Cl **00** *SC* *P* *L* # **99300**

Thompson, Geoffrey Nortel

Comment Type **TR** *Comment Status* **A** *D3.0 #795*

The entirely new concept to 802.3 of doing shared access via an entirely new access protocol is hidden through lack of use of the proper terminology to describe what is going on. The P2MP portion of the proposal is, in fact, a new shared access protocol of the TDMA variety yet none of the following standard terms appears appear anywhere in the description thereof:

multiple access
access method
time division
TDMA
access domain
MAC protocol

In fact the only mentions of a "shared LAN" is the claim that P2MP is emulating a shared LAN rather than admitting it is one!

SuggestedRemedy

Come clean. P2MP is at its most basic level a master-slave TDMA LAN. Revise text to describe P2MP fully as such using established 802 terminology for multiple access shared LANs.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Master-slave relationship is described in 64.3.1. item h.

Modify item d in 64.3.1 as follows:
Multiple MACs operate on a shared medium by allowing only a single MAC to transmit upstream at any given time across the network using a time-division multiple access (TDMA) method.

Cl **00** *SC* *P* *L* # **99350**

Thompson, Geoffrey Nortel

Comment Type **TR** *Comment Status* **R** *D3.1 #374*

I continue to believe that many of the technically sound concepts included in this proposal, while suitable for the access market, are fundamentally at odds with the underlying principals of Ethernet embodied in IEEE Std 802.3 to date. While we have made changes in the past they have been all realativley minor and most of them have worked out. Some, in retrospect, while they seemed like a good idea at the time have set bad precedents for later work. Across it all Std 802.3 has remained conceptually pretty consistent. P802.3ah has several significant departures from that conceptual consistency. I believe that the precedents they set will cause significant confusion over the long term and destroy the conceptual consistency of Ethernet as it is known.
The specific areas that concern me most are:

Loss of the peer relationship to a provider - customer asymmetry
Unidirectional transport
Loopback
New non CSMA/CD mechanisms for shared media access arbitration.
OAM mechanism that are not consistent with the earlier Management
Low speed operation not consistent with prevalent perception of Ethernet.
The requirement for and complexity of ranging & discovery protocols
Requirement for additional levels of station addressing

SuggestedRemedy

Revise the PAR and the draft so that what is currently designated as P802.3ah can be approved as a separate full/new standard that is approved as and will remain a separate standard from IEEE Std 802.3. This will allow this project and its provider oriented successors/amendments to more freely meet the requirements of this significantly different marketplace and set of customers.
Pursue further steps to approval, both editorially and procedurely as a separate standard.

Proposed Response *Response Status* **U**

REJECT.

This issue has been discussed several times in the past.The scope and content of the draft is properly aligned with the approved PAR. The content of the draft as it currently stands has been approved by the balloting group. The commenter's suggested remedy is therefore clearly at odds with the concensus opinion of the task force that wrote the draft, the working group that approved the PAR and reviewed the draft, and the ballot group that approved the draft.

Cl **00** *SC* *P* *L* # **99349**

Thompson, Geoffrey — Nortel

Comment Type **TR** *Comment Status* **R** *D3.1 #372*

There is no provision in the draft to assure that the required disclaimer text (Ref: SB Ops Manual 5.9.3) will be included in the published standard.

SuggestedRemedy

Make provision in the next version of the draft to include the appropriately placed following text:
"At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position, explanation, or interpretation of the IEEE."

Proposed Response *Response Status* **U**

REJECT.

Appropriate text may be added by IEEE-SA staff editor prior to publication

Cl **00** *SC* *P* *L* # **137**

Thompson, Geoff — Nortel Networks

Comment Type **TR** *Comment Status* **D**

Regarding your response to my TR comment #374.
Your response and the data behind it just goes to show that the balloting group is not always right, something well known by your TF Chair's as a result of his experience on REVCOM. I am confident that history will prove me correct in this matter. Therefore my comment stands.

SuggestedRemedy

Revise the PAR and the draft so that what is currently designated as P802.3ah can be approved as a separate full/new standard that is approved as and will remain a separate standard from IEEE Std 802.3. This will allow this project and its provider oriented successors/amendments to more freely meet the requirements of this significantly different marketplace and set of customers.
Pursue further steps to approval, both editorially and procedurely as a separate standard.

Proposed Response *Response Status* **O**

Cl **00** *SC* *P* *L* # **106**

Neal J. King — Infineon Technologies

Comment Type **TR** *Comment Status* **D**

I am casting this vote in support of comments against D3.2 by Burkart Schneiderheinze, which have been submitted.

SuggestedRemedy

When Mr Schneiderheinze's comments are resolved, I will be pleased to switch.

Proposed Response *Response Status* **O**

Cl **00** *SC* *P* **11** *L* **14** # **121**

Booth, Brad — Intel

Comment Type **E** *Comment Status* **D**

The boxed Editors' Notes throughout the draft are no longer required.

SuggestedRemedy

Remove.

Proposed Response *Response Status* **O**

Cl **00** *SC* *P* **iii** *L* **18** # **138**

Thompson, Geoff — Nortel Networks

Comment Type **TR** *Comment Status* **D**

Regarding your response to my TR comment #372.
Your response was non-responsive. No rationale for rejection was provided. Further, while "Appropriate text may be added by IEEE-SA staff editor prior to publication" there is the strong possibility based on experience that the text will not be added by staff. Since staff has not met the long standing requirement for the "addition" of this text, the appropriate remedy is to add draft front matter (in much the same manner as routinely done by 802.1) to assure that mandated material will appear in the published standard. Given that introductory matter has already been developed for this draft, this does not seem like a significant imposition.

SuggestedRemedy

Add draft front matter that includes the following text:
"At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position, explanation, or interpretation of the IEEE."thus assuring that the requirements of the Op Manual 5.9.3 will be met.

Proposed Response *Response Status* **O**

Cl **00** *SC* **0** *P* **1** *L* **35** # **99304**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #726*

Excessive capitalization.
This is just one example. Instruct your editors to eliminate capitalization on everything except proper nouns and the first word of headings and sentences.

The profuse use of capitalization, for emphasis, field name delineation, acronyms, etc. is unnecessary and distracting. With so many capitals, its hard to tell when one sentence or field name begins and another one ends.

Start at the front, work through the end, and have a policy in mind. Simply repeating the 802.3 mistakes is not sufficient.

SuggestedRemedy

for network Operations, Administration and Maintenance (OAM) is included
==>
for network operations, administration and maintenance (OAM) is included

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Will try to improve on capitalization

Cl **00** *SC* **0** *P* **10** *L* **1** # **99305**

James, David JGG

Comment Type **TR** *Comment Status* **R** *D3.0 #730*

Unnecessary page, not part of the specification.
This is normally provided (or so says Tom Alexander) for the convenience of editors when the document is in FrameMaker source. Its not needed in pdf, and (in fact) could lead to some interesting translation ambiguities.

SuggestedRemedy

Remove this and following page.

Proposed Response *Response Status* **U**

REJECT.

This has usually been added to 802.3 docs.

Cl **00** *SC* **0** *P* **2** *L* **1** # **99306**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #727*

This trademark usage page is blank, with no notice of any desire to change or method of change.

This comments was not addressed when marked as editorial, in previous working group ballots. I hope action is taken this time.

SuggestedRemedy

Either:
1) Eliminate the page
2) Put some text describing what and when will happen to this page.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

This page is a reminder that text will be added on publication. An editors note can be added to this effect

Cl **00** *SC* **00** *P* **1** *L* **9** # **592**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:
Draft Amendment to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and physical layer specifications-

SuggestedRemedy

Draft Amendment to Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications-

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE Std 802.3(tm)-2002, front page and page ii.
3) IEEE Draft P802.3ah(tm)/D3.2, page i, line 17

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **13** *L* **44** # **591**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Aggregation group: ...

SuggestedRemedy

==>
1.4.xxx aggregation group: ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 68, line 13.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **13** *L* **47** # **593**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Bandplan: ...

SuggestedRemedy

==>
1.4.xxx bandplan: ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 648, line 31.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **13** *L* **50** # **594**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Coupled Power Ratio (CPR): ...

SuggestedRemedy

==>
1.4.xxx coupled power ratio (CPR): ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 11.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **13** *L* **53** # **595**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Downstream: ...

SuggestedRemedy

==>
1.4.xxx Downstream: ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 98, line 21.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **1** # **596**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Grant: ...

SuggestedRemedy

==>
1.4.xxx Downstream: ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 48, line 40.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **10** # **597**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive terminology:

1.4.xxx MPCP Registration: ...

My text editor could find no instance of ""MPCP Registration""
nor ""MPCP registration"".

SuggestedRemedy

Delete the definition.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **12** # **598**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx OAM Discovery: ...

SuggestedRemedy

I don't like the proper noun implication, but this seems to be consistently done in this rather strange fashion, so I can't make this binding.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **16** # **599**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Operations, Administration and Maintenance (OAM): A group of network support functions

SuggestedRemedy

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 25.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **22** # **600**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Optical Line Terminal (OLT): ...

SuggestedRemedy

==>
1.4.xxx optical line terminal (OLT): ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 30.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **25** # **29**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

Following 802.3ah liaison response regarding term ONU and ONT, I have received several inquires from people involved in network management. Based on their recommendations, I suggest that we clarify the definition of ONU as follows.

SuggestedRemedy

Use the following definition:
1.4.xxx Optical Network Unit (ONU): The subscriber-end DTE to an optical access network. Typically, the term ONU refers to a device that terminates optical portion of a network, but does not demarcate the network. For the purposes of this standard, the term ONU represents only a logical function constituting a slave entity in a P2MP network with regard to the MPCP protocol.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **25** # **602**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Point to Multi-Point Network (P2MP):

SuggestedRemedy

==>
1.4.xxx point to multi-point network (P2MP):

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 33.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **25** # **601**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Optical Network Unit (ONU): ...

SuggestedRemedy

==>
1.4.xxx optical network unit (ONU): ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 30.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **28** # **603**

James, David JGG

Comment Type **TR** *Comment Status* **D**

Excessive terminology:

1.4.xxx P2MP Discovery: ...

My text editor could find no instance of ""P2MP discovery""
nor ""P2MP discovery"".

SuggestedRemedy

Delete the definition.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **33** # **604**
James, David JGG

Comment Type **TR** *Comment Status* **D**
Excessive terminology:

1.4.xxx P2MP Discovery window: ...

My text editor could find no instance of ""P2MP Discovery""
nor ""P2MP discovery"".

SuggestedRemedy
Delete the definition.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **36** # **605**
James, David JGG

Comment Type **TR** *Comment Status* **D**
Excessive terminology:

1.4.xxx P2MP Timestamp: ...

My text editor could find no instance of ""P2MP Timestamp""
nor ""P2MP timestamp"".

SuggestedRemedy
Delete the definition.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **39** # **606**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inconsistent definition

1.4.xxx Point to Multi-Point Network (P2MP):

and

P2MP point to multi-point

SuggestedRemedy
==>
1.4.xxx point to multi-point (P2MP) network:

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **46** # **607**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

1.4.xxx Ranging:

SuggestedRemedy
==>
1.4.xxx point-to-point emulation (P2PE):

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 14, line 36.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **50** # **608**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

1.4.xxx Reflectance: Ratio of ...

SuggestedRemedy
==>
1.4.xxx reflectance: Ratio of ...

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 276, line 9.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **52** # **609**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

1.4.xxx Upstream: Upstream: In

SuggestedRemedy

==>
1.4.xxx upstream:

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 47.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **14** *L* **52** # **610**

James, David JGG

Comment Type **E** *Comment Status* **D**

Excessive duplication:

1.4.xxx Upstream: Upstream:

SuggestedRemedy

==>
1.4.xxx upstream:

As per normal English usage (one instance is sufficient).

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **15** *L* **38** # **99344**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #732*

Excessive capitalization. There is no point in capitalizing every defined word (or many of them, with no apparent pattern). This confuses the parsing of sentences, since defined words, registers, fields, etc. are all capitalized.

SuggestedRemedy

1.4.xxx Aggregation group: ...
==>
1.4.xxx aggregation group: ...

1.4.xxx Bandplan: ...
==>
1.4.xxx bandplan: ...

1.4.xxx Coupled Power Ratio (CPR): ...
==>
1.4.xxx coupled power ratio (CPR): ...

1.4.xxx Downstream: ...
==>
1.4.xxx downstream: ...

1.4.xxx Grant: Within P2MP protocols, ...
==>
1.4.xxx grant: Within P2MP protocols, ...

1.4.xxx Logical Link Identifier (LLID): ...
==>
1.4.xxx logical link identifier (LLID): ...

1.4.xxx MPCP Registration: ...
==>
1.4.xxx MPCP registration: ...

1.4.xxx OAM Discovery: ...
==>
1.4.xxx OAM discovery: ...

1.4.xxx Operations, Administration and Maintenance (OAM): ...
==>
1.4.xxx operations, administration and maintenance (OAM): ...

1.4.xxx Optical Line Terminal (OLT): ...
==>
1.4.xxx optical line terminal (OLT): ...

1.4.xxx Optical Network Unit (ONU): ...
==>
1.4.xxx optical network unit (ONU): ...

1.4.xxx P2MP Discovery: ...
==>
1.4.xxx P2MP discovery: ...

1.4.xxx P2MP Discovery window: ...
==>
1.4.xxx P2MP discovery window: ...

1.4.xxx P2MP Timestamp: ...
==>
1.4.xxx P2MP timestamp: ...

1.4.xxx Point to Multi-Point Network (P2MP): ...
==>
1.4.xxx point to multi-point network (P2MP): ...

1.4.xxx Point-to-point emulation (P2PE): ...
==>
1.4.xxx point-to-point emulation (P2PE): ...

1.4.xxx Ranging: ...
==>
1.4.xxx ranging: ...

1.4.xxx Reflectance: ...
==>
1.4.xxx reflectance: ...

1.4.xxx Upstream: ...
==>
1.4.xxx upstream: ...

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Will capitalize abbreviations in a definition to be consistant with 802.3ae (part of base document), Otherwise they will not be.

For definitons they will not be capitalized

Cl **01** *SC* **1.4** *P* **16** *L* **8** # **99355**

Dr. David V. James

Comment Type **TR** *Comment Status* **R** *D3.1 #591*

has excess capitalization, as can be seen by looking at Definitions are ****>>>>NOT<<<<**** capitalized just because they are defined. Even the most recent 802.3 "bible" has finally done this (mostly) right.

SuggestedRemedy

I view the responses to submitted comments arrogant and ill informed. Your should read the IEEE Style manual, which is available on line.
After that, establishing editorial guidelines (which a chief editor should do) or distributing pointers to useful references would be useful, such as http://dvjames.com/templates/StdBook.pdf.
A response of 802.3 precedence is irrelevent: your job is to write based on IEEE style guidelines. Besides, the precedence (most recent 802.3) also shows definitions not capitalized unless proper nouns.

Proposed Response *Response Status* **U**

REJECT.

The editor-in-chief has worked closely with the IEEE staff editor to ensure that the draft adequately conforms with the IEEE style guide.

Cl **01** *SC* **1.4** *P* **17** *L* **5** # **99345**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #733*

Excessive capitalization. There is no point in capitalizing every acronym (or many of them, with no apparent pattern). This confuses the parsing of sentences, since defined words, registers, fields, etc. are all capitalized.
Also, IEEE Style manual clearly shown acronyms not capitalized unless proper nouns.

Due to the large number of these, and failures in the past when attempting to resolve these earlier, they have been elevated to a TR.

After fixing the unnecessary capitalization, provide a check list to the other clause editors. Its easier for them to search, then for me and/or others to do so on their behalf.

SuggestedRemedy

CO Central Office
==>
CO central office

CPE Customer Premises Equipment
==>
CPE customer premises equipment

CPR Coupled Power Ratio
==>
CPR coupled power ratio

DMT Discrete Multi-Tone
==>
DMT discrete multi-tone

DA Destination Address
==>
DA destination address

EFM Ethernet in the First Mile
==>
EFM Ethernet in the first mile

EFM Cu Ethernet in the First Mile ...
==>
EFM Cu Ethernet in the first mile ...

FEC Forward Error Correction
==>
FEC forward error correction

FSW Frame Synchronization Word
==>
FSW frame synchronization word<cr
LLID Logical Link identifier
==>
LLID logical link identifier

MPCP Multi-Point Control Protocol
==>
MPCP multi-point control protoco

OAM Operations, Administration, and Maintenance
==>
OAM operations, administration, and maintenance

OAMPDU Operations, Administration, and Maintenance Protocol Data Unit
==>
OAMPDU operations, administration, and maintenance protocol data unit

ODN Optical Distribution Network
==>
ODN optical distribution network

OH Overhead
==>
OH overhead

OLT Optical Line Terminal
==>
OLT optical line terminal

ONU Optical Network Unit
==>
ONU optical network unit

ORLT Optical return loss tolerance
==>
ORLT optical return loss tolerance

P2P Point to Point
==>
P2P point to point

P2PE Point to Point Emulation
==>
P2PE point to point emulation

P2MP Point to Multi-Point
==>
P2MP point to multi-point

PAF PMI Aggregation Function
==>
PAF PMI aggregation function

PAFH PMI Aggregation Function Header

==>
PAFH PMI aggregation function header

PAM Pulse Amplitude Modulation
==>
PAM pulse amplitude modulation

PMS-TC Physical Media Specific - Transmission Convergence
==>
PMS-TC physical media specific - transmission convergence

PSD Power Spectral Density
==>
PSD power spectral density

SA Source Address
==>
SA source address

SHDSL Single-pair High-speed Digital Subscriber Line
==>
SHDSL single-pair high-speed digital subscriber line

STU-O SHDSL Transceiver Unit - Central Office
==>
STU-O SHDSL transceiver unit - central office

STU-R SHDSL Transceiver Unit - Remote
==>
STU-R SHDSL transceiver unit - remote

TCM Trellis Coded Modulation
==>
TCM Trellis coded modulation

UPBO Upstream power back-off
==>
UPBO upstream power back-off

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Will capitalize abbreviations in a definition to be consistant with 802.3ae (part of base document), Otherwise they will not be.

For definitons they will not be capitalized

Cl **01** *SC* **1.4** *P* **21** *L* **8** # **611**

James, David JGG

Comment Type **E** *Comment Status* **D**

Non-standard table centering:

The right-most column should be centered.

SuggestedRemedy

==>
Center it.

As per:
1) IEEE styles
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 253, line 34, column 1.

This cannot be done by the IEEE, since the rejection of previous comments in the area of centering columns indicates there is some (rather undocumented) convention for sometimes centering numbers/letters, and sometimes not.

In fact, this convention seems to be somewhat clause number dependent, but I'm not sure, since I've never seen a clear statement of rules on when 802.3ah intends to center or not, and (in general) the IEEE style rules don't seem to be followed.

Proposed Response *Response Status* **O**

Cl **01** *SC* **1.4** *P* **442** *L* **42** # **612**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

If both bits Upstream use of optional band and Downstream use of

SuggestedRemedy

==>
If both bits upstream use of optional band and downstream use of

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 47.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **22** *SC* **1.4** *P* **21** *L* **1** # **99309**

James, David JGG

Comment Type **TR** *Comment Status* **R** *D3.0 #734*

Excessive capitalization. There is no point in capitalizing every acronym (or many of them, with no apparent pattern). This confuses the parsing of sentences, since defined words, registers, fields, etc. are all capitalized.
Also, IEEE Style manual clearly shown acronyms not capitalized unless proper nouns.

Due to the large number of these, and failures in the past when attempting to resolve these earlier, they have been elevated to a TR.

After fixing the unnecessary capitalization, provide a check list to the other clause editors. Its easier for them to search, then for me and/or others to do so on their behalf.

SuggestedRemedy

22. Reconciliation Sublayer (RS) and Media Independent Interface (MII)
==>
22. Reconciliation sublayer (RS) and media independent interface (MII)

Proposed Response *Response Status* **U**

REJECT.

Changing the title of an existing clause is outside the scope of P802.3ah.

Cl **22** *SC* **22.2.4.1.12** *P* **23** *L* **20** # **99310**

Booth, Brad Intel

Comment Type **TR** *Comment Status* **A** *D3.0 #747*

Subclause is unclear and contains data that is either duplicated or belongs in another clause.

SuggestedRemedy

Move the last sentence of the last paragraph to be the last sentence of the first paragraph.

Move the second paragraph to proceed the first paragraph. Move MF42 & MF43 in PICS to proceed MF38 & MF39.

Delete the third paragraph and delete MF40 & MF41. This information should be in those respective clauses and repetition here just requires editing if another standards development wishes to use this bit.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

I agree with all the moves.

The third paragraph was added to resolve a TR in WG ballot that expressed concern about enabling this capability without consideration of the ramifications.

Cl **22** *SC* **22.2.4.2.8** *P* **25** *L* **9** # **99311**

Thompson, Geoffrey Nortel

Comment Type **TR** *Comment Status* **A** *D3.0 #793*

Proposed text goes well beyond the allowed scope of the project. As worded it would appear to allow "unidirectional ability" on legacy PHY types. This change could cause great confusion and interoperability problems with conformat legacy networks.

SuggestedRemedy

Limit the scope of this change to the PHY types being added by this clause that support unidirectional ability. Require that the value of bit 1.7 will be zero for all other current PHY types.
Any WG action to add unidirectional ability to legacy PHY types should be done through maintenance or a new project with the appropriate scope.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

"Bit 1.7 shall be set to 0 for all PHYs except the following: 100BASE-X using the PCS specified in 66.1 and 1000BASE-X using the PCS specified in 66.2."

Use the major capability from comment #748 in the PICS entry.

Cl **22** *SC* **22.7.2.3** *P* **25** *L* **42** # **621**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

Implementation of Unidirectional PCS

SuggestedRemedy

==>
Implementation of unidirectional PCS

Proposed Response *Response Status* **O**

Cl **22** *SC* **22.7.2.3** *P* **25** *L* **42** # **622**

James, David JGG

Comment Type **T** *Comment Status* **D**

Not defined in glossary:

Unidirectional PCS

Maybe this is defined somewhere else, but I did not find:
1) Definition in this document
2) Definition in 802.3-2002.pdf
3) A search algorithm an precedence relationship for finding the definition elsewhere.

SuggestedRemedy

Either:
1) Define in this document
2) Place in the definitions, but only something like unidirectional PCS (see 802.27-2017)
3) Define a search algorithm and precedence relationship for finding definitions contained within related baseline and/or admendment drafts.

Proposed Response *Response Status* **O**

Cl **22** *SC* **22.7.3.4** *P* **26** *L* **15** # **623**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

Enable Unidirectional mode

SuggestedRemedy

==>
Enable unidirectional mode

Proposed Response *Response Status* **O**

Cl **22** *SC* **22.7.3.4** *P* **26** *L* **18** # **624**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

Disable Unidirectional mode

SuggestedRemedy

==>
Disable unidirectional mode

Proposed Response *Response Status* **O**

Cl **30** *SC* *P* *L* # **92**

Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

The cross-references to a section should not have word "subclause" in front of the number. This applies to many places in C30.

SuggestedRemedy

Do global search and remove on word "subclause"

Proposed Response *Response Status* **O**

Cl **30** *SC* *P* *L* # **90**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

all 8 occurrences of "SPD" in 30 should now be "SLD". Also one in 30A.19, 4 times in 30A.19.1.

SuggestedRemedy

Replace SPD with SLD

Proposed Response *Response Status* **O**

Cl **30** *SC* **22.7.3.4** *P* **26** *L* **22** # **625**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

Unidirectional Ability

SuggestedRemedy
==>
Unidirectional ability

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.1** *P* **28** *L* **14** # **627**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

MAC Control, Link Aggregation, and DTE Power via MDI, and subscriber access networks.

SuggestedRemedy
==>
MAC control, link aggregation, and DTE power via MDI, and subscriber access networks.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.1** *P* **28** *L* **14** # **626**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

This clause provides the Layer Management specification for DTEs,

SuggestedRemedy
==>
This clause provides the layer management specification for DTEs,

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.1** *P* **28** *L* **44** # **628**
James, David JGG

Comment Type **T** *Comment Status* **D**
Incorrect text:

Such containment is expected, but is outside the scope of
this International Standard.

This would seem to imply this is an ISO/ITU standard, which is not yet true.

Also, make other changes via search-and-replace.

SuggestedRemedy
==>
Such containment is expected, but is outside the scope of
this standard.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11** *P* **71** *L* **3** # **650**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

30.11 Layer Management for Physical Medium Entity (PME)

SuggestedRemedy
==>
30.11 Layer Management for physical medium entity (PME)

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 15, line 38:
""... PME physical medium entity .."
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11** *P* **72** *L* **43** # **651**
James, David JGG

Comment Type **T** *Comment Status* **D**

Undefined term:

""If a Clause 45 MDIO Interface to the PCS is present""

I did not find ""MDIO"" that in 802.3-2002 or this draft.

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11** *P* **72** *L* **43** # **652**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization. Also, the Clause name is wrong; a cross-reference for the name should be used to keep these correct.

""If a Clause 45 MDIO Interface to the PCS is present""

SuggestedRemedy

==>
1) If a Clause 45 Management data input/output (MDIO) interface to the PCS is present
2) Make the name be a cross-reference, so it is update when the clause title changes.
3) Search and replace everywhere else.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.4** *P* **75** *L* **41** # **656**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive redundancy:

""uncorrectable errors counter counter counter (see 45.2.1.23).;""

SuggestedRemedy

==>
""uncorrectable errors counter (see 45.2.1.23).;""

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.4** *P* **75** *L* **41** # **654**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

current Signal-to-Noise Ratio (SNR) Margin

SuggestedRemedy

==>
current signal-to-noise ratio (SNR) margin

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 435, line 36
""and the signal-to-noise ratios (SNRs) of the sub-channels.""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.4** *P* **75** *L* **41** # **655**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

attribute aPHYEnd is "office" and the
link is Down.

SuggestedRemedy

==>
attribute aPHYEnd is "office" and the link is down.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 76, line 40
""link is down""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.4** *P* **75** *L* **45** # **118**
David Law 3Com

Comment Type **E** *Comment Status* **D**

Suggest the text 'If a Clause 45 MDIO Interface to the PCS is present, then this attribute will map to the 10P/2B RX SNR margin register ...' should read 'If a Clause 45 MDIO Interface to the PMA/PMD is present, then this attribute will map to the 10P/2B RX SNR margin register ...' since the 10P/2B RX SNR margin register is a PMA/PMD regsiter, not a PCS register.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.4** *P* **75** *L* **47** # **31**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

wrong cross ref (points to line partner SNR margin)

SuggestedRemedy

point to local SNR register 45.2.1.16

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.5** *P* **75** *L* **53** # **30**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

maximum counter value not correct:

SuggestedRemedy

change value to 19230

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.6** *P* **76** *L* **16** # **32**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

in total 12 profiles can be selected but only 6 per region

SuggestedRemedy

add region

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.6** *P* **76** *L* **23** # **664**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

""The Profile selected by a particular value""

SuggestedRemedy

==>
""The profile selected by a particular value""

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 76, line 18
""As changing the operating profile is""

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.6** *P* **76** *L* **30** # **33**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

with the changes of clause 45 now 8 profiles will be supported

SuggestedRemedy

change four to 8

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.11.2.1.7** *P* **76** *L* **49** # **34**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

wrong cross ref Table 63b-1 points to performance guidelines, profiles are defined in table 63A-1

SuggestedRemedy

update

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **29** *L* **13** # **632**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

can assist with debugging and fault finding in Systems that support Link Aggregation.

SuggestedRemedy
==>
can assist with debugging and fault finding in systems that support link aggregation.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **30** *L* **24** # **629**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

The top-most managed object class of the Midspan containment tree

SuggestedRemedy
==>
The top-most managed object class of the midspan containment tree

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **30** *L* **32** # **630**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

to allow an instance of the Multi-Point MAC Control function

SuggestedRemedy
==>
to allow an instance of the multi-point MAC control function

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **30** *L* **37** # **631**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

for each Aggregation Port that is part of the aggregation represented by

SuggestedRemedy
==>
for each aggregation port that is part of the aggregation represented by

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **31** *L* **15** # **633**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

The PSE Group managed object class is a view of a collection of PSEs.

SuggestedRemedy
==>
The PSE group managed object class is a view of a collection of PSEs.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **31** *L* **30** # **634**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

The Port Enable/Disable function as reported by portAdminState is

SuggestedRemedy
==>
The port enable/disable function as reported by portAdminState is

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.2.1** *P* **31** *L* **30** # **635**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

next higher containment level, that is, either a DTE, repeater or Midspan with management.

SuggestedRemedy
==>
next higher containment level, that is, either a DTE, repeater or midspan with management.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.3** *P* **32** *L* **5** # **636**
James, David JGG

Comment Type **T** *Comment Status* **D**
Not defined in glossary:

the term ""Midspan"" in:
""either a DTE, repeater or Midspan with management.""

Maybe this is defined somewhere else, but I did not find:
1) Definition in this document
2) Definition in 802.3-2002.pdf
3) A search algorithm an precedence relationship for finding the definition elsewhere.

SuggestedRemedy
Either:
1) Define in this document
2) Place in the definitions, but only something like
midspan (see 802.27-2017)
3) Define a search algorithm and precedence relationship for finding
definitions contained within related baseline and/or admendment
drafts.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.3** *P* **33** *L* **51** # **637**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excess capitalization:

Figure 30-3-DTE System entity relationship diagram

SuggestedRemedy
==>
Figure 30-3-DTE system entity relationship diagram

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.5** *P* **34** *L* **45** # **638**
James, David JGG

Comment Type **T** *Comment Status* **D**
Unclear cross-reference.

to IEEE 802.3 Management.

Is this a separate document, or a clause within a document?

Make the cross-reference clear.
For folks not close to this document, its not clear if this represents a clause, a function, a distinct document, or whatever.

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.2.5.1.21** *P* **47** *L* **49** # **100**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**
The value of round trip time is only available at the OLT.

SuggestedRemedy
Add clarification that the RTT value is only available at the OLT.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.1.34** *P* **40** *L* **34** # **643**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

A GET operation returns the current Defer Control mode of operation of the MAC.

SuggestedRemedy

A GET operation returns the current defer control mode of operation of the MAC.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 192, line 27.
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.1.34** *P* **40** *L* **9** # **639**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

when connected to a PHY utilizing the MAC-PHY Rate Matching defined in 61.2.1.1.;

SuggestedRemedy

when connected to a PHY utilizing the MAC-PHY rate matching defined in 61.2.1.1.;

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.1.34** *P* **40** *L* **9** # **642**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

when connected to a PHY utilizing the MAC-PHY Rate Matching defined in 61.2.1.1.;

SuggestedRemedy

when connected to a PHY utilizing the MAC-PHY rate matching defined in 61.2.1.1.;

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.1.35** *P* **40** *L* **21** # **640**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inconsistent notation, with respect to capitalization:

The enumeration "true" is returned when the interframe spacing is accomplished within the MAC
sublayer (see 4A.2.3.2.3), the enumeration "false" is returned otherwise.;

See also page 141, line 6:
1 = remote_TC_out_of_sync is FALSE
0 = remote_TC_out_of_sync is TRUE

SuggestedRemedy

Use a consistent notation. The convention in code, that is commonly used elsewhere, is that ALL_CAPS is used for defined constants, thus
==>
The enumeration "TRUE" is returned when the interframe spacing is accomplished within the MAC
sublayer (see 4A.2.3.2.3), the enumeration "FALSE" is returned otherwise.;

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.5.2** *P* **42** *L* **40** # **645**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

A read-only value that identifies the operational state of the Multi-Point MAC Control sublayer.

SuggestedRemedy

==>
A read-only value that identifies the operational state of the multi-point MAC control sublayer.

Use search and replace, to update all instances in the draft.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 15, line 22:
""... MPCP multi-point control protocol..""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.1.5.2** *P* **42** *L* **44** # **646**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

The operational state of the Multi-Point MAC Control Sublayer can be

The capitalization of Sublayer is not even consistent with the previous sentence.

SuggestedRemedy

==>
The operational state of the multi-point MAC control sublayer can be

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 15, line 22:
""... MPCP multi-point control protocol..""
3) IEEE IEEE Draft P802.3ahTM/D3.2, Page 42, line 42:
""... Multi-Point MAC Control sublayer..""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.3.2** *P* **42** *L* **1** # **644**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

A read-write list of the possible MAC Control functions implemented within the device. Each function implemented will have an associated MAC Control Function Entity object class.

SuggestedRemedy

==>
A read-write list of the possible MAC Control functions implemented within the device. Each function implemented will have an associated MAC Control Function Entity object class.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 471, line 39:
""... multiple clients and additional MAC control functionality.""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5** *P* **42** *L* **14** # **28**

Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

Many attributes defined for this package will be used very rarely, if ever. Such attributes should be optional. Making it a mandatory requirement puts unnecessary burden on ONUs for no good reason.
For example, consider all the counters for transmitted and received MPCP messages (a total of 10). MPCP is modeled after the PAUSE function. However, aPAUSEMACCtrlFramesTransmitted and aPAUSEMACCtrlFramesReceived attributes are optional. So the MPCP counters should be optional.

SuggestedRemedy

Define a new package called Multi-Point Control Monitor Package (optional).
Move the following attributes to this package:
aMPCPMACCtrlFramesTransmitted
aMPCPMACCtrlFramesReceived
aMPCPTxGate
aMPCPTxRegAck
aMPCPTxRegister
aMPCPTxRegRequest
aMPCPTxReport
aMPCPRxGate
aMPCPRxRegAck
aMPCPRxRegister
aMPCPRxRegRequest
aMPCPRxReport
aMPCPTransmitElapsed
aMPCPReceiveElapsed
aMPCPDiscoveryTimeout
aMPCPMaximumPendingGrants

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.14** *P* **46** *L* **3** # **98**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

GATE MPCPDU may have a well-knowm MAC Control multicast DA or unicast DA (see 64.3.3.5).

SuggestedRemedy

Replace item (1) to
(1) a destinationField equal to the reserved multicast address for MAC Control specified in 31A, or unique physical address associated with this station

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.14** *P* **46** *L* **6** # **96**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

Items (3) and 94) are redundant. There is only one opcode field (and no field called MPCP opcode).

SuggestedRemedy

Replace items (3) and (4) with
"(3) an opcode indicating GATE MPCPDU"
Apply similar change (with the proper MPCPDU type) to sections 30.3.5.1.15 through 30.3.5.1.18

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.20** *P* **47** *L* **38** # **99**
Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

duplicated words "last MPCP"

SuggestedRemedy

remove repeated words

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.23** *P* **48** *L* **17** # **102**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

Attribute behaviour description is ambiguous. What constitutes a registration attempt at the OLT? Is it a transmission of a discovery GATE, or REGISTER MPCPDU? What about ONU? Is it a transmission or REGISTER_REQ or REGISTER_ACK?

SuggestedRemedy

Remove this attribute altogether. All the necessary information is already available through aMPCPTxRegister, aMPCPTxRegAck, aMPCPTxRegRequest, etc.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.23** *P* **48** *L* **18** # **101**
Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

typo

SuggestedRemedy

"attempted" ashould be "attempt"

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.24** *P* **48** *L* **29** # **103**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

Discovery timeout is not well defined.

SuggestedRemedy

Define behaviour as follows:
In the OLT, this counter is incremented by one if after sending a REGSITER MPCPDU to an ONU, the OLT fails to receive a REGISTER_ACK message from this ONU within the slot granted to this ONU.
In the ONU, this counter is incremented by one if after sending a REGSITER_REQ MPCPDU, the ONU fails to receive a REGISTER MPCPDU from the OLT before it receives a new discovery GATE MPCPDU.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.4** *P* **43** *L* **13** # **647**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

that identifies the Logical Link identity (LLID) associated

SuggestedRemedy

==>
that identifies the logical link identity (LLID) associated

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 15, line 20:
""... LLID logical link identifier ..""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.5** *P* **43** *L* **23** # **648**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization, inproper term:

of the last MPCPDU passed to the MAC Control.

SuggestedRemedy

==>
of the last MPCPDU passed to the MAC control sublayer.
AND, use the text editor search&replace for all other instances.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 471, line 39:
""... and additional MAC control functionality. .""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.5** *P* **43** *L* **28** # **94**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

There is no such entity as MCPC subtype. Instead, there is a regular MAC Control opcode which represents one of MPCP messages.

SuggestedRemedy

replace "(3) an MPCP subtype value equal to the subtype reserved for MPCP as specified in 31A."
with
"(3) an opcode value reserved for one of MPCP messages, as specified in 31A."

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.5** *P* **51** *L* **14** # **649**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization, improper term:

""corresponding to the Maximum PDU Size value""

I could not find a match for ""Maximum PDU Size"" that defines the term formally, so its either an informal term, or should be more formally defined.

SuggestedRemedy

==>
corresponding to the maximum PDU size value

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 471, line 39:
""... and additional MAC control functionality. .""
3) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.7** *P* **44** *L* **9** # **95**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

in C64 it says that "The OLT shall not issue more than one message every 1024 time_quanta [16384 ns] to a single ONU". Therefore, the maximum rate for MPCP frames cannot be more than 61036 frames/s.

SuggestedRemedy

Change "This counter has a maximum increment rate of 1 600 000 counts per second at 1000 Mb/s"
to
"This counter has a maximum increment rate of 64 000 counts per second at 1000 Mb/s"
Apply the same change to sections
30.3.5.1.8 through 30.3.5.1.18

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.5.1.9** *P* **44** *L* **43** # **97**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

redundant sentense: "with an opcode indicating an MPCP frame and a MPCP opcode indicating a GATE MPCPDU".
There is only one opcode field in MAC Control messages.

SuggestedRemedy

Replace "with an opcode indicating an MPCP frame and a MPCP opcode indicating a GATE MPCPDU"
with
"with an opcode indicating GATE MPCPDU"
Apply similar change (with proper MPCPDU type) to sections 30.3.5.1.10 through 30.3.5.1.13

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.7.1.3** *P* **63** *L* **47** # **104**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

This attribute cannot be counted because with corrupted SPD frames will not be delineated. In other words, a device will not be able to determine whether it is a corrupted start of frame or just line errors.

SuggestedRemedy

Remove this attribute

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.7.1.6** *P* **64** *L* **31** # **93**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

This attribute refers to an ONU.

SuggestedRemedy

Replace "at a OLT" with "at an ONU". Also remove "item b)" at the end of this paragraph.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.7.1.7** *P* **64** *L* **44** # **91**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

30.3.7.1.7 refers to subclause 65.1.3.3.2 item e). But there is no item e, just a, b, c and another a, b.

SuggestedRemedy

The text "item e)" should be removed. All there items (a,b,c) define matching rules for the OLT.

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.3.7.1.8** *P* **64** *L* **47** # **20**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

An aBadLLID attribute is useless and is a vaiolation of point-to-point emulation ideology. ONUs should not see frames on different p2p (emulated) links. There is no reason to count frames destined to someone else.

SuggestedRemedy

Remove this attribute

Proposed Response *Response Status* **O**

Cl **30** *SC* **30.5.1.1.15** *P* **70** *L* **1** # **21**
Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

Two problems with the aFECCorrectedBlock attributes:
1. Description ambiguity - it is not clear whether this attribute should count only blocks that had errors and were corrected, or also blocks that had no errors.
2. counter increment rate is wrong. The highest rate correspond to the highest frame rate (1500000) since each small frame is counted as one (truncated) block.

SuggestedRemedy

1. Clarify description.
2. Change counter rate to 1500 000 counts per sec. (add same change to 30.5.1.1.16)

Proposed Response *Response Status* **O**

Cl **30** *SC* **45** *P* **80** *L* **10** # **657**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

""subscriber network Physical layer devices.""

SuggestedRemedy

==>
""subscriber network physical layer devices.""

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 207, line 16
""operation of each physical layer device""
3) IEEE Std 802.3(tm)-2002, page 59
""only if the underlying physical layer is capable of sending""

Proposed Response *Response Status* **O**

Cl **43B** *SC* **45.2.1.35.1** *P* **101** *L* **32** # **706**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.1 Tone active (1.59.15)
These bits are used to control the activity of the selected tones. When the "Change tone activity" command

SuggestedRemedy

==>
45.2.1.35.1 Tone active
The Tone active (1.59.15) bits control the activity of the selected tones. When the "Change tone activity" command

Proposed Response *Response Status* **O**

Cl **45** *SC* **30.11.2.1.6** *P* **76** *L* **23** # **663**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

""or the link is not Down,""

SuggestedRemedy

==>
""or the link is not Down,""

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 76, line 19
""occur when the link is down.""

Proposed Response *Response Status* **O**

Cl **45** *SC* **30.11.2.1.9** *P* **15** *L* **1** # **653**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive redundancy:

""FEC uncorrectable errors counter counter counter (see 45.2.1.23).;""

Its hard to tell how many counter should be counted, since the name of the counter could include the word counter. In general, this is a problem with using multi-word names for things like counters or registers; it would be much easier to parse something like:
FecUncorrectedErrors counter (see xx)

SuggestedRemedy

==>
FEC uncorrectable errors counter (see 45.2.1.23)

Proposed Response *Response Status* **O**

Cl **45** *SC* **30.11.2.1.9** *P* **32** *L* **1** # **665**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive redundancy:

""FEC uncorrectable errors counter counter counter (see 45.2.1.23).;""

Its hard to tell how many counter should be counted, since the name of the counter could include the word counter. In general, this is a problem with using multi-word names for things like counters or registers; it would be much easier to parse something like:
FecUncorrectedErrors counter (see xx)

SuggestedRemedy

==>
FEC uncorrectable errors counter (see 45.2.1.23)

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.11** *P* **88** *L* **18** # **36**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **TR** *Comment Status* **D**

register does not clearely map the needed behavior during start up

SuggestedRemedy

"define the following bits:
1. HSTU Initiated Start up 0 = local start up (default -R device) 1 = far end start up (default -o device)
2. Initialize 0 = no initialization device can be configured and dos not pay attention to handshake actions, 1= Initialize Initialization Phase starts with the g.994.1 action as configured by bit HSTU Initiated Start Up
3. Clarify that PMA/PMD link control initiates the start of the physical 2b/10p layer
for the definition of these bits bits of PMA/PMD which are currently unused might be reused and/or the STFU bit, see also appropriate commet of clause 61.4.8.3"

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.11** *P* **88** *L* **9** # **122**

Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

Instructions to editor don't state whether or not the table numbering should be reordered.

SuggestedRemedy

Change end of note to state "... 45.2.1.10, and renumber the tables accordingly:".

Do the same for the Table 45-42 and 45-59 series.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.11.6** *P* **89** *L* **32** # **35**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

"bit is called handshake response, bit with the bit set to one the device does not respond to hand shake tones"

SuggestedRemedy

either swap definition or change name appropriately

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13** *P* **91** *L* **15** # **667**

James, David JGG

Comment Type **T** *Comment Status* **D**

Missing horizontal table divider

SuggestedRemedy

==>
Add that divider, or its unclear what is what.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13** *P* **91** *L* **20** # **668**

James, David JGG

Comment Type **T** *Comment Status* **D**

Confusing table. This looks just like a table in 802.1,
where in that case, the number represents a subclause reference.

SuggestedRemedy

Separate the numbers from the options into two separate columns.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13** *P* **92** *L* **1** # **670**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization.
for the Link partner PMA/PMD control register

SuggestedRemedy

==>
for the link partner PMA/PMD control register

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 91, line 44
""counterpart to the link partner register.""

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13** *P* **92** *L* **4** # **671**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization.
""Link partner PMA/PMD control register bit definitions""

SuggestedRemedy

==>
""The link partner PMA/PMD control register bit definitions""
(While its slightly ackward with the ""The"", a register name should always have the same capitalization, particularly given your extensive use of capitals to sort-of delineate key names.

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, Page 91, line 44
""counterpart to the link partner register.""

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13** *P* **92** *L* **8** # **669**

James, David JGG

Comment Type **T** *Comment Status* **D**

Non centered columns.

SuggestedRemedy

1) Possibly center column 1.2) Definitely center the right-most column.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13.1** *P* **92** *L* **19** # **672**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.13.1 Get link partner parameters (1.32.15)
When this bit is set to a one, the "-O" PHY updates its link partner registers shown in Table 45-10c with values

SuggestedRemedy

==>
45.2.1.13.1 Get link partner parameters
When the Get link partner parameters (1.32.15) bit is set to a one, the "-O" PHY updates its link partner registers shown in Table 45-10c with values

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.13.2** *P* **92** *L* **28** # **673**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.13.2 Send link partner parameters (1.32.13)
When this bit is set to a one, the "-O" PHY sends the contents of the 2B link partner line quality thresholds

SuggestedRemedy

==>

45.2.1.13.2 Send link partner parameters
When the Send link partner parameters (1.32.13) bit is set to a one, the "-O" PHY sends the contents of the 2B link partner line quality thresholds

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.14** *P* **92** *L* **37** # **674**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.14 Link partner PMA/PMD status register (Register 1.33)
The Link partner PMA/PMD status register reflects the result of the operations that are performed using the

SuggestedRemedy

==>

45.2.1.14 Link partner PMA/PMD status register
The Link partner PMA/PMD status register (register 1.33) reflects the result of the operations that are performed using the

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.14.1** *P* **92** *L* **47** # **675**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.14.1 Get link partner result (1.33.14)
After a "Get link partner parameters" operation terminates, this bit reflects the result of the operation. If the
operation did not complete successfully, the PHY shall set this bit to a one. Upon being read or a reset, the
PHY shall set the bit to zero.

SuggestedRemedy

==>

45.2.1.14.1 Get link partner result
After a "Get link partner parameters" operation terminates, the Get link partner result bit (1.33.14) reflects the result of the operation. If the
operation did not complete successfully, the PHY shall set this bit to a one. Upon being read or a reset, the PHY shall set the bit to zero.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.14.1** *P* **93** *L* **1** # **676**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

Table 45-10e-Link Partner PMA/PMD status register bit definitions

SuggestedRemedy

==>

Table 45-10e-Link partner PMA/PMD status register bit definitions

As per:
1) IEEE IEEE Draft P802.3ahTM/D3.2, page 92, line 39.
""The Link partner PMA/PMD status register""

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.14.2** *P* **93** *L* **17** # **677**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.14.2 Send link partner result (1.33.12)
After a "Send link partner parameters" operation terminates, this bit reflects the result of the operation. If the
operation did not complete successfully, the PHY shall set this bit to a one.

SuggestedRemedy

==>
45.2.1.14.2 Send link partner result (1.33.12)
After a "Send link partner parameters" operation terminates, Send link partner result (1.33.12) bit reflects the result of the operation. If the
operation did not complete successfully, the PHY shall set this bit to a one.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.15** *P* **93** *L* **27** # **678**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.15 10P/2B PMA/PMD link loss register (Register 1.36)
The 10P/2B PMA/PMD link loss register is a 16 bit counter that contains the number of times the ...
PMA/

SuggestedRemedy

==>
45.2.1.15 10P/2B PMA/PMD link loss register
The 10P/2B PMA/PMD link loss register (register 1.36) is a 16 bit counter that contains the number of times the...

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.16** *P* **92** *L* **44** # **679**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.16 10P/2B RX SNR margin register (Register 1.37)
For further information on 2BASE-TL SNR margin, see 63.3. For 10PASS-TS SNR margin, see 62.3.

SuggestedRemedy

==>
45.2.1.16 10P/2B RX SNR margin register
The 10P/2B RX SNR margin register is register 1.37.
For further information on 2BASE-TL SNR margin, see 63.3. For 10PASS-TS SNR margin, see 62.3.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.17** *P* **92** *L* **50** # **680**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.17 10P/2B link partner RX SNR margin register (Register 1.38)
The 10P/2B link partner RX SNR margin register provides access to the link partner's receive SNR margin.

SuggestedRemedy

==>
45.2.1.17 10P/2B link partner RX SNR margin register
The 10P/2B link partner RX SNR margin register (register 1.38) provides access to the link partner's receive SNR margin.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.18** *P* **94** *L* **18** # **681**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.18 10P/2B line attenuation register (Register 1.39)
This register reports the line attenuation as measured by the PMA/PMD. ...

SuggestedRemedy

==>
45.2.1.18 10P/2B line attenuation register (Register 1.39)
The 10P/2B line attenuation register (register 1.39) reports the line attenuation as measured by the PMA/PMD.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.2.1** *P* **85** *L* **10** # **659**
James, David JGG

Comment Type **T** *Comment Status* **D**

Noncentered table column.

Center rightmost and leftmost column.

SuggestedRemedy

Center these columns.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.2.1** *P* **87** *L* **10** # **660**
James, David JGG

Comment Type **T** *Comment Status* **D**

Noncentered table column.

Center rightmost and leftmost column.

SuggestedRemedy

Center these columns.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.20** *P* **94** *L* **49** # **682**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.20 10P/2B line quality thresholds register (Register 1.41)
The 10P/2B line quality thresholds register sets the target environment for the 10PASS-TS/2BASE-TL connection.

SuggestedRemedy

==>
45.2.1.20 10P/2B line quality thresholds register)
The 10P/2B line quality thresholds register (register 1.41 sets the target environment for the 10PASS-TS/2BASE-TL connection.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.20.1** *P* **95** *L* **15** # **683**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.20.1 Loop attenuation threshold (1.41.15:8)
These bits set the loop attenuation threshold for 2BASE-TL PMA/PMDs. Writing to these bits on a

SuggestedRemedy

==>
45.2.1.20.1 Loop attenuation threshold (1.41.15:8)
The Loop attenuation threshold (1.41.15:8) bits set the loop attenuation threshold for 2BASE-TL PMA/PMDs. Writing to these bits on a

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.20.2** *P* **95** *L* **21** # **684**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.20.2 SNR margin threshold (1.41.7:4)
These bits set the SNR margin threshold for 10PASS-TS and 2BASE-TL PMA/PMDs. The threshold is

SuggestedRemedy

==>

45.2.1.20.2 SNR margin threshold (1.41.7:4)
The SNR margin threshold (1.41.7:4) bits set the SNR margin threshold for 10PASS-TS and 2BASE-TL PMA/PMDs. The threshold is

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.21** *P* **95** *L* **28** # **685**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.21 10P/2B link partner line quality thresholds register (Register 1.42)
The 10P/2B link partner line quality thresholds register allows the "-O" STA to set its "-R" link partner's

SuggestedRemedy

==>

45.2.1.21 10P/2B link partner line quality thresholds register)
The 10P/2B link partner line quality thresholds register (register 1.42) allows the "-O" STA to set its "-R" link partner's

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.21** *P* **95** *L* **30** # **37**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

according to 45.2.1.13.2 setting the threshold of a -R device is only allowed for 2B device

SuggestedRemedy

remove 10P

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.22** *P* **95** *L* **40** # **686**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.22 10P FEC correctable errors counter (Registers 1.43)
The 10P FEC correctable errors counter is a 16 bit counter that contains the number of FEC codewords that

SuggestedRemedy

==>
45.2.1.22 10P FEC correctable errors counter)
The 10P FEC correctable errors counter (registers 1.43) is a 16 bit counter that contains the number of FEC codewords that

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.23** *P* **96** *L* **1** # **687**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.23 10P FEC uncorrectable errors counter (Registers 1.44)
The 10P FEC uncorrectable errors counter is a 16 bit counter that contains the number of FEC codewords

SuggestedRemedy

==>
45.2.1.23 10P FEC uncorrectable errors counter
The 10P FEC uncorrectable errors counter (registers 1.44) is a 16 bit counter that contains the number of FEC codewords

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.24** *P* **96** *L* **18** # **688**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.24 10P link partner FEC correctable errors register (Register 1.45)
The 10P link partner FEC correctable errors register provides the "-O" STA with a snapshot of the "-R" link

SuggestedRemedy

==>
45.2.1.24 10P link partner FEC correctable errors register
The 10P link partner FEC correctable errors register (register 1.45) provides the "-O" STA with a snapshot of the "-R" link

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.25** *P* **96** *L* **30** # **689**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.25 10P link partner FEC uncorrectable errors register (Register 1.46)
The 10P link partner FEC uncorrectable errors register provides the "-O" STA a snapshot of the "-R" link

SuggestedRemedy

==>
45.2.1.25 10P link partner FEC uncorrectable errors register)
The 10P link partner FEC uncorrectable errors register (register 1.46) provides the "-O" STA a snapshot of the "-R" link

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.26** *P* **96** *L* **43** # **690**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.26 10P electrical length register (Register 1.47)
The bit definitions for the 10P electrical length register are found in Table 45-10l.

SuggestedRemedy

==>
45.2.1.26 10P electrical length register)
The bit definitions for the 10P electrical length register (register 1.47) are found in Table 45-10l.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.26.1** *P* **97** *L* **1** # **691**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.26.1 Electrical length (1.47.15:0)
After the link is established, these bits contain the measured electrical length (in meters) of the medium as

SuggestedRemedy

==>
45.2.1.26.1 Electrical length (1.47.15:0)
After the link is established, the Electrical length (1.47.15:0) bits contain the measured electrical length (in meters) of the medium as

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.27** *P* **97** *L* **6** # **692**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.27 10P link partner electrical length register (Register 1.48)
The 10P link partner electrical length register provides access to the link partner's electrical length measurement.

SuggestedRemedy

==>
45.2.1.27 10P link partner electrical length register
The 10P link partner electrical length register (register 1.48) provides access to the link partner's electrical length measurement.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28** *P* **97** *L* **18** # **693**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.28 10P PMA/PMD general configuration register (Register 1.49)
The 10P PMA/PMD general configuration register is defined for "-O" port types only.

SuggestedRemedy

==>

45.2.1.28 10P PMA/PMD general configuration register
The 10P PMA/PMD general configuration register (Register 1.49) is defined for "-O" port types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.28.1** *P* **97** *L* **36** # **694**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.28.1 TX window length (1.49.7:0)
Bits 7:0 control the PMD transmit window length within the cyclic prefix and suffix in units of number of

SuggestedRemedy

==>

45.2.1.28.1 TX window length
The TX window length (1.49.7:0) bits control the PMD transmit window length within the cyclic prefix and suffix in units of number of

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.29** *P* **97** *L* **41** # **695**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.29 10P PSD configuration register (Register 1.50)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.29 10P PSD configuration register
The 10P PSD configuration register (Register 1.50) register is defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.29.1** *P* **97** *L* **47** # **696**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.29.1 PBO disable (1.50.8)
Setting this bit to a one disables UPBO for performance testing purposes. Refer to section 62.3.4.4.

SuggestedRemedy

==>
45.2.1.29.1 PBO disable (1.50.8)
Setting the PBO disable (1.50.8) bit to a one disables UPBO for performance testing purposes. Refer to section 62.3.4.4.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.30** *P* **97** *L* **52** # **698**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inconsistent test: the title refers to two registers, the text only one.

45.2.1.30 10P downstream data rate configuration (Registers 1.51, 1.52)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.30 10P downstream data rate configuration
The 10P downstream data rate configuration registers (register 1.51 and register 1.52) is defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.30** *P* **97** *L* **52** # **697**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.30 10P downstream data rate configuration (Registers 1.51, 1.52)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.30 10P downstream data rate configuration
The 10P downstream data rate configuration registers (registers 1.51, 1.52) is defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.31** *P* **98** *L* **31** # **699**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.31 10P downstream Reed-Solomon configuration (register 1.53)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.31 10P downstream Reed-Solomon configuration (Register 1.53)
The 10P downstream Reed-Solomon configuration (register 1.53) register is defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.31.1** *P* **98** *L* **51** # **700**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.31.1 RS codeword length (1.53.0)
This bit selects the Reed-Solomon forward

SuggestedRemedy

==>
45.2.1.31.1 RS codeword length
The RS codeword length (1.53.0) bit selects the Reed-Solomon forward

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.32** *P* **99** *L* **1** # **701**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.32 10P upstream data rate configuration (Registers 1.54, 1.55)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.32 10P upstream data rate configuration (Registers 1.54, 1.55)
The 10P upstream data rate configuration registers (registers 1.54 and register 1.55) are defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.32** *P* **99** *L* **1** # **702**

James, David JGG

Comment Type **T** *Comment Status* **D**

Contradictory text: the header has two registers, the text describes only one.

45.2.1.32 10P upstream data rate configuration (Registers 1.54, 1.55)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.32 10P upstream data rate configuration (Registers 1.54, 1.55)
The 10P upstream data rate configuration registers (registers 1.54 and register 1.55) are defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.33** *P* **99** *L* **22** # **703**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.33 10P upstream 10P upstream Reed-Solomon configuration register (Register 1.56)
This register is defined for "-O" port sub-types only.

SuggestedRemedy

==>
45.2.1.33 10P upstream 10P upstream Reed-Solomon configuration register (Register 1.56)
The 10P upstream 10P upstream Reed-Solomon configuration register (register 1.56) is defined for "-O" port sub-types only.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.33.1** *P* **99** *L* **41** # **704**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.33.1 RS codeword length (1.56.0)
This bit selects the Reed-Solomon forward error correction codeword length used in the upstream direction.

SuggestedRemedy

==>
45.2.1.33.1 RS codeword length (1.56.0)
The RS codeword length (1.56.0) bit selects the Reed-Solomon forward error correction codeword length used in the upstream direction.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35** *P* **100** *L* **17** # **705**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35 10P tone control parameters (Registers 1.59, 1.60, 1.61, 1.62, 1.63)
These registers allow the STA to specify parameters for the tones

SuggestedRemedy

==>
45.2.1.35 10P tone control parameters (Registers 1.59, 1.60, 1.61, 1.62, 1.63)
The 10P tone control parameters registers (registers 1.59, 1.60, 1.61, 1.62, 1.63) allow the STA to specify parameters for the tones

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.2** *P* **101** *L* **38** # **707**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.2 Tone direction (1.59.14)
These bits are used to control the direction of the selected tones. When the "Change tone direction" command

SuggestedRemedy

==>
45.2.1.35.2 Tone direction (1.59.14)
The Tone direction (1.59.14) bits control the direction of the selected tones. When the "Change tone direction" command

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.3** *P* **101** *L* **42** # **708**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.
Also, excessive/inconsistent capitalization.

45.2.1.35.3 Max SNR Margin (1.59.13:5)
These bits control the maximum SNR margin for the selected tones. When the "Change SNR margin" command

SuggestedRemedy

==>
45.2.1.35.3 Max SNR margin (1.59.13:5)
The Max SNR margin (1.59.13:5) control the maximum SNR margin for the selected tones. When the "Change SNR margin" command

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.4** *P* **101** *L* **49** # **709**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.4 Target SNR margin (1.60.8:0)
These bits control the target SNR margin for the selected tones. When the "Change SNR margin" command

SuggestedRemedy

==>
45.2.1.35.4 Target SNR margin (1.60.8:0)
The Target SNR margin (1.60.8:0) bits control the target SNR margin for the selected tones. When the "Change SNR margin" command

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.5** *P* **102** *L* **1** # **710**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.5 Min SNR margin (1.61.8:0)
These bits control the minimum SNR margin for the selected tones. When the "Change SNR margin" command

SuggestedRemedy

==>
45.2.1.35.5 Min SNR margin (1.61.8:0)
The Min SNR margin (1.61.8:0) bits control the minimum SNR margin for the selected tones. When the "Change SNR margin" command

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.6** *P* **102** *L* **12** # **123**

Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

Equation is not numbered. Neither is the one in 45.2.1.35.7, 45.2.1.43.4, 45.2.1.57.4.

SuggestedRemedy

Insert equation number. For example, (45-1).

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.6** *P* **102** *L* **7** # **711**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.6 PSD level (1.62.8:0)
These bits control the transmit PSD level of the selected tones. When the "Change PSD level" command is

SuggestedRemedy

==>
45.2.1.35.6 PSD level (1.62.8:0)
The PSD level (1.62.8:0) bits control the transmit PSD level of the selected tones. When the "Change PSD level" command is

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.35.7** *P* **102** *L* **15** # **712**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.35.7 USPBO reference (1.63.8:0)
These bits control the reference level for the upstream power back-off

SuggestedRemedy

==>
45.2.1.35.7 USPBO reference (1.63.8:0)
The USPBO reference (1.63.8:0) bits control the reference level for the upstream power back-off

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.36** P **102** L **26** # **713**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36 10P tone control action register (Register 1.64)
The operations in this register apply to the tones selected in the 10P tone group registers (1.57, 1.58).

SuggestedRemedy

==>
45.2.1.36 10P tone control action register
The operations in the 10P tone control action register (register 1.64) apply to the tones selected in the 10P tone group registers (1.57, 1.58).

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.36.1** P **103** L **28** # **714**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.1 Refresh tone status (1.64.5)
When this bit is set to a one, the tone status information from the local and link partner is gathered so that it

SuggestedRemedy

==>
45.2.1.36.1 Refresh tone status
When the Refresh tone status (1.64.5) bit is set to a one, the tone status information from the local and link partner is gathered so that it

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.36.2** P **103** L **35** # **715**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.2 Change tone activity (1.64.4)
When this bit is set to a one, the selected tones are enabled or disabled according to the assignment in the

SuggestedRemedy

==>
45.2.1.36.2 Change tone activity
When the Change tone activity (1.64.4) bit is set to a one, the selected tones are enabled or disabled according to the assignment in the

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.36.3** P **103** L **42** # **716**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.3 Change tone direction (1.64.3)
When this bit is set to a one, the transmission direction of selected tones is changed according to the assignment

SuggestedRemedy

==>
45.2.1.36.3 Change tone direction
When the Change tone direction (1.64.3) bit is set to a one, the transmission direction of selected tones is changed according to the assignment

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.36.4** *P* **103** *L* **49** # **717**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.4 Change SNR margin (1.64.2)
When this bit is set to a one, the SNR margin parameters for the selected tones are loaded according the

SuggestedRemedy

==>
45.2.1.36.4 Change SNR margin
When the Change SNR margin (1.64.2) bit is set to a one, the SNR margin parameters for the selected tones are loaded according the

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.36.5** *P* **104** *L* **1** # **718**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.5 Change PSD level (1.64.1)
When this bit is set to a one, the PSD level for the selected tones is set according to the value in the PSD

SuggestedRemedy

==>
45.2.1.36.5 Change PSD level
When the Change PSD level (1.64.1) bit is set to a one, the PSD level for the selected tones is set according to the value in the PSD

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.36.6** *P* **104** *L* **8** # **719**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.36.6 Change USPBO reference PSD (1.64.0)
When this bit is set to a one, the upstream power back-off reference PSD level for the selected tones is set

SuggestedRemedy

==>
45.2.1.36.6 Change USPBO reference PSD
When the Change USPBO reference PSD (1.64.0) bit is set to a one, the upstream power back-off reference PSD level for the selected tones is set

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37** *P* **104** *L* **16** # **720**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37 10P tone status registers (Registers 1.65, 1.66, 1.67)

The 10P tone status registers allow the STA to query the status of any individual tone in the link. The values

SuggestedRemedy

==>
45.2.1.37 10P tone status registers
The 10P tone status registers (Registers 1.65, 1.66, and 1.67) allow the STA to query the status of any individual tone in the link. The values

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.1** *P* **105** *L* **1** # **721**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.1 Refresh status (1.65.15)
This bit set to a one indicates that the values for this tone table have not been read since the last "Refresh

SuggestedRemedy

==>
45.2.1.37.1 Refresh status
The Refresh status (1.65.15) bit set to a one indicates that the values for this tone table have not been read since the last "Refresh

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.2** *P* **105** *L* **7** # **722**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.2 Active (1.65.14)
When read as a one, this bit indicates that the selected tone is disabled (i.e. powered off and not carrying

SuggestedRemedy

==>
45.2.1.37.2 Active
When the Active (1.65.14) bit is read as a one, this indicates that the selected tone is disabled (i.e. powered off and not carrying

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.3** *P* **105** *L* **12** # **723**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.3 Direction (1.65.13)
When read as a one, this bit indicates that the selected tone is assigned to upstream communication. When

SuggestedRemedy

==>
45.2.1.37.3 Direction
When the Direction (1.65.13 bit is read as a one, this indicates that the selected tone is assigned to upstream communication. When

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.4** *P* **105** *L* **17** # **724**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.4 RX PSD (1.65.7:0)
These bits report the PSD of the selected tone as perceived at the receiver in units of dBm/Hz.

SuggestedRemedy

==>
45.2.1.37.4 RX PSD (1.65.7:0)
The RX PSD (1.65.7:0) bits report the PSD of the selected tone as perceived at the receiver in units of dBm/Hz.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.5** *P* **105** *L* **21** # **725**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.5 TX PSD (1.66.15:8)
These bits report the PSD of the selected tone as output by the transmitter in units of dBm/Hz.

SuggestedRemedy

==>
45.2.1.37.5 TX PSD (1.66.15:8)
The TX PSD (1.66.15:8) bits report the PSD of the selected tone as output by the transmitter in units of dBm/Hz.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.6** *P* **105** *L* **24** # **726**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.6 RX PSD (1.66.7:3)
These bits report the number of bits encoded on the selected tone.

SuggestedRemedy

==>
45.2.1.37.6 RX PSD (1.66.7:3)
The RX PSD (1.66.7:3) bits report the number of bits encoded on the selected tone.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.37.7** *P* **105** *L* **29** # **727**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.37.7 SNR Margin (1.67.9:0)
These bits report the current SNR margin for the selected tone, as perceived by the receiver, in units of dB.

SuggestedRemedy

==>
45.2.1.37.7 SNR Margin (1.67.9:0)
The SNR Margin (1.67.9:0) bits report the current SNR margin for the selected tone, as perceived by the receiver, in units of dB.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38** *P* **106** *L* **1** # **728**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38 10P outgoing indicator bits status register (Register 1.68)
The 10P outgoing indicator bits status register conveys the current state of the indicator bits being sent to the

SuggestedRemedy

==>
45.2.1.38 10P outgoing indicator bits status register
The 10P outgoing indicator bits status register (register 1.68) conveys the current state of the indicator bits being sent to the

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.38.1** P **106** L **43** # **729**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.1 LoM (1.68.8)
When read as a one, this bit indicates that the PMA/PMD is receiving a signal whose SNR margin is below

SuggestedRemedy

==>
45.2.1.38.1 LoM
When the LoM (1.68.8) bit is read as a one, this indicates that the PMA/PMD is receiving a signal whose SNR margin is below

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.38.2** P **106** L **49** # **730**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.2 lpr (1.68.7)
When read as a one, this bit indicates that the PMA/PMD is not receiving sufficient power supply input for

SuggestedRemedy

==>
45.2.1.38.2 lpr (1.68.7)
When the lpr (1.68.7) bit is read as a one, this indicates that the PMA/PMD is not receiving sufficient power supply input for

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.38.3** P **107** L **1** # **731**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.3 po (1.68.6)
When read as a one, this bit indicates that the PMA/PMD has been instructed to power off. The specific conditions

SuggestedRemedy

==>
45.2.1.38.3 po (1.68.6)
When the po (1.68.6) bit is read as a one, this indicates that the PMA/PMD has been instructed to power off. The specific conditions

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.38.4** P **107** L **7** # **732**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.4 Rdi (1.68.5)
When read as a one, this bit indicates that the PMA/PMD has received PMA/PMD frames containing severe

SuggestedRemedy

==>
45.2.1.38.4 Rdi (1.68.5)
When the Rdi (1.68.5) bit is read as a one, this indicates that the PMA/PMD has received PMA/PMD frames containing severe

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38.5** *P* **107** *L* **12** # **733**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.5 los (1.68.4)
When read as a one, this bit indicates that the PMA/PMD is not receiving a valid signal.
The status of this

SuggestedRemedy

==>
45.2.1.38.5 los
When the los (1.68.4) bit is read as a one, this bit indicates that the PMA/PMD is not receiving a valid signal. The status of this

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38.6** *P* **107** *L* **18** # **734**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.6 fec-f (1.68.3)
This bit is reserved and shall read as zero for 10PASS-TS.

SuggestedRemedy

==>
45.2.1.38.6 fec-f
The fec-f (1.68.3) bit is reserved and shall read as zero for 10PASS-TS.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38.7** *P* **107** *L* **21** # **735**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.7 be-f (1.68.2)
This bit is reserved and shall read as zero for 10PASS-TS.

SuggestedRemedy

==>
45.2.1.38.7 be-f
The be-f (1.68.2) bit is reserved and shall read as zero for 10PASS-TS.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38.8** *P* **107** *L* **26** # **736**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.8 fec-s (1.68.1)
When read as a one, this bit indicates that the PMA/PMD is receiving FEC blocks with one or more correctable

SuggestedRemedy

==>
45.2.1.38.8 fec-s
When the fec-s (1.68.1) bit is read as a one, this indicates that the PMA/PMD is receiving FEC blocks with one or more correctable

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.38.9** *P* **107** *L* **32** # **737**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.38.9 be-s (1.68.0)
When read as a one, this bit indicates that the PMA/PMD is receiving FEC blocks with one or more uncorrectable

SuggestedRemedy

==>
45.2.1.38.9 be-s (1.68.0)
When the be-s (1.68.0) bit is read as a one, this indicates that the PMA/PMD is receiving FEC blocks with one or more uncorrectable

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.39** *P* **108** *L* **1** # **738**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39 10P incoming indicator bits status register (Register 1.69)
The 10P indicator bits status register conveys the current state of the indicator bits being received from the

SuggestedRemedy

==>
45.2.1.39 10P incoming indicator bits status register
The 10P incoming indicator bits status register (register 1.69) register conveys the current state of the indicator bits being received from the

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.39.1** *P* **108** *L* **39** # **739**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.1 LoM (1.69.8)
When read as a one, this bit indicates that the link partner PMA/PMD is receiving a signal whose SNR margin

SuggestedRemedy

==>
45.2.1.39.1 LoM
When the LoM (1.69.8) bit is read as a one, this indicates that the link partner PMA/PMD is receiving a signal whose SNR margin

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.39.2** *P* **108** *L* **45** # **740**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.2 Flpr (1.69.7)
When read as a one, this bit indicates that the link partner PMA/PMD is not receiving sufficient power supply

SuggestedRemedy

==>
45.2.1.39.2 Flpr (1.69.7)
When the Flpr (1.69.7) bit is read as a one, this indicates that the link partner PMA/PMD is not receiving sufficient power supply

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.39.3** P **109** L **1** # **741**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.3 Fpo (1.69.6)
When read as a one, this bit indicates that the link partner PMA/PMD has been instructed to power off. The

SuggestedRemedy

==>
45.2.1.39.3 Fpo (1.69.6)
When the Fpo (1.69.6) bit is read as a one, this indicates that the link partner PMA/PMD has been instructed to power off. The

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.39.4** P **109** L **7** # **742**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.4 Rdi (1.69.5)
When read as a one, this bit indicates that the link partner PMA/PMD has received PMA/PMD frames containing

SuggestedRemedy

==>
45.2.1.39.4 Rdi
When the Rdi (1.69.5) bit is read as a one, this indicates that the link partner PMA/PMD has received PMA/PMD frames containing

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.39.5** P **109** L **13** # **743**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.5 Flos (1.69.4)
When read as a one, this bit indicates that the link partner PMA/PMD has is not receiving a valid signal. The

SuggestedRemedy

==>
45.2.1.39.5 Flos
When the Flos (1.69.4) bit is read as a one, this indicates that the link partner PMA/PMD has is not receiving a valid signal. The

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.39.6** P **109** L **18** # **744**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.6 Ffec-s (1.69.1)
When read as a one, this bit indicates that the link partner PMA/PMD is receiving FEC blocks with one or

SuggestedRemedy

==>
45.2.1.39.6 Ffec-s
When the Ffec-s (1.69.1) bit is read as a one, this indicates that the link partner PMA/PMD is receiving FEC blocks with one or

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.39.7** *P* **109** *L* **25** # **745**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.39.7 Febe-s (1.69.0)
When read as a one, this bit indicates that the link partner PMA/PMD is receiving FEC blocks with one or

SuggestedRemedy

==>

45.2.1.39.7 Febe-s
When the Febe-s (1.69.0) bit is read as a one, this indicates that the link partner PMA/PMD is receiving FEC blocks with one or

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.4.** *P* **87** *L* **40** # **78**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

Table 45-5 appears twice

SuggestedRemedy

remove one of them

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.4.2** *P* **87** *L* **43** # **661**
James, David JGG

Comment Type **T** *Comment Status* **D**

Noncentered table column.

Center rightmost and leftmost column.

SuggestedRemedy

Center these columns.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.4.2** *P* **88** *L* **18** # **662**
James, David JGG

Comment Type **T** *Comment Status* **D**

Noncentered table column.

Center rightmost and leftmost column.

SuggestedRemedy

Center these columns.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.4.2** *P* **89** *L* **29** # **666**
James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization.

"Link down (ready)" state (see 45.2.1.12.4),

SuggestedRemedy

==>
"link is down (ready)" state (see 45.2.1.12.4),

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, 45.2.1.12.4
""MA/PMD link is down and the PMA/PMD is detecting handshake tones from a link partner. This state is known as "ready"".

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.40** *P* **109** *L* **31** # **746**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.40 10P cyclic extension configuration register (Register 1.70)
The 10P cyclic extension configuration register controls the length of the cyclic extension for the 10P PMD.

SuggestedRemedy

==>
45.2.1.40 10P cyclic extension configuration register
The 10P cyclic extension configuration register (register 1.70) controls the length of the cyclic extension for the 10P PMD.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.41** *P* **109** *L* **51** # **747**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.41 10P attainable downstream data rate register (Register 1.71)
The 10P attainable downstream data rate register reports the data rate that the "-R" link partner measures to

SuggestedRemedy

==>
45.2.1.41 10P attainable downstream data rate register (Register 1.71)
The 110P attainable downstream data rate register (register 1.71) reports the data rate that the "-R" link partner measures to

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42** *P* **110** *L* **16** # **748**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.42 2B general parameter register (Register 1.80)
The 2B general parameter register controls various parameters for the operation of the 2BASE-TL

SuggestedRemedy

==>
45.2.1.42 2B general parameter register
The 2B general parameter register (register 1.80) controls various parameters for the operation of the 2BASE-TL

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42** *P* **110** *L* **17** # **39**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

"Special line probing bit and Nosie environment bit were introduced, PMMS margin during hand shake still missing"

SuggestedRemedy

use currently reserved bit (i.e. 14:10 or 15:11) for PMMS margin

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42.1** *P* **110** *L* **50** # **749**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.42.1 Line probing control (1.80.9)
When set to a one, this bit tells the PMA/PMD to perform line probing the next time link is initialized. When

SuggestedRemedy

==>
45.2.1.42.1 Line probing control)
When the Line probing control (1.80.9) bit is set to a one, this tells the PMA/PMD to perform line probing the next time link is initialized. When

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42.2** *P* **111** *L* **1** # **750**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.42.2 Noise environment (1.80.8)
This bit controls the reference noise used during line probing. When set to a one, the noise environment is

SuggestedRemedy

==>
45.2.1.42.2 Noise environment
The Noise environment (1.80.8) bit controls the reference noise used during line probing. When set to a one, the noise environment is

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42.1** *P* **110** *L* **53** # **38**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

"When set to zero, NO line probing is performed"

SuggestedRemedy

change respectively

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.42.3** *P* **111** *L* **7** # **751**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.42.3 Region (1.80.1:0)
These bits select the regional annex that is used for the operation of the 2BASE-TL PMA/PMD. These

SuggestedRemedy

==>
45.2.1.42.3 Region
The Region (1.80.1:0) bits select the regional annex that is used for the operation of the 2BASE-TL PMA/PMD. These

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.43** P **111** L **14** # **752**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.43 2B PMD parameters registers (Registers 1.81 through 1.88)
The 2B PMD parameters registers set the transmission parameters for an individual 2BASE-TL PMA/PMD

SuggestedRemedy

==>
45.2.1.43 2B PMD parameters registers
The 2B PMD parameters registers (registers 1.81 through 1.88) set the transmission parameters for an individual 2BASE-TL PMA/PMD

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.43** P **111** L **25** # **40**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

entire first sentence obsolete since a dedicated PMMS bit was introduced

SuggestedRemedy

remove first sentence

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.43** P **111** L **29** # **42**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

data rate ranges 5-8 are covered by register 102-109

SuggestedRemedy

add a respective note

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.43** P **111** L **30** # **41**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

dedicated line probing bit was introduced

SuggestedRemedy

remove part of the sentence ((the line probing is not performed)

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.43.1** P **113** L **42** # **753**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.43.1 Min data rate (1.81 through 87.14:8)
Bits 14:8 in registers 1.81 through 1.87 set the minimum data rate for each of the four ranges. Valid values

SuggestedRemedy

==>
45.2.1.43.1 Min data rate
The Min data rate (1.81 through 87.14:8) bits are described herein.
Bits 14:8 in registers 1.81 through 1.87 set the minimum data rate for each of the four ranges. Valid values

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.1** *P* **114** *L* **7** # **756**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.43.4 Power (1.82 through 88.6:2)
Bits 6:2 in registers 1.82 through 1.88

SuggestedRemedy

==>
45.2.1.43.4 Power)
The Power (1.82 through 88.6:2) bits are described herein.
Bits 6:2 in registers 1.82 through 1.88

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.2** *P* **113** *L* **50** # **754**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.43.2 Max data rate (1.81 through 87.6:0)
Bits 6:0 in registers 1.81 through 1.87 set the maximum data rate for each of the four ranges. Valid values for

SuggestedRemedy

==>

45.2.1.43.2 Max data rate
The Max data rate (1.81 through 87.6:0) bits are described herein.
Bits 6:0 in registers 1.81 through 1.87 set the maximum data rate for each of the four ranges. Valid values for

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.3** *P* **114** *L* **1** # **755**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.
45.2.1.43.3 Data rate step (1.82 through 88.13:7)
Bits 13:7 in registers 1.82 through 1.88 set the granularity

SuggestedRemedy

==>
45.2.1.43.3 Data rate step
The Data rate step (1.82 through 88.13:7) bits are described herein.
Bits 13:7 in registers 1.82 through 1.88 set the granularity

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.4** *P* **114** *L* **8** # **43**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

not clear what power means - is it transmit power - if yes no power boost up to 21 db (as equation) supported - add a note the max.TX power is specified by annex - if it is power back off - only 1 value supported per constellation

SuggestedRemedy

clarify

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.5** *P* **114** *L* **18** # **757**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.43.5 Constellation (1.82 through 88.1:0)
Bits 1:0 in registers 1.82 through 1.88 set

SuggestedRemedy

==>
45.2.1.43.5 Constellation
The Constellation (1.82 through 88.1:0) bits are described herein.
Bits 1:0 in registers 1.82 through 1.88 set

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.43.5** *P* **114** *L* **22** # **45**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
constellation will not be negotiated during PMMS (PMMS can be turnde on/off)

SuggestedRemedy
replace PMMS with initialization

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.44** *P* **114** *L* **24** # **759**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inconsistent plurality: the title is plural, the text is singular.

45.2.1.44 2B code violation errors counter (Registers 1.89)
The 2B code violation errors counter is a 16-bit counter

SuggestedRemedy
==>
45.2.1.44 2B code violation errors counter

The 2B code violation errors counter (register 1.89) is a 16-bit counter

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.44** *P* **114** *L* **24** # **758**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.44 2B code violation errors counter (Registers 1.89)
The 2B code violation errors counter is a 16-bit counter

SuggestedRemedy
==>
45.2.1.44 2B code violation errors counter
The 2B code violation errors counter (register 1.89) is a 16-bit counter

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.45** *P* **114** *L* **43** # **760**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.45 2B link partner code violations register (Register 1.90)
The 2B link partner code violations register provides the "-

SuggestedRemedy
==>
45.2.1.45 2B link partner code violations register
The 2B link partner code violations register (register 1.90) provides the "-

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.45** *P* **114** *L* **46** # **44**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
value must not necessarily increment

SuggestedRemedy
add either update or replace incrment with updated

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.46** *P* **115** *L* **1** # **761**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.46 2B errored seconds counter (Register 1.91)
This 8-bit counter contains the number of errored seconds (see 63.2.2.3) These bits shall be set to all zeros

SuggestedRemedy
==>
45.2.1.46 2B errored seconds counter
The 2B errored seconds counter (register 1.91) is an 8-bit counter that contains the number of errored seconds (see 63.2.2.3) These bits shall be set to all zeros

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.47** *P* **115** *L* **19** # **762**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.47 2B link partner errored seconds register (Register 1.92)
The 2B link partner errored seconds register provides the "-O" STA with a snapshot of the "-R" link partner's

SuggestedRemedy

==>
45.2.1.47 2B link partner errored seconds register
The 2B link partner errored seconds register (register 1.92) provides the "-O" STA with a snapshot of the "-R" link partner's

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.48** *P* **115** *L* **32** # **763**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.48 2B severely errored seconds counter (Register 1.93)
This 8-bit counter contains the number severely errored seconds (see 63.2.2.3). These bits shall be set to all

SuggestedRemedy

==>
45.2.1.48 2B severely errored seconds counter)
The 2B severely errored seconds counter (register 1.93) is an 8-bit counter contains the number severely errored seconds (see 63.2.2.3). These bits shall be set to all

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.47** *P* **115** *L* **22** # **46**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

value must not necessarily increment

SuggestedRemedy

add either update or replace incrment with updated

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.49** *P* **115** *L* **50** # **764**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.49 2B link partner severely errored seconds register (Register 1.94)
The 2B link partner severely errored seconds register provides the "-O" STA with a snapshot of the "-R" link

SuggestedRemedy

==>
45.2.1.48 2B severely errored seconds counter
The 2B severely errored seconds counter (register 1.93) is an 8-bit counter contains the number severely errored seconds (see 63.2.2.3). These bits shall be set to all

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.49** *P* **115** *L* **53** # **47**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
value must not necessarily increment

SuggestedRemedy
add either update or replace incrment with updated

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.51** *P* **116** *L* **27** # **765**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.51 2B link partner LOSW register (Register 1.96)
The 2B link partner LOSW register provides the "-O" STA with a snapshot

SuggestedRemedy
==>
45.2.1.51 2B link partner LOSW register
The 2B link partner LOSW register (register 1.96) provides the "-O" STA with a snapshot

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.51** *P* **116** *L* **30** # **48**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
value must not necessarily increment

SuggestedRemedy
add either update or replace incrment with updated

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.52** *P* **116** *L* **39** # **766**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.52 2B unavailable seconds counter (Register 1.97)
This 8-bit counter contains the number of unavailable

SuggestedRemedy
==>
45.2.1.52 2B unavailable seconds counter
The 2B unavailable seconds counter (register 1.97) is an 8-bit counter contains the number of unavailable

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.53** *P* **117** *L* **1** # **767**
James, David JGG

Comment Type **T** *Comment Status* **D**
Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.53 2B link partner unavailable seconds register (Register 1.98)
The 2B link partner unavailable seconds register provides the "-O" STA with a snapshot of the "-R" link

SuggestedRemedy
==>
45.2.1.53 2B link partner unavailable seconds register
The 2B link partner unavailable seconds register (register 1.98) provides the "-O" STA with a snapshot of the "-R" link

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.53** *P* **117** *L* **4** # **49**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
value must not necessarily increment

SuggestedRemedy
add either update or replace incrment with updated

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.54** *P* **117** *L* **13** # **768**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.54 2B state defects register (Register 1.99)
The 2B state defects register is used to communicate defect states from the 2BASE-TL PMD (see 63.2.2.3).

SuggestedRemedy

==>
45.2.1.54 2B state defects register
The 2B state defects register (register 1.99) communicates defect states from the 2BASE-TL PMD (see 63.2.2.3).

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.54.1** *P* **117** *L* **41** # **769**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.54.1 Segment defect (1.99.15)
When read as a one, this bit indicates that the local PMA/PMD has detected a segment defect.

SuggestedRemedy

==>
45.2.1.54.1 Segment defect
When the Segment defect (1.99.15) bit is read as a one, this bit indicates that the local PMA/PMD has detected a segment defect.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.54.2** *P* **117** *L* **45** # **770**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.54.2 SNR margin defect (1.99.14)
When read as a one, this bit indicates that the local PMA/PMD has received a signal whose SNR is below

SuggestedRemedy

==>
45.2.1.54.2 SNR margin defect
When the SNR margin defect (1.99.14) bit is read as a one, this bit indicates that the local PMA/PMD has received a signal whose SNR is below

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.54.3** *P* **117** *L* **51** # **771**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.54.3 Loop attenuation defect (1.99.13)
When read as a one, this bit indicates that the PMA/PMD has detected that the loop attenuation is below the

SuggestedRemedy

==>
45.2.1.54.3 Loop attenuation defect (1.99.13)
When the loop attenuation defect (1.99.13) bit is read as a one, this bit indicates that the PMA/PMD has detected that the loop attenuation is below the

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.54.4** *P* **118** *L* **1** # **772**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.<CR
45.2.1.54.4 Loss of sync word (1.99.12)
When read as a one, this bit indicates that the PMA/PMD has lost PMA/PMD frame sync.

SuggestedRemedy

==>
45.2.1.54.4 Loss of sync word
When the Loss of sync word (1.99.12) bit is read as a one, this indicates that the PMA/PMD has lost PMA/PMD frame sync.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.56** *P* **118** *L* **5** # **773**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.56 2B negotiated constellation register (Register 1.101)
The bit definitions for this register are shown in Table 45-10ai.

SuggestedRemedy

==>
45.2.1.56 2B negotiated constellation register
The 2B negotiated constellation register (Register 1.101) bit definitions for this register are shown in Table 45-10ai.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.56.1** *P* **118** *L* **34** # **774**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.56.1 Negotiated constellation (1.101.1:0)
These bits report the resulting constellation that was obtained after initialization. For more information on

SuggestedRemedy

==>
45.2.1.56.1 Negotiated constellation (1.101.1:0)
The Negotiated constellation (1.101.1:0) bits report the resulting constellation that was obtained after initialization. For more information on

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.57** *P* **118** *L* **41** # **775**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57 2B extended PMD parameters registers (Registers 1.102 through 1.109)
The 2B extended PMD parameters registers define four additional data range sets to be used in conjunction
with

SuggestedRemedy

==>
45.2.1.57 2B extended PMD parameters registers
The 22B extended PMD parameters registers (registers 1.102 through 1.109) define four additional data range sets to be used in conjunction

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.57.1** P **120** L **43** # **776**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57.1 Min data rate (1.102 through 108.14:8)
Bits 14:8 in registers 1.102 through 1.108 set the minimum data rate for each of the four extended ranges.

SuggestedRemedy

==>
45.2.1.57.1 Min data rate

The Min data rate (1.102 through 108.14:8) bits are described herein.
Bits 14:8 in registers 1.102 through 1.108 set the minimum data rate for each of the four extended ranges.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.57.2** P **120** L **50** # **777**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57.2 Max data rate (1.102 through 108.6:0)
Bits 6:0 in registers 1.102 through 1.108 set the maximum data rate for each of the four extended ranges.

SuggestedRemedy

==>
45.2.1.57.2 Max data rate
The Max data rate (1.102 through 108.6:0) bits are described herein.
Bits 6:0 in registers 1.102 through 1.108 set the maximum data rate for each of the four extended ranges.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.57.3** P **121** L **1** # **778**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57.3 Data rate step (1.103 through 109.13:7)
Bits 13:7 in registers 1.102 through 1.109 set the granularity used by the PMA/PMD when determining the

SuggestedRemedy

==>
45.2.1.57.3 Data rate step
The Data rate step (1.103 through 109.13:7) bits are described herein.
Bits 13:7 in registers 1.102 through 1.109 set the granularity used by the PMA/PMD when determining the

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.1.57.4** P **121** L **8** # **50**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

see similar comment in clause 45.2.1.43.4

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.57.4** *P* **121** *L* **8** # **779**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57.4 Power (1.103 through 109.6:2)
Bits 6:2 in registers 1.103 through 1.109 set the allowed power level for each extended data rate range. The

SuggestedRemedy

==>
45.2.1.57.4 Power
The Power (1.103 through 109.6:2) bits are described herein.
Bits 6:2 in registers 1.103 through 1.109 set the allowed power level for each extended data rate range. The

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.57.5** *P* **121** *L* **17** # **780**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.1.57.5 Constellation (1.103 through 109.1:0)
Bits 1:0 in registers 1.103 through 1.109 set the allowed constellation for each extended data rate range.

SuggestedRemedy

==>
45.2.1.57.5 Constellation
The Constellation (1.103 through 109.1:0) bits are described herein.
Bits 1:0 in registers 1.103 through 1.109 set the allowed constellation for each extended data rate range.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.1.57.5** *P* **121** *L* **21** # **51**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

see similar comment in clause 45.2.1.43.5

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.2.14** *P* **122** *L* **9** # **782**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.2.14 10G WIS Far End Line BIP Errors (Register 2.55 and 2.56)
Insert the following sentence at the end of the subclause:
NOTE - These counters do not follow the behavior described in 45.2 for 32-bit counters.

SuggestedRemedy

==>
45.2.2.14 10G WIS Far End Line BIP Errors (Register 2.55 and 2.56)
Insert the following sentence at the end of the subclause:
NOTE - The 10G WIS Far End Line BIP Errors (register 2.55 and 2.56) counters do not follow the behavior described in 45.2 for 32-bit counters.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.2.15** P **122** L **15** # **783**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.2.15 10G WIS Line BIP Errors (Register 2.57 and 2.58)
Insert the following sentence at the end of the subclause:
NOTE - These counters do not follow the behavior described in 45.2 for 32-bit counters.

SuggestedRemedy

==>
45.2.2.15 10G WIS Line BIP Errors (Register 2.57 and 2.58)
Insert the following sentence at the end of the subclause:
NOTE - The 10G WIS Line BIP Errors (register 2.57 and 2.58) counters do not follow the behavior described in 45.2 for 32-bit counters.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.2.15** P **122** L **15** # **784**

James, David JGG

Comment Type **T** *Comment Status* **D**

Fix your tools, so that sort by page does numerical comparison,
not an alphabet comparison (44 is followed by 441).

Hey, you could even steal back the P802.16 tool, which is a much
better refinement. Believe it or not, some new things from others
can actually be as good as yours, or even better!

SuggestedRemedy

Use less brain-damaged tools.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.2.15** P **122** L **15** # **785**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.2.15 10G WIS Line BIP Errors (Register 2.57 and 2.58)
Insert the following sentence at the end of the subclause:
NOTE - These counters do not follow the behavior described in 45.2 for 32-bit counters.

SuggestedRemedy

==>
45.2.2.15 10G WIS Line BIP Errors (Register 2.57 and 2.58)
Insert the following sentence at the end of the subclause:
NOTE - The 10G WIS Line BIP Errors (register 2.57 and 2.58) counters do not follow the behavior described in 45.2 for 32-bit counters.

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.2.15** P **124** L **50** # **786**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.1.2 Loopback (3.0.14)
The 10GBASE-R PCS shall be placed in a Loopback mode of operation when bit 3.0.14 is set to a one.

SuggestedRemedy

==>
45.2.3.1.2 Loopback (3.0.14)
The 10GBASE-R PCS shall be placed in a loopback mode of operation when the Loopback bit (bit 3.0.14) is set to a one.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.2.15** *P* **125** *L* **13** # **787**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.2.1 Fault (3.1.7)
Insert the following sentence at the end of the subclause:
For 10BASE-TS or 2BASE-TL operation, this bit shall become a one when any 10P/2B PCS registers indicate
a fault (see 45.2.3.17, 45.2.3.21 through 45.2.4.5).

SuggestedRemedy

==>
45.2.3.2.1 Fault (3.1.7)
Insert the following sentence at the end of the subclause:
For 10BASE-TS or 2BASE-TL operation, the Fault bit (bit 3.1.7) shall become a one when any 10P/2B PCS registers indicate
a fault (see 45.2.3.17, 45.2.3.21 through 45.2.4.5).

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.2.5** *P* **122** *L* **1** # **781**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.2.5 WIS devices in package (Registers 2.5 and 2.6)
Change subclause text to read:
The WIS devices in package registers are defined in Table 45-1a.

SuggestedRemedy

==>
45.2.2.5 WIS devices in package
Change subclause text to read:
The WIS devices in package registers (registers 2.5 and 2.6) are defined in Table 45-1a.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.2.5** *P* **122** *L* **5** # **124**

Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

Changes aren't shown in the sentence with underscores and strikethroughs.

SuggestedRemedy

Make correction.

Same problem in 45.2.3.5, 45.2.4.5, and 45.2.5.5.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.17** *P* **126** *L* **10** # **791**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.17 10P/2B capability register (3.60)
The 10P/2B capability register reports which functions are supported by the PCS. This register is present at

SuggestedRemedy

==>
45.2.3.17 10P/2B capability register
The 10P/2B capability register (register 3.60) reports which functions are supported by the PCS. This register is present at

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.17.1** *P* **126** *L* **32** # **792**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.17.1 PAF available (3.60.12)
This bit indicates that the PHY supports the PME aggregation function. The PHY sets this bit to a one when

SuggestedRemedy

==>
45.2.3.17.1 PAF available
The PAF available bit (bit 3.60.12) indicates that the PHY supports the PME aggregation function. The PHY sets this bit to a one when

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.17.1** *P* **126** *L* **37** # **793**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.17.2 Remote PAF supported (3.60.11)
This bit indicates that the remote, link-partner PHY supports the PME aggregation function. The PHY sets

SuggestedRemedy

==>
45.2.3.17.2 Remote PAF supported
The Remote PAF supported bit (bit 3.60.11) indicates that the remote, link-partner PHY supports the PME aggregation function. The PHY sets

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.18** *P* **126** *L* **45** # **794**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.18 10P/2B PCS control register (Register 3.61)
The assignment of bits in the 10P/2B PCS control register is shown in Table 45-42b.

SuggestedRemedy

==>
45.2.3.18 10P/2B PCS control register
The assignment of bits in the 10P/2B PCS control register (register 3.61) is shown in Table 45-42b.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.18** *P* **126** *L* **45** # **795**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.18.1 MII receive during transmit (3.61.15)
This register bit is used to tell the PHY-MAC rate matching function if the MAC is capable of receiving

SuggestedRemedy

==>
45.2.3.18.1 MII receive during transmit
The MII receive during transmit bit (bit 3.61.15) tells the PHY-MAC rate matching function if the MAC is capable of receiving

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.18** *P* **127** *L* **17** # **796**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.18.2 TX_EN and CRS infer a collision (3.61.14)
This bit is set by the STA to tell the MAC-PHY rate matching function that the MAC-PHY interface does

SuggestedRemedy

==>
45.2.3.18.2 TX_EN and CRS infer a collision (3.61.14)
The TX_EN and CRS infer a collision bit (bit 3.61.14) is set by the STA to tell the MAC-PHY rate matching function that the MAC-PHY interface does

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.18** *P* **127** *L* **25** # **797**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.18.3 PAF enable (3.61.0)
Setting this bit to a one shall activate the PME aggregation function of the PCS when the link is established.

SuggestedRemedy

==>
45.2.3.18.3 PAF enable
Setting the PAF enable bit (bit 3.61.0) to a one shall activate the PME aggregation function of the PCS when the link is established.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.18.3** *P* **127** *L* **25** # **798**

James, David JGG

Comment Type **T** *Comment Status* **D**

I don't understand why there is a shall in:
"Setting this bit to a one shall activate the PME aggregation function of the PCS when the link is established."
where there is no shall in almost all of the other descriptions.

Either explain, or start on the crusade for shall consistency.

SuggestedRemedy

Either explain, or start on the crusade for shall consistency.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.19** *P* **127** *L* **32** # **799**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.19 10P/2B PME available (Registers 3.62 and 3.63)
The 10P/2B PME available registers are used to indicate which PMEs in the aggregation group are available

SuggestedRemedy

==>
45.2.3.19 10P/2B PME available
The 10P/2B PME available registers (registers 3.62 and 3.63) are used to indicate which PMEs in the aggregation group are available

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.2.2** *P* **125** *L* **20** # **788**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.2.2 PCS receive link status (3.1.2)
Insert the following paragraph after the last paragraph:
When a 10PASS-TS or 2BASE-TL PCS is implemented and selected, the PCS sets this bit to a one when the

SuggestedRemedy

==>
45.2.3.2.2 PCS receive link status (3.1.2)
Insert the following paragraph after the last paragraph:
When a 10PASS-TS or 2BASE-TL PCS is implemented and selected, the PCS sets the PCS receive link status (bit 3.1.2) bit to a one when the

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.20** *P* **128** *L* **17** # **800**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.20 10P/2B PME aggregate registers (Registers 3.64 and 3.65)
The 10P/2B PME aggregate registers are used to select PMEs for aggregation. Attempts to activate

SuggestedRemedy

==>
45.2.3.20 10P/2B PME aggregate registers
The 10P/2B PME aggregate registers (registers 3.64 and 3.65) are used to select PMEs for aggregation. Attempts to activate

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.21** *P* **128** *L* **50** # **801**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.21 10P/2B PAF RX error register (Register 3.66)
The 10P/2B PAF RX error register is a 16 bit counter that contains the number of fragments that have been

SuggestedRemedy

==>
45.2.3.21 10P/2B PAF RX error register
The 10P/2B PAF RX error register (register 3.66) is a 16 bit counter that contains the number of fragments that have been

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.21** *P* **128** *L* **54** # **79**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

"Replace
'This counter is present even when the PAF is not implemented, or implemented but not enabled' by
'This counter is inactive when the PAF is unsupported or disabled. Upon disabling the PAF, the register retains its previous value'
to make the description consistent with the Registers 3.67 .. 3.73.
See also resolution of D3.1 #436."

SuggestedRemedy

replace sentence as described in comment

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.3.22** P **129** L **16** # **802**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.22 10P/2B PAF small fragments register (Register 3.67)
The 10P/2B PAF small fragments register is a 16 bit counter that contains the number of small fragments

SuggestedRemedy

==>
45.2.3.22 10P/2B PAF small fragments register
The 10P/2B PAF small fragments register (register 3.67) is a 16 bit counter that contains the number of small fragments

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.3.23** P **129** L **38** # **803**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.23 10P/2B PAF large fragments register (Register 3.68)<CRThe 10P/2B PAF large fragments register is a 16 bit counter that contains the number of large fragments that

SuggestedRemedy

==>
45.2.3.23 10P/2B PAF large fragments register
The 10P/2B PAF large fragments register (register 3.68) is a 16 bit counter that contains the number of large fragments that

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.3.23** P **129** L **41** # **52**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

"corresponding signal is not FragmentTooSmall, it is FragmentTooLarge instead"

SuggestedRemedy

change accordingly

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.3.24** P **130** L **1** # **804**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.24 10P/2B PAF overflow register (Register 3.69)
The 10P/2B PAF overflow register is a 16 bit counter that contains the number of fragments that have been

SuggestedRemedy

==>
45.2.3.24 10P/2B PAF overflow register
The 10P/2B PAF overflow register (register 3.69) is a 16 bit counter that contains the number of fragments that have been

Proposed Response *Response Status* **O**

Cl **45** SC **45.2.3.25** P **130** L **20** # **805**
James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.25 10P/2B PAF bad fragment register (Register 3.70)
The 10P/2B PAF bad fragment register is a 16 bit counter that contains the number of bad fragments that

SuggestedRemedy

==>
45.2.3.25 10P/2B PAF bad fragment register
The 10P/2B PAF bad fragment register (register 3.70) is a 16 bit counter that contains the number of bad fragments that

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.26** *P* **130** *L* **39** # **806**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.26 10P/2B PAF lost fragment register (Register 3.71)
The 10P/2B PAF lost fragment register is a 16 bit counter that contains the number of gaps in the sequence

SuggestedRemedy

==>
45.2.3.26 10P/2B PAF lost fragment register)
The 10P/2B PAF lost fragment register (register 3.71 is a 16 bit counter that contains the number of gaps in the sequence

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.27** *P* **130** *L* **52** # **807**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.27 10P/2B PAF lost start of fragment register (Register 3.72)
The 10P/2B PAF lost start of fragment register is a 16 bit counter that contains the number missing start of

SuggestedRemedy

==>
45.2.3.27 10P/2B PAF lost start of fragment register
The 10P/2B PAF lost start of fragment register (register 3.72) is a 16 bit counter that contains the number missing start of

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.27** *P* **130** *L* **52** # **53**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

missing of the word 'of' between number and missing

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.28** *P* **131** *L* **23** # **808**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.28 10P/2B PAF lost end of fragment register (Register 3.73)
The 10P/2B PAF lost end of fragment register is a 16 bit counter that contains the number of missing end of

SuggestedRemedy

==>
45.2.3.28 10P/2B PAF lost end of fragment register
The 10P/2B PAF lost end of fragment register (register 3.73) is a 16 bit counter that contains the number of missing end of

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.28** *P* **132** *L* **1** # **809**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.4.5 PHY XS devices in package (Registers 4.5 and 4.6)
Change subclause text to read:
The PHY XS devices in package registers are defined in Table 45-1a.

SuggestedRemedy

==>
45.2.4.5 PHY XS devices in package
Change subclause text to read:
The PHY XS devices in package registers (registers 4.5 and 4.6)
are defined in Table 45-1a.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.28** *P* **132** *L* **9** # **810**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.5.5 DTE XS devices in package (Registers 5.5 and 5.6)
Change subclause text to read:
The DTE XS devices in package registers are defined in Table 45-1a.

SuggestedRemedy

==>

45.2.5.5 DTE XS devices in package
Change subclause text to read:
The DTE XS devices in package registers (registers 5.5 and 5.6) are defined in Table 45-1a.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.4.2** *P* **125** *L* **51** # **789**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.4.2 10PASS-TS/2BASE-TL capable (3.4.1)
When read as a one, this bit indicates that the PCS is able to operate as the 10PASS-TS/2BASE-TL PCS, as

SuggestedRemedy

==>
45.2.3.4.2 10PASS-TS/2BASE-TL capable (3.4.1)
When read as a one, the 10PASS-TS/2BASE-TL capable bit (bit 3.4.1) indicates that the PCS is able to operate as the 10PASS-TS/2BASE-TL PCS, as

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.3.5** *P* **126** *L* **1** # **790**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.3.5 PCS devices in package (Registers 3.5 and 3.6)
Change subclause text to read:
The PCS devices in package registers are defined in Table 45-1a.

SuggestedRemedy

==>
45.2.3.5 PCS devices in package
Change subclause text to read:
The PCS devices in package registers (registers 3.5 and 3.6) are defined in Table 45-1a.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.1** *P* **134** *L* **1** # **811**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.6.1 TC control register (Register 6.0)
The assignment of bits in the TC control register is shown in Table 45-59b. The default value for each bit of

SuggestedRemedy

==>
45.2.6.1 TC control register
The assignment of bits in the TC control register (register 6.0) is shown in Table 45-59b. The default value for each bit of

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.1** *P* **134** *L* **1** # **812**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.6.1.1 Reset (6.0.15)
Resetting a TC is accomplished by setting bit 6.0.15 to a one. This action shall set all TC registers to their

SuggestedRemedy

==>
45.2.6.1.1 Reset
Resetting a TC is accomplished by setting the Reset bit (bit 6.0.15) to a one. This action shall set all TC registers to their

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.1.2** *P* **135** *L* **1** # **814**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inconsistent capitalization of the speed selection register. They are lower-case in the remainder of this subclause.
45.2.6.1.2 Speed selection (6.0.13, 6.0.6, 6.0.5:2)
Speed selection bits 6.0.13 and 6.0.6 shall both be written as a one. Any attempt to change the bits to an

SuggestedRemedy

==>
45.2.6.1.2 The speed selection bits
The speed selection bits 6.0.13 and 6.0.6 shall both be written as a one. Any attempt to change the bits to an

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.1.2** *P* **135** *L* **3** # **813**

James, David JGG

Comment Type **T** *Comment Status* **D**

Inappropriate titles.
Normative text, or the target for a ""this"" should never appear in the heading.
Text should read correctly without a header.

45.2.6.1.2 Speed selection (6.0.13, 6.0.6, 6.0.5:2)
Speed selection bits 6.0.13 and 6.0.6 shall both be written as a one. Any attempt to change the bits to an

SuggestedRemedy

==>
45.2.6.1.2 Speed selection
Speed selection bits 6.0.13 and 6.0.6 shall both be written as a one. Any attempt to change the bits to an

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.13** *P* **141** *L* **6** # **641**

James, David JGG

Comment Type **T** *Comment Status* **D**

Wow! This is really confusing!
Everyone else in the world defined FALSE to be 0 and 1 to be TRUE.
Was this done by the same folks that put the LSB on the left in diagrams?
This group may be powerful, but hoping to changing the word is not a good idea and simply leads to confusion.

1 = remote_TC_out_of_sync is FALSE
0 = remote_TC_out_of_sync is TRUE

SuggestedRemedy

Change the definition to something more understandable and not in direct contridiction to established industry norms. Maybe something like:

1 = remote TC is synchronouzed
0 = otherwise

Or, perhaps change the state machine variable.

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.2** *P* **135** *L* **17** # **54**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

"not clear what difference between register 6.2/6.3 (TC device id) and 6.14/6.15 (TCpackage ID) are,"

SuggestedRemedy

either remove one or add a clarifying note which identifies the differences between both

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.6.** *P* **136** *L* **24** # **80**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

reference to nonexisting chapter

SuggestedRemedy

update or remove reference

Proposed Response *Response Status* **O**

Cl **45** *SC* **45.2.6.8.** *P* **138** *L* **15** # **81**

Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

reference to nonexisting chapter

SuggestedRemedy

update or remove reference

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1** *P* **158** *L* **17** # **99346**

Booth, Brad Intel

Comment Type **TR** *Comment Status* **A** *D3.0 #760*

Figures 56-1 and 56-2 should be showing the relationship of the EFM layers to the LAN model and the OSI reference model.

SuggestedRemedy

2BASE-TL and 10PASS-TS can be merged in 56-1.

In 56-2, remove one stack and remove brackets showing OLT and ONU(s). That information belongs in the P2MP clause. The name of the medium should just be "MEDIUM". The MEDIUM should be shown as a shared medium, jagged edge on both ends. Port types should be listed under the MEDIUM.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

For the Cu stacks, we will merge the two into one stack.

The commenter is correct that the P2MP diagram appears in subsequent clauses. However,since this is a new means of operating on a shared medium it warrants its own topology in the introduction (as it is different from the point-to-point).

The jagged edges are correct as is since there are no additional OLTs to the left of the shown stack. The jagged edge to the right indicates that the medium could go on with additional ONUs (and OLT is mentioned as singular in contrast to ONUs).

Indication that the ONUs communicate with the OLT but not with each other will be indicated by way of arrows or curvature.

The stub on the left will be removed. The connecterization on the GMII will be removed.

Cl **56** *SC* **56.1** *P* **204** *L* **34** # **125**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**
In Figure 56-1, the leftmost PHY bracket doesn't go to the top of the PCS.

SuggestedRemedy
The PHY bracket should include the PCS.

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1** *P* **205** *L* **19** # **126**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**
Curved line MDI makes very little sense.

SuggestedRemedy
Don't bother being creative as it will be lost in generations to come. Make the MDI look like all the others.

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.1** *P* **206** *L* **1** # **613**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

56.1.2.1 Multi-Point MAC Control Protocol (MPCP)

SuggestedRemedy
==>
56.1.2.1 Multi-point MAC control protocol (MPCP)

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 23.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.1** *P* **206** *L* **3** # **614**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

The Multi-Point MAC Control Protocol (MPCP)

SuggestedRemedy
==>
The multi-point MAC control protocol (MPCP)

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 23.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.1** *P* **206** *L* **4** # **616**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

prepending a Logical Link Identification (LLID) to

SuggestedRemedy
==>
prepending a logical link identification (LLID) to

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 20.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.1** *P* **206** *L* **4** # **615**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

consists of one Optical Line Terminal (OLT)

SuggestedRemedy
==>
consists of one optical line terminal (OLT)

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 29.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.1** *P* **215** *L* **13** # **617**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

and the extension of the Reconciliation Sublayer (RS)

SuggestedRemedy
==>
and the extension of the reconciliation sublayer (RS)

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 15, line 20.
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.2** *P* **206** *L* **17** # **619**
James, David JGG

Comment Type **T** *Comment Status* **D**
Excessive capitalization:

EFM Copper links use the MII of Clause 22 operating

SuggestedRemedy
==>
EFM copper links use the MII of Clause 22 operating

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.2** *P* **206** *L* **17** # **620**
James, David JGG

Comment Type **T** *Comment Status* **D**
Not defined in glossary:

EFM Copper links use the MII of Clause 22 operating

SuggestedRemedy
==>
Define in the clossary:
EFM copper links

Proposed Response *Response Status* **O**

Cl **56** *SC* **56.1.2.2** *P* **215** *L* **9** # **618**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

56.1.2.2 Reconciliation Sublayer (RS) and media independent interfaces

SuggestedRemedy

==>
56.1.2.2 Reconciliation sublayer (RS) and media independent interfaces

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE Std 802.3(tm)-2002, page 15, 1.4.62

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.1.2** *P* **212** *L* **39** # **658**

James, David JGG

Comment Type **T** *Comment Status* **D**

Excessive capitalization:

""interface between Station Management (STA) and the sublayers that form""

SuggestedRemedy

==>
interface between station management (STA) and the sublayers that form

As per:
1) IEEE style guidelines (only the first word of a heading is capitalized).
2) IEEE IEEE Draft P802.3ahTM/D3.2, page 215, line 34
""such as OAM remote loopback,""

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.2.8.2.2** *P* **221** *L* **13** # **2**

Daines, Kevin World Wide Packets

Comment Type **T** *Comment Status* **D**

802.3ae/2002 changed the MA_DATA.request and MA_DATA.indication service primitives. In both cases, the frame_check_sequence parameter was added as an optional parameter. Internal to the OAM sublayer is the OAMI.indication service primitive. It mimicks the MA_DATA.indication service primitive by containing a frame_check_sequence parameter. However, it does not state this parameter is optional. It should.
Note: The companion service primitive, OAMI.request, correctly refers to the frame_check_sequence parameter as being optional.
Note 2: The commenter recognizes that this text did not change in D3.2.

SuggestedRemedy

Add ", if present, " to sentence starting with "The frame_check_sequence" to read:
"The frame_check_sequence parameter, if present, is the cyclic redundancy check value (see 3.2.8) as specified by the FCS field of the incoming frame.
Implementing this change would bring Clause 57 in harmony with 802.3/Clause 2 as amended most recently by 802.3ae.

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.3.2.1.3** *P* **231** *L* **39** # **16**

Martin, David Nortel Networks

Comment Type **E** *Comment Status* **D**

Wording format. Remove space. Wouldn't want a Leaf puck to get through!

SuggestedRemedy

Change 'a Passive DTE can not complete the OAM Discovery process' to 'a Passive DTE cannot complete the OAM Discovery process'

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.4.3.1** *P* **192** *L* **01** # **99318**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #736*

In many cases (often 802 related), the ordering of bits in the OUI is rather ambiguous. As such, the IEEE/RAC requires that standards clearly define the mappings of an example hex field, as is done in the online tutorials.

SuggestedRemedy

Show a clear example of how the OUI is mapped, using an hex example.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Add a bullet to 57.4.1 to read:

"The bit/octet ordering of any OUI field within an OAMPDU is identical to the bit/octet ordering of the OUI portion of the DA/SA. Additional detail defining the format of OUIs can be found in IEEE Std 802-2001 Clause 9."

Modify Figure 57-14 by removing the bit ordering example.

Modify Table 57-10 by removing the second sentence.

Modify other references as appropriate.

Remove other references to 802-2001 Clause 9.

Cl **57** *SC* **57.4.3.1** *P* **192** *L* **01** # **99319**

James, David JGG

Comment Type **TR** *Comment Status* **R** *D3.0 #735*

The need for uniqueness of an OUI based identifier is best met by utilizing the EUI-48 or EUI-64 definitions, so that each organization doesn't have to understand the context when assigning such numbers to the requesting division.

SuggestedRemedy

Revise the OUI and Vendor Specific Information field to be either 48-bit or 64-bit fields, defined to be an EUI-48 or EUI-64.

Proposed Response *Response Status* **U**

REJECT.

During the November meeting of the RAC (see notes below) the following decisions were established.

- - -
INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
REGISTRATION AUTHORITY COMMITTEE (RAC)

INTERIM MEETING MINUTES
From: 13 November 2003
Location: Hyatt Regency Albuquerque
Boardroom North
330 Tijeras
Albuquerque, New Mexico

Decision 111303 RAC-04: EUI-48 and 64-bit identifiers are appropriate for instance identification.

Decision 111303 RAC-05: Protocol identifiers in addition to 48 and 64 bits are acceptable to use an OUI followed by N Octet, subject to the constraint for the expected consumption rate, the number space can never be consumed.

- - -

The combination of the OUI and Vendor Specific Information fields does not constitute a unique 56-bit identifier.

The purpose of the Vendor Specific Information field is not instance identification, but rather class identification.

The meaning of the bits in the Vendor Specific Information field is out of scope.

The Vendor Specific Information field _may_ be used to differentiate amongst a vendor's product models and versions. It is not a serial number or anything like unto a serial number.

See also response to comment #737.

Cl **57** *SC* **57.4.3.1** *P* **196** *L* **16** # **99320**

James, David JGG

Comment Type **TR** *Comment Status* **R** *D3.0 #737*

The need for uniqueness of an OUI based identifier is best met by utilizing the EUI-48 or EUI-64 definitions, so that each organization doesn't have to understand the context when assigning such numbers to the requesting division.

SuggestedRemedy

Revise the OUI and following data, so that this starts with an EUI-48 or EUI-64 value. Otherwise, multi-division organizations will have to define their own subparsing conventions, which is prone to error (some have already happened with Japanese vendors and parts of 1394/AVC that do this type of thing).

Proposed Response *Response Status* **U**

REJECT.

Governance of the internal behavior of multi-division organizations is entirely out of scope of the IEEE standards activities.

See also response to comment #735.

Cl **57** *SC* **57.4.3.1** *P* **196** *L* **24** # **99321**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #738*

The IEEE/RAC defines OUIs as HEX values. Given the confusion between leftmost being first, or the first transmitted bit being first, any descriptions in terms of bits and/or bit ordering should be removed.

SuggestedRemedy

Eliminate the binary text: the hex values are sufficient.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

See comment #736, which removes the bit ordering example.

Cl **57** *SC* **57.4.3.1** *P* **197** *L* **40** # **99322**

James, David JGG

Comment Type **TR** *Comment Status* **R** *D3.0 #739*

Given the inconsistencies/ambiguities of the OUI definitions within 802.3, any definition should be self-contained, not cross referencing something else.

SuggestedRemedy

Eliminate the OUI cross reference to:

found in IEEE Std 802-2001 Clause 9.

Proposed Response *Response Status* **U**

REJECT.

See comment #736, which moves the reference to 802-2001 Clause 9 to 57.4.1.

Cl **57** *SC* **57.4.3.1** *P* **199** *L* **23** # **99323**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #740*

In many cases (often 802 related), the ordering of bits in the OUI is rather ambiguous. As such, the IEEE/RAC requires that standards clearly define the mappings of an example hex field, as is done in the online tutorials.

SuggestedRemedy

Show a figure with the classical HEX-value example.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Remove second sentence. Also, see #736.

Cl **57** *SC* **57.4.3.1** *P* **200** *L* **09** # **99324**

James, David JGG

Comment Type **TR** *Comment Status* **A** *D3.0 #741*

In many cases (often 802 related), the ordering of bits in the OUI is rather ambiguous. As such, the IEEE/RAC requires that standards clearly define the mappings of an example hex field, as is done in the online tutorials.

SuggestedRemedy

Show a figure with the classical HEX-value example.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

See comment #736, which removes bit ordering examples of OUIs.

Cl **57** *SC* **57.6.2.2** *P* **254** *L* **42** # **105**
John Messenger ADVA Optical Network

Comment Type **E** *Comment Status* **D**

The order of returning attributes in packages and objects could be clearer. The meaning of the words "first" and "successive" are unclear in this context.

SuggestedRemedy

Add text similar to the following after the text in line 42:

"Attributes within packages and objects are returned in the order those attributes are listed in Annexe 30A."

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.7** *P* **258** *L* **1** # **128**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

Fix the pagination of this section. One small table per page is a waste of paper.

SuggestedRemedy

As per comment.

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.7.2.3** *P* **258** *L* **6** # **127**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

The * in the options section indicates that other PICS have dependencies on these options/capabilities.

SuggestedRemedy

Remove the * from OM, CSI, ISI, UNI and OSI.

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.7.3.4** *P* **263** *L* **1** # **17**
Martin, David Nortel Networks

Comment Type **E** *Comment Status* **D**

Page formatting.

SuggestedRemedy

Remove the page break to allow this sub-clause to start on the previous page, it should fit.

Proposed Response *Response Status* **O**

Cl **57** *SC* **57.7.3.6** *P* **265** *L* **1** # **18**
Martin, David Nortel Networks

Comment Type **E** *Comment Status* **D**

Page formatting.

SuggestedRemedy

Remove the page break to allow this sub-clause to start on the previous page, it should fit.

Proposed Response *Response Status* **O**

Cl **58** *SC* **58.1** *P* **218** *L* **9** # **99331**
Booth, Brad Intel

Comment Type **TR** *Comment Status* **A** *BB D3.0 #780*

Sentence is very disjointed and needs better clarification.

SuggestedRemedy

Change second sentence of paragraph to read:
A 100BASE-LX10 and 100BASE-BX10 PHY (physical layer) device is a combination of a 100BASE-X PCS and PMA with the respective PMD. If the optional OAM is being used, the 100BASE-X PCS and PMA in Clause 66 shall be integrated; otherwise, the Clause 24 100BASE-X PCS and PMA shall be integrated. The management functions may be accessible through the optional Management Interface.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
As this is a PMD clause, a shall is not appropriate in this context.
The second sentence will be changed to:
A PMD is connected to the 100BASE-X PMA of Clause 24 or the 100BASE-X PMA of 66.1, and to the medium through the MDI. A PMD is optionally combined with the management functions that may be accessible through the management interface defined in Clause 22 or by other means.

Cl **58** *SC* **58.1** *P* **252** *L* **8** # **99354**

Booth, Brad — Intel

Comment Type **TR** *Comment Status* **A** *D3.1 #558 Three clauses*

The response for D3.0 comments #780, 786 and 787 cause me some concern. The response states that "As this is a PMD clause, a shall is not appropriate in this context." Considering all other 100BASE-X and 1000BASE-X PMDs use shalls in this context, the response is very misleading. In looking through D3.1, I have found no compliance statement related to the port types associated with the PMD. There is nothing within this draft that mandates which PCS/PMA shall be used by the Clause 58, 59 and 60 PMDs to create a compliant port type.

SuggestedRemedy

Reconsider the responses to comments #780, 786 and 787 in D3.0.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
Each one of the clauses 58, 59, and 60, defines only the PMD not a complete port and cannot make requirements outside the PMD.
Will refer to PMA in 66, where option to be identical to clause 24, and connection to PCS, will be found.
Clauses 56 and 66 make it very clear what is needed to build a port.
Change "A PMD is connected to the 100BASE-X PMA of Clause 24 or the 100BASE-X PMA of 66.1," to "A PMD is connected to the 100BASE-X PMA of 66.1,".
Similarly in 59 and 60. Remove 59.10.3 and 60.10.3 PICS "PCS". In 60.1, change "appropriate 1000BASE-X PMA of Clause 66" to "appropriate 1000BASE-X PMA of Clause 65".

Cl **58** *SC* **58.2.1.1** *P* **229** *L* **18** # **99332**

Paul Fitzgerald — Circadiant Systems

Comment Type **TR** *Comment Status* **A** *FBT D3.0 #288*

Use of the Optical frame based test pattern of 58.8.1.1 will lead to a broadcast storm and take down the Ethernet network. This pattern is too dangerous to imbed into low-cost test equipment that could be used in the field. It is a recipe for malicious hacking.

SuggestedRemedy

Use valid 100BASE-X signal.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
The broadcast nature of the test patterns is a necessary feature of this testing mechanism to ensure that the statistics in the receiving DTE are properly incremented without having to know the destination address of the receiving DTE. The test pattern will continue to use a broadcast address.

The note that appears in 58.8.1.1 will be replicated in clauses 59 and 60 and 58A

Cl **58** *SC* **Table 58-11** *P* **229** *L* **12** # **99333**

Paul Fitzgerald — Circadiant Systems

Comment Type **TR** *Comment Status* **A** *FBT D3.0 #287*

Use of the Optical frame based test pattern of 58.8.1.1 will lead to a broadcast storm and take down the Ethernet network. This pattern is too dangerous to imbed into low-cost test equipment that could be used in the field. It is a recipe for malicious hacking.

SuggestedRemedy

Substitute with Valid 100BASE-X signal.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
See comment 288

Cl **58** *SC* **Table 58-5** *P* **224** *L* **16** # **99334**

Paul Fitzgerald — Circadiant Systems

Comment Type **TR** *Comment Status* **R** *TDP D3.0 #289*

The TDP test is not achieving widespread support.

SuggestedRemedy

Change to a Path Penalty Test with a minimum specified amount of dispersion in the test fiber.

Proposed Response *Response Status* **U**

REJECT.
See comment 296

Cl **59** *SC* **59.1** *P* **256** *L* **7** # **99335**

Booth, Brad — Intel

Comment Type **TR** *Comment Status* **A** *BB D3.0 #786*

Second sentence of second paragraph is very disjointed.

SuggestedRemedy

Change second sentence of paragraph to read:
A 1000BASE-LX10 and 1000BASE-BX10 PHY (physical layer) device is a combination of a 1000BASE-X PCS and PMA with the respective PMD. If the optional OAM is being used, the 1000BASE-X PCS and PMA in Clause 66 shall be integrated; otherwise, the Clause 36 1000BASE-X PCS and PMA shall be integrated. The management functions may be accessible through the optional Management Interface.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

As this is a PMD clause, a shall is not appropriate in this context.
The second sentence will be changed to:
A PMD is connected to the 1000BASE-X PMA of Clause 36, and to the medium through the MDI. A PMD is optionally combined with the management functions that may be accessible through the management interface defined in Clause 22 or by other means.

Cl **59** *SC* **59.1** *P* **308** *L* **7** # **129**

Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

"Clause" not required.

SuggestedRemedy

Change to "... PMA of 66.2."

Proposed Response *Response Status* **O**

Cl **59** *SC* **Table 59-13** *P* **269** *L* **12** # **99336**

Paul Fitzgerald Circadiant Systems

Comment Type **TR** *Comment Status* **A** *FBT D3.0 #295*

Use of the Random pattern test frame Optical frame based test pattern of 58.8.1.1 will lead to a broadcast storm and take down the Ethernet network when broadcast mode is entered. This pattern is too dangerous to imbed into low-cost test equipment that could be used in the field. It is a recipe for malicious hacking.

SuggestedRemedy

Substitute with Valid 1000BASE-X signal.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
See comment 288

Cl **59** *SC* **Table 59-5** *P* **263** *L* **19** # **99337**

Paul Fitzgerald Circadiant Systems

Comment Type **TR** *Comment Status* **R** *TDP D3.0 #291*

The TDP test is not achieving widespread support.

SuggestedRemedy

Change to a Path Penalty Test with a minimum specified amount of dispersion in the test fiber.

Proposed Response *Response Status* **U**

REJECT.
See 296

Cl **59** *SC* **Table 59-8** *P* **266** *L* **27** # **99338**

Paul Fitzgerald Circadiant Systems

Comment Type **TR** *Comment Status* **R** *TDP D3.0 #293*

The TDP test is not achieving widespread support.

SuggestedRemedy

Change to a Path Penalty Test with a minimum specified amount of dispersion in the test fiber.

Proposed Response *Response Status* **U**

REJECT.
See 289

Cl **60** *SC* **60.1** *P* **286** *L* **9** # **99339**

Booth, Brad Intel

Comment Type **TR** *Comment Status* **A** *BB D3.0 #787*

Last sentence of first paragraph seems disjointed.

SuggestedRemedy

Change second sentence of paragraph to read:
A 1000BASE-PX10-D and 1000BASE-PX10-U PHY (physical layer) device is a combination of a 1000BASE-X PCS and PMA with the respective PMD. If the optional OAM is being used, the 1000BASE-X PCS and PMA in Clause 66 shall be integrated; otherwise, the Clause 36 1000BASE-X PCS and PMA as modified by 65.3 shall be integrated. The management functions may be accessible through the optional Management Interface.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

As this is a PMD clause, a shall is not appropriate in this context.
The second sentence will be changed to:
A 1000BASE-PX-U PMD or a 1000BASE-PX-D PMD is connected to the appropriate 1000BASE-X PMA of Clause 66, and to the medium through the MDI. A PMD is optionally combined with the management functions that may be accessible through the management interface defined in Clause 22 or by other means.

Cl **60** *SC* **60.8.11** *P* **304** *L* **8** # **99340**

Paul Fitzgerald Circadiant Systems

Comment Type **TR** *Comment Status* **A** *FBT D3.0 #300*

Requires a test pattern rather than live traffic.

SuggestedRemedy

Use valid or live 1000BASE-X traffic for all stressed receiver conformance tests in

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
Replace last sentence with last sentence of 59.9.14 with the appropriate references

Cl **60** *SC* **Figure 60-1** *P* **341** *L* **23** # **141**

Thompson, Geoff — Nortel Networks

Comment Type **E** *Comment Status* **D**

The "level indication" lines are no sufficiently visible for publication

SuggestedRemedy

Redraw to be more visible

Proposed Response *Response Status* **O**

Cl **60** *SC* **Table 60-5** *P* **293** *L* **19** # **99341**

Paul Fitzgerald — Circadiant Systems

Comment Type **TR** *Comment Status* **R** *TDP D3.0 #296*

The TDP test is not achieving widespread support.

SuggestedRemedy

Change to a Path Penalty Test with a minimum specified amount of dispersion in the test fiber.

Proposed Response *Response Status* **U**

REJECT.
TDP is a dispersion based path penalty test and is the more comprehensive of the two. If it were substituted by path pealty, then additional tests would have to be adderd. TDP testing has been under development for ~3 years in 10G and is accepted in this community. An alternative testing mechanism would need considerable scrutiny before it could be implemented.

Cl **60** *SC* **Table 60-8** *P* **296** *L* **31** # **99342**

Paul Fitzgerald — Circadiant Systems

Comment Type **TR** *Comment Status* **R** *TDP D3.0 #298*

The TDP test is not achieving widespread support.

SuggestedRemedy

Change to a Path Penalty Test with a minimum specified amount of dispersion in the test fiber.

Proposed Response *Response Status* **U**

REJECT.
See # 296

Cl **61** *SC* **61.1** *P* **372** *L* **47** # **15**

Beck, Michael — Alcatel Bell n.v.

Comment Type **TR** *Comment Status* **D**

Register numbers for TC control not updated correctly.

SuggestedRemedy

"Parts of register 6.0 and registers 6.16 through 6.23 specified in Clause 45 may be used to control the TC sublayer of Clause 61."

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.1.1** *P* **372** *L* **45** # **56**

Schneiderheinze, Burkart — Infineon Technologies

Comment Type **E** *Comment Status* **D**

register 3.0 controls PCS

SuggestedRemedy

add register 3.0

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.1.1** *P* **372** *L* **47** # **55**

Schneiderheinze, Burkart — Infineon Technologies

Comment Type **E** *Comment Status* **D**

"MMD 6 register set was adjusted, now registers 6.0 and 6.4 were added"

SuggestedRemedy

add register 6.0 and 6.4

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.1.4.1.2** *P* **357** *L* **20** # **99352**

Grow, Robert — Intel

Comment Type **TR** *Comment Status* **A** *D3.1 #556*

MAC does not check CRS. The MAC uses carrierSense which is mapped from CRS (see note in 22.2.1.3.3).

SuggestedRemedy

Prior to transmission, the MAC checks the carrierSense variable (mapped from the MII signal CRS), and will not transmit another frame as long as CRS is asserted.

Proposed Response *Response Status* **U**

ACCEPT.

Cl **61** *SC* **61.10.4.3** *P* **422** *L* **12** # **9**

Beck, Michael Alcatel Bell n.v.

Comment Type **E** *Comment Status* **D**

Editorial problems with automatically generated PICS entries.

SuggestedRemedy

-> 422/12 change "are" to "is"
-> 422/21 change "are" to "is"
-> 423/39 change "are" to "is"
-> 423/42 change "are" to "is"
-> 424/21 delete hyphen
-> 424/46 change "have" to "has"
-> 425/34 change "its" to "their"
-> 425/49 change "haves" to "has"
-> 426/30 change "respond" to "responds"
-> 426/37 change "respond" to "responds"
-> 426/46 change "respond" to "responds"
-> 427/5 change "transmit" to "transmits"

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.3** *P* **423** *L* **21** # **10**

Beck, Michael Alcatel Bell n.v.

Comment Type **T** *Comment Status* **D**

PICS entry only applies to -R devices.

SuggestedRemedy

PAF-17 should be CPE:M instead of M.

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.3** *P* **423** *L* **24** # **12**

Beck, Michael Alcatel Bell n.v.

Comment Type **T** *Comment Status* **D**

PICS entry applies to Clause 45.

SuggestedRemedy

PAF-18 should be removed or made optional, as it applies to Clause 45.

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.3** *P* **424** *L* **28** # **14**

Beck, Michael Alcatel Bell n.v.

Comment Type **T** *Comment Status* **D**

"this" is meaningless out of context.

SuggestedRemedy

-> 424/28 change "this" to "the".
-> 424/45 change "this" to "the".
-> 425/10 change "this" to "the".
-> 425/28 change "this" to "the".
-> 426/10 change "this" to "the".
-> 426/20 change "this" to "the".

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.3** *P* **424** *L* **37** # **11**

Beck, Michael Alcatel Bell n.v.

Comment Type **T** *Comment Status* **D**

The phrase "this value" is meaningless out of context.

SuggestedRemedy

-> 424/37 change "this value" to "the value of the Remote Discovery register NPar(3)".
-> 425/20 change "this value" to "the value of the Remote Discovery register NPar(3)".

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.3** *P* **427** *L* **4** # **13**

Beck, Michael Alcatel Bell n.v.

Comment Type **T** *Comment Status* **D**

Sentence is meaningless out of context.

SuggestedRemedy

Replace "within the next 0.5 seconds" with "within 0.5 seconds after an MR message".

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.4** *P* **427** *L* **1** # **130**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

The status shows 10PASS-TS and 2BASE-TL but those are not listed as options in 61.10.3.

Same problem exists with the variables CPE and CO. They need to be defined.

SuggestedRemedy

Insert two new options in 61.10.3 options table called *10PS and *2BL. Define new options, and use the variables in 61.10.4.4 (without the *).

Insert options *CO and *CPE in 61.10.3 options table also.

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.10.4.4.** *P* **427** *L* **36** # **69**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

information about ID field used for aggregation and discovery missing

SuggestedRemedy

add that part

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.1.2.1** *P* **382** *L* **1** # **57**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

carrierSense Variable not defined in chapter 61.2.1.3.2

SuggestedRemedy

"rename CRS to carrierSense in chapter 61.2.1.3.2 (this is a guess and needs to be confirmed)
if it is true adjust consequently at least figure 61-6 (may be the following ones as well 61-7, 61-8"

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.2.4.2.** *P* **387** *L* **39** # **82**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

"missingStartOfPacket needs further condition: EndOfPacket bit deasserted, otherwise it clashes with the definition of unexpectedEndOfPacket"

SuggestedRemedy

add condition

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.2.4.4.** *P* **388** *L* **37** # **83**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

Fourth transition condition is missing: 'or MissingStartOfPacket'

SuggestedRemedy

add this condition in text

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.2.7.3.** *P* **392** *L* **9** # **85**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

in this error case no buffer needs to be flushed, because the next frame should be started with the fragment just received.

SuggestedRemedy

remove words 'and flush the PMA buffers'

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.2.8.4** *P* **393** *L* **38** # **58**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

according to lines 1-3 of this pages there does not exist management access to the remote discovery register at the -r side

SuggestedRemedy

remove this sentence

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.2.2.8.4.** *P* **393** *L* **37** # **86**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
wrong cross reference

SuggestedRemedy
change to 45.2.6.8

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.3.** *P* **403** *L* **32** # **87**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**
change 'degree 31' to 'degree <= 31' and 'degree 15' to 'degree <= 15'
See also IEEE 802.3-2002, chapter 3.2.8, where this text is obviously copied from.

SuggestedRemedy
make changes as described in the comment

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.3.** *P* **403** *L* **38** # **88**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**
In this and the next paragraph 'left-most' and 'right-most' have to be exchanged.
This text is obviously copied from IEEE 802.3-2002, chapter 3.2.8, but in the corresponding picture figure 3-1 LSB is on the left side, in Figure 61-16 LSB is on the right side.

SuggestedRemedy
apply changes (4 appearances in 2 paragraphs).

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.4** *P* **404** *L* **9** # **3**
Beck, Michael Alcatel Bell n.v.

Comment Type **E** *Comment Status* **D**
Typo: betweenthe

SuggestedRemedy
Add proportional space between "between" and "the".

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.4** *P* **404** *L* **9** # **59**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
missing space between 'between' and 'the'

SuggestedRemedy
insert space

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.7.2** *P* **408** *L* **35** # **60**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
"wrong cross ref,"

SuggestedRemedy
update to 45.2.6.13

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.3.3.8** *P* **410** *L* **30** # **61**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
wrong cross ref to clause 45

SuggestedRemedy
update cross ref to 45.2.6.13

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.4** *P* **413** *L* **15** # **4**
Beck, Michael Alcatel Bell n.v.

Comment Type **TR** *Comment Status* **D**
Subclause title is "Changes to 9.3.4". However, the subclause doesn't actually contain any changes to 9.3.4. The only meaningful statement it makes, is that "The use of the Identification field is outside the scope of this standard," which is no longer true (see resolution of comment #417/D3.1).

SuggestedRemedy
Remove subclause 61.4.4.

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.4.** *P* **413** *L* **18** # **62**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

use of ID field is used for aggregation

SuggestedRemedy

add a note to the ID field

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8** *P* **414** *L* **8** # **63**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

"both ID field and standard information field contain Nand SPAR, clarify that these NPAR belongs to ID field"

SuggestedRemedy

add of ID field behind NPAR
besides line 8 this also applies to line 9 and 10

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8.1** *P* **414** *L* **20** # **64**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

ambiguity

SuggestedRemedy

add a note that the NPar and Spar in the following 2 chapter are part of the ID field

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8.1** *P* **416** *L* **31** # **66**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

accdg. to page 414 line 16 either CLR or MR can be first message

SuggestedRemedy

change sentence to:
...the -R device shall beginn the first g.994.1 transaction either by an CLR or MR message

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8.3** *P* **416** *L* **25** # **65**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **TR** *Comment Status* **D**

"relation to either STU-R initiated start up or STU-C initiated start up according to g.994.1 missing, see also comment against PMA/PMD control register"

SuggestedRemedy

a) STU-R intitiated start up (default scenario): the -o device shall listen to R-tone and after detection transmitting C-tones
b) SUT-C intiated sceanrio: sentence as it is (transmitting C_TONES)

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8.3** *P* **416** *L* **39** # **67**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

missing word (exchange)

SuggestedRemedy

add exchange behind capabilities

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.4.8.3** *P* **416** *L* **49** # **68**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **TR** *Comment Status* **D**

"STA does not have any knowledge whic g.994.1 action is taking place, sees only the result, therefore there is no way for the STA
to monitor this 0.5s criteria and set the STFU bit"

SuggestedRemedy

Remove last sentence and replace it with the follwoing:Phases between the different stage shall be filled by a silent period. After discovery phase and after PME aggregation phase both devices shall enter a silence period initiated by the -O device with a length of silence time (according to 45.2.1.22.3). The silence period will be terminated by the -O device sending C-Tones. This action is triggerd by either initiating the link or by initiating the PME aggegation or discovery.

Proposed Response *Response Status* **O**

Cl **61** *SC* **61.7** *P* **417** *L* **32** # **5**

Beck, Michael — Alcatel Bell n.v.

Comment Type **E** *Comment Status* **D**

Text was copied from ASCII source (using 'primes' or so-called 'straight single quotes' instead of real apostrophes).

SuggestedRemedy

Replace system's with system<apostrophe>s.

Proposed Response *Response Status* **O**

Cl **61** *SC* **Figure 61-11** *P* **389** *L* **34** # **84**

Schneiderheinze, Burkart — Infineon Technologies

Comment Type **T** *Comment Status* **D**

Transition condition from INCREMENT_EXPECTED_FRAGMENT to FRAGMENT_ERROR is incorrect: UnexpectedEndOfPacket is missing

SuggestedRemedy

add as fourth condition 'UnexpectedEndOfPacket'

Proposed Response *Response Status* **O**

Cl **61** *SC* **Figure 61-19** *P* **411** *L* **2** # **89**

Schneiderheinze, Burkart — Infineon Technologies

Comment Type **T** *Comment Status* **D**

TC_synchronized changing to TRUE must in all cases make the statemachine passing the state LOSS_OF_SYNC, where k is adjusted. This is ensured by transitions from CHECK_SYNC* to LOSS_OF_SYNC. The transition (TC_synchronizedCHANGE=TRUE AND TC_synchronized=TRUE) directly into OUT_OF_FRAGMENT does not adjust k to the found synchronization and is furthermore a contradiction to the mechanism described above.

SuggestedRemedy

remove (TC_synchronizedCHANGE=TRUE AND TC_synchronized=TRUE)

Proposed Response *Response Status* **O**

Cl **61** *SC* **Figure 61-19** *P* **411** *L* **8** # **107**

Bernard, Debbasch — Conexant

Comment Type **TR** *Comment Status* **D**

We believe that there is a potential lock-up in the 64/65-octet receive state machine. If a ""Start of Frame While Idle"" codeword has S as the last octet, then the receive state machine enters IN_FRAGMENT with k = 64. In this state, the sync byte of the next ""All Data"" codeword is read, k is incremented to 65, and the state machine gets stuck in the IN_FRAGMENT state forever. It passes all octets, including Zs and syncs to PAF.

SuggestedRemedy

Change the IN_FRAGMENT block to:
IF k < 64
  B <= receiveOctet();
  k <= k+1;
  sendOctetToPAF(B);

Proposed Response *Response Status* **O**

Cl **61A** *SC* **61A.2** *P* **610** *L* **40** # **71**

Schneiderheinze, Burkart — Infineon Technologies

Comment Type **E** *Comment Status* **D**

remove word optional after transaction B

SuggestedRemedy

remove optional and add a footnote that every CLR may be preced by a MR/REQ-CLR (see 61.4.8)

Proposed Response *Response Status* **O**

Cl **61B** *SC* *P* **615** *L* **3** # **136**

Booth, Brad — Intel

Comment Type **TR** *Comment Status* **D**

Annex 61B is listed as normative, contains "shall" statements, but has no PICS.

SuggestedRemedy

Add PICS.

Proposed Response *Response Status* **O**

Cl **61B** *SC* **61B.2** *P* **616** *L* **12** # **72**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

entire chapter is just copy of a part of table 10 of g.994.1 and provides therefore no additional information

SuggestedRemedy

remove chapter

Proposed Response *Response Status* **O**

Cl **61B** *SC* **61B.2** *P* **616** *L* **35** # **73**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

This entire chapter is related to the ID part of G.994.1 and has nothing to do with neither Table 61B-1 nor Level1 S Field codepoints

SuggestedRemedy

Either move this chapter up infront of Level-1 S field code points with an appropriate head line or move it to g.994.1

Proposed Response *Response Status* **O**

Cl **61B** *SC* **61b3.1** *P* **618** *L* **17** # **74**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **T** *Comment Status* **D**

clarify Band A and Band B operation

SuggestedRemedy

add a footnote that band A stands for Annex A and Band B stands for Annex B

Proposed Response *Response Status* **O**

Cl **62** *SC* **62.1** *P* **430** *L* **8** # **6**
Beck, Michael Alcatel Bell n.v.

Comment Type **TR** *Comment Status* **D**

Register numbers not updated correctly.

SuggestedRemedy

Align register numbers with the ones currently referenced in 61.1. Sentence should read: "Parts of register 3.4 and registers 3.60 through 3.73 specified in Clause 45 may be used to control the PCS of Clause 61. Parts of register 6.0 and registers 6.16 through 6.23 specified in Clause 45 may be used to control the TC sublayer of Clause 61. Registers 1.16 through 1.55 and 6.0 through 6.12290 specified in Clause 45 may be used to control the 10PASS-TS PMA and PMD."

Proposed Response *Response Status* **O**

Cl **62** *SC* **62.3.4.2** *P* **436** *L* **17** # **7**
Beck, Michael Alcatel Bell n.v.

Comment Type **E** *Comment Status* **D**

Grammar: support [...] are mandatory

SuggestedRemedy

Replace with: support [...] is mandatory

Proposed Response *Response Status* **O**

Cl **63** *SC* **63.1** *P* **454** *L* **8** # **70**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**

PMD/PMA register 1.1 and 1.4 also used to control the PMA and extend range to reg. 1.109

SuggestedRemedy

add these registers

Proposed Response *Response Status* **O**

Cl **63** *SC* **63.1** *P* **454** *L* **8** # **8**
Beck, Michael Alcatel Bell n.v.

Comment Type **TR** *Comment Status* **D**
Register numbers not updated correctly.

SuggestedRemedy
Replace "register 3.4.1" with "parts of register 3.4" as in 61.1.
Insert sentence:
"Parts of register 6.0 and registers 6.16 through 6.23 specified in Clause 45 may be used to control the TC sublayer of Clause 61." after "...the PCS of Clause 61."

Proposed Response *Response Status* **O**

Cl **63** *SC* **63.4** *P* **464** *L* **1** # **132**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**
Pagination needs rework as small tables are on an entire page.

SuggestedRemedy
See comment.

Proposed Response *Response Status* **O**

Cl **63** *SC* **63.4.3** *P* **465** *L* **13** # **131**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**
Missing options from the table.

SuggestedRemedy
Add the *MDIO option.

Proposed Response *Response Status* **O**

Cl **63A** *SC* **63A.4** *P* **674** *L* **52** # **75**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
wrong corss ref

SuggestedRemedy
update to 45.2.1.42

Proposed Response *Response Status* **O**

Cl **63A** *SC* **63A4** *P* **674** *L* **53** # **76**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
new added register missing

SuggestedRemedy
add chapter 45.2.1.57

Proposed Response *Response Status* **O**

Cl **63A** *SC* **63A4** *P* **675** *L* **30** # **77**
Schneiderheinze, Burkart Infineon Technologies

Comment Type **E** *Comment Status* **D**
"register 1.81 and 1.82 are just example,"

SuggestedRemedy
"values can also written to pairs 1.83/1.84, 1.85/1.86, 1.87/1.88, 1.102/1.103, 1.104/1.105,1.106/1.107, 1.108/1.109"

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.1.5** *P* **474** *L* **28** # **22**
Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**
grammar

SuggestedRemedy
Change text: "This function a < b is used..." to
"a < b: This function is used ..."

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.2.2** *P* **477** *L* **54** # **23**
Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**
wrong variable name

SuggestedRemedy
Change transmitENABLE to transmitEnable

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.2.2.3** *P* **481** *L* **31** # **24**

Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

grammar

SuggestedRemedy

change "time_quantas" to "units of time_quanta".

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.2.2.3** *P* **482** *L* **25** # **25**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

variable description is inaccurate

SuggestedRemedy

Change "These variables are used to indicate that an instance is ready to transmit data"
to
"This variable indicates that the Multi-point MAC Control instance j is ready to transmit a data frame."

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.3.2.3** *P* **469** *L* **15** # **99348**

Choi, Su-il ETRI

Comment Type **TR** *Comment Status* **R** *Not Member Of Ballot Group*

This caluse describes OLT may support multicast by using additional multicast MACs. Additional multicast MACs require additional LLIDs and filtering rules. However, multicast channel configuration as well as filtering and marking of frames for multicast isn't defined in Clause 65.1.3.3.2

SuggestedRemedy

Suggest a solution for multicast channel configuration as well as filtering and marking of frames for multicast. Attached file "choi_p2mp_1_0304.pdf" suggests a new variable "LGID(logical group identifier)" for grouping of some logical ports (LLIDs). Attached file "choi_p2mp_2_0304.pdf" shows the changes of the draft based on the suggested multicast solution.

Proposed Response *Response Status* **U**

REJECT.

Editor suggests this comment to be rejected as it constitutes a new feature.

Y: 5
N: 1
A: 2

Remove words "(multicast MACs)".
Remove the words "Multicast and" from the section header

Y:1
N:1
A:5

==========

Accept solution proposed in the comment
Y:1
N:2
A:5

Motion to accept STF resolution (reject the comment)
IEEE 802.3ah:

Y:17
N:1
A:4

Cl **64** *SC* **64.3.6.1** *P* **513** *L* **42** # **108**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

The GATE message has grant start field preceding grant length. It would add clarity if the field descriptins follow the same order.

SuggestedRemedy

Exchange items (c) and (d).

Proposed Response *Response Status* **O**

Cl **64** *SC* **64.4** *P* **512** *L* **1** # **133**
Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

Pagination needs some work. Heading on its own page.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.1** *P* **506** *L* **12** # **99307**
Thompson, Geoffrey Nortel

Comment Type **TR** *Comment Status* **R** *D3.0 #794*

The entire concept of this extension to emulate point-to-point operation seems to be a violation of the following text extracted from the Overview and Architecture, IEEE Std 802 clause 6.2.1 Service access points (SAPs)
"The MAC sublayer provides a single MAC service access point (MSAP) as an interface port to the LLC sublayer in an end station."
AND
"The Physical layer provides an interface port to a single MAC station,..."
This also seems to be a violation of the 5 Criteria commitment in Compatibility paragraph 1.

SuggestedRemedy

Alter draft to remain within original commitment.

Proposed Response *Response Status* **U**

REJECT.

The statements "The MAC sublayer provides a single MAC service access point (MSAP) as an interface port to the LLC sublayer in an end station." AND "The Physical layer provides an interface port to a single MAC station,. . . " do not have a 'shall' and therefore are not a requirement for 802 networks.

P2P emulation concept is required for interworking with 802 Networks, and is consistant with compatibility requirements undertaken by the 802.3ah project.

Cl **65** *SC* **65.1.3.3.1** *P* **533** *L* **38** # **116**
Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

Draft says: "It may replace the first octet of preamble with the /S/ code-group and pass the second octet unchanged or it may discard the first octet of preamble and replace the second octet of preamble with the /S/ code-group. The SLD is transmitted in the third octet. These are the only two possibilities considered when parsing the incoming octet stream for the SLD."
Which two possibilities?

SuggestedRemedy

The text should say:
"If the first octet of preamble is replaced by Start_of_Packet delimiter (SPD), the SLD is transmitted in the second octet after SPD (not counting the SPD itself). If the first octet of preamble is discared, and the SPD replaces the second octet, the SLD is transmitted immediately following the SPD. These are the only two possibilities considered when parsing the incoming octet stream for the SLD."

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.1.3.3.2** *P* **514** *L* **11** # **99347**
Choi, Su-il ETRI

Comment Type **TR** *Comment Status* **R** *Not Member Of Ballot Group*

In subclause 64.3.2.3, additional multicast MACs are described roughly. This means that multicast MACs require multicast_llid individually. However, each ONU checks only the match of SCB_LLID(0x7FFF).

SuggestedRemedy

Add additional comparison as "..., or the received logical_link_id matches 0x7FFF or one of the multicast_llids, then ..."

Proposed Response *Response Status* **U**

REJECT.
Proposed new feature is past deadline for new feature addition.

See comment #125 for clause 64.

Cl **65** *SC* **65.1.3.3.3** *P* **534** *L* **25** # **26**
Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

grammar

SuggestedRemedy

replace "replace" with "replaced"

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3** *P* **538** *L* **48** # **112**

Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

The specification for FEC is incomplete. It lacks precise specification about how parity bits are generated and in which block and bit order parity bits are transmitted.
In addition, no specification is given to parity buffer. Variable parity_buffer_empty is used without ever being initialized and set. No procedure for removing parity data from the buffer is shown.
Also missing is the state digram for Selector state machine which will forward received code-groups to either packet buffer or parity buffer (refer to Figure 65-10). No synchronization mechanisms are shown which would prevent data to leave the receive buffer before the entire frame is received and corrected.
It seems that there is an assumption that every implementation in some magical way will implement FEC in the same fashion and will become interoperable.

SuggestedRemedy

In its current form, FEC specification is absolutely incomplete. To fix the situation, several new state machines should be developed, at the price of delaying the standard.
Therefore, the commenter suggests to completely remove FEC section from the current draft with the understanding that a new project can be initiated to specify FEC. The new specification can be made generic to benefit different configurations, not only P2MP.

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.2.3** *P* **541** *L* **15** # **27**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

In Figure 65-7 the SFD should be SLD

SuggestedRemedy

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.4.4** *P* **545** *L* **2** # **109**

Kramer, Glen Teknovus

Comment Type **T** *Comment Status* **D**

missing definition for variable rx_code-group

SuggestedRemedy

Add missing definition

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.5** *P* **549** *L* **1** # **134**

Booth, Brad Intel

Comment Type **E** *Comment Status* **D**

State diagrams are ugly.

SuggestedRemedy

There is some overlap of the transitions equations on the transition lines. Equations should not overlap other equations or transition lines. The diagrams are very compressed and you have room available to make look better.

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.5.1** *P* **549** *L* **31** # **113**

Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

In Figure 65-11, wrong idles are generated. When disparity is positive /I1/ should be generated. If disparity is negative /I2/ is generated. Refer to Figure 36-6.

SuggestedRemedy

Swap the XMIT_T_FEC2_I1 and XMIT_T_FEC2_I2 states, or swap the labels.

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.5.3** *P* **551** *L* # **114**

Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

Figure 65-13 can be simplified by making a transition from FILL_TFEC_O_2 to FILL_TFEC_E_2 and removing states FILL_TFEC_O_3, FILL_TFEC_O_4, FILL_TFEC_O_5, FILL_TFEC_O_6, FILL_TFEC_O_7

SuggestedRemedy

Fix per comment

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.5.3** *P* **551** *L* **11** # **117**

Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

FEC receive process is broken.
The FEC syncronization state machine generates sync_status variable synchronously with data arriving to the receive buffer. This variable is used to reset 2 state machines (Fig 65-13 and Fig 65-14). But these two state machines operate with at least 12 us (max packet size) delay and cannot use the same sync_status variable.
Otherwise, a lost sync may affect a previously received good frame which is still partially in FEC receive buffer.

SuggestedRemedy

In its current form, FEC specification is absolutely incomplete. To fix the situation, several new state machines should be developed, at the price of delaying the standard.
Therefore, the commenter suggests to completely remove FEC section from the current draft with the understanding that a new project can be initiated to specify FEC. The new specification can be made generic to benefit different configurations, not only P2MP.

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.5.3** *P* **551** *L* **28** # **115**

Kramer, Glen Teknovus

Comment Type **TR** *Comment Status* **D**

Figure 65-13 generates incorrect idles. If disparity is positive, /I1/ should be generated, otherwise /I2/.

SuggestedRemedy

Fix states FILL_TFEC_E_4 and FILL_TFEC_O_5:
tx_disparity=POSITIVE should be tx_disparity=NEGATIVE

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.2.3.6.1** *P* **548** *L* **47** # **110**

Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

typo

SuggestedRemedy

variables should be variable

Proposed Response *Response Status* **O**

Cl **65** *SC* **65.3.2.1** *P* **553** *L* **11** # **111**

Kramer, Glen Teknovus

Comment Type **E** *Comment Status* **D**

The definition of CDR is explained after the CDR requirements are listed.

SuggestedRemedy

1. Renumber section 65.3.2.1.2 into 65.3.2.1.3
2. Add section 65.3.2.1.2 CDR lock timing requirements after text ending with "...for FEC enabled systems"
3. Move text "A PMA instantiated ..." to the beginning of the new section 65.3.2.1.2

Proposed Response *Response Status* **O**

Cl **66** SC P L # **99351**

Thompson, Geoffrey Nortel

Comment Type **TR** *Comment Status* **A** *D3.1 #375*

Changes have been made for 100 Mb/s that violate the compatibility promises commited to in the 5 Criteria presentation that added 100 M to the project:

Compatibility

100BASE-X PCS & PMA assumed, and the 802.3 MAC

- No changes whatsoever to the MAC
- PHY identical to current 100Mbps Std except for a new PMD
- No change to Clause 24
- Retain all state machines, 4B/5B coding etc. of 100BASE-X
  - o Only need to extend Clause 26, 100BASE-FX PMD, to include SMF
  - o Physical medium compatibility through SMF
- Compatible with existing 1000BASE-LX
- Provides upgrade paths to higher speeds and multiple wavelengths, with fiber plant untouched

SuggestedRemedy

Remove all changes to 100BASE-X other than PMD optical changes to bring the proposal back into line with the 5 Criteria Compatibility promises made when 100 M was added to the project.

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

See the presentation dawe_2_0304 that serves to make unidirectional operation dependent upon the ability of the PHY and the existence of the OAM Remote Fault option.

Promises made by a presenter back in St. Louis are in no way binding on the group. The text referenced is from a presentation by Ulf Jonsson, made at a Call For Interest, archived in the file:

http://www.ieee802.org/3/smfx_study/public/jonsson_1_0302.pdf

It was never adopted by the task force, and is not binding on the task force.

The baseline presentation on the subject is archived in the file:

http://www.ieee802.org/3/efm/baseline/jonsson_1_0502.pdf

This presentation also assumes that the 100BASE-X PCS is retained unchanged, but decisions to modify the PCS have been made since the baseline was adopted, and these are reflected in the approved text of the draft.

The PAR and 5 Criteria for EFM never claimed that the 100BASE-X PCS would be retained unchanged. The changes that we have made to the 100BASE-X PCS for the sake of unidirectional OAM PDU transmission were approved by the WG in the course of the WG ballot. This change was approved in Italy in September of 2003 in the following presentation:

http://www.ieee802.org/3/efm/public/sep03/frazier_1_0903.pdf

Cl **66** SC P **560** L **4** # **139**

Thompson, Geoff Nortel Networks

Comment Type **TR** *Comment Status* **D**

Editorial required.
The sentence structure is misleading. The phrase "which is required to initialize a 1000BASE-PX network" is not appropriately a dependent clause wrt the previous independent clause.

SuggestedRemedy

Restructure to (or equivalent):
In the absence of unidirectional operation, the sublayers in this clause are precisely the same as their equivalents in Clause 24, Clause 36, and Clause 46. For unidirectional operation, this clause describes additions and modifications to the 100BASE-X, 1000BASE-X and 10GBASE physical layers, making them capable of unidirectional operation. Unidirectional operation allows the transmission of Operations, Administration and Management (OAM) frames regardless of whether the PHY has determined that a valid link has been established. Unidirectional operation is required to initialize a 1000BASE-PX network.

Proposed Response *Response Status* **O**

Cl **66** *SC* **66** *P* **540** *L* **1** # **99353**

Booth, Brad — Intel

Comment Type **TR** *Comment Status* **A** *D3.1 #557*

Paragraph makes use of "should" and "must". IEEE 802.3 tries to avoid the use of such words.

SuggestedRemedy

Change "should" in 2nd sentence to "may". In the 3rd sentence, change second and third "should" to be "shall". In the 4th sentence, change both "must" to be "shall". Change "should" in 5th sentence to be a "shall".

Proposed Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

In addition - need to drop "on both ends of the link" from the part where OAM is enabled.

I'm okay with accepting these changes but these 5 new shall statements require a new PICS entry.

Replace the existing text with the following:

"This clause describes additions and modifications to the 100BASE-X, 1000BASE-X and 10GBASE physical layers, making them capable of unidirectional operation, which is required to initialize a 1000BASE-PX network, and allows the transmission of Operations, Administration and Management (OAM) frames regardless of whether the PHY has determined that a valid link has been established.

However, unidirectional operation may only be enabled under very limited circumstances. Before enabling this mode, the MAC shall be operating in full duplex mode and Auto-Negotiation, if applicable, shall be disabled. In addition, the OAM sublayer above the MAC (see Clause 57) shall be enabled or (for 1000BASE-X), the PCS shall be part of a 1000BASE-PX-D PHY (see Clause 60 and Clause 64). Unidirectional operation shall not be invoked for a PCS that is part of a 1000BASE-PX-U PHY (except for out-of-service test purposes or where the PON contains just one ONU). Failure to follow these restrictions results in an incompatibility with the assumptions of 802.1 protocols, a PON that cannot initialize, or collisions, which are unacceptable in the P2MP protocol."

Add a new subclause before 66.4.4.1 with title: "Maintaining compatibility with 802.1 protocols"

Add a PICS table identical to the others in this section with the following entry:
MC1 - Unidirectional mode enabled - 66 - Full duplex and disable AutoNeg and (enable OAM or 1000BASE-PX-D) and not 1000BASE-PX-U - M - Yes[ ], No[ ]

Cl **66** *SC* **66** *P* **560** *L* **46** # **19**

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **D**

The portion of the sentence about 1000BASE-PX initialization should be a separate sentence. Uni-directional operation of 100BASE-X and 10GBASE is not related to 1000BASE-PX initialization.

SuggestedRemedy

Change
'making them capable of unidirectional operation, which is required to initialize a 1000BASE-PX network, and allows the transmission of Operations, Administration and Management (OAM) frames regardless of whether the PHY has determined that a valid link has been established.'
to
'making them capable of unidirectional operation, and allowing the transmission of Operations, Administration and Management (OAM) frames regardless of whether the PHY has determined that a valid link has been established. Further, unidirectional operation is required to initialize a 1000BASE-PX network.'

Proposed Response *Response Status* **O**

Cl **66** *SC* **66** *P* **560** *L* **8** # **142**

Thompson, Geoff — Nortel Networks

Comment Type **TR** *Comment Status* **D**

The conditions in 66 introductory text for enabling unidirectional operation are not sufficiently restrictive for the operation unidirectional operation. Clause 57 is entirely optional. I can not find that its presence is actually required for unidirectional operation, only that if the OAM sublayer is present then it shall be enabled. This means that it is a valid configuration under the current text to enable unidirectional operation in a network with no OAM sublayer. This violates the normal operation of an 802.3 network and would break networks.

SuggestedRemedy

Make the presence of an OAM sublayer as well as enabling of the OAM sublayer a requirement for unidirectional operation for all DTEs (except as specified form PONs). It is not OK for the OAM sublayer to be optional if unidirectional operation can be enabled on a point-to-point link.

Proposed Response *Response Status* **O**

Cl **66** *SC* **66.3.2.2** *P* **540** *L* **41** # **99313**

Grow, Robert — Intel

Comment Type **TR** *Comment Status* **R** *D3.0 #552*

The true value needs to be better tied to the register bits that define unidirectional being enabled.

SuggestedRemedy

TRUE; Unidirectional capability enabled (register bits 0.1 = 1 and 1.7 = 1, see Clause 22)

Proposed Response *Response Status* **U**

REJECT.

This is the RS. Clause 22 registers have never been used to represent variables or anything else in an RS. While the RS is part of the physical layer, it is not part of the PHY.

Cl **67** *SC* **67.6.1** *P* **549** *L* **3** # **140**

Thompson, Geoff — Nortel Networks

Comment Type **TR** *Comment Status* **D**

The text:
"Prior to EFM, compliant 100 Mb/s, 1000 Mb/s and 10 Gb/s PCS implementations were not able to ..."
is contextually inappropriate for integration into the standard. Once the amnedment is approved and integrated there will be no notion of "Prior to EFM" all portions of the standard will be present and peer.
(Editorial required)

SuggestedRemedy

Rephrase appropriately in the present tense.

Proposed Response *Response Status* **O**

Cl **67** *SC* **67.6.3** *P* **573** *L* **20** # **135**

Booth, Brad — Intel

Comment Type **E** *Comment Status* **D**

Signaling is spelt with one "l".

SuggestedRemedy

Change per comment.

Proposed Response *Response Status* **O**

Cl **99** *SC* *P* **i** *L* **37** # **120**

Booth, Brad — Intel

Comment Type **E** *Comment Status* **D**

10GBASE-T cannot use unidirectional.

SuggestedRemedy

Change "and 10 Gb/s Ethernet" to be "10GBASE-R, 10GBASE-W and 10GBASE-X".

Proposed Response *Response Status* **O**

Cl **99** *SC* **0** *P* **i** *L* **1** # **119**

Booth, Brad — Intel

Comment Type **E** *Comment Status* **D**

Excess use of TM symbol.

SuggestedRemedy

After first use, TM is not required.

Proposed Response *Response Status* **O**