been completed.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-37**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-23, Entry '1133'] not operational>>

Solution: not operational.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-31**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1131'] by this C-Port>>

Solution: by this C-Port.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-92**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-31, Entry '1817'] frame error>>

Solution: frame error.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-80**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1612'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-81**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1819'] with an error>>

Solution: with an error.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-82**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1819'] DTU_UNITDATA.request>>

Solution: DTU_UNITDATA.request.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-83**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1820'] frame transmissions>>

Solution: frame transmissions.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-84**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1820'] DTU_UNITDATA.request>>

Solution: DTU_UNITDATA.request.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-85**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1818'] being transmitted>>

Solution: being transmitted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-86**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1818'] is now known>>

Solution: is now known.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-87**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1800'] to the C-Port>>

Solution: to the C-Port.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-88**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-30, Entry '1801'] event to occur)>>

Solution: event to occur).>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-89**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-31, Entry '1806'] to the DTU>>

Solution: to the DTU.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-79**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1613'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-91**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-31, Entry '1814'] has started>>

Solution: has started.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-101**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-40, Entry 'SPD=PD'] received frame

Solution: received frame.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-93**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-35, Entry 'DTU_UNITDATA.request'] to be transmitted>>

Solution: to be transmitted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-94**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-37, Entry 'PS_STATUS.indication(Link_status=Asserted)'] link is active (9.8.1.1.5)

Solution: link is active (9.8.1.1.5).

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-95**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-37, Entry 'PS_STATUS.indication(Link_status=Not_asserted)'] link is inactive (9.8.1.1.5)

Solution: link is inactive (9.8.1.1.5).

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-96**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-38, Entry '{counter}=({counter}-1)'] counter by one

Solution: counter by one.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-97**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-38, Entry 'variable = value'] specified value

Solution: specified value.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-98**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-39, Entry 'QUE_RPRT_ADDR_PDU'] for transmission

Solution: for transmission.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-99**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-39, Entry 'QUE_RPRT_ERR_PDU'] for transmission

Solution: for transmission.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-100**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-39, Entry 'SDAC_RC=RC'] the DTU_DAC.response

Solution: the DTU_DAC.response.

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-53**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-25, Entry '1048'] Error Recovery>>

Solution: Error Recovery.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-102**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-40, Entry 'SUA=SA'] address (SUA)

Solution: address (SUA).

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-35**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-21, Entry '1067'] invalid AP_REQ>>

Solution: invalid AP_REQ.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-90**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-31, Entry '1816'] has completed>>

Solution: has completed.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-60**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1214'] a Repeat Path>>

Solution: a Repeat Path.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-67**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1401'] Internal Test>>

Solution: Internal Test.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-66**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1217'] being transmitted>>

Solution: being transmitted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-65**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1208'] being transmitted>>

Solution: being transmitted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-64**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1218'] abort frame>>

Solution: abort frame.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-63**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1205'] abort frame>>

Solution: abort frame.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-68**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1404'] Internal Test>>

Solution: Internal Test.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-61**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1202'] FPOP=1>>

Solution: FPOP=1.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-55**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1203'] been exceeded>>

Solution: been exceeded.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-59**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1200'] MAX_TX>>

Solution: MAX_TX.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-58**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1209'] being transmitted>>

Solution: transmitted.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-57**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1210'] been exceeded>>

Solution: been exceeded.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-56**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-26, Entry '1215'] been exceeded>>

Solution: been exceeded.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-54**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-25, Entry '1150'] Media Rate>>

Solution: Media Rate.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-78**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1611'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-62**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-27, Entry '1202'] PPV(MAX_TX)>>

Solution: PPV(MAX_TX).>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-70**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1408'] Detection process>>

Solution: Detection process.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-76**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1617'] Abort Sequence>>

Solution: Abort Sequence.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-77**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1610'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-75**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1614'] Abort Sequence>>

Solution: Abort Sequence.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-74**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1601'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-73**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-29, Entry '1600'] 16 Mbit/s>>

Solution: 16 Mbit/s.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-71**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1403'] (TPPLD=R)>>

Solution: (TPPLD=R).>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-69**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1408'] has been Detected>>

Solution: has been Detected.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-72**

Section 9.3 **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page 9.3-28, Entry '1409'] FPOP=1>>

Solution: FPOP=1.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment **RF-23**

Section 9.3 **Line** 346 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: (FPOP=1)

Solution: (FPOP=1).

Response: Done. See RF-18 for explanation of how this was handled.

Comment SJH-02

Section 9.3 **Line** 369 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Page 9.3-25, R1150

In the action FPMR=2 will be reset when R1137 (9.3-23) fires, due to Set_initial_conditions. The Station fixes this problem by not setting FSMR=2 until the timer expiry transition. This should also be used for the C-Port.

Solution: Remove FPMR=2 from R1150
Add FPMR=2 to R1137

Response: I have accepted this change and have changed the term "High Media Rate" in these transitions to "100 Mbit/s" since these REFs operate only for 100 Mbit/s operation.

Comment SJH-01

Section 9.3 **Line** 373 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: Refs 1407 and 1410

Transition 1407 does not cover all combinations of phantom capabilities. It is attempting to use SPD=0002 to ascertain that C-Port is not using phantom drive detection. SPD=002 is only one possibility since if PPV=0003 and SPD=0001, the Station will be using phantom drive but the C-Port will only be providing a phantom load - not actually detecting the phantom level and therefore this transition needs to fire.

Additionally, transition 1410 is incorrect. It attempts to reset the protocol detection function based on an LMTN frame reception, but it should only do this if phantom detection is not supported - otherwise the protocol loss detection will not work when phantom detection is in use by the C-Port.

Solution: Rectify by using FPINSLE=0 as an indication that phantom detection is not being used by the C-port. This is a valid assumption after join complete. Also, include the protocol detection reset in the same transition that detects that the protocol has completed, ie 1407, where it belongs.

Note that this solution was offered and accepted as SJH-31 (and a rejection of IKJ-01) against draft 2.1b.

Delete transition 1410.

Change transition 1407 to:

EVENT:
FR_LMTN(DA=broadcast) & FPINSLE=0 & MS=PIT & JS=PJCI
<< The C-Port will establish the repeat path after reception of the first FR_LMTN, if not already established>>

ACTION:
If FPRPTO=0 then TXI_LMTN_PDU;
FPBNT=1; FPPLD=0
<<Return this frame only if PMAC repeat path is being used. Also reset the protocol loss detection function>>

Response: The above change has been done.

Comment RF-08

Section 9.3 **Line** 400 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: SDAC_RC=RC entry. 'code form'

Solution: code from

Response: Done.

Comment RF-09

Section 9.7 **Line** 91 **Severity** A/C **Type** ED **Status** ACCEPTED

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

Concern: specification define

Solution: specification defined

Response: This is correct in the PDF I have and is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment BG-11

Section 9.8 **Line** 0 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The Reconciliation Sublayer operation is not defined. I cannot discern if the 802.3 clause 22 RS operation was assumed (a bad thing to do) or if an 802.5 unique RS is intended but its operation not described. The RS in 802.3u was usable for 802.3z with minor clause 22 textual modifications now published in 802.3, 1998. The 802.3 RS is not directly applicable to 802.5 since its operation is specified to a bit serial MAC. None the less, the 802.5 RS must specify some similar characteristics (e.g., how received violations are passed to MAC) and some different characteristics (e.g., how an odd number of nibbles is handled).

(I hope I got this right, since the shaded portions of architectural diagrams are unreadable in the copies.) On the architectural diagrams (e.g., figure 9.7-2 and others), the primitives are illustrated as between the MAC and RS, yet the primitive are described as transferring information between the MAC and PSC, presumably specifying the RS in the process. The specifications then map the primitive with MII signals illustrated in the diagram as being within the PSC. My conclusion from reading the text would be that the RS is contained within the PSC, not as shown within the figures.

Solution: Make the architectural diagrams and text consistent. Either modify the primitive text for the primitives between the MAC and RS as shown in the figures, or modify the figures to show the the primitives are between the MAC and PSC with the RS as part of PSC.

Response: (See also responses to BG-13, BG-14, BG-15 and WT-02)

Subclause 2.2.2, page 2-3 Figure 2.2-1 and page 2-4 figure 2.2-2 modified to include RS as part of the PSC.

Subclause 9.7.2.1, page 9.7-4 figure 9.7-2 modified to include RS as part of the PSC.

Comment BG-09

Section 9.8 **Line** 15 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: FDDI TP-PMD and FDDI PMD are incorporated, but but only TP-PMD is in the technical references.

Solution: Add FDDI PMD to the technical references

Response: FDDI PMD was in the Normative References (subclause 1.2 page 1-3 line 59). Added the words "Part-3 Physical Layer Medium Dependent (PMD)" to clarify.

Comment BG-10

Section 9.8 **Line** 23 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The MII defines operation at 10 and 100 Mb/s. I assume it is not the intent to add 10 Mb/s operation to token ring.

Solution: Clearly state that only 100 Mb/s operation is allowed over the MII. Because of the nature of operation, simply specifying the value of the speed bits is not sufficient, it also requires limitations on the capability bits if auto-negotiation is ever used.

Response: Added "100 Mbit/s" before "Media Independent Interface" on line 24 of 9.8. Clause 9.8 changed to explicitly prohibit auto-negotiation.

Comment RF-103

Section 9.8 **Line** 33 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: PMDs

Solution: PMDs.

Response: Done

Comment JA-01

Section 9.8 **Line** 33 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: No period

Solution:

Response: Done

Comment JA-02

Section 9.8 **Line** 34 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: No period

Solution:

Response: Done

Comment RF-104

Section 9.8 **Line** 34 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: MAC primatives

Solution: MAC primatives.

Response: Done

Comment BG-14

Section 9.8 **Line** 47 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Imprecise text lines 47-51.

Solution: Replace with: "This primitive defines the transfer of data from the PSC to the MAC. This primitive is signaled every byte time. The value of the byte is defined by the mapping of the MII signals RX_DV, RX_ER, and RXD0..3 via the Reconciliation Sublayer."

Response: Added text "A PS_UNITDATA indication is synchronous to the MII RX_CLK rising edge."

Comment WT-02

Section 9.8 **Line** 60 **Severity** A/C **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: (Also line 62).

The state of the RX_ER signal is not specified. My understanding is that RX_ER signal should probably be deasserted for this indication to be valid.

Solution: Specify the appropriate state of RX_ER from the set of {asserted, deasserted, don't care}.

Response: Added text
"Note that this data is invalid and will be treated as non-data when a PS_STATUS.indication[frame_violation] is simultaneously indicated."

PS_STATUS.indication[frame_violation] is defined later as the logical AND of RX_ER with RX_DV and with NOT abort_frame.

Comment BG-15

Section 9.8 **Line** 71 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Imprecise text lines 71-73.

Solution: Replace with: "This primitive defines the transfer of data from the MAC to the PCS. This primitive is signaled every byte time. The value of the byte is mapped to the MII signals TX_EN, TX_ER, and TXD0..3 via the Reconciliation Sublayer."

Response: Added "A PS_UNITDATA.request is synchronous to the MII TX_CLK rising edge."

Comment BG-13

Section 9.8 **Line** 75 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: This is a case of the RS being poorly described. Other portions of the document describe the requirement for conveying an in frame non-data symbol resulting from a code violation (e.g., PS_STATUS.indication), but it is not covered in the primitive. What does the RS present to the MAC when the RX_ER signal is asserted? What happens if an RX_DV deassertion delimits an odd number of nibbles?

Solution: I believe RX_ER & RX_DV should convey a Non_data_byte (add to the list). Though I didn't look for it in the MAC description, I assume this would have the same effect as the now unnecessary PS_STATUS.indication(Frame_violation) causing MAC detection of an invalid CRC. If accepted, corresponding changes would be necessary in PS_CONTROL.request(Abort_frame) and PS_UNITDATA.request. Alternatively, better define the relationship between the signalling of a non-data on the secondary path (STATUS and CONTROL), what is conveyed on UNITDATA and the required timing relationship between the two path. An odd number of nibbles is more difficult. FDDI specified the MAC as symbol (nibble) wide with checking for an even number of symbols in the MAC. Ethernet has a bit serial MAC specification for all speeds of operation covering the problem with a MAC test for non-integer number of octets. The byte wide 802.5t MAC interface, requires interaction of the RS and an elastic buffer (even in DTR since the 4b/5b code can produce a JK code pair on either nibble boundary and noise can change the boundary).

If signalling over the UNITDATA path is added, and as appropriate for the MAC definition of error handling, either report a Non_data_byte for the odd nibble, delaying the End_stream_delimiter and consequently consuming an I code; or report the Non_data_byte and not report an end_stream_delimiter adding an I code in the elastic buffer. If the awkward CONTROL and STATUS signalling of violations is preserved, a similar specification of how an odd number of bytes is signalled must be added.

Response: (Also see response to BG-29)

Added text:

"Note that this data is invalid and will be treated as non-data when a PS_STATUS.indication[frame_violation] is simultaneously indicated."

PS_STATUS.indication[frame_violation] is defined later as the logical AND of RX_ER with RX_DV and with NOT abort_frame.

Also added "Non_octet_end_stream_delimiter"

This is defined:-
"Non_octet_end_stream_delimiter indicates to the MAC that the stream ended but not on a data_octet boundary. A non_octet_end_stream_delimiter may only follow a data_octet or start_stream_delimiter. A non_octet_end_stream_delimiter is only indicated when RX_DV is asserted only for a single nibble period followed by deassertion of RX_DV."

Comment BG-17

Section 9.8 **Line** 83 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: Imprecise text.

Solution: Change second sentence to read: "This causes assertion ..."

Response: Done

Comment BG-18

Section 9.8 **Line** 84 **Severity** A/C **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The text indicates it is optional ("should") to transmit the Ethernet SFD pattern on TXD to be later replaced by the JK start stream delimiter. Either it is required or unnecessary, I think the latter.

Solution: Remove the last sentence of the paragraph. (Unless there is a reason it must be there that I can't think of, then "should" changes to "shall".)

Response: Sentence removed.
New sentence added to clarify.
"The value presented on TXD0..3 during these two nibble periods is not defined and is ignored by the PSC."

Comment BG-19

Section 9.8 **Line** 94 **Severity** A/C **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: As written, the timing requirements of the transmit pipeline are ambiguous.

Solution: The paragraph must be rewritten to clearly specify that End_stream_delimiter causes TX_EN to be deasserted at the end of the last Data_byte period.

Response: End stream delimiter definition clarified with the text
"An End_stream_delimiter can only follow a start_stream_delimiter or a complete data_octet indicator."
A data_octet indicator can only be generated after a COMPLETE octet has been transmitted.

Comment WT-01

Section 9.8 **Line** 103 **Severity** A/C **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The way Frame_violation is specified, it will always happen just before an Abort_frame is signaled. Is this intended?

Solution: If Frame_violation isn't supposed to be signaled before Abort_frame, change the Frame_violation definition to be "the logical AND of RX_ER with RX_DV for less than two consecutive indications".

Response: Added text after the Frame_violation definition:
"Note that in generating the Frame_violation indication, a pipeline delay is required to ensure that the assertion of RX_ER does not form part of an Abort_frame indication."

Comment BG-20

Section 9.8 **Line** 122 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The use of 802.3 subclause references is dangerous since subclauses are occasionally renumbered by subsequent projects. This happened to portions of clause 22 with the approval of 802.3z. (I didn't find any bad references in 802.5t though I didn't review the entire document.)

Solution: Though of less help to the reader when references are current, it is better to only reference the clause and where precision is required the topic (e.g., Control register). This is also a problem in other places (e.g., 9.8-4 / 139, 9.8-5 / 141, 148).

Response: Done

Comment BG-21

Section 9.8 **Line** 123 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The last line of the table is out of date. Bit 0.6 is defined by 802.3z.

Solution: Add line to table for bit 0.6 with value of 0, change last line of table to 0.5:0 0.

Response: Change made as described except that 0.6 entry is explicitly made conditional on FxMR=2 as is bit 0.13. (For other ring speeds 4 and 16 the bits are undefined.) In fact there is another mistake here because FSHMRO should actually be FxMR through this subclause and FSANO should be FxANO.

Comment RJK-01

Section 9.8 **Line** 123 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: FSHMRO isn't a defined flag name.
FSMRO is the actual flag name, but anyhow what we want here is FSMR.

Solution: Replace FSHMRO with FSMR.

Response: FSMHRO should be FSMR, however the flags should refer to both station and C-port, so should be written FxMR.

Comment BG-22

Section 9.8 **Line** 135 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Another instance of the poor specification of the RS. The MAC does not drive MII signals, this is done by the RS. Of greater significance, is the content and lack of content in the paragraph. What is to be signalled on the TX MII for Fill and No_Fill and how is normal operation specified by Transmit_mode. Also, what is signalled on PS_UNITDATA.indication when in Repeat. Basically, it isn't clear if Repeat is a loopback of MAC TX to MAC RX or a bypass of MAC with PHY RX repeated to PHY TX, and it would be clear if compeltely specified.

Solution: Properly underscore Transmit_mode in line 126.

Clearly specify what is signalled to the TX MII and PS_UNITDATA.indication for all modes, and which mode is intended for normal operation. Properly describe the interface in terms of the MAC, RS and PSC.

Response: Underscore inserted.

I have changed the repeat description to state explicitly the direction in which the MII repeat path takes,
"the received MII signals RX_DV, RX_ER and RXD 3..0 from the PSC should be re-transmitted back to the PSC unchanged on the transmit MII signals TX_EN, TX_ER and TXD 3..0 respectively"

Also clarified the difference between Fill and No_Fill, both of which are used during normal operation as specified by the MAC.

"When Transmit_mode is Fill then TX_EN should be deasserted. The values driven on TX_ER and TXD3..0 during Fill are not defined. When Transmit_mode is No_fill then the transmit MII signals are driven by the MAC through the reconciliation sublayer as defined by the PS_UNITDATA.request [Tx_indicator] primitive."

Comment BG-23

Section 9.8 **Line** 147 **Severity** A/C **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The text is misleading as defined for MII operation.

Solution: It should be clearly stated that this bit is only effective if bit 0.12 is reset to zero. If 0.12 is set, auto-negotiation determines speed based on capability bits.

Response: Done

Comment BG-25

Section 9.8 **Line** 155 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: I cannot determine where NRZ is converted to NRZI and possibly then to MLT-3 within the 802.5t architectural model. This is complicated by inaccuracies in subsequent sections where it says the primitives map to the FDDI PM_ service primitives. The FDDI architecture uses NRZ symbols between MAC and PHY :

"PH_UNITDATA.request ... The symbol specified by PH_Request (symbol) shall be one of the following: J, K, T, R, S, I, n, H and optionally Q or V, where n is any of the 16 data symbols specified in Table 1." [PHY 3.1.1.1]

and a serial NRZI encoded bit stream between PHY and PMD or TP-PMD.

"PM_UNITDATA.request This primitive defines the transfer of encoded NRZI data from PHY to TP_PMD." [TP-PMD 6.1.1]

Solution: The 802.5t primitives need to be clear in what kind of 5-bit datum they use, I assume NRZ. The PMC behavior then needs to be clear on its actions (e.g., NRZI or not).

Response: (See response to BG-12)

The PM_UNITDATA primitives have been redefined as NRZI_bits which correspond to the PMD:PHY interface of the FDDI specification.

We need to ensure that the 802.3u subclause is referenced which explains the NRZI to NRZ conversions necessary for the two different FDDI PHYs.

Comment BG-24

Section 9.8 **Line** 158 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Symbol is used as in FDDI.

Solution: Be consistent in what a 5-bit coded thing is. Elsewhere called a nibble.

Response: See BG-25.

Comment RF-10

Section 9.8 **Line** 158 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: deserialised

Solution: deserialized

Response: Done

Comment RF-11

Section 9.8 **Line** 164 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: serialised

Solution: serialized

Response: Done

Comment BG-26

Section 9.8 **Line** 193 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: As noted in comment 25 (see BG-25), the 802.5 interfaces do not properly describe the FDDI interfaces. The 802.5t PM_ service primitives are clearly not a subset of the FDDI PM_ service primitives.

Solution: Correct the text, the FDDI model defines a serial NRZI bit stream between PHY and PMDs, while 9.8.1.1.5-6 define a 5-bit coded "symbol" as the datum of transfer.
Either change the text to minimize the similarity to the FDDI PM_ primitives, or use the PH_UNITDATA primitives of similar width, though the location of NRZI must be clear to properly link. If the former, the request primitive needs serialization, and NRZI encoding to be like the FDDI PM_ primitives. If the latter, then PHY should be added to the normative references.

Response: (See response to BG-12)

The PM_UNITDATA primitives have been redefined as NRZI_bits which correspond to the PMD:PHY interface of the FDDI specification.

Comment JC-01

Section 9.8 **Line** 195 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: The term FDDI is used. Is this ever defined specifically in either the abbreviations or the References?

Solution: Define clearly what you mean by FDDI and reference the standard or set of standards.

Response: Added FDDI to the Abbreviations in 1.5
The FDDI standard is already present in the Normative References (1.2)

Comment RJK-02

Section 9.8 **Line** 202 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: Max frame sizes in Table 9.8-4 are not comparable.
FDDI frame size includes 4-symbol preamble and does not include IFG.

Solution: Add a footnote to clarify that they are not exact equivalents.

Response:

Comment BG-27

Section 9.8 **Line** 202 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: (See also 13.9, line 27)

It is not appropriate to define the PHY Service Data Unit (SDU) as a frame. The use of "stream" within 802.3 already strains the mapping, "frame" stretches it beyond the breaking point.
The PM_UNITDATA primitives are also not equilivent. FDDI's datum is a bit while the mapping is to a 5-bit Xx_symbol. "The MAC SDU is the data contents of a frame. The PHY SDU is a symbol." (FDDI MAC 2.2)
I don't understand why nibble was introduced and code-group was not appropriate for 802.5. If retained, a nibble can be either 4 or 5 bytes and should be defined as such.

Solution: "Stream" is used in other part of this clause, so use it. The FDDI PH_UNITDATA primitives are of similar width to the
PM_UNITDATA, though the location of NRZI must be clear to properly link. Use code-group instead of nibble.

Response: Done.

Comment JA-03

Section 9.8 **Line** 210 **Severity** A/C **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: 18,200 octets is not consistent with table 9.8-4 entry.

Note: When reviewing also saw 18,200 octets somewhere else.

Solution:

Response: Changed 18200 to 18207.

Also added a footnote:
"Note that the definition of Frame Size for [TP-PMD] is different from that for [802.5]. These are not exact equivalents."

Comment RF-12

Section 9.8 **Line** 246 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: in each impedance

Solution: in each

Response: Done

Comment **JA-04**

Section 9.8 **Line** 246 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: Redundant word "impedance"

Solution:

Response: Done

Comment **JA-05**

Section 9.8 **Line** 252 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: Redundant word "impedance"

Solution:

Response: Done

Comment **RF-13**

Section 9.8 **Line** 252 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: in each impedance impedance

Solution: in each impedance

Response: Done

Comment **RF-14**

Section 9.8 **Line** 269 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: comply with depicted

Solution: comply with those depicted

Response: Done

Comment BG-28

Section 13.9 **Line** 18 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: As noted in comment 25 (see BG-25), the 802.5 interfaces do not properly describe the FDDI interfaces. The 802.5t PM_ service primitives are clearly not a subset of the FDDI PM_ service primitives.

Solution: Correct the text, the FDDI model defines a serial NRZI bit stream between PHY and PMDs, while 9.8.1.1.5-6 define a 5-bit coded "symbol" as the datum of transfer.

Either change the text to minimize the similarity to the FDDI PM_ primitives, or use the PH_UNITDATA primitives of similar width, though the location of NRZI must be clear to properly link. If the former, the request primitive needs serialization, and NRZI encoding to be like the FDDI PM_ primitives. If the latter, then PHY should be added to the normative references.

Response: (See response to BG-12)

The PM_UNITDATA primitives have been redefined as NRZI_bits which correspond to the PMD:PHY interface of the FDDI specification.

Comment BG-08

Section 14.2 **Line** 46 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☑ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Though the End Transmit field is acceptable for TXI operation, it is not robust enough for TPK usage. It is much less robust than the E bit in 4 and 16 Mb/s encoding, where common errors were expected to produce an invalid code. This is particularly true of the 4b5b/NRZI encoding where the most common error (and edge shift) will often produce another data code.

Solution: With little knowledge beyond document content of the committee members intent to later add TPK operation for 100 Mb/s, it is difficult to justify a change for something out of the scope of the PAR. So, if my comment #7 (BG-07) is accepted, no change is necessary for this comment.

If High Media Rate PK operation is wanted, now is the time to do it right with a more robust E bit. (The FDDI frame status model is directly applicable to 802.5, but then the FDDI S symbol is not used by 100BASE-X. A similar paradox exists for use of the 1000BASE-X PCS, in that there are plenty of code points available, but again, no equivilent defined for the S symbol.)

Response: As per BG-07, all specifications for TKP Access protocol operation have been removed from the document as follows.

1. Subclause 9.1, Page 9.1-9, line 307: deleted "TK_AC, ".
2. Subclause 9.1, Page 9.1-9, deleted lines 309 through 317.
3. Subclause 9.1, Page 9.3-37, the definition of TK_AC has been changed as follows.
   a. Added "<< 4 Mbit/s and 16 Mbit/s only >>" in the Event/Condition Term column.
   b. Changed meaning of term column to: "A Token is received that meets the criteria specified in 4.3.1. (by deleting " for 4 Mbit/s and 16 Mbit/s and in 9.1.1.6 for the High Media Rate.").
4. Subclause 14.1, page 14-1, lines 13 and 14 have been deleted.
5. Subclause 14.1.3, Page 14-2, lines 32 through 36 have been deleted.
6. Subclause 14.1.4, page 14-2, line 37 has been renumbered to 14.1.3.

7. Subclause 14.2.1.1, Page 14-3, lines 46 through 68 have been deleted.
8. Subclause 14.2.1.1.2, page 14-4, line 69 has been renumbered and changed to the following.
   14.2.1.1 End Transmit (ET) for Frame Sequence using TXI Access protocol
9. Subclause 14.2.1.1.2.1, page 14-4, line 72 has been renumbered to 14.2.1.1.1.
10. Subclause 14.2.1.1.3, page 14-4, lines 79 through 88 have been deleted.

Comment NAJ-07

Section 14.3 **Line** 145 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table 14-2, Last line

Unnecessary blank line.

Solution: Delete line

Response: Done

Comment NAJ-08

Section 14.3 **Line** 153 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table 14-3, Last line

Unnecessary blank line.

Solution: Delete line

Response: Done.

Comment KD-07

Section A **Line** 0 **Severity** Q **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Does the replacement Annex A replace the annex as it appears in both 8802-5 and Amd. 1? Presumably it does, but this should be made clear in the draft.

Solution:

Response: Yes the annex replaces both Annex A in the base and Amd. 1. With the new annex AA and a change to the document headers, I believe this is now clear.

Comment NAJ-05

Section A **Line** 126 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table A.5.5.3, Item FPRPTO_0

Entry is optional with predicate, so support column should be "N/A [] Yes [] No []".

Solution: Fix support column text to read "N/A [] Yes [] No []".

Response: Done

Comment NAJ-01

Section A **Line** 172 **Severity** DIS **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table A.7.3.4, Item PRA1

The reference for this item is TBD

Solution: Reference should be 8.3

Response: Done

Comment NAJ-02

Section A **Line** 174 **Severity** DIS **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table A.7.3.5, Item PRA3

The reference for this item is TBD

Solution: Reference should be 8.3.1

Response: Done

Comment NAJ-04

Section A **Line** 174 **Severity** A/C **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table A.7.3.5, Item PRA2

Entry in Support column is missing a ']'.

Solution: Fix text to read "N/A [] Yes [] No []".

Response: Printing problem…

Comment NAJ-03

Section A **Line** 176 **Severity** DIS **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Table A.7.3.6, Item PRA4

The reference for this item is TBD

Solution: Reference should be 13.7.2.2

Response: Done

Comment NAJ-06

Section K **Line** 12 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: The assignment text for the second address was changed in 802.1Q/Draft 11 from "IEEE Std 802.3x MAC PAUSE operation"

Solution: Text should read "IEEE Std 802.3x Full Duplex PAUSE operation"

Response: Done.

Comment JC-03

Section M **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The clause from 802.5a:1998 is replaced in its entirety. It is not clear what sections of the protocol actually changed due to the new PHY and which sections of the protocol remained the same. Since this document will be published as a supplement, it is important that readers understand the major differences between clause 9 in ISO/IEC 8802-5:1998/Amd.1:1998 and clause 9 in 802.5t update.

Solution: Place a summary at the top of Page 9-1 indicating the major items in 802.5a that have changed in 802.5t so the implementer of 802.5a is aware of these.

Response: The changes made to annex M were required because of the changes made to the 9.3 Station Operation Tables.

Also, see comments JC-02 and HF-04.

Annex AA has been written to explain what has been changed rather than putting at the top of page 9-1.

Comment JC-04

Section N **Line** 0 **Severity** A/C **Type** ED **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: The clause from 802.5a:1998 is replaced in its entirety. It is not clear what sections of the protocol actually changed due to the new PHY and which sections of the protocol remained the same. Since this document will be published as a supplement, it is important that readers understand the major differences between clause 9 in 802.5a and clause 9 in 802.5t update.

Solution: Place a summary at the top of Page 9-1 indicating the major items in 802.5a that have changed in 802.5t so the implementer of 802.5a is aware of these.

Response: Also see comments JC-02, JC-03 and HF-04.

Annex AA has been written to explain what has been changed rather than putting at the top of page 9-1.

Jim has brought up a valid point -- nothing was changed in annex N except that "4 Mbit/s and 16 Mbit/s" was added to the title.

1. Annex N be changed to the following.

   Change the title of Annex N to the following:

   Annex N

   (Informative)

   C-Port in Port Mode using the TKP Access Protocol--Transmit and Monitor Low Level FSMs--4 Mbit/s and 16 Mbit/s

   << End of Annex N change >>

2. Also, Annex Q and R, not previously released but having the same problem as Annex N (limited to 4 Mbit/s and 16 Mbit/s operation), will be included using the concept presented in item 1. above.

Comment RF-105

Section T **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page T-8, Entry '2202'] Classic Station Detected>>

Solution: Classic Station Detected.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-108

Section T **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page T-8, Entry '2207'] path not detected>>

Solution: path not detected.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment JC-05

Section T **Line** 0 **Severity** A/C **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: This annex appears to have nothing to do with higher speed token ring. Why is it being changed.

Solution: The replacement for Annex T should be done in a new Project, such as a maintenance supplement or a revision. Does the PAR scope encompass correction of errors in the current standards?

Response: The changes required in annex T were to prevent it from operating at any speed other than 4 Mbit/s or 16 Mbit/s. This caused the Operation Tables to be updated. Thus, replacement was required.

Further, the explanation of the Autodetect function was so unclear that only those implementing this architecture from the beginning could understand. Thus, clarification were made to the prose and the overview figure.

Annex AA has been written to explain what has been changed.

Comment RF-106

Section T **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page T-8, Entry '2202'] 9.3 Join FSM>>

Solution: 9.3 Join FSM.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-107

Section T **Line** 0 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: [Page T-8, Entry '2205'] a short)

Solution: a short.>>

Response: Done. See RF-18 for explanation of how this was handled.

Comment RF-109

Section T **Line** 179 **Severity** A/C **Type** ED **Status** REJECTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☐

Concern: ; means: 'and'.

Solution: & means: 'and'.

Response: In the action column, the semicolon (;) is used to mean "and", thus this definition is correct.

Rationale for using the ";" in the event column was developed years ago to allow easy differentiation between an event and an action when reading the Operation Tables.

Comment KTW-06

Section T.1 **Line** 31 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: It is incorrect to say 3, 4 and 10 define frames since only clauses 3 and 10 define frames.

Solution: Change "3, 4 and 10" to "3 and 10".

Response: Done.

Comment JC-06

Section V **Line** 16 **Severity** Q **Type** TECH **Status** ANSWERED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: Why should not the C bit be set, since the frame was copied?

Solution:

Response: When the frame is "copied", it is due to an inexact match. As the fourth paragraph in Annex V states, the frame must later be re-examined to discard any frame copied because its hash function equalled the hash function of a wanted address. "later" is the key word here.

The A and C bit setting logic has to be very close to the wire, and the exact matching logic which examines the frame "later" cannot feed its decision back in time to set the A and C bits correctly.

So implementations can either always set the C bit (which will include frames that are later discarded), or never set the C bit, which will include frames that we really did copy. Neither is ideal, but the decision was made to never set the C bit.

Comment RF-110

Section W **Line** 7 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: some functionalit

Solution: some functionality

Response: This is correct in the Word97 doc file. In the printing of future drafts, this will be corrected by using the correct print drivers.

Comment RF-111

Section W **Line** 48 **Severity** A/C **Type** ED **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☐ **Editing Complete** ☑

Concern: exist these timers

Solution: exist, the timers

Response: done.

Comment BG-29

Section W **Line** 52 **Severity** DIS **Type** TECH **Status** MODIFIED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: This is the only location where I found the need for an elasticity buffer defined. The definition of a byte-wide MAC interface creates an EB like problem as described in my comment 13. Something similar to an EB must be defined even for TXI operation. Byte alignment cannot be established until a JK is received. Prior to that, the MAC is to be supplied Fill. Since the JK can initially occur on either nibble boundary, either the interval between bytes transfered to the MAC must be changed, or a small EB is required. A JK can also be created by errors in transmission. The lower level hardware will realaign to the JK and report Ethernet code-words (FDDI symbols) across the MII.

Solution: Properly describe how changes in byte alignment are handled, whether through an EB also present in TXI operation, or through clock cycle elongation in adapting to a byte-wide MAC interface.

Response: There is no need for an elasticity buffer as described here and in comment BG-13. The idle indications to the MAC are provided on nibble boundaries. Data byte indications are provided on octet boundaries. Octet alignment is established on detection of the /J/K/.

An elastic buffer is needed with the RMII interface because the TX and RX domains share the same clock and we are aligning a 2 bit data stream to a nibble wide interface.

Comment BG-30

Section Z **Line** 0 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: If the use of Auto-negotiation is under study how can any of this annex be normative? The difficulties described are not with the 802.3 standard but the hardware implementations of auto-negotiation resolution.

Solution: The Annex should be informative.

Response: Done.

Comment BG-31

Section Z.1 **Line** 13 **Severity** DIS **Type** TECH **Status** ACCEPTED

Highlight To Committee ☐ **Commenter Agrees?** ☑ **Editing Complete** ☑

Concern: 802.5 cannot change 802.3. It can specify differences from 802.3 but not changes to it.

Solution: Correct the titles to "Differences from ..."

Change line 16 to read: "The following selector field definition is used for IEEE 802.5 high speed operation."

Change lines 19 and 22 to read: "The use of the technology field is reserved for future use in 802.5 applications."

Response: Done.

100 Mbit/s Dedicated Token Ring Operation 802.5t/LMSC (D2.4): Comment Index

100 Mbit/s Dedicated Token Ring Operation 802.5t/LMSC (D2.4): Comment Summary

	ED	TECH
A/C	153	8
DIS	8	27
Q	2	2

Total A/C Comments:	161
Total DIS Comments:	35
Total Q Comments:	4
Total Comments:	200

	Total	To Be Closed
OPEN	0	0
ACCEPTED	156	0
MODIFIED	9	5
REJECTED	32	2
ANSWERED	3	0
WITHDRAWN	0	0

Comment IDs by Type. Bold IDs require closure.

A/C Comment IDs: KD-06 GM-08 KD-01 KD-05 BG-03 WB-01 DWW-01 BG-01 KD-03 KD-02 BG-04 GM-06 GM-07 RJK-03 BG-05 KD-04 JC-02 KTW-01 KTW-02 KTW-03 KTW-04 KTW-05 RF-01 RF-02 RF-03 RF-04 RF-05 RF-06 SAV-01 RF-21 RF-22 RF-20 RF-19 RF-18 RF-16 RF-17 RF-15 RF-07 SJH-03 SAV-02 RF-40 RF-41 RF-42 RF-43 RF-51 RF-44 RF-49 RF-46 RF-47 RF-48 RF-39 RF-50 RF-29 RF-45 RF-38 RF-36 RF-34 RF-33 RF-32 RF-30 RF-28 RF-27 RF-26 RF-25 RF-24 RF-52 RF-37 RF-31 RF-92 RF-80 RF-81 RF-82 RF-83 RF-84 RF-85 RF-86 RF-87 RF-88 RF-89 RF-79 RF-91 RF-101 RF-93 RF-94 RF-95 RF-96 RF-97 RF-98 RF-99 RF-100 RF-53 RF-102 RF-35 RF-90 RF-60 RF-67 RF-66 RF-65 RF-64 RF-63 RF-68 RF-61 RF-55 RF-59 RF-58 RF-57 RF-56 RF-54 RF-78 RF-62 RF-70 RF-76 RF-77 RF-75 RF-74 RF-73 RF-71 RF-69 RF-72 RF-23 RF-08 RF-09 RF-103 JA-01 JA-02 RF-104 BG-14 WT-02 BG-15 BG-17 BG-18 BG-19 WT-01 BG-20 BG-23 BG-24 RF-10 RF-11 JC-01 JA-03 RF-12 JA-04 JA-05 RF-13 RF-14 NAJ-07 NAJ-08 NAJ-05 NAJ-04 NAJ-06 JC-03 JC-04 RF-105 RF-108 JC-05 RF-106 RF-107 RF-109 KTW-06 RF-110 RF-111

DIS Comment IDs: BG-12 BG-07 BG-02 HF-01 HF-03 GM-04 BG-06 SJH-02 SJH-01 BG-11 BG-09 BG-10 BG-13 BG-21 RJK-01 BG-22 BG-25 BG-26 RJK-02 BG-27 BG-28 BG-08 NAJ-01 NAJ-02 NAJ-03 BG-29 BG-30 BG-31
GM-01 HF-02 HF-04 GM-02 GM-10 GM-03 GM-05

Q Comment IDs: KD-08 GM-09 KD-07 JC-06