This file contains the second revision of the P802.3ad Task Force Ballot comments. It includes all comments submitted (including those "late" comments received after the official close of ballot). It also includes the resolution to all comments, as determined during the Task Force meetings in Austin TX. The editor has gone through all of the editorial comments as well, and noted their proposed disposition. In most cases, the editorial comments are truly editorial, and will be resolved by the editors. In many cases, the issues were resolved by the resolution of other related comments, and have been so noted. In no case did the editor discover an editorial comment that is truly technical and requires discussion by the Task Force (whew!). All resolutions entered unilaterally by the editor have been prefixed with a double-asterisk.

CommentNumber: 1

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: all Subclause: Page: most Line:

CommentType (E, T, ER, or TR): E

Comment:

Throughout this document the terms Actor and Partner were used to signify the two ends of a link. I object to the continued use of these ambiguous and non-technical terms. I am certain that several objections were raised on this matter as far back as the August 1998 interim meeting.

CommentEnd:

SuggestedRemedy:

Replace "Actor" with "Local" and "Partner" with "Remote".

RemedyEnd: ResolutionStart:

AIP. Add Actor and Partner to definitions.

ResolutionEnd:

CommentNumber: 2

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 1 Subclause: 1.4 Page: 4 Line: 45-46

CommentType (E, T, ER, or TR): ER

Comment:

The word "key" is too generic. We should use "aggregation key" or

"attribute key".
CommentEnd:

SuggestedRemedy:

- 1. Change (global replace) the word "key" with "aggregation key" or "attribute key".
- 2. In section 43.1.1 (Terminology" add a sentence "The term key in this

clause refers to aggregation

(/attribute) key".

RemedyEnd:

**ResolutionStart:** 

AIP Add sentence from (2), no change to definitions in Clause 1.

#### ResolutionEnd:

CommentNumber: 3

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 1 Subclause: 1.4 Page: 5 Line: 1

CommentType (E, T, ER, or TR): ER

Comment:

The word "system" is too generic. We should use "aggregation system".

CommentEnd: SuggestedRemedy:

1. Change (global replace) the word "system" with "aggregation system".

2. In section 43.1.1 (Terminology" add a sentence "The term system in this

clause refers to aggregation

system". RemedyEnd: ResolutionStart:

AIP Add sentence from (2), with no change to definitions.

#### ResolutionEnd:

CommentNumber: 4

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 2.3.3 Subclause: 2.3.2.2

Page: 8 Line: 4

CommentType (E, T, ER, or TR): E

Comment: This section is inconsistent with section 2.3.1.2.

CommentEnd: SuggestedRemedy: Add line to state

"There is sufficient information associated with m\_sdu for the MAC

client to determine the length of the data unit"

This would make this section consistent with section 2.3.1.2

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 5

CommenterName: Hadriel Kaplan

<sup>\*\*</sup>Editorial discretion

CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

**Subclause: 30.2.2.1** 

Page: 11 Line: 1-3

CommentType (E, T, ER, or TR): E

Comment:

"Otherwise, it becomes  $\Sigma$ % loses the optional implementation aspect that the first sentence carries. If the first sentence is false, the "if implemented% conditional is not retested for true.

#### CommentEnd:

SuggestedRemedy:

Replace "Otherwise, it becomes.‰ With: "Otherwise, if implemented, it becomes‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

#### ResolutionEnd:

CommentNumber: 6

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

Subclause: 30.2.2.1

Page: 11 Line: 9-12

CommentType (E, T, ER, or TR): T

**Comment:** 

This statement does not account for the condition of an Aggregator entity without a MACControlEntity, whereby MACEntity would be contained within Aggregator. (I think it,s just a typo, but the fix changes the meaning so it,s a tech comment I suppose)

#### CommentEnd:

SuggestedRemedy:

Replace "Otherwise, if Aggregator is implemented, MACControlEntity is contained within Aggregator.‰ With: "Otherwise, if Aggregator is implemented, MACEntity is contained within Aggregator.‰

RemedyEnd: ResolutionStart:

Change MAC Control Entity to MAC Entity on line 11.

## ResolutionEnd:

CommentNumber: 7

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation Clause: 30 Subclause: 30.2.5

Page: 12 (containment diagram)

Line: 14

CommentType (E, T, ER, or TR): T

Comment:

OAggregator should not have arrow to oMACEntity. Since, there is no

conflict of address for control

purpose, there is no need to bypass MAC control layer to reach MAC entity.

This is consistent with

Fig. 43-1 too. CommentEnd: SuggestedRemedy:

Remove the arrow from oAggregator to oMACEntity.

RemedyEnd: ResolutionStart:

Reject.

#### ResolutionEnd:

CommentNumber: 8

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

Subclause: 30.2.5

Page: 13 Line: 47-51

CommentType (E, T, ER, or TR): T

Comment:

These 4 attributes are listed as "O‰ which I assume means optional, but they are already part of an optional management group called the Optional Package. Why have an option of an option? I don,t think any other 802.3 standard has an optional object of an optional package.

## CommentEnd:

SuggestedRemedy:

Either make them mandatory of the Optional Package, or remove them entirely. The latter is less desirable than the former, but an acceptable fix.

RemedyEnd: ResolutionStart:

Withdrawn.

## ResolutionEnd:

CommentNumber: 9

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: Table 30-2

Page: 13 - 15 Line: Various

CommentType (E, T, ER, or TR): TR

Comment: There are various inconsistencies between this table and the object defs in Clause 30.

CommentEnd:

SuggestedRemedy:

- On page 13 lines 47-51, the "O‰ in the OptionalPackage column should be an "X‰
- Check that the attribute names all correspond to the names used in the definitions. For example, on page 13 line 36/37, AggPartnerOperKey should be AggPartnerKey, and on page 14 line 52, AggPortFramesDiscardedOnReception should be AggPortFramesDiscardedOnRx
- Check that the Read Only/Read Write status matches up in all cases. For example, on page 14 line 30/31, AggPortActorOperKey should be GET, not GET-SET.

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 10

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30 Subclause: 30.2.5

Page: 13 Line: 36

CommentType (E, T, ER, or TR): E

Comment:

name of aAggPartnerOperKey is inconsistent with other areas of the draft

CommentEnd:

SuggestedRemedy:

change aAggPartnerOperKey to aAggPartnerKey

RemedvEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 11

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: Table 30-2 (also the corresponding object/MIB definitions)

Page: 14 Line: 32, 34

CommentType (E, T, ER, or TR): E

Comment:

The use of "default" in the names of these two attributes should be changed to "admin" to line up with the usage elsewhere.

CommentEnd:

SuggestedRemedy:

Change aAggPortPartnerDefaultSystemId and aAggPortPartnerDefaultKey to aAggPortPartnerAdminSystemId and aAggPortPartnerAdminKey.

RemedvEnd: ResolutionStart:

<sup>\*\*</sup>Accept. Editor's will carefully check for consistency.

<sup>\*\*</sup>Editor will check for consistency.

<sup>\*\*</sup>Editor's discretion.

#### ResolutionEnd:

CommentNumber: 12

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: Table 30-2 (also the corresponding object/MIB definitions)

Page: 14 Line: 38

CommentType (E, T, ER, or TR): T

Comment:

The information contained in aAggPortTargetAggId can be derived from the remaining status infoormation contained in the AggPort object, coupled with the information contained in the Debug Info object.

CommentEnd: SuggestedRemedy:

Remove the aAggPortTargetAggId attribute & its corresponding definitions.

RemedyEnd: ResolutionStart:

Accept.

### ResolutionEnd:

CommentNumber: 13

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: Table 30-2 (also the corresponding object/MIB definitions)

Page: 14 Line: 48, 49

CommentType (E, T, ER, or TR): E

Comment:

Admin/Oper should be used consistently in attribute names.

CommentEnd: SuggestedRemedy:

Re-name these two attributes aAggPortActorOperStatus and aAggPortPartnerOperStatus.

RemedyEnd: ResolutionStart:

## ResolutionEnd:

CommentNumber: 14

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30 Subclause: 30.2.5

Page: 14 Line: 52

CommentType (E, T, ER, or TR): E

Comment:

 $name\ a Agg Port Frames Discarded On Reception\ is\ inconsistent\ with\ other\ areas\ of$ 

<sup>\*\*</sup>See comment 10.

the draft. CommentEnd:
$Suggested Remedy: \\ change \ a AggPortFrames Discarded On Reception \ to \ a AggPortFrames Discarded On Rx \\ Remedy End: \\ Resolution Start: \\$
**See comment 10.
ResolutionEnd:
CommentNumber: 15 CommenterName: Les Bell CommenterEmail: Les_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com Clause: 30 Subclause: 30.2.5 Page: 14 Line: 52
CommentType (E, T, ER, or TR): ER
Comment: Incorrect object name: 'aAggPortFramesDiscardedOnReception'. CommentEnd:
SuggestedRemedy: Replace with 'aAggPortFramesDiscardedOnRx'. RemedyEnd: ResolutionStart:
**Editor's discretion.
ResolutionEnd:
CommentNumber: 16 CommenterName: Les Bell CommenterEmail: Les_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com Clause: 30 Subclause: 30.2.5 Page: 15 Line: 40
CommentType (E, T, ER, or TR): TR Comment: No Capability assigned to aAggPortDebugLocalChurnCount. CommentEnd:
SuggestedRemedy: Mark 'X' in the column 'LACP Monitoring (Optional)'. RemedyEnd: ResolutionStart:
Reject
ResolutionEnd:
CommentNumber: 17 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30 Subclause: 30.2.5

Page: 15 Line: 44

CommentType (E, T, ER, or TR): TR

Comment:

No Capability assigned to aAggPortDebugFarEndSyncTransitionCount.

CommentEnd:

SuggestedRemedy:

Mark 'X' in the column 'LACP Monitoring (Optional)'.

RemedyEnd: ResolutionStart:

Reject

ResolutionEnd:

CommentNumber: 18 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30 Subclause: 30.2.5

Page: 15 Line: 47

CommentType (E, T, ER, or TR): TR

Comment:

No Capability assigned to aAggPortDebugFarEndChangeCount.

CommentEnd:

SuggestedRemedy:

Mark 'X' in the column 'LACP Monitoring (Optional)'.

RemedyEnd: ResolutionStart:

Reject

ResolutionEnd:

CommentNumber: 19

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1 and Table 30-2

Page: 16-17

Line:

CommentType (E, T, ER, or TR): TR

Comment:

To fully define the LAG ID, the Aggregator managed object class has to contain an indication of whether the Aggregator represents an Aggregate or an Individual link. Many of the latter with the same attributes as currently given in Clause 30.7.1. For an exposition of this point see pg 79, line 52 onward.

#### CommentEnd:

## SuggestedRemedy:

Add an attribute 30.7.1.n prior to 30.7.1.6 to express Aggregate/Individual. This comment assumes that aAggID is synonymous with Port ID in the protocol exchanges. If not the latter should be added as well, for an Aggregate using the default Selection Rules this will be the lowest numbered Port in the Aggregate. Include the additions in Table 30-2.

RemedyEnd: ResolutionStart:

AIP. Add attribute for aggregate/individual. Rest of comment withdrawn.

#### ResolutionEnd:

CommentNumber: 20

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1 and Table 30-2

Page: 16-17 Line:

CommentType (E, T, ER, or TR): TR

Comment

The Aggregator managed object class has to contain what is passed as a Port ID in the protocol to allow the full LAG ID to be constructed for individual links (aggregate that are forced to contain only a single link by one of the protocol partners have the Aggregation flag reset in the protocol. This may be the same as aAggID, however the port priority component is missing. whether the Aggregator represents an Aggregate or an Individual link.

#### CommentEnd:

## SuggestedRemedy:

Add an attribute to express the system's Port Priority. This comment assumes that aAggID is synonymous with Port ID in the protocol exchanges. If not the latter should be added as well, for an Aggregate using the default Selection Rules this will be the lowest numbered Port in the Aggregate. Include any additions in Table 30-2.

RemedyEnd:

ResolutionStart:

Withdrawn.

# ResolutionEnd:

CommentNumber: 21

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1 and Table 30-2

Page: 16-17

Line:

CommentType (E, T, ER, or TR): TR

#### Comment:

The Aggregator managed object class should contain, in addition to the aAggPartnerSystemID, an aAggPartnerSystemPriority. For construction of the LAG ID and understanding of the behavior of the aggregate System ID and SystemPriority should always be presented together.

#### CommentEnd:

SuggestedRemedy:

Add an attribute to express aAggPartnerSystemPriority. Include the addition in Table 30-2.

RemedyEnd: ResolutionStart:

\*\*Accept. See 362

#### ResolutionEnd:

CommentNumber: 22

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30 Subclause: 30.7.1

Page: 16 Line: 26

CommentType (E, T, ER, or TR): E

Comment:
Minor editorial
CommentEnd:
SuggestedRemedy:

Suggest changing 'normal 802.3 MAC' to 'individual 802.3 MAC'

RemedyEnd: ResolutionStart:

## \*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 23

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1.1

Page: 16 Line: 43-44

CommentType (E, T, ER, or TR): TR

Comment:

The Aggregator managed object class as to contain what is passed as a Port ID in the protocol to allow the full LAG ID to be constructed for individual links among other reasons. This may be the same as aAggID, if so this should be made explicit.

# CommentEnd:

SuggestedRemedy:

Add text to make this clear to the BEHAVIOR paragraph.

RemedyEnd: ResolutionStart:

Accept. Include a parenthetical that this maps to an ifIndex for SNMP.

### ResolutionEnd:

CommentNumber: 24

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.1

Page: 16 Line: 44

CommentType (E, T, ER, or TR): E

Comment: There is no statement indicating the operations supported by

this object. CommentEnd:

SuggestedRemedy: Add line stating this object is read-only.

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 25

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

**Subclause: 30.7.1.2** 

Page: 17 Line: 14-15

CommentType (E, T, ER, or TR): E

Comment: Wrong font size.

#### CommentEnd:

SuggestedRemedy:

Change font size to match rest of text.

RemedyEnd: ResolutionStart:

## ResolutionEnd:

CommentNumber: 26

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

<sup>\*\*</sup>Check behavior and add.

<sup>\*\*</sup>Editor will handle.

Clause: 30

Subclause: 30.7.1.2

Page: 17 Line: 1-3

CommentType (E, T, ER, or TR): E

Comment: Wrong font size.

## CommentEnd:

SuggestedRemedy:

Change font size to match rest of text.

RemedyEnd: ResolutionStart:

\*\*Editor will handle.

#### ResolutionEnd:

CommentNumber: 27

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 30 Subclause: 7.1.5 Page: 17

Page: 17 Line: 30-41

CommentType (E, T, ER, or TR): T

Comment:

The need for aAggActorSystemPriority is weak. See later comments.

CommentEnd: SuggestedRemedy:

System priority should be eliminated.

RemedyEnd: ResolutionStart:

\*\*Reject. See comment 262

### ResolutionEnd:

CommentNumber: 28

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

**Subclause: 30.7.1.6** 

Page: 17 Line: 43

CommentType (E, T, ER, or TR): E

Comment:

It is a little odd to position the aAggDataRate attribute in the middle of the attributes that define the LAG ID.

#### CommentEnd:

SuggestedRemedy:

Move the offending attribute to somewhere else in 30.7.1. Adjust Table 30-2.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

#### ResolutionEnd:

CommentNumber: 29

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

**Subclause: 30.7.1.6** 

Page: 18 Line:

CommentType (E, T, ER, or TR): TR

Comment:

The Partner System Priority should be considered to be part of a tuple with Partner System Priority in the IAG ID and elsewhere. It is not currently included in 30.7.1.

#### CommentEnd:

SuggestedRemedy:

Add an aAggPartnerSystemPriority to 30.7.1 just before the existing aAggPartnerSystemID, also addit to Table 30-2.

RemedyEnd: ResolutionStart:

\*\*Accept. See 262.

#### ResolutionEnd:

CommentNumber: 30

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753

CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.6

Page: 18 Line: 2

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial CommentEnd: SuggestedRemedy:

It may be helpful to describe an example here as it may be unclear how this value is calculated with respect to link duplex and how it is used in bridges for cost calculations.

Is used in bridges for cost

RemedyEnd: ResolutionStart:

ResolutionEnd:

<sup>\*\*</sup>Editor's discretion

CommentNumber: 31

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

Subclause: 30.7.1.7

Page: 18 Line: 5-30

CommentType (E, T, ER, or TR): E

Comment:

What is the difference between an operational and an administrative key? If a user wishes to manually configure the box, and sets the admin key to be X, shouldn,t the operational key always match? Or could the box dynamically override the user? There should be some text in the description to flush the meaning out.

#### CommentEnd:

SuggestedRemedy:

Add text to the behavior definitions describing the role of the keys with respect to each other.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 32

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.7

Page: 18 Line: 14

CommentType (E, T, ER, or TR): E

Comment: read/write is inconsistent with other usage.

CommentEnd:

SuggestedRemedy: Change read/write to read-write.

RemedyEnd: ResolutionStart:

\*\*Check for proper value and adjust.

### ResolutionEnd:

CommentNumber: 33

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 30

Subclause: 30.7.1.7, 30.7.1.8, 30.7.1.11, 30.7.2.3, 30.7.2.4, 30.7.2.7,

 $30.7.2.8,\,30.7.2.3,\,30.7.2.4,\,30.7.2.7,\,30.7.2.8$ 

Page: 18 Line: 15 CommentType (E, T, ER, or TR): E

Comment:

This comment applies to each description of the key value. It would be helpful for implementers to indicate here that this is a 16-bit value.

## CommentEnd:

# SuggestedRemedy:

Add the following sentence to each "BEHAVIOUR DEFINED AS:" section:

"The Key value is a 16-bit value and has a range of 0 to 65535."

Or something similar.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

## ResolutionEnd:

CommentNumber: 34

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1. com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.8

Page: 18 Line: 28

CommentType (E, T, ER, or TR): E

Comment: "read only" is inconsistent with other usage.

CommentEnd:

SuggestedRemedy: Change "read only" to read-only.

RemedyEnd: ResolutionStart:

## ResolutionEnd:

CommentNumber: 35

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: 30.7.1.10

Page: 18 Line: 44/45

CommentType (E, T, ER, or TR): TR

Comment:

Inappropriate syntax - does not match the syntax of the Actor,s system ID.

CommentEnd:

SuggestedRemedy: Change the "Appropriate Syntax‰ of this attribute to MACAddress.

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Check for proper value and adjust.

<sup>\*\*</sup>Accept.

#### ResolutionEnd:

CommentNumber: 36

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.10

Page: 19 Line: 3

CommentType (E, T, ER, or TR): TR

Comment:

There is an inconsistency with how an Aggregator and an Aggregation Port are manually configured. With the Aggregation Port there is the use of the Default partner key and ID. The Aggregator is manually configured in an unspecified way.

CommentEnd: SuggestedRemedy:

Incorporate the concept of an aAggPartnerDefaultKey and

aAggPartnerDefaultSystemID as is done with an Aggregation Port.

RemedyEnd: ResolutionStart:

Reject. Port defaults are sufficient.

#### ResolutionEnd:

CommentNumber: 37

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.11

Page: 19 Line: 4

CommentType (E, T, ER, or TR): ER

Comment: aAggPartnerKey is not consistent with name in table 30-2, page

13, entry 11. CommentEnd:

SuggestedRemedy: Change name in subclause 30.7.1.11 to

aAggPartnerOperKey

RemedyEnd: ResolutionStart:

\*\*See comment 10

### ResolutionEnd:

CommentNumber: 38

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

Subclause: 30.7.1.11

Page: 19 Line: 4

CommentType (E, T, ER, or TR): E

**Comment:** 

Heading should be aAggPartnerOperKey

CommentEnd:

SuggestedRemedy:

Change heading to aAggPartnerOperKey

RemedyEnd: ResolutionStart:

\*\*See comment 10.

#### ResolutionEnd:

CommentNumber: 39

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 30

Subclause: 30.7.1.11

Page: 19 Line: 4-5

CommentType (E, T, ER, or TR): E

Comment:

The "aAggPartnerKey‰ is listed in the text description on page 13, lines 32-33 as "aAggPartnerOperKey‰ (the latter is a better object name, if there is a distinction between operational and admin keys).

#### CommentEnd:

SuggestedRemedy:

Replace "aAggPartnerOperKey‰ with "aAggPartnerKey‰.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

## ResolutionEnd:

CommentNumber: 40

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 30 Subclause: 7.1.11

Page: 19 Line: 5

CommentType (E, T, ER, or TR): T

**Comment:** 

If the aAggActorSystemPriority is not removed, then there should be a variable aAggPartnerSystemPriority to record the partner's priority.

CommentEnd: SuggestedRemedy:

None, unless aAggActorSystemPriority is not removed. Then, add

a Agg Partner System Priority.

RemedyEnd: ResolutionStart:

## Accept. Add the missing attribute.

#### ResolutionEnd:

CommentNumber: 41

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.11

Page: 19 Line: 15

CommentType (E, T, ER, or TR): E

Comment: "read only" is inconsistent with other usage.

CommentEnd:

SuggestedRemedy: Change "read only" to read-only.

RemedyEnd: ResolutionStart:

\*\*Check for proper value and insert

#### ResolutionEnd:

CommentNumber: 42

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1.12

Page: 19 Line:

CommentType (E, T, ER, or TR): ER

Comment:

Following "has one of the following entries" with four words arranged at the corners of an imaginary rectangle does nothing for me. I think this means to say that the value has one of two values 'up' or 'down'. Explaining that 'up' means 'operational' and 'down' means 'disabled' also leaves me none the wiser, but simply exchanges one undefined term for another. This is not made any better by explaining that the "operational" value here is an administrative state to be applied to the "operational" state of the Aggregator, but not some other "operational" state. Of course the text clarifies that a Get operation returns the 'administrative' state, which may be 'up' meaning 'operational', but is clearly not the 'operational' state which is described in the next attribute (30.7.1.13).

## CommentEnd:

## SuggestedRemedy:

Remove "operational" and "disabled" from the little square of values after "one of the following entries:" and explain in the BEHAVIOR what 'up' and 'down' mean in practical terms i.e. do attempts to send frames result in transmissions etc., if these terms have to be used. If they do not replace 'up' and 'down' with 'enable' and 'disable' and keep 'up' and 'down' for aAggOperState. If they have to be used insert a note or footnote directing our attention to the clause, standard, or RFC responsible for this terminological mess so that the guilty parties may be indentified. Apply complementary changes to 30.7.1.13.

RemedyEnd: ResolutionStart:

AIP Delete the right-hand column, and reword the BEHAVIOUR to reflect the desired operation. We expect to add text to Clause 43 to reflect the implementation of the behavior required by this object.

#### ResolutionEnd:

CommentNumber: 43

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.12

Page: 19 Line: 26

CommentType (E, T, ER, or TR): E

Comment:
Minor editorial
CommentEnd:
SuggestedRemedy:

The tables of enumerated values are hard to read. At first glance it appeared there were 4 enumerated values rather than 2 with descriptions. Suggest putting a border around these values with headings to clarify.

RemedyEnd: ResolutionStart:

## ResolutionEnd:

CommentNumber: 44

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 30

Subclause: 30.7.1.17 plus many more

Page: 21 Line: 7

CommentType (E, T, ER, or TR): T

Comment:

I find it unnecessarily confusing to indicate that a frame counter for 10 Mbs ethernet can count at 16000 frames per second since legally ethernet can only support 14880 frames per second. If we want to provide a maximum rate for these counters I would recommend we stick to the legal limit for ethernet.

#### CommentEnd:

SuggestedRemedy:

Replace each occurrence of 16000 with 14880, or remove the sentence.

RemedyEnd:

ResolutionStart:

Reject.

<sup>\*\*</sup>Resolved by similar comment by Mick Seaman.

#### ResolutionEnd:

CommentNumber: 45

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

Subclause: 30.7.1.18

Page: 21 Line: 31

CommentType (E, T, ER, or TR): T

Comment:

This count (aAggFramesRxOK) is specified to exclude "illegal or unknown protocol frames". This will be a problem for those existing layer 2 implementations which do not consider the Ethernet Type during the forwarding process.

e.g. If a frame uses the Slow Protocol Ethernet Type and a destination address which is not equal to any known Slow Protocol then it may/will be forwarded using the destination address without noticing the Slow Protocol Ethernet Type (or subtype), and will thus be counted as a normal data frame. (Such devices could not claim compliance with Annex 43B - Slow Protocols, but could claim compliance with 43 - Link Aggregation).

If this count was changed to not exclude "illegal or unknown protocol frames" then more existing devices may be able to claim compliance with Clause 30.

If an application still desired to know the count as it is currently specified then this can be obtained by subtraction using the aAggPortStatsUnknownRx and aAggPortStatsIllegalRx statistics.

These latter two statistics were made Optional, but this count (aAggFramesRxOK) effectively still requires their underlying detection mechanisms to be included in order for a system to achieve compliance on Clause 30. CommentEnd:

SuggestedRemedy:

Remove ", illegal or unknown protocol frames (30.7.3.5, 30.7.3.6),".

If accepted then similarly change aAggOctetsRxOK, aAggMulticastFramesRxOK and aAggBroadcastFramesRxOK for consistency (even though these are Optional). RemedvEnd:

ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 46

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

Subclause: 30.7.1.18

Page: 21 Line: 31

CommentType (E, T, ER, or TR): T

#### **Comment:**

This count (aAggFramesRxOK) is specified to exclude illegal or unknown protocol frames. This will be a problem for existing implementations which do not consider the Ethernet Type during the forwarding process. If a frame uses the Slow Protocol Ethernet Type with a destination address which is not equal to any known Slow Protocol then it will be forwarded using the destination address alone without noticing the Slow Protocol Ethernet Type or subtype, and will thus be counted as a normal data frame. Such devices could not claim compliance with Annex 43B - Slow Protocols, but could claim compliance with 43 - Link Aggregation.

If an application still desired to know the count as it is currently specified then this can be obtained by subtraction using the aAggPortStatsUnknownRx and aAggPortStatsIllegalRx statistics. These latter two statistics were made Optional, but aAggFramesRxOK effectively still requires their underlying detection mechanisms to be included in order for a system to attain compliance. This seems slightly anomalous. CommentEnd:

SuggestedRemedy:

Remove ", illegal or unknown protocol frames (30.7.3.5, 30.7.3.6),".

If accepted then similarly change aAggOctetsRxOK, aAggMulticastFramesRxOK and aAggBroadcastFramesRxOK for consistency (even though these are Optional). RemedyEnd:
ResolutionStart:

See 45.

ResolutionEnd:

CommentNumber: 47

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 30

Subclause: 30.7.1.19, 30.7.1.20

Page: 21, 22 Line: 46, 8

CommentType (E, T, ER, or TR): T

Comment:

I believe that the term "multicast" is ambiguous as it could include broadcasts.

CommentEnd:

SuggestedRemedy:

Clarify the "BEHAVIOUR DEFINED AS:" to include or exclude broadcasts as intended.

RemedyEnd:

ResolutionStart:

Accept. Make definitions consistent with the other, comparable objects in both 802.3 and SNMP.

ResolutionEnd:

CommentNumber: 48

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.19

Page: 21 Line: 48

CommentType (E, T, ER, or TR): ER

Comment:

Use of Flush PDU needs to be eliminated

CommentEnd: SuggestedRemedy:

Replace all occurrences of Flush PDU with Marker PDU.

RemedyEnd: ResolutionStart:

AIP. Change entire "Flush Protocol" with "Marker Protocol". Change PDU names as needed.

## ResolutionEnd:

CommentNumber: 49

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.1.23

Page: 23 Line: 6

CommentType (E, T, ER, or TR): E

Comment:

It would be very informative to know why frames trasmitted by an Aggregator might be discarded by the Distribution function prior to transmission. The new reader of the standard will be perplexed by this since only in Clause 43 will it become 'obvious' though not explicitly stated (I believe) that a distributor might diacrd frames while reassigning conversations to links in order to avoid out of order collection and eventual delivery to th user of the partner's peer aggregate port.

#### CommentEnd:

## SuggestedRemedy:

Explain the above briefly in the BEHAVIOR description, and give a forward reference to 43A.3, ensuring that the text in 43A.3 mentions this possibility explicitly.

RemedyEnd:

ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 50

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks Clause: 30

Subclause: 30.7.1.23

Page: 23 Line: 7

CommentType (E, T, ER, or TR): T

Comment:

Since we have excluded half-duplex links from participating in link aggregation I don't see how it is possible to have "excessive collisions".

#### CommentEnd:

### SuggestedRemedy:

Eliminate the reference to "excessive collisions". Perhaps a more generic reference to frame discards could be made here to cover a case that is sure to occur in the real world.

Page 66 line 9: Add a statement "LA will treat any half duplex links as individual links and will not operate the LACP on such links."

RemedyEnd: ResolutionStart:

Reject. An aggregation can consist of a single, half duplex link, in which case a frame may be discarded due to excessive collisions. (This is a result of a comment resolution where we decided to provide a consistent higher layer interface to aggregators, whether or not the underlying links are multiple, aggregated full duplex or a single half duplex link.)

Explain the architectural model in 30.7.1: The Aggregation data counters count only data that passes through the Aggregation MAC Client interface. Error counters are treated differently, with no attempt to separate underlying errors into those that occured as a result of aggregation activity vs. other activity.

### ResolutionEnd:

CommentNumber: 51

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454

CommenterCompany: IBM

Clause: 30

Subclause: 30.7.1.23

Page: 23 Line: 7

CommentType (E, T, ER, or TR): TR

Comment: Link Aggregation only supports full duplex links. Discards due to excessive collisions by ports should not happen.

CommentEnd: SuggestedRemedy:

Remove the phrase: "or discarded as a result of excessive collisions by ports that are (or have been) members of the aggregation."

RemedyEnd: ResolutionStart:

Resolved by 50.

## ResolutionEnd:

CommentNumber: 52

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753

CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.23

Page: 23 Line: 7

CommentType (E, T, ER, or TR): TR

Comment:

Since we only support full-duplex links, it shouldn't be possible to discard because of excessive collisions.

CommentEnd:

Eliminate portion of sentence indicating discards may result from

collisions. RemedyEnd: ResolutionStart:

SuggestedRemedy:

Resolved by 50.

### ResolutionEnd:

CommentNumber: 53

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.25

Page: 23 Line: 38

CommentType (E, T, ER, or TR): TR

Comment:

Since we only support full-duplex links, it shouldn't be possible to record Tx errors because of excessive collisions. Additionally, this counter should not include errors recorded on LACP or Flush protocol

frames CommentEnd: SuggestedRemedy:

Eliminate portion of sentence indicating Tx errors may result from collisions. Add an additional sentence indicating that LACP and Flush frame errors are not counted.

RemedyEnd: ResolutionStart:

Resolved by 50.

## ResolutionEnd:

CommentNumber: 54

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com

CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: 30

Subclause: 30.7.1.25

Page: 23 Line: 38

CommentType (E, T, ER, or TR): TR

Comment: Link Aggregation only supports full duplex links. Discards due to excessive collisions by ports should not happen.

CommentEnd: SuggestedRemedy:

Remove the phrase: "or discarded as a result of excessive collisions by ports that are (or have been) members of the aggregation."

RemedyEnd: ResolutionStart:

Resolved by 50.

ResolutionEnd:

CommentNumber: 55

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 30

Subclause: 30.7.1.25

Page: 23 Line: 38

CommentType (E, T, ER, or TR): T

Comment:

Since we have excluded half-duplex links from participating in link aggregation I don't see how it is possible to have "excessive collisions".

CommentEnd:

SuggestedRemedy:

Remove the sentence containing "excess collisions".

RemedyEnd: ResolutionStart:

Resolved by 50.

ResolutionEnd:

CommentNumber: 56

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.1 Subclause: 30.7.1.29

Page: 24 Line: 46, 47

CommentType (E, T, ER, or TR): E

Comment: References to oLinkUpDownNotificationEnable (30.7.1.28) is

inconsistent. CommentEnd:

 $Suggested Remedy: Change\ to\ a AggLink UpDown Notification Enable.$ 

RemedyEnd: ResolutionStart:

\*\*Resolved by 10.

ResolutionEnd:

CommentNumber: 57

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.1.31

Page: 25 Line: 22

CommentType (E, T, ER, or TR): T

Comment:

Minor technical. It is unclear how this list is terminated.

CommentEnd: SuggestedRemedy:

Include a statement indicating how the list is terminated. Perhaps

using an aAggPortID of zero as the end of the list.

RemedyEnd: ResolutionStart:

Reject. The method of terminating the list is encoding-dependent, but exists. This subclause is an abstract specification. For example, ASN.1 uses a TLV structure.

#### ResolutionEnd:

CommentNumber: 58

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

**Subclause: 30.7.2.1** 

Page: 25 Line: 31

CommentType (E, T, ER, or TR): ER

Comment:

I don't understand the difference between aAggPortID and aAggPortActorPort, and which gets transmitted in the protocol.

## CommentEnd:

SuggestedRemedy:

Please explain in the BEHAVIOR clauses, and remove one of these in fact there is redundancy.

RemedyEnd: ResolutionStart:

# \*\*Editor's discretion.

#### ResolutionEnd:

CommentNumber: 59

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30 Subclause: 30.7.2

Page: 25 Line: 31 CommentType (E, T, ER, or TR): TR

Comment:

Port Priority is missing, it should be part of a tuple with 30.7.2.1 aAggPortID to allow the priority of inclusion of ports in constrained aggregates to be managed.

#### CommentEnd:

SuggestedRemedy:

Add an attribute aAggPortPriority just prior to aAggPortID, and to Table 30-2 as supporting GET-SET.

RemedyEnd: ResolutionStart:

Accept.

#### ResolutionEnd:

CommentNumber: 60

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.1

Page: 25 Line: 42

CommentType (E, T, ER, or TR): E

Comment: Operations supported description is missing.

CommentEnd:

SuggestedRemedy: Add line which states that this object is read-only.

RemedyEnd: ResolutionStart:

\*\*Check for proper value and insert.

## ResolutionEnd:

CommentNumber: 61

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30 Subclause: 30.7.2

Page: 25 Line: 45

CommentType (E, T, ER, or TR): TR

Comment:

System Priority is missing, it should be part of a tuple with 30.7.2.2 aAggPortActorSystemID to allow the priority of inclusion of ports in constrained aggregates to be managed. The corresponding attribute for the partner is also required, both for the operational and the default value.

## CommentEnd:

SuggestedRemedy:

Add an attribute aAggPortActorSystemPriority just prior to aAggPortActorSystemID, and attributes aAggPortPartnerOperSystemPriority and

Accept. ResolutionEnd: CommentNumber: 62 CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks Clause: 30 **Subclause: 30.7.2.2** Page: 26 Line: 1 CommentType (E, T, ER, or TR): E Comment: For consistency sake the MAC address should be 6-bytes. CommentEnd: SuggestedRemedy: Refer to the wording used in 30.7.1.10. RemedyEnd: ResolutionStart: \*\*Editor's discretion. ResolutionEnd: CommentNumber: 63 CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com CommenterPhone: 512-407-2143 CommenterCompany: Level One Communications Clause: 30.7.2 **Subclause: 30.7.2.2** Page: 26 Line: 2 CommentType (E, T, ER, or TR): E Comment: Operations supported description is missing. CommentEnd: SuggestedRemedy: Add line which states that this object is read-only. RemedyEnd: ResolutionStart: AIP. Make entry consistent with the table. ResolutionEnd: CommentNumber: 64 CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

aAggPortPartnerDefaultSystemPriority. Add these to Table 30-2.

RemedyEnd: ResolutionStart: CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.4

Page: 26 Line: 26

CommentType (E, T, ER, or TR): ER

Comment: The stated operations supported for this object are inconsistent with what's documented in table 30-2, page 14, line 30.

CommentEnd:

SuggestedRemedy: Change statement of operations supported for this

object to read-write. RemedyEnd: ResolutionStart:

\*\*Check for proper value and insert.

## ResolutionEnd:

CommentNumber: 65

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

**Subclause: 30.7.2.4** 

Page: 26 Line: 27

CommentType (E, T, ER, or TR): T

Comment:

Minor technical. Maybe a cut-and-paste error. I believe we are talking about the Key for an Aggregation Port not an Aggregator.

CommentEnd: SuggestedRemedy:

Replace Aggregator with Aggregation Port.

RemedyEnd: ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 66

CommenterName: Rich Froke

Commenter Email: rfroke@picazo.com

CommenterPhone: 408-232-9121

CommenterCompany: Picazo Communications, Inc.

Clause: 30

Subclause: 30.7.5.2.5

Page: 26 Line: 40

CommentType (E, T, ER, or TR): E

Comment: Replace "of the this" with "of the"

SuggestedRemedy: RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 67

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.5

Page: 26 Line: 40

CommentType (E, T, ER, or TR): E

Comment: Operations supported for this object are not stated.

CommentEnd:

SuggestedRemedy: State operations supported for this object

(read-write). RemedyEnd: ResolutionStart:

\*\*Check for proper value and insert.

### ResolutionEnd:

CommentNumber: 68

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1. com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.5

Page: 26 Line: 42

CommentType (E, T, ER, or TR): E

Comment: oAggPortPartnerDefaultKey is inconsistent with table entry,

Table 30.2, page 14, line 34, and with subclause 30.7.2.7.

CommentEnd:

 $Suggested Remedy: Change\ reference\ to\ a AggPortPartner Default Key.$ 

RemedyEnd: ResolutionStart:

## \*\*See comment 10

### ResolutionEnd:

CommentNumber: 69

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.6

Page: 27 Line: 2

CommentType (E, T, ER, or TR): E

Comment: Operations supported for this object are not stated.

CommentEnd:

SuggestedRemedy: State operations supported for this object (read-only).

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Check for correct value and insert.

#### ResolutionEnd:

CommentNumber: 70

CommenterName: Rich Froke

Commenter Email: rfroke@picazo.com

CommenterPhone: 408-232-9121

CommenterCompany: Picazo Communications, Inc.

Clause: 30

**Subclause: 30.7.2.6** 

Page: 27 Line: 3

CommentType (E, T, ER, or TR): E

Comment: Replace "of the this" with "of the"

SuggestedRemedy: RemedyEnd: ResolutionStart:

### \*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 71

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.7

Page: 27 Line: 18

CommentType (E, T, ER, or TR): E

Comment: Operations supported for this object are not stated.

CommentEnd:

SuggestedRemedy: State operations supported for this object

(read-write). RemedyEnd: ResolutionStart:

## \*\*Check for proper value and insert

### ResolutionEnd:

CommentNumber: 72

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.8

Page: 27 Line: 30

CommentType (E, T, ER, or TR): E

Comment: Operations supported for this object are not stated.

CommentEnd:

SuggestedRemedy: State operations supported for this object (read-only).

RemedyEnd:

CommentNumber: 73

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.8

Page: 27 Line: 32

CommentType (E, T, ER, or TR): ER

Comment: A reference is made to non-existent object aPartnerDefaultKey.

CommentEnd:

SuggestedRemedy: Change reference of aPartnerDefaultKey to

aAggPortPartnerDefaultKey.

RemedyEnd: ResolutionStart:

\*\*Accept. See comment 10

#### ResolutionEnd:

CommentNumber: 74

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.2.9

Page: 27 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

The behavior description of the a AggPortCurrentAggID and the a AggPortTargetAggID are not sufficiently different to explain

how these values differ.

CommentEnd: SuggestedRemedy:

I don't understand the difference so I don't have a remedy. Perhaps

the Target is redundant and can be eliminated.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

# ResolutionEnd:

CommentNumber: 75

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30 Subclause: 30.7.2

Page: 28 Line:

CommentType (E, T, ER, or TR): TR

Comment:

Partner Default Port and Partner Default Port Priority are both missing. Partner defaults should exactly mirror information that could be received from a partner since it is desirable not to have special rules for handling defaults and to allow a smooth transition from defaults to actually running the protocol.

#### CommentEnd:

SuggestedRemedy:

Add attributes aAggPortPartnerDefaultPort and

aAggPortPartnerDefaultPortPriority. Add both to Table 30-2.

RemedyEnd:

ResolutionStart:

Accept.

#### ResolutionEnd:

CommentNumber: 76

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.2 Subclause: 30.7.2.12

Page: 28 Line: 28

CommentType (E, T, ER, or TR): E

Comment: Reference to operations on object ("read/write") is

inconsistent with other usage.

CommentEnd:

SuggestedRemedy: Change "read/write" to read-write (or whatever is

decided is consistent usage).

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 77

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30 Subclause: 30.7.2

Page: 29 Line:

CommentType (E, T, ER, or TR): TR

Comment:

Both aAggPortActorAdminStatus and aAggPortActorOperStatus attributes should exist. The latter allows the state machines to make temporary changes to some flags (notably LACP\_Timeout and Aggregation) as required for efficient operation.

#### CommentEnd:

SuggestedRemedy:

Distinguish the two attributes, replacing the existing 30.7.2.17.

RemedyEnd:

ResolutionStart:

Accept.

<sup>\*\*</sup>Check for proper value and insert.

#### ResolutionEnd:

CommentNumber: 78

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30

Subclause: 30.7.2.9, 30.7.2.10

Page: 29 Line:

CommentType (E, T, ER, or TR): TR

Comment:

In general the "TargetAggID" is not known or uninteresting, it may change due to further protocol activity before the port tries to attach to the targte, assuming it is held up detaching from the "CurrentAggID" or is waiting to allow protocol information to be received on a number of ports. The information actually required is (a) which AggID has been selected for the AggPort (this may be null due to a shortage of aggregators with a suitable key, or null because it is detaching from an aggregator and hasn't made a new selection yet - selection may eventually depend on another port also detaching from its aggregator) (b) which AggID is the port currently attached to (or partly attached as in the states defined in 30.7.4.5).

#### CommentEnd:

SuggestedRemedy:

Replace 30.7.2.9 with aAggPortSelectedAggID, and 30.7.2.10 with aAggPortAttachedAggID.

RemedyEnd: ResolutionStart:

Accept.

### ResolutionEnd:

CommentNumber: 79

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30 Subclause: 30.7.2 Page: 29

Line:

CommentType (E, T, ER, or TR): TR

Comment:

The current Aggregate/Individual status of the port should be included in the 30.7.2 managed object class. It is required to fully identify the IAG ID for the port (see pg 79, line 52 onward if this is unclear).

### CommentEnd:

## SuggestedRemedy:

Add an appropriate attribute to 30.7.2, and remove the distinction between MATCHED\_INDIVIDUAL and MATCHED\_AGGREGATE from the debug information in 30.7.4.4. The attribute in 30.7.2 will make that distinction, in 30.7.4.4 just distinguish 'matched' and 'unmatched'

RemedyEnd: ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 80

CommenterName: Paul Congdon

CommenterEmail: paul congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30

Subclause: 30.7.2.17

Page: 29 Line: 43

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial. The meaning of the bit positions could be better

explained. CommentEnd: SuggestedRemedy:

Either reference the section where the values of the Actor\_State can be found on list the definitions of the bit positions. The later is

be found or list the definitions of the bit positions. The later is more useful.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 81

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30

Subclause: 30.7.2.19

Page: 30 Line: 21

CommentType (E, T, ER, or TR): TR

Comment:

The BEHAVIOUR DEFINED AS is incorrect.

CommentEnd:

SuggestedRemedy: Change "individual ports‰ to "this port‰.

RemedyEnd: ResolutionStart:

Accept.

#### ResolutionEnd:

CommentNumber: 82

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.1 Page: 30 Line: 53

CommentType (E, T, ER, or TR): E

Comment: Section is missing description of operations supported for this

object.

CommentEnd:

SuggestedRemedy: Add line stating which operations are supported for

this object. RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 83

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

**Subclause: 30.7.3.1** 

Page: 30 Line: 53

CommentType (E, T, ER, or TR): E

Comment:

Of all the new clause 30 objects only this statistic and 30.7.4.1 have "shalls" within them. Is this okay?

CommentEnd:

SuggestedRemedy:

Reword, or leave alone if okay. (I'll defer to convention).

RemedyEnd: ResolutionStart:

## ResolutionEnd:

CommentNumber: 84

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.2

Page: 31 Line: 1

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortLACPDUsRx is inconsistent with table entry

(30.2) , page 15. CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.2

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

<sup>\*\*</sup>Ensure proper values are present.

<sup>\*\*</sup>Editor's discretion

<sup>\*\*</sup>Editor will resolve

CommentNumber: 85

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.3

Page: 31 Line: 13

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsMarkerPDUsRx is inconsistent with table

entry (30.2) , page 15. CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.3

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 86

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1. com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.4

Page: 31 Line: 27

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsMarkerResponsePDUsRx is inconsistent with

table entry (30.2), page 15.

CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.4

RemedyEnd: ResolutionStart:

# \*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 87

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.5

Page: 31 Line: 42

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsUnknownRx is inconsistent with table entry

(30.2), page 15. CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.5

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor will resolve

#### ResolutionEnd:

CommentNumber: 88

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.6

Page: 32 Line: 3

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsIllegalRx is inconsistent with table entry

(30.2), page 15. CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.6

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 89

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.7

Page: 32 Line: 20

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsLACPDUsTx is inconsistent with table entry

(30.2), page 15. CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.7

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 90

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.8

Page: 32 Line: 32

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsMarkerPDUsTx is inconsistent with table

entry (30.2), page 15.

CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.8

RemedyEnd:

#### ResolutionStart:

# \*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 91

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.9

Page: 32 Line: 46

CommentType (E, T, ER, or TR): E

Comment: Case of aAggPortStatsMarkerResponsePDUsTx is inconsistent with

table entry (30.2), page 15.

CommentEnd:

SuggestedRemedy: Make table entry case consistent with 30.7.3.9

RemedyEnd: ResolutionStart:

## \*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 92

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30.7.3 Subclause: 30.7.3.6

Page: 32 Line: 17

CommentType (E, T, ER, or TR): E

Comment:

CommentEnd: Uneeded line break. SuggestedRemedy: Remove line break.

RemedyEnd: ResolutionStart:

### \*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 93

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

**Subclause: 30.7.4.4** 

Page: 34 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference.
CommentEnd:

SuggestedRemedy:

Change 43.3.10 to 43.3.11

RemedyEnd: ResolutionStart:

\*\*Editor will resolve.

## ResolutionEnd:

CommentNumber: 94

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

**Subclause: 30.7.4.4** 

Page: 34 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: change 43.3.10 to 43.3.11

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 95

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

**Subclause: 30.7.4.5** 

Page: 34 Line: 35

CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference. CommentEnd:

SuggestedRemedy:

Change 43.3.11 to 43.3.12

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 96

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410

CommenterCompany: Texas Instruments

Clause: 30

**Subclause: 30.7.4.5** 

Page: 34 Line: 35

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: change 43.3.11 to 43.3.12

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 97

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

**Subclause: 30.7.4.7** 

Page: 35 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference. CommentEnd:

SuggestedRemedy:

Change 43.3.14 to 43.3.15

RemedyEnd: ResolutionStart

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 98

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

**Subclause: 30.7.4.7** 

Page: 35 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

change 43.3.14 to 43.3.15

RemedyEnd: ResolutionStart:

### \*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 99

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

**Subclause: 30.7.4.8** 

Page: 35 Line: 31

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: change 43.3.14 to 43.3.15

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 100

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

**Subclause: 30.7.4.8** 

Page: 35 Line: 31

CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference. CommentEnd:

SuggestedRemedy:

Change 43.3.14 to 43.3.15

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 101

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

Subclause: 30.7.4.11

Page: 36 Line: 20 CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference.

CommentEnd:

Suggested Remedy:

Change 43.3.12 to 43.3.13

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 102

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

Subclause: 30.7.4.11

Page: 36 Line: 20

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

change 43.3.12 to 43.3.13

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 103

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 30

Subclause: 30.7.4.12

Page: 36 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

Incorrect reference. CommentEnd:

SuggestedRemedy:

Change 43.3.12 to 43.3.13

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

ResolutionEnd:

CommentNumber: 104

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30

Subclause: 30.7.4.12

Page: 36 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: change 43.3.12 to 43.3.13 RemedyEnd:

\*\*Editor will resolve

ResolutionStart:

### ResolutionEnd:

CommentNumber: 105

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30A Subclause: All Page: 38 Line: All

CommentType (E, T, ER, or TR): TR

Comment:

There is the need for some text here.

CommentEnd: SuggestedRemedy:

Replace this section with the GDMO definitions/amendments contained in my separate submission (Frame file sent to RichSeifert, PDF submitted to David Law for the Web site.).

(Note that this submission includes a small number of amendments to the existing ASN.1 definitions to remedy bugs in those definitions discovered while developing the Link Aggregation objects. These fixes have been included partly as a "service to humanity‰, but some are also needed in order to incorporate the Link Agg definitions. Further repair work is required in order to fix the definition of oMACControlFunctionEntity, which appears not to have either a naming attribute or any name bindings at present; however, as this will require rather more major surgery & isn,t needed in order to include the Link Agg objects, I have left this for handling as a maintenance item.)

RemedyEnd: ResolutionStart:

Accept. Direct the editors to include the GDMO definitions in the next draft, based on resolution of other management-related comments.

### ResolutionEnd:

CommentNumber: 106

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 30B Subclause: All Page: 39 Line: All

CommentType (E, T, ER, or TR): TR

Comment:

There is the need for some text here.

CommentEnd: SuggestedRemedy:

Replace this section with the ASN.1 definitions/amendments contained in my separate submission (Frame file sent to

RichSeifert, PDF submitted to David Law for the Web site)

RemedyEnd: ResolutionStart:

Resolved by 105.

## ResolutionEnd:

CommentNumber: 107 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.1

Page: 40 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

# SuggestedRemedy:

Replace the text 'several MIB modules' with 'a MIB module'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 108

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30C Subclause: 30.C.1

Page: 40 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

Abuses the English language.

## CommentEnd:

# SuggestedRemedy:

Replace "in a manner that is compliant to the SNMPv2 SMI." with "that are SNMPv2 SMI compliant."

RemedyEnd:

ResolutionStart:

### \*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 109

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 30C Subclause: 30.C Page: 41 Line:

CommentType (E, T, ER, or TR): ER

Comment:

Changes will be required as and if changes are made to clause 30, as previously

suggested.

## CommentEnd:

# SuggestedRemedy:

Carry forward changes from Clause 30, as has been done so far.

RemedyEnd: ResolutionStart:

\*\*Accept

### ResolutionEnd:

CommentNumber: 110 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 30C.1 Subclause: Page: !!!!!

Line: Final sentence

CommentType (E, T, ER, or TR): E

Comment: "This memo..."

CommentEnd:

SuggestedRemedy: Change to "This Clause...."

RemedyEnd: ResolutionStart:

\*\*Editor's discretion.

### ResolutionEnd:

CommentNumber: 111 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 41

Line: 27

CommentType (E, T, ER, or TR): TR

Comment:

There are no equivalent objects defined in the MIB for aAggPortFramesDiscardedOnTx (30.7.2.19) and aAggPortFramesDiscardedOnRx (30.7.2.20).

CommentEnd:

# SuggestedRemedy:

This may be fixed by, either:

- (a) define new SNMP MIB objects for these (30C.6, in the Aggregation Port Table) and update table 30C-1 to cross reference these definitions; or
- (b) include these counts with the existing values, ifInDiscards and ifOutDiscards (in ifTable) and define the interpretation of the ifTable objects for an Aggregator Port in a new table, 'Table 30C-3 ifTable element definitions for an Aggregator Port'.

RemedyEnd: ResolutionStart:

Accept (b).

### ResolutionEnd:

CommentNumber: 112

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 41 Line: 41

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPartnerKey and aAggPartnerKey are inconsistent with

naming used in table 30-2, page 13, line 36

CommentEnd:

SuggestedRemedy: Change dot3adAggPartnerKey to dot3adAggPartnerOperKey,

and change aAggPartnerKey to aAggPartnerOperKey

RemedyEnd: ResolutionStart:

\*\*See comment 10

# ResolutionEnd:

CommentNumber: 113

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 41 Line: 46

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortActorSysId case is inconsistent with rest of

table.

CommentEnd:

 $Suggested Remedy: Change\ to\ dot 3 ad AggPort Actor Sys ID.$ 

RemedyEnd: ResolutionStart:

\*\*See comment 10

### ResolutionEnd:

CommentNumber: 114

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 41 Line: 52

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortPartnerDefaultSysId case is inconsistent with rest

of table. CommentEnd:

SuggestedRemedy: Change to dot3adAggPortPartnerDefaultSysID

RemedyEnd: ResolutionStart:

\*\*See comment 10

### ResolutionEnd:

CommentNumber: 115

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 41 Line: 54

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortOperSysId case is inconsistent with rest of table.

CommentEnd:

SuggestedRemedy: Change to dot3adAggPortOperSysID.

RemedyEnd: ResolutionStart:

\*\*See comment 10

# ResolutionEnd:

CommentNumber: 116 CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com

CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: Annex 30C Subclause: 30C.4.1

Page: 42 Line: 26

CommentType (E, T, ER, or TR): TR

Comment: aAggPortFramesDiscardedOnTx (30.7.2.19) and aAggPortFramesDiscardedOnRx (30.7.2.20) are missing from

the cross reference tables.

CommentEnd:

SuggestedRemedy:

Update table 30C-1 to cross reference these parameters.

RemedyEnd: ResolutionStart:

Resolved by 111.

ResolutionEnd:

-

CommentNumber: 117

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com

CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: Annex 30C Subclause: 30C.4.1

Page: 43 Line: 46

CommentType (E, T, ER, or TR): E

Comment:

Section reference for aAggOperState is not correct.

CommentEnd: SuggestedRemedy:

Change reference to 30.7.1.13

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 118

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.4.1

Page: 43 Line: 46

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

change 30.7.1.12 to 30.7.1.13

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

ResolutionEnd:

CommentNumber: 119 CommenterName: Les Bell

 $Commenter Email: Les\_Bell@3Com.com$ 

CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 43 Line: 46

CommentType (E, T, ER, or TR): ER

Comment:

Incorrect reference for aAggOperState.

CommentEnd:

SuggestedRemedy:

The reference should be to 30.7.1.13.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 120

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 43 Line: 51

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorOctetsReceivedOK not defined.

CommentEnd:

SuggestedRemedy: Change to aAggOctetsRxOK.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 121

CommenterName: Paul Congdon

CommenterEmail: paul congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 30C Subclause: 30C.4.1

Page: 43 Line: 52

CommentType (E, T, ER, or TR): ER

Comment:

There is an inconsistency in the naming of oAggregatorOctetsReceivedOk and what is described in 30.7.1.16

CommentEnd:

SuggestedRemedy:

Replace AggregatorOctectsReceivedOK with AggOctectsRxOK. The same change should be made for Transmitted objects as well.

RemedyEnd: ResolutionStart:

### \*\*See comment 10

### ResolutionEnd:

CommentNumber: 122

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.4.1

Page: 44

Line: <multiple>

CommentType (E, T, ER, or TR): E

Comment:

In Table 30C-2 there are numerous instances of inconsistances with the

names of objects CommentEnd:

## SuggestedRemedy:

Change all occurrences of oAggregatorXXXX to aAggXXXX Change all occurrences of XXXXReceivedYYYY to XXXXRxYYYY Change all occurrences of XXXXTransmittedYYYY to XXXXTxYYYY

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 123

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: Annex 30C Subclause: 30C.4.1

Page: 44 Line: 1

CommentType (E, T, ER, or TR): TR

Comment

aAggFramesRxOK (30.7.1.18) is missing from

the cross reference tables.

CommentEnd:

# SuggestedRemedy:

aAggFramesRxOK should be included in the definition of ifInUcastPkts.

RemedyEnd: ResolutionStart:

Accept.

# ResolutionEnd:

CommentNumber: 124

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C

<sup>\*\*</sup>See comment 10

Subclause: 30C.4.1

Page: 44 Line: 5

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 30.7.1.16 to 30.7.1.18

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 125 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 5 - 8

CommentType (E, T, ER, or TR): ER

Comment:

 $The \ definition \ for \ if In U castPkts \ refers \ to \ old \ attributes \ that \ were$ 

renamed in this draft.

CommentEnd:

# SuggestedRemedy:

Replace the definition for ifInUcastPkts as follows:
The total number of unicast user data frames received by the aggregation. This value is calculated as the value of aAggFramesRxOK (30.7.1.18), less the values of aAggMulticastFramesRxOK (30.7.1.20) and aAggBroadcastFramesRxOK (30.7.1.22).

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 126

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 6

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorFramesReceivedOK is not defined.

CommentEnd:

 $Suggested Remedy: Change\ to\ a Agg Frames RxOK,\ and\ change\ reference\ number$ 

to 30.7.1.18.

<sup>\*\*</sup>Editor to resolve per group decision on nature of aggregator counters.

RemedyEnd: ResolutionStart:

## \*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 127

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 7

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorMulticastFramesReceivedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggMulticastFramesRxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 128

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 8

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorBroadcastFramesReceivedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggBroadcastFramesRxOK

RemedyEnd: ResolutionStart:

### \*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 129 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 9 - 11

CommentType (E, T, ER, or TR): ER

**Comment:** 

The definition for ifInNUcastPkts refers to old attributes that were renamed in this draft.

### CommentEnd:

# SuggestedRemedy:

Replace the definition for ifInNUcastPkts as follows:

The total number of non-unicast user data frames received by the

aggregation. This value is calculated as the sum of

aAggMulticastFramesRxOK (30.7.1.20) and aAggBroadcastFramesRxOK

(30.7.1.22). RemedyEnd: ResolutionStart:

\*\*See comment 125

### ResolutionEnd:

CommentNumber: 130

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 10

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorMulticastFramesReceivedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggMulticastFramesRxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 131

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 11

CommentType (E, T, ER, or TR): ER

Comment: oAggBroadcastFramesRxOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggBroadcastFramesRxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 132

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 22

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorOctetsTransmittedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggOctetsTxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 133 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 23 - 26

CommentType (E, T, ER, or TR): ER

Comment:

The definition for ifOutUcastPkts refers to old attributes that were

renamed in this draft.

CommentEnd:

# SuggestedRemedy:

Replace the definition for ifOutUcastPkts as follows:

The total number of unicast user data frames transmitted by the aggregation. This value is calculated as the value of

aAggFramesTxOK (30.7.1.17), less the values of

aAggMulticastFramesTxOK (30.7.1.19) and aAggBroadcastFramesTxOK (30.7.1.21).

RemedyEnd: ResolutionStart:

\*\*See comment 125

# ResolutionEnd:

CommentNumber: 134

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 24

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorFramesTransmittedOK is not defined, and reference

number is incorrect CommentEnd:

SuggestedRemedy: Change to aAggFramesTxOK, and change reference number

from 30.7.1.15 to 30.7.1.17.

RemedyEnd:

#### ResolutionStart:

# \*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 135

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 25

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorMulticastFramesTransmittedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggMulticastFramesTxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 136

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 25

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 30.7.1.15 to 30.7.1.17

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 137

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 26

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorBroadcastFramesTransmittedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggBroadcastFramesTxOK.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 138 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 28 - 31

CommentType (E, T, ER, or TR): ER

Comment:

The definition for ifOutNUcastPkts refers to old attributes that were

renamed in this draft.

CommentEnd:

# SuggestedRemedy:

Replace the definition for ifOutNUcastPkts as follows:

The total number of non-unicast user data frames transmitted by the aggregation. This value is calculated as the sum of

aAggMulticastFramesTxOK (30.7.1.19) and aAggBroadcastFramesTxOK (30.7.1.21).

RemedyEnd: ResolutionStart:

\*\*See comment 125

# ResolutionEnd:

CommentNumber: 139

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 29

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorMulticastFramesTransmittedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggMulticastFramesTxOK

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 140

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 30

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorBroadcastFramesTransmittedOK is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggBroadcastFramesTxOK.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 141

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 41

CommentType (E, T, ER, or TR): ER

 $Comment: o \\ Aggregator \\ Link \\ Up Down \\ Notification \\ Enable is not defined.$ 

CommentEnd:

 $Suggested Remedy: Change\ to\ a AggLink UpDown Notification Enable.$ 

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 142 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.4.1

Page: 44 Line: 41

CommentType (E, T, ER, or TR): ER

Comment:

 $The\ definition\ for\ if Link UpDown Trap Enable\ refers\ to\ an\ old\ attribute$ 

that was renamed in this draft.

CommentEnd:

SuggestedRemedy:

 $Replace\ oAggregator Link Up Down Notification Enable\ with$ 

a Agg Link Up Down Notification Enable.

RemedyEnd:

ResolutionStart:

<sup>\*\*</sup>See comment 125

### ResolutionEnd:

CommentNumber: 143

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: Annex 30C Subclause: 30C.4.1

Page: 44 Line: 41

CommentType (E, T, ER, or TR): ER

Comment:

Typo on "oAggregatorLinkUpDownNotificationEnable"

CommentEnd: SuggestedRemedy:

Change to "aAggLinkUpDownNotificationEnable."

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 144

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.4.1 Subclause: 30C.4.1

Page: 44 Line: 47

CommentType (E, T, ER, or TR): ER

Comment: oAggregatorName is not defined.

CommentEnd:

SuggestedRemedy: Change to aAggName

RemedyEnd: ResolutionStart:

## \*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 145 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.5.1

Page: 45 Line: 51

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

# SuggestedRemedy:

Insert a space before the word 'subnetwork' (in italics).

RemedyEnd: ResolutionStart:

## \*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 146 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.5.1

Page: 45 Line: 53

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

# SuggestedRemedy:

Replace "is used in this annex" with "is sometimes used".

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 147 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.6

Page: 46 Line: 53

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

## SuggestedRemedy:

Insert a space between 'DEFINITIONS' and '::='.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 148 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.6 Page: 48 Line: 7

CommentType (E, T, ER, or TR): T

Comment:

Inappropriate grouping for Aggregator Port MIB objects.

CommentEnd:

SuggestedRemedy:

Define a new object, to allow 'Aggregator Port' attributes to be defined under a separate group from the 'Aggregator' attributes.

The new object definition is:

dot3adAggPort OBJECT IDENTIFIER ::= { lagMIBObjects 2 }

Change the following object assignments to belong to this new group: dot3adAggPortTable ::= { dot3adAggPort 1 } -- page 51 line 35 dot3adAggPortStatsTable ::= { dot3adAggPort 2 } -- page 55 line 49 dot3adAggPortDebugTable ::= { dot3adAggPort 3 } -- page 58 line 4

RemedyEnd: ResolutionStart:

Accept.

### ResolutionEnd:

CommentNumber: 149

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 49 Line: 13

CommentType (E, T, ER, or TR): E

Comment: in REFERENCE section for dot3adAggMACAddress, "IEEE 802.3

Section 30.7.1.8" is incorrect.

CommentEnd:

SuggestedRemedy: Change to "IEEE 802.3 Section 30.7.1.9"

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 150

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.6

Page: 49 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 30.7.1.8 to 30.7.1.9

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

# ResolutionEnd:

CommentNumber: 151 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.6

Page: 49 Line: 14

CommentType (E, T, ER, or TR): ER

Comment:

Incorrect REFERENCE for dot3adAggMACAddress.

CommentEnd:

SuggestedRemedy:

The REFERENCE should be 30.7.1.9.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 152 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 30C Subclause: 30C.6

Page: 49 Line: 14

CommentType (E, T, ER, or TR): ER

Comment:

Incorrect REFERENCE for dot3adAggOperKey.

CommentEnd:

SuggestedRemedy:

The REFERENCE should be 30.7.1.8.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 153

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.6 Page: 49 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 30.7.1.9 to 30.7.1.8

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 154

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 49 Line: 50

CommentType (E, T, ER, or TR): E

Comment: in REFERENCE section for dot3adAggActorOperKey, "IEEE 802.3

Section 30.7.1.9" is incorrect.

CommentEnd:

SuggestedRemedy: Change to "IEEE 802.3 Section 30.7.1.8"

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 155

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Subclause: 300 Page: 50 Line: 8

CommentType (E, T, ER, or TR): E

Comment: Usage of dot3adAggPartnerKey derived from table 30C-1, page 41,

line 41 inconsistent with definition of subclass definition for aAggPartnerOperKey defined in table 30-2, page 13, line 36

CommentEnd:

SuggestedRemedy: Change to dot3adAggPartnerOperKey

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

ResolutionEnd:

CommentNumber: 156

CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 30C Subclause: 30C.6

Page: 50 Line: 18

CommentType (E, T, ER, or TR): T

**Comment:** 

The given definition of dot3adAggPortListTable and its objects provides nothing that cannot be determined from the ifStackTable representation of an Aggregator and its ports (30C.5.3).

CommentEnd:

# SuggestedRemedy:

Either:

- (a) remove this table and add appropriate text to 30C.4.3 indicating how this may be derived from ifStackTable; or
- (b) replace it with a more compact representation of the ports in each Aggregator, using the PortList definition from the Q-BRIDGE-MIB (draft-ietf-bridge-bridgemib-04.txt), or an equivalent. (I can provide this on request.)

RemedyEnd: ResolutionStart:

Accept (b).

### ResolutionEnd:

CommentNumber: 157

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.6 Page: 50

Line: 29

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 30.7.1 to 30.7.2 RemedyEnd:

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 158

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 30C Subclause: 30C.6 Page: 51

Line: <multiple>

CommentType (E, T, ER, or TR): E

Comment:

incomplete references

CommentEnd:

# SuggestedRemedy:

The references to dot3adAggPortListAggIndex, dot3adAggPortListPortIndex, and dot3adAggPortListActorPort all refer to 30.7.2. I can't find the correct area that these should reference. Does this indicate that we are missing sections in the draft that should contain explanations of these objects?

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 159

CommenterName: Vince Bridgers

Commenter Email: vbridgers@level 1. com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 52 Line: 37

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortActorSysId case not consistent with other usage.

CommentEnd:

SuggestedRemedy: Change to dot3adAggPortActorSysID

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

## ResolutionEnd:

CommentNumber: 160

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 53 Line: 11

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortPartnerDefaultSysId case not consistent with other

usage.

CommentEnd:

SuggestedRemedy: Change to dot3adAggPortPartnerDefaultSysID

RemedyEnd: ResolutionStart:

\*\*See comment 10

ResolutionEnd:

CommentNumber: 161

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 53 Line: 20

CommentType (E, T, ER, or TR): E

Comment: dot3adAggPortPartnerOperSysId case not consistent with other

usage.

CommentEnd:

 $Suggested Remedy: Change\ to\ dot 3 ad AggPort Partner Oper Sys ID$ 

RemedyEnd: ResolutionStart:

\*\*See comment 10

## ResolutionEnd:

CommentNumber: 162

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 30C.6 Subclause: 30C.6

Page: 61 Line: 51

CommentType (E, T, ER, or TR): E

Comment: Instances of objects names ending in "Id" are inconsistent in

text case. CommentEnd:

SuggestedRemedy: Change case of "Id" suffix for dot3adAggPortActorSysID

(line 51), dot3adAggPortPartnerDefaultSysID (line 54), and

dot3adAggPortPartnerOperSysID (Page 62, line 1).

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 163

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 43

Subclause: All Figures

Page: various Line: various

CommentType (E, T, ER, or TR): ER

Comment:

The arrowheads in some of these diagrams (e.g., Figure 43-2) appear to be skewed to a greater or lesser degree relative to the shafts of the arrows. There is also no consistency in the size/shape of the arrowheads across the set of diagrams; similarly there is no consistency in point sizes used in the text callouts in these figures. This is partly a consequence of

<sup>\*\*</sup>See comment 10

the use of MAC-based (non-Frame native) drawing tools for some of these diagrams and native Frame drawing tools for others. This will have to be fixed before publication for the following reasons:

- The IEEE editors will in any event require consistency in the presentation of the diagrams, both in the use of point sizes and the overall appearance of the figures;
- The use of MAC drawing tools renders the diagrams non-editable on a PC, which will generate problems for those who will be responsible for attempting to incorporate this into a future revision of the 802.3 "doorstop‰, and for any other members of the editing team that may be called upon to edit this stuff between now & publication. Use of the native Frame tools allows editing on either platform.

CommentEnd:

SuggestedRemedy:

The Editor-In-Chief to re-draw all MAC-based figures in the text using the native Frame Maker drawing tools and the recommended font sizes (Most recent received wisdom following Kristin,s final editing of 802.1D and Q seems to indicate that Helvetica 8 point is preferred; nothing smaller than 6 point should be used, and sparing use of emphasis), and to ensure that the usage and style is kept consistent with current IEEE style.

RemedyEnd: ResolutionStart:

\*\*Accept

### ResolutionEnd:

CommentNumber: 164

CommenterName: Brad Booth

CommenterEmail: bbooth@level1.com CommenterPhone: (512) 407-2135 CommenterCompany: Level One

Clause: 43

Subclause: Figure 43-2

Page: Line:

CommentType (E, T, ER, or TR): E

Comment:

Figure 43-2 shows a MAC Service Interface inside the Link Aggregation sublayer and between the sublayer and the ports. These can be multiple instantiations of MAC Service Interfaces, not a single interface.

CommentEnd:

## SuggestedRemedy:

Change "MAC Service Interface" inside the Link Aggregation sublayer to be "MAC Service Interfaces" Change "MAC Service Interface" between the sublayer and ports to be "MAC Service Interface(s)"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 165

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.1 Page: 65 Line: 8-9

CommentType (E, T, ER, or TR): E

Comment:

Thurber had it right when it came to avoiding whiches.

CommentEnd:

SuggestedRemedy:

Replace "instances of ... rate" with "instances of full duplex point -to-point links operating at the same data rate".

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 392

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.1.2

Page: 65 Line: 34-36

CommentType (E, T, ER, or TR): E

Comment:

The standard, as written, does not guarantee deterministic behavior - that's implementation dependent (in fact, the recommended default is not truly deterministic according to this definition). This statement should reflect that. (as should the corresponding statement in section 43.2.11.1,

page 77, lines 47-49)

CommentEnd: SuggestedRemedy:

The first line should read "Deterministic behavior - depending upon the implementation, the configuration may resolve deterministically; ..."

Also fix section 43.2.11.1, page 77.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 166

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.1.2

Page: 66 Line: 6-7

CommentType (E, T, ER, or TR): T

Comment:

Include shared media in item a). That is the real technical problem, groups of LANs or bridged lAns present a problem because many things may be attached to them.

# CommentEnd:

SuggestedRemedy:

Make explicit mention of shared media in item a).

RemedyEnd: ResolutionStart:

AIP. Change title of bullet (a) to "Groups of LANs".

## ResolutionEnd:

CommentNumber: 167

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.1.3

Page: 67 Line: 2-38

CommentType (E, T, ER, or TR): E

Comment:

Figure 43-2 is extremely confusing and misleading. It implies:

1) that there is a bus connecting the Agg parser/mux to the control parser/mux which thus allows any mux to talk to any other, same for Agg mux to Frame distributor and collector, etc. This is not true.

- 2) there,s one LACP for the whole aggregator, even though the state machines describe one LACP per port.
- 3) That there is an 802.3 MAC Service interface between control and agg muxes/parsers but none between agg muxes/parsers and frame collect and distrib. Based on the state machines for them, there must be an interface there.

I realize the figure is not normative, but it,s important for it to be as representative/accurate as possible to aid in reading/understanding the standard.

### CommentEnd:

## SuggestedRemedy:

- 1) Draw point-to-point lines between control parser/mux and agg parser/mux, same for agg mux to frame collector and distributor, marker responder, and optional generator/receiver.
- 2) draw multiple instances of LACP, each connected to it,s control parser/mux, and all tied together to one LAC unit
- 3) add another service interface line between agg mux "layer‰ and frame dist/collect "layer‰

### RemedyEnd:

ResolutionStart:

- (1,2) Accept. Eliminate busses. Align Control and Aggregator Parsers. Show p-p connection for (at least) two of the pairs, plus a note if necessary to indicate analogous connections for the others.
- (3) Accept.

### ResolutionEnd:

CommentNumber: 168

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43

Subclause: Figure 43-2

Page: 67 Line: 5-6

CommentType (E, T, ER, or TR): TR

Comment:

There is no MAC Service Interface above LACP or Link Aggregation Control.

### CommentEnd:

SuggestedRemedy:

Start the MAC Service Interface line (the one on line 5 of this page), just below the MAC Client. The latter is already lined up with the left hand edge of the Aggregator, so this works well.

RemedyEnd: ResolutionStart:

Accept. Truncate dotted line at MAC Client.

### ResolutionEnd:

CommentNumber: 169

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43

Subclause: 43.1.3

Page: 67 Line: 15

CommentType (E, T, ER, or TR): ER

Comment:

Diagram uses term Flush frames, which is inconsistent with other use

of Marker frames. CommentEnd: SuggestedRemedy:

Replace Flush with Marker

RemedyEnd: ResolutionStart:

\*\*AIP. Flush protocol changed to Marker protocol. This problem will be fixed as part of that change.

## ResolutionEnd:

CommentNumber: 170

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2 Page: 68 Line: 3-6

CommentType (E, T, ER, or TR): E

Comment.

The statement "The combination of the Frame Distribution and Collection functions is referred to as the Aggregator‰, does not take into account the Aggregator Parser/Mux, which is also part of the Aggregator.

### CommentEnd:

SuggestedRemedy:

Replace with "The combination of the Frame Distribution and Collection functions, along with the Aggregator Parser/Multiplexers, is referred to as the Aggregator‰

RemedyEnd: ResolutionStart:

Accept.

### ResolutionEnd:

CommentNumber: 171

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.2 Page: 68

Line: 5

CommentType (E, T, ER, or TR): E

Comment:

The statement "The combination of the Frame Distribution and Collection functions is referred to as the aggregator" is not consistent with Fig 43-2 which shows the Aggregator also including the Aggregator Parser/Multiplexers.

CommentEnd:

# SuggestedRemedy:

Change to "The combination of the Frame Distribution, Frame Collection and Aggregator Parser/Multiplexer functions is referred to as the Aggregator" and move it to the end of line 11.

(Or else change Fig 43-2 to exclude the Aggregator Parser/Multiplexers from the Aggregator. I however prefer the Aggregator to contain them). RemedvEnd:

RemedyEnd: ResolutionStart:

\*\*See comment 170

# ResolutionEnd:

CommentNumber: 172

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.2 Page: 68 Line: 5-6

CommentType (E, T, ER, or TR): E

Comment:

Abuses the English language. The combination of two functions should be a function. Alternatively recast the functions as two nouns.

CommentEnd:

SuggestedRemedy:

Replace "referred to as the Aggregator" with "referred to as Aggregation". Better, in the preceding bullets discuss the 'Collector' and the 'Distributor' rather than 'Collection' and 'Distribution'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 173 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43 Subclause: 2.1 (c)

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: "A given port will bind to at most...." This probably

ought to be a "shal bind to....."

CommentEnd:

SuggestedRemedy: change "will" to "shall"

RemedyEnd: ResolutionStart:

Reject. Change to "a given port binds" (statement of fact)

ResolutionEnd:

CommentNumber: 174 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

Subclause: 2.1.(e)

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: What is the difference between the use of "may be under..."

and "monitoring can occur..."

CommentEnd:

SuggestedRemedy: Should use "may" in both cases.

RemedyEnd: ResolutionStart:

Accept.

ResolutionEnd:

CommentNumber: 175 CommenterName: R Tasker

Commenter Email: r.tasker@dl.ac.uk

CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43 Subclause: 2.1 (f)

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: Is the activity described here consistent with the goal expressed at 43.1.2 (c) Increased Availability? Since each conversation is constrained to a single port failure of that port does not improve that conversation's availability. Strictly goal (c) is correct but from an end-user perspective

it does not tell the whole truth.....

CommentEnd:

SuggestedRemedy: add sentence to goal (c) to that effect.

RemedyEnd: ResolutionStart:

AIP. Add a bullet to show that a conversation can be moved to another link, maintaining availability for the client.

#### ResolutionEnd:

CommentNumber: 176 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43 Subclause: 2.1 (f)

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: In this subclause is the first mention of the "conversation". It

would

be useful to have a reference here to 43A.2 where the subject is discussed.

CommentEnd:

SuggestedRemedy: add the reference

RemedyEnd: ResolutionStart:

AIP. Add reference, but to definitions.

#### ResolutionEnd:

CommentNumber: 177

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43 Subclause: 43.2.1

Page: 68 Line: 40

CommentType (E, T, ER, or TR): T

**Comment:** 

Item e) describes manual configuration via state variable manipulation.

The actual mechanism is more related to the modification of the Key attributes.

CommentEnd:

SuggestedRemedy:

Include a statement regarding Key manipulation as opposed to state variable manipulation.

RemedyEnd:

ResolutionStart:

Accept. Add parenthetical "(for example, Keys)"

#### ResolutionEnd:

CommentNumber: 178

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43 Subclause: 43.2.1

Page: 68 Line: 54

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial. Flush exchanges is by itself not entirely clear. The use of Marker frames for the Flush Protocol is not completely consistent.

CommentEnd: SuggestedRemedy:

Replace Flush exchanges with Flush Protocol Marker frame exchanges, or simply Marker frame exchanges, or just Flush protocol.

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 179

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43 Subclause: 43.2.2

Page: 69 Line: 13

CommentType (E, T, ER, or TR): TR

Comment:

The text indicates that the Frame Distributor passes frames to the ports below, unchanged from the original MAC Clients. However, to be consistent with the new service interface described in 2.3.1.2, someone may have to insert the Source Address in the frame. Since the individual ports are instructed to use their own individual MAC addresses for LACP and Marker frames, they \*must\* have a Source Address included in any frames received from Frame Distribution or somewhere in the Aggregation sublayer. Additionally, the Source Address may have an impact on the distribution algorithm. However this is unspecified so a comment on that is not necessary.

CommentEnd:

SuggestedRemedy:

Include a section or text in this section describing how the Aggregator's MAC address must be inserted in the frame if it was not provided by the MAC client. Alternative, require the MAC client to always provide a

<sup>\*\*</sup>Resolved by change of Flush to Marker protocol

valid source MAC address.

RemedyEnd: ResolutionStart:

AIP. Delete "unchanged" (on requests) in 43.2.2. Add a statement to 43.2.4 to show that the Distributor inserts an SA if one is not provided by the Client, and that SA is of the Aggregator.

#### ResolutionEnd:

CommentNumber: 180

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2.3

Page: 69 Line: 30-31

CommentType (E, T, ER, or TR): E

Comment:

The line says the Frame Collector receives frames from the "individual links‰ that form the LAG, and "frames received from a given port $\Sigma$ ‰. The received frames actually come from the Aggregator Parsers of each port.

### CommentEnd:

SuggestedRemedy:

Replace "from the set of individual links that form $\Sigma$ ‰ with "from the set of Aggregator Parsers, one for each individual link, that form $\Sigma$ ‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 181

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2.3

Page: 69 Line: 36-37

CommentType (E, T, ER, or TR): E

Comment:

The line says the "shall implement the function specified in the state diagram of 43.2.3.1.% This is not per 802.3 convention, I believe, which should state to "implement the functions in the figure XYZ, and in compliance with associated definitions of constants, etc., etc.%

This should also be fixed in:

43.2.4, page 70, line 54 43.2.6, page 72, line 7 43.2.7, page 72, line 22 43.2.9, page 75, line 9

#### CommentEnd:

### SuggestedRemedy:

Replace "in the state diagram of 43.2.3.1‰ with "in Figure 43-3, including compliance with the associated definitions of constants, variables, functions, timers and messages.‰ And do similar replacements for the listed sections.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 182

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.3 Subclause: 43.2.3

Page: 69 Line: 36

CommentType (E, T, ER, or TR): E

Comment: Reference to state diagram figure 43.2.3.1 may be incorrect in

that there is no figure associated with paragraph.

CommentEnd:

SuggestedRemedy: Modify reference to 43.2.3.1.3 to state diagram on page

70.

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

#### ResolutionEnd:

CommentNumber: 183

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.3 Subclause: 43.2.3.1.1

Page: 69 Line: 43

CommentType (E, T, ER, or TR): E

Comment: Defined variables need to be back referenced to variable

definitions in Clause 2.

CommentEnd:

SuggestedRemedy: Back reference variables to variable definitions in

Clause 2, or use same variable names.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 184

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332 CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2.3

Page: 69 Line: 45-48

CommentType (E, T, ER, or TR): E

Comment:

The variables listed should include their respective definitions. This should

also be fixed in:

43.2.4.1.1, page 71, lines 5-9 43.2.7.1.2, page 72, lines 51-54 43.2.9.1.2, page 75, lines 27-31 43.4.4.2.2, page 107, lines 40-45

### CommentEnd:

### SuggestedRemedy:

Add appropriate definitions to the variables.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 185

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.3 Subclause: 43.2.3.1.3

Page: 70 Line: 14

CommentType (E, T, ER, or TR): E

Comment: It would be clearer if N in MA\_DATA.indicationN(...) were footnoted to be the phy port that received frame was received on.

CommentEnd:

SuggestedRemedy: Footnote diagram to state N is the phy port number that

the received frame came in on.

RemedyEnd: ResolutionStart:

### ResolutionEnd:

CommentNumber: 186

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.4 Subclause: 43.2.4

Page: 70 Line: 54

CommentType (E, T, ER, or TR): E

Comment: Reference to state diagram figure 43.2.4.1 may need to be

changed to reflect actual location of state diagram.

<sup>\*\*</sup>Editor's discretion. Should be resolved by decision to qualify the primitive with a precessor.

CommentEnd:

SuggestedRemedy: Modify reference to 43.2.4.1.3

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 187

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.4 Subclause: 43.2.4.1.1

Page: 71 Line: 3

CommentType (E, T, ER, or TR): E

Comment: Defined variables need to be back referenced to variable

definitions in Clause 2.

CommentEnd:

SuggestedRemedy: Back reference variables to variable definitions in

Clause 2, or use same variable names.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 188

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.4 Subclause: 43.2.4.1.2

Page: 71 Line: 23

CommentType (E, T, ER, or TR): E

Comment: It would be clearer if N in MA\_DATA.requestN(...) were footnoted to be the phy port that the data to be transmitted will use.

CommentEnd:

SuggestedRemedy: Footnote diagram to state N is the phy port number that

the transmitted data will be transmitted on.

RemedyEnd: ResolutionStart:

\*\*See comment 185

# ResolutionEnd:

CommentNumber: 189

CommenterName: Vince Bridgers CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.6 Subclause: 43.2.6 Page: 72 Line: 6

CommentType (E, T, ER, or TR): E

Comment: Perhaps I do not understand convention for referring to diagrams, but it would be clearer if the reference to the State Diagram of 43.4.4.2 were to the actual section that the diagram was located in, or to the figure number of the diagram.

CommentEnd:

SuggestedRemedy: Change to section 43.4.4.2.3, or move diagram to

43.4.4.2, or refer to figure number.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 190

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.7.1.2

Page: 73 Line: 8

CommentType (E, T, ER, or TR): E

Comment:

"subtype" begins with a lower-case but all other LACPDU variable begin with upper-case. Fig 43-7 shows Subtype beginning with capital S.

"subtype" appears many times in text and figures.

CommentEnd:

SuggestedRemedy:

Global search and replace "subtype" with "Subtype"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 191

CommenterName: Vince Bridgers

CommenterEmail: vbridgers@level1.com

CommenterPhone: 512-407-2143

CommenterCompany: Level One Communications

Clause: 43.2.7 Subclause: 43.2.7.1.4

Page: 74 Line: 5

CommentType (E, T, ER, or TR): E

Comment: Extra \* at end of expression describing transition between PARSE and PASS TO MARKER RESPONDER, at end of expression.

CommentEnd:

SuggestedRemedy: Remove extra \*

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor's discretion

#### ResolutionEnd:

CommentNumber: 192

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.7.1.4

Page: 74 Line: 5-30

CommentType (E, T, ER, or TR): T

Comment:

Subclause 43.2, page 68, line 1, and subclause 43.2.5 both state the Marker Generator/Receiver is optional. This state diagram, however, mandates the Aggregator Parser to pass a Marker Response to a Marker Receiver. While this is not technically false (since the state diagram doesn,t mandate the existence of a Marker Receiver), it is inconsistent.

#### CommentEnd:

# SuggestedRemedy:

Draw a dashed-line rectangle around the "Pass to Marker Receiver‰ state box and write "Optional Implementation‰ within the dashed-line rectangle. NOTE: this implies/allows that any received marker responses will be passed to the collector if a generator/receiver is not implemented. (i.e., what do we want to happen if the other device sends a response erroneously)

RemedyEnd: ResolutionStart:

Reject.

ResolutionEnd:

CommentNumber: 193

CommenterName: Hadriel Kaplan, Bob Noseworthy

CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.7.1.4

Page: 74 Line: 5-31

CommentType (E, T, ER, or TR): T

**Comment:** 

There is an architectural problem with using the same message indication to trigger a change of state, and subsequently have the new state create the same message indication. You and I know the MA\_DATA.indicationN message that causes the state machine to exit "WAIT FOR RECEIVE‰ is the one sent from the Control Parser, and the MA\_DATA.indicationN message sent by state "PASS TO FRAME COLLECTOR‰ is being sent to the Frame Collector. But to someone reading the state machines to learn what must be done, it,s not so obvious, and appears to cause a loop.

This is very noticeable in the 3 states that could be chosen based on parsing the message: all of them do the same thing according to the diagram. The names of the machine states imply the messages are sent to different entities, but

nothing within the actions of the states does that they are all the same.

Section 43.2.7.1.3, page 73 line 26, states the MA\_DATA.indication is the primitive used by the MAC nothing about being used by the agg parser. This also holds for other state machines, but I,m submitting this one to comment on to see what the group consensus is regarding the problem. (or lack of one)

#### CommentEnd:

# SuggestedRemedy:

We obviously don,t want to touch the service interfaces used to communicate with the physical MAC nor the MAC client. We have to create a couple simple interfaces that mirror the MAC ones.

### For example∑

Link Aggregation Service interface: (between Control mux/parser and above) LA\_DATA.indicationN used by Control parser of N to pass received frames to Aggregator parser N  $\,$ 

 $LA\_DATA.requestN\:$  used by Aggregator Mux N to pass transmit frames to Control Mux N

 $LA\_CONTROL. indication N \ \ used \ by \ Control \ parser \ N \ to \ pass \ received \ frames \ to \ LACP \ N$ 

LA\_CONTROL.requestN used by LACP of N to transmit frames to Control Mux of N

Aggregator Service Interface: (between Aggregator mux/parser and above)

AGG\_DATA.indicationN used by Aggregator Parser N to pass received frames to Frame Collector

AGG\_DATA.requestN used by Frame Distributor to pass transmit frames to Aggregator Mux

AGG\_RESP.indicationN used by Aggregator Parser N to pass received frames to Marker Responder

AGG\_RESP.requestN used by Marker Responder to transmit frames to Aggregator Mux of N.

AGG\_GENR.indicationN used by Aggregator Parser N to pass received frames to Marker Generator

AGG\_GENR.requestN used by Marker Generator to transmit frames to Aggregator Mux of N.

### RemedyEnd:

ResolutionStart:

Accept. Global change to clause 43.

- (1) Name each interface.
- (2) Qualify each primitive usage with a prefix indicating the internal layer boundary and port number, if necessary.

# ResolutionEnd:

CommentNumber: 194

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.7.1.4

Page: 74 Line: 18

CommentType (E, T, ER, or TR): E

Comment:

Spurious "\*" after Marker\_Information.

CommentEnd:

SuggestedRemedy:

Remove spurious "\*" after Marker\_Information.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 195

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.8

Page: 74 Line: 35

CommentType (E, T, ER, or TR): E

Comment:

The statement "An Aggregator comprises an instance of a Frame Collection and a Frame Distribution function for a Link Aggregation Group" is not wholly consistent with Fig 43-2 which shows the Aggregator also including the Aggregator Parser/Multiplexers.

CommentEnd:

# SuggestedRemedy:

Change to "An Aggregator comprises an instance of a Frame Collection function, an instance of a Frame Distribution function and one or more instances of the Aggregator Parser/Multiplexer function for a Link Aggregation Group".

(Or else change Fig 43-2 to exclude the Aggregator Parser/Multiplexers from the Aggregator. I however prefer the Aggregator to contain them). RemedyEnd:
ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 196

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2.8

Page: 74 Line: 35-37

CommentType (E, T, ER, or TR): E

Comment

The first sentence does not take into account the Aggregator Parser/Mux.

CommentEnd:

# SuggestedRemedy:

Add ", as well as the Aggregator Parser and Multiplexer,‰ between "Distribution‰ and "function‰.

# RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 197 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43 Subclause: 2.8

Page: Line:

CommentType (E, T, ER, or TR): E

Comment: Final sentence of first paragraph, "An aggregator can therefore...."

I'm not sure this sentence adds tremendously to the discussion and

understanding.
Well it confused me!

CommentEnd:

SuggestedRemedy: delete final sentence

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 198

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43

**Subclause: 43.2.10** 

Page: 76 Line: 40

CommentType (E, T, ER, or TR): E

Comment:

An ideal section to describe how the Aggregator must insert its own

MAC address if the MAC Client did not provide one.

CommentEnd:

SuggestedRemedy:

Add a sentence indicating the Aggregator will insert its own MAC address if a valid source address was not provided.

RemedyEnd: ResolutionStart:

icsorationstart.

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 199

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.2.10

Page: 76 Line: 44-45

CommentType (E, T, ER, or TR): E

Comment:

The statement "The multiplexing of MAC clients ... outside the scope of

this standard" is extraneous.

CommentEnd: SuggestedRemedy: Remove this sentence. RemedyEnd:

ResolutionStart:

#### ResolutionEnd:

CommentNumber: 200

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.2.11

Page: 76 Line: 46

CommentType (E, T, ER, or TR): E

Comment:

Subclause 43.2.11 "Link Aggregation Control‰ should be a new subclause (not within the 43.2 grouping). On page 67-68, section 43.2 "Link Aggregation Operation‰ specifies 5 functions: frame distribution, frame collection, aggregator parser/mux, aggregation control, and control parser/mux which are then defined in the subsequent subclauses of 43.2. LAC is not one of those functions, and itself has a large set of subclauses (including a list of objectives). For readability/flow, it makes more sense for it to be a new subclause.

#### CommentEnd:

SuggestedRemedy:

Renumber 43.2.11 to 43.3 and make all subsequent changes by either: (1) renumbering 43.3 to 43.4 and so on, or (2) joining 43.3 LAC Protocol with the LAC subclause as one 43.3 clause.

RemedyEnd:

ResolutionStart:

Accept. Elevate 43.2.11 to Level 2 header.

ResolutionEnd:

CommentNumber: 201

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com

<sup>\*\*</sup>Editor's discretion

CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 2.11 Page: 77 Line: 11-12

CommentType (E, T, ER, or TR): T

Comment:

"A port may be detached from the Aggregator used by its Link Aggregation Group if the Aggregator supports a limited number

of ports." CommentEnd: SuggestedRemedy:

This should be rephrased or eliminated. Link can

be removed if its key changes. See other comments, below.

RemedyEnd:

#### ResolutionStart:

Accept. Delete the note, and capture the (expanded) co ntent in 43.2.11.9 (i.e., give a more exhaustive list of reasons to detach a link from a group). Two reasons: Protocol (key) changes, and System constraints (e.g., maximum # of links, device failures).

#### ResolutionEnd:

CommentNumber: 202

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 **Subclause: 43.2.11** 

Page: 77 Line: 21

CommentType (E, T, ER, or TR): E

Comment:

Grammar. Change "links" to "link".

CommentEnd: SuggestedRemedy: Change "links" to "link". Repeat for line 24. RemedyEnd: ResolutionStart:

#### \*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 203 CommenterName: Les Bell

CommenterEmail: Les Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

**Subclause: 43.2.11** 

Page: 77 Line: 21

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

#### CommentEnd:

SuggestedRemedy:

Replace the text 'a links' with 'links'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 204

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.2.11** 

Page: 77 Line: 24

CommentType (E, T, ER, or TR): E

Comment:

Typo: "Removal of a links from  $\Sigma$ ‰

### CommentEnd:

SuggestedRemedy:

Replace with: "Removal of a link from  $\Sigma$ "

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 205 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43 Subclause: 43.2.11

Page: 77 Line: 24

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

SuggestedRemedy:

Replace the text 'a links' with 'links'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 206

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43 Subclause: 43.2.11

Page: 77 Line: 24

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial. Typo with word links

CommentEnd:
SuggestedRemedy:
Change links to link
RemedyEnd:

ResolutionStart:

#### \*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 207 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

Subclause: 2.11 (b) Note 1

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: At the end of the first sentence, add a reference to the clause that mandates this requirement (43.2.1 c); but note that "link" and "port" appear to be used interchangeably here.

CommentEnd:

SuggestedRemedy: Add reference, settle on "link" or "port" for this

discussion. RemedyEnd: ResolutionStart:

AIP. Delete the note.

#### ResolutionEnd:

CommentNumber: 208

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43 Subclause: 43.2.11

Page: 77 Line: 32

CommentType (E, T, ER, or TR): E

Comment:

Since aggregation is point to point, the requirement for a "globally unique

system identifier" is

confusing. The uniqueness is required accross the aggregation system only.

CommentEnd:

SuggestedRemedy:

Remove the word "globally".

RemedyEnd: ResolutionStart:

Reject. System ID must be globally unique.

ResolutionEnd:

CommentNumber: 209

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43

Subclause: 43.2.11.1

Page: 77 Line: 36

CommentType (E, T, ER, or TR): E

Comment:

The bulk of this section is redundant with 43.1.2

CommentEnd: SuggestedRemedy:

Remove the section and incorporate any missing points back into 43.1.2

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 210

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.11.1

Page: 78 Line: 4

CommentType (E, T, ER, or TR): E

Comment:

I know what "a few seconds" means but what does "very" signify in

the statement "a very few seconds"?

CommentEnd:

SuggestedRemedy: Remove "very". RemedyEnd: ResolutionStart:

AIP. Change to "a short time".

ResolutionEnd:

CommentNumber: 211 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758 CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

Subclause: 2.11.1 (f) items (a) (b) and (c)

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: Items a thro c talk in terms of "minimise" some risk. Should these items be better quantified, or at least as a part of the PICS have a requirement that implementations state their value. This would at least provide a means for differentiating between competing products.

CommentEnd:

SuggestedRemedy: quantify "minimise" etc or an requirment to PICS

RemedyEnd: ResolutionStart:

Reject.

### ResolutionEnd:

CommentNumber: 212

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.2.11.2

Page: 78 Line: 18

CommentType (E, T, ER, or TR): E

Comment:

This is related to "globally unique identifier" for system.

CommentEnd: SuggestedRemedy:

Remove the first word "globally" on this line.

RemedyEnd: ResolutionStart:

Reject. System ID must be globally unique.

### ResolutionEnd:

CommentNumber: 213

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 2.11.3

Page: 78 Line: 21-31

CommentType (E, T, ER, or TR): T

Comment:

Aggregator identification is an integer ifIndex in some places (e.g. page 54, dot3adAggPortTargetAggID), a MAC address in

others. Here, it is a MAC address.

CommentEnd: SuggestedRemedy: Use ifIndex.

RemedyEnd:

#### ResolutionStart:

Accept. Use ifIndex for the Identifier, and MAC Address for frame addressing. Change p76 line 41 "identifier" to "MAC address". Replace all text and note in 43.2.11.3 with a description of the aggregator identifier, tying it to the ifIndex attribute. Add a subclause to explain Port identifier. Include a conformance requirement that it be unique within a system.

#### ResolutionEnd:

CommentNumber: 214

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.2.11.3

Page: 78 Line: 25

CommentType (E, T, ER, or TR): T

Comment:

The aggregator identifier is shared accross whole LAN (as noticed on page 76 line 41) whereas port address are limited to aggregation system only. Thus the requirement for aggregator identifier being unique is much more than port identifier. In this context the line 25-26 sentence is confusing.

CommentEnd: SuggestedRemedy:

Clarify the intent. If required, remove this flexibility.

RemedyEnd: ResolutionStart:

Resolved by 213.

#### ResolutionEnd:

CommentNumber: 215

CommenterName: Stephen Haddock

Commenter Email: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43

Subclause: 43.2.11.4

Page: 79 Line: 1

CommentType (E, T, ER, or TR): TR

Comment:

There is still ambiguity as to whether it is possible to have the same Key value used on links of different speeds and full/half duplex.

# CommentEnd:

### SuggestedRemedy:

We either need to make it very clear that systems must assign the Key based on the results of autonegotiation, or else we need to make the protocol consider full/half duplex and link speed when determining aggregatability of links. The consensus so far has been to change the Key value based on the results of autonegotiation.

RemedyEnd:

ResolutionStart:

Accept. Introduce concept of changing keys, include pointers to the two cases, port configuration (autonegotiation) and system constraints. Make sure that there are Admin and Operational key values for both Port and Aggregator.

#### ResolutionEnd:

CommentNumber: 216

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.11.4

Page: 79 Line: 1

CommentType (E, T, ER, or TR): E

Comment:

"..., despite it having the same locally assigned Key value as other links"...

"Reasons for a system reaching this conclusion include"...

"1) The system has allocated a unique Key value to the link;"

reads as somewhat contradictory.

CommentEnd:

SuggestedRemedy:

Remove ", despite it having the same locally assigned Key value as

other links" from the first sentence.

RemedyEnd: ResolutionStart:

Same as 218.

# ResolutionEnd:

CommentNumber: 217 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

**Subclause: 2.11.4 (c)** 

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: It is not clear to me to what item (c) refers.

CommentEnd:

SuggestedRemedy: Either provide additional information, or delete.

RemedyEnd: ResolutionStart:

Accept. Change "are used to determine" to "may affect" in the prior paragraph. Give an example (e.g., assignment of Network layer addresses)

### ResolutionEnd:

CommentNumber: 218 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

Subclause: 2.11.4

Page: Line:

CommentType (E, T, ER, or TR): T

Comment: Paragraph beginning "A system may determine...." says that "despite it having the same locally assigned Key as other links....

Reasons for a system reaching this conclusion include: a).....

1) The system has allocated a unique Key value to the link"

i.e This para says both "same locally assigned Key as other links" and "a unique Key value for the link". Seems you really can't have both here..

CommentEnd:

SuggestedRemedy: Move (1) to new para to cover this particular point.

RemedyEnd: ResolutionStart:

Resolved by 215. Be sure that usage is consistent as a result. In particular, strike all following the comma in the first sentence on line 1.

### ResolutionEnd:

CommentNumber: 219

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.2.11.4

Page: 79 Line: 5-6

CommentType (E, T, ER, or TR): E

Comment:

This sentence is some what confusing.

CommentEnd: SuggestedRemedy:

Add "that are" in between "no other links" and "capable of aggregating ..."

on line 6. RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 220

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.2.11.4

Page: 79 Line: 19

CommentType (E, T, ER, or TR): ER

Comment:

All values are available for local use, requires some clarification. As

indicated on page 80 line 13,

null key (all zero), being unknown, should be declared as invalid key.

CommentEnd: SuggestedRemedy:

<sup>\*\*</sup>Editor's discretion

Add a sentence clarifying that null key is considered to be invalid key.

RemedyEnd: ResolutionStart:

#### \*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 221

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.5

Page: 79 Line: 31-34

CommentType (E, T, ER, or TR): T

Comment:

"A set of one or more links $\Sigma$ ‰ allows for one lone link to be aggregatable (not individual) - is this true/possible? I would think so, but the text on lines 4-11 of the same page contradicts that. The main problem is if a system turns on with all ports and aggs of the same key, all in autoneg mode when one port links at 100-full, does it keep the same key and become individual (since there are no other 100-full links yet), or is it aggregatable?

#### CommentEnd:

SuggestedRemedy:

Replace "A set of one or more links $\Sigma$ % with "A set of more than one links $\Sigma$ % (or fix the wording of lines 6-9)

RemedyEnd: ResolutionStart:

AIP. Remove item 2, p79 line 8.

#### ResolutionEnd:

CommentNumber: 222

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.5

Page: 79 Line: 36-42

CommentType (E, T, ER, or TR): T

Comment:

It is stated that a unique LAG ID can be formulated from the sys ID and port keys from each system, but then on the next page (page 80) lines 1-13, it,s stated more info is required. (thereby contradicting the first part) In the subsequent "more unique‰ method, it lists the lowest numbered port identifiers of the LAG as being used. This is all confusing. The LAG ID,s only purpose, as far as I can see, is to allow the LAC to determine which ports belong together in a LAG. So using the lowest numbered ports makes no sense. (or am I losing it?)

#### CommentEnd:

SuggestedRemedy:

None. I wish I knew what the remedy was... then I wouldn,t be so confused about this section.

RemedyEnd:

ResolutionStart:

Accept. Qualify the usage of SK/TL vs. SKP/TLQ. Explain that the latter is only needed to allow multiple, unaggregated individual links between a system pair.

#### ResolutionEnd:

CommentNumber: 223

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 20-21

CommentType (E, T, ER, or TR): E

Comment:

Typo: "Once a link has selected for a Link Aggregation Group,  $\Sigma \%$  a link does

not select for a group.

### CommentEnd:

SuggestedRemedy:

Replace with: "Once a link has selected a Link Aggregation Group,  $\Sigma$ %"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 224 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 21

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

SuggestedRemedy:

Replace 'has selected' with 'has been selected'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 225

CommenterName: Paul Congdon

CommenterEmail: paul\_congdon@hp.com

CommenterPhone: (916) 785-5753 CommenterCompany: Hewlett Packard

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 21

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial. Missing word in second sentence of paragraph.

CommentEnd: SuggestedRemedy:

Change 'has selected for' to 'has been selected for'

RemedyEnd: ResolutionStart:

ResolutionEnd: CommentNumber: 2

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 34

CommentType (E, T, ER, or TR): E

Comment

Typo: "The link is aggregatable, and the and the Aggregator, s key  $\sum$ %"

# CommentEnd:

SuggestedRemedy:

Replace with: "The link is aggregatable, and the Aggregator,s key∑‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 226 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

<sup>\*\*</sup>Editor's discretion

#### CommentEnd:

SuggestedRemedy:

Remove duplicate words 'and the'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 227

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

Spurious "and the" CommentEnd:

SuggestedRemedy:

Remove spurious "and the"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 228

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

In item b, the words "and the" are duplicated

CommentEnd:

SuggestedRemedy:

Remove one set of "and the".

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 229 CommenterName: R Tasker CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

**Subclause: 2.11.7 (b)** 

Page: Line:

CommentType (E, T, ER, or TR): E

Comment: "and the and the Aggregator's Key...."

CommentEnd:

SuggestedRemedy: Remove first "and the"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 230 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43

Subclause: 2.11.7 second (a)

Page: Line: 49

CommentType (E, T, ER, or TR): E

Comment: For clarity change "If enabled, the link shall be disabled..." to "If previously within another aggregation, the link shall be disabled...."

CommentEnd:

SuggestedRemedy: Make change

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 231

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.7

Page: 81 Line: 49-51

CommentType (E, T, ER, or TR): T

**Comment:** 

"and any frames that are in transit on that link shall be flushed;‰ is inconsistent with the flush protocol being optional. Actually, I think it,s just the wording that bothers me - obviously we must mandate that the frame transmission be completed, but using the word "flush‰ implies the flush protocol. (this would be an editorial comment, but it,s changing a shall statement)

CommentEnd:

SuggestedRemedy:

Replace with: "and any frames that are in transit on that link shall be assured to have been received by the partner system;‰

RemedyEnd: ResolutionStart:

AIP. Remove "shall be flushed"; change to "frames in transit have been received by the partner's Collection function. Global chage: Use the term "flush" to refer to clearing out a conversation from a link. Second, change "flush protocol" to "Marker protocol". At first use of term "flush" explain that it can be avhieved by waiting or by expediting (using the optional Marker protocol).

#### ResolutionEnd:

CommentNumber: 232

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.2.11.9

Page: 83 Line: 2

CommentType (E, T, ER, or TR): T

Comment:

The requirements for meeting the "shall" relating to preserving frame ordering are somewhat vague when considering what timeout value to use before moving conversations from a broken link to other links in the aggregate. (Informative 43A.3 is also vague in that it discusses different times for different circumstances).

At what timeout value can someone claim frame-order-preservation compliance?
CommentEnd:

### SuggestedRemedy:

Specify a minimum timeout time (could be zero?) to allow compliance to be claimed/verified, but add a note suggesting that longer times may be desireable in real applications, and that systems should endeavour to use a realistic timeout value.

RemedyEnd: ResolutionStart:

Accept. Include a note that, while not reflected in the architecture, practical implementations will incur queueing and delay in the Collector. Impose a time constraint on the Collector, that it must either deliver to its Client, or discard frames within a CollectorMaxDelay (1 second). Note to account for prop delay as well. Distributors can assume that frames have been received after a CollectorMaxDelay plus the prop delay.

#### ResolutionEnd:

CommentNumber: 233 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

Subclause: 43.2.11.9

Page: 83 Line: 2 CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

SuggestedRemedy:

Replace 'ensures' with 'ensure'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 234

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.2.11.9

Page: 83 Line: 2

CommentType (E, T, ER, or TR): E

Comment:

Typo: "This may involve the use of the flush protocol to ensures that  $\sum$ %"

### CommentEnd:

SuggestedRemedy:

Should be: "This may involve the use of the flush protocol to ensure that  $\sum$ %"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 235

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.2.1** 

Page: 84 Line: 37

CommentType (E, T, ER, or TR): E

Comment:

Grammar. Replace "an" with "a"

CommentEnd:

SuggestedRemedy:

Replace "an" with "a"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 236

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.2.2** 

Page: 84 Line: 46

CommentType (E, T, ER, or TR): E

Comment:

"they shall not be tagged" seems to be redundant because the next sentence "The LACPDU structure shall be as shown in Figure 43-7..." requires the untagged frame format in the figure to be used.

(There is nothing actually wrong with the text other than introducing an unnecessary "shall").

CommentEnd:

SuggestedRemedy:

Remove "they shall not be tagged (See Clause 3)"?

If accepted then consider doing the same for subclause 43.4.3.2 (p50 line 40)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 237

CommenterName: Stephen Haddock

Commenter Email: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43

**Subclause: 43.3.2.2** 

Page: 85 Line: 1

CommentType (E, T, ER, or TR): TR

Comment:

The LACPDU structure leaves all multibyte fields in the Actor Information on odd byte alignments.

### CommentEnd:

SuggestedRemedy:

Move the Port\_Priority and Port fields to follow the State field for both the Actor Information and Partner Information.

RemedyEnd:

**ResolutionStart:** 

Accept. Re-order fields within a TLV-tuple to align multibyte fields on 2-byte boundaries.

ResolutionEnd:

CommentNumber: 238

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.2.2** 

Page: 85 Line: 3-40

CommentType (E, T, ER, or TR): T

Comment:

The location, length, and semantics of the Actor and Partner fields defined in the LACPDU can never change, because even version N must keep these static for backwards compatibility. (see page 87, lines 30-36). So why do we need a TLV\_type field and Length field for the actor and partner fields? More importantly, what should a version 1 device do if it receives illegal values in these fields? Currently it parses the frame as if their values were correct. so regardless of the values of tlv\_type and the length fields, the values of the octets in the actor and partner fields will be looked at. I think this is the right operation, but there needs to be a statement saying so.

#### CommentEnd:

SuggestedRemedy:

Add to note 2 (lines 30-36) "Thus, if the received values for Length, TLV\_type, or version number are not the values required for transmission of version 1 frames, a Version 1 compliant receiver will act is if they are correct."

RemedyEnd: ResolutionStart:

Accept. No need to validate TL in TLV. Be sure to remove any later comments about checking for "malformed frames".

### ResolutionEnd:

CommentNumber: 239

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 43

Subclause: 43.3.2.2, 43.4.3.2 Page: 85, 87, 106, 107

Line: 37, 26, 23, 2

CommentType (E, T, ER, or TR): T

Comment:

The Terminator TLV should have a length of 2 to be consistent with the other TLV's described in this standard.

CommentEnd:

SuggestedRemedy:

Change the length to 2.

RemedyEnd:

ResolutionStart:

Reject. Senders send Length=0, receivers can ignore length and just terminate on T=-0.

#### ResolutionEnd:

CommentNumber: 240

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43

**Subclause: 43.3.2.2** 

Page: 86 Line: 32

CommentType (E, T, ER, or TR): E

**Comment:** 

LACP timeout values are described as "short" and "long". In the state machines and variable definitions they are described as "fast" and "slow".

### CommentEnd:

# SuggestedRemedy:

Make the terminology consistent. Probably simplest to use the state machine terminology of "FAST" and "SLOW". May require a search to see where else "short" and "long" are used.

RemedyEnd: ResolutionStart:

\*\*AIP. Transmission timers will be fast/slow. Timeout values will be short/long.

#### ResolutionEnd:

CommentNumber: 241

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 43

**Subclause: 43.3.2.2** 

Page: 86 Line: 41

CommentType (E, T, ER, or TR): E

Comment:

Syntax error.

CommentEnd:

SuggestedRemedy:

Add "is" to the phrase "it not in the right Aggregation."

RemedyEnd:

ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 242

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.2.2** 

Page: 86 Line: 42

CommentType (E, T, ER, or TR): E

Comment:

The sentence "i.e., it not in the right Aggregation‰ is grammatically

incorrect.

### CommentEnd:

SuggestedRemedy:

Replace with "i.e., it is not in the right Aggregation‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 243

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 43

**Subclause: 43.3.2.2** 

Page: 86

Line: 44/45 and 48/49

CommentType (E, T, ER, or TR): TR

Comment

The conditions following the ",or‰ in both sentences are incorrect. The text should also be specific about what is meant by "shortly‰.

CommentEnd:
SuggestedRemedy:

Re-write these bullets as follows:

- 5) Collecting is encoded in bit 4. True (encoded as a 1) means collection of incoming frames on this link is definitely enabled; i.e., collection is currently enabled and is not expected to be disabled in the absence of administrative changes or changes in received protocol information. Its value is otherwise False (encoded as a 0);
- 6) Distributing is encoded in bit 5. False (encoded as a 0) means distribution of outgoing frames on this link is definitely disabled; i.e., distribution is currently disabled and is not expected to be enabled in the absence of administrative changes or changes in received protocol information. Its value is otherwise True (encoded as a 1);

RemedyEnd: ResolutionStart:

### Accept.

#### ResolutionEnd:

CommentNumber: 244

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43

**Subclause: 43.3.2.2** 

**Page: 86** 

Line: 44-45, 48-49

CommentType (E, T, ER, or TR): TR

Comment:

The pieces of text "or collection is currently diabled and is expected to be enabled shortly" and "or distribution is currently enabled and is expected to be disabled shortly" are precisely wrong, and destroy what has been carefully said just prior to them. The point is that in the absence of unexpected circumstances, Collecting, indicates to the protocol partner that it is worth distributing frames to the link because they will probably be delivered to a receiving MAC client; whereas Not Distributing indicates that no frames are to be transmitted down the link, and may be useful in future if an aggressive early turn on of the Collector is desired - it should be OK to turn a Collector on on an Out of Sync link if the partner claoims not to be Distributing.

#### CommentEnd:

SuggestedRemedy:

Delete the text shown in quotes in the comment.

RemedyEnd: ResolutionStart:

Resolved by 243.

ResolutionEnd:

CommentNumber: 245

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.2.2** 

Page: 86 Line: 47-49

CommentType (E, T, ER, or TR): E

Comment:

Every other encoding of the State bits is described as "True if  $\Sigma$ , False otherwise.‰ The "Distributing‰ bit, however, is described as "False (encoded as a 0) means  $\Sigma$  It,s value is otherwise True (encoded as a 1).‰ This breaks up the consistent flow. (I,m being picky)

#### CommentEnd:

#### SuggestedRemedy:

Replace "False (encoded as a 0) means  $\Sigma$  It,s value is otherwise True (encoded as a 1)‰ with: "True (encoded as a 1) means distribution of outgoing frames is definitely enabled; i.e., distribution is currently enabled and is not expected to be disabled shortly, or distribution is currently disabled and is expected to be enabled shortly. Its value is otherwise False (encoded as a 0).‰

RemedyEnd:

ResolutionStart:

Reject. It is easier to explain with this sense.

ResolutionEnd:

CommentNumber: 246

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.3 and 43.3.12

Page: 87 and 99-101

Line: 43

CommentType (E, T, ER, or TR): T

**Comment:** 

With the introduction of port priorities on constrained ports, ports can end up in an unattached standby like state. Here Iím assuming that the Selection Logic handles port priorities, because it is the only machine that knows about other ports.

Now hot standby has some issues, but we're sort of stuck with standby like ports as long as we have priorities.

This automatically causes a portís selection logic to run if another port in the aggregation receives a LAGPDU.

hroughout the text and explicitly in section 43.3.3 line 43 the impression is brought that "for the most part events happen on a per port basis". There needs to be an explicit statement, that the selection logic in the presence of constraints may need to run when another port associated with a port's Aggregator goes through an event. That other port could be disabled or fail or timeout and then the actor port may need to physically attach.

This automatically causes a portís selection logic to run if another port in the aggregation receives a LACPDU.

### CommentEnd:

# SuggestedRemedy:

I think we can simply say that the selection logic for a port runs whenever any port receives a LACPDU.

Then if another port is to join the aggregation and this one is to be evicted, the selection machine for this port sets ichangeî.

This port then detaches from the aggregation and once its mux indicates DETACHED, the selection machine runs for the other port, so that the other port can ATTACH.

# RemedyEnd: ResolutionStart:

Reject. The selection logic State Machine runs continuously, per 802.3 SM conventions.

# ResolutionEnd:

CommentNumber: 247

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43 Subclause: 43.3.3

Page: 87 Line: 47

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference

### CommentEnd:

SuggestedRemedy: change 43.3.4 to 43.3.5

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references.

#### ResolutionEnd:

CommentNumber: 248

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.3 Page: 87, 88 Line: 52-

CommentType (E, T, ER, or TR): T

Comment:

The Receive Machine and Match Logic should be combined, i.e. the Receive Machine should invoke the Match Logic as part of its receive processing. The full background to this comment is contained in Rev 3.3 or later of "Link Aggregation Control Protocol", Mick Seaman. This also supplies the rationale for other comments on Clause 43.

#### CommentEnd:

## SuggestedRemedy:

Retitle item a) as "Receive Machine and Match Logic" and combine the existing text for those (on this page following item a) and on the following following item c)).

RemedyEnd:

**ResolutionStart:** 

### ResolutionEnd:

CommentNumber: 249

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.3

Page: 88 Line: 10

CommentType (E, T, ER, or TR): E

Comment:

The "MUX" in "(MUX - 43.3.13)" looks like a formatting error?

Same for "TX" in "(TX - 43.3.14)" on line 12.

CommentEnd:

SuggestedRemedy:

Remove "MUX -" and "TX -".

RemedyEnd: ResolutionStart:

#### \*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 250

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.3

Page: 88 Line: 14

CommentType (E, T, ER, or TR): E

Comment:

Grammar. Replace "makes" with "make".

CommentEnd:

SuggestedRemedy:

Replace "makes" with "make".

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 251

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43

Subclause: Figure 43-9

Page: 88 Line:

CommentType (E, T, ER, or TR): TR

Comment:

The Receive Machine (and Match Logic) should operate by: (a) changing the operational information held for the partner, either because new information has been received, or because we have fallen back to "partner default" information; (b) changing the shared stated variable 'matched' to true or false depending on whether the partner's view received in a LACPDU matches the actor - partner default information can be assumed to be 'matched' whereas expired information is not; and (c) notifying the selection logic that it has got the current selection wrong by setting the shared state variable 'selected' false if the received information from the partner causes the LAG ID to change. There is no need to signal "InfoExpired", indeed the other machines need not know the state of the Receive Machine. The Receive Machine and Match Logic should be showed combined so that a test for 'matched' - i.e. partner knows my information correctly can be applied during the receive process so the whole PDU does not become shared s

tate for all machines. The Mux Control and Selection Logic should also be shown combined, and receive the 'matched' and 'not selected' signals. There is no need for InSync, Out of Sync to appear specially on this diagram, it is just information for the outgoing PDU.

# CommentEnd:

SuggestedRemedy:

Remove the InfoExpired signals from the diagram. Combine the "Receive Machine [and] Match Logic" into a single bubble. Show the signals "Matched/Not Matched" and "Not Selected" from that bubble rightwards. Combine the "Mux Control [and] Selection Logic" into a single bubble, adjacent to the new receive machine bubble, and receiving the signals mentioned above. Keep the NewInfo and OutgoingPDU lines, but remove the InSync and OutOfSync signals.

RemedyEnd: ResolutionStart:

AIP. Incorporate new Receive, Periodic and Match Logic state machines as presented at the Task Force meeting. Include arcs to support half duplex link transitions (to appropriate disabled states). Adjust surrounding text to align with new state machines.

#### ResolutionEnd:

CommentNumber: 252

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.3

Page: 88 Line: 40

CommentType (E, T, ER, or TR): E

Comment:

The Match machine does not issue the NTT signal.

CommentEnd:

SuggestedRemedy:

Remove the NTT signal from the Match machine in Fig 43-9.

RemedyEnd: ResolutionStart:

\*Resolved by 251

### ResolutionEnd:

CommentNumber: 253

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.3

Page: 88 Line: 52-

CommentType (E, T, ER, or TR): T

Comment:

The Mux Control and Selection Logic should be combined i.e. the Mux Control Machine should invoke the Selection Logic as part of its processing.

### CommentEnd:

# SuggestedRemedy:

Retitle item d) as "Mux Control Machine and Selection Logic" and combine the existing text for those (following items d) and item e)). Clarify that the Mux Control Machine is responsible for the actual attaching and detaching of the port to the aggregator.

RemedyEnd:

#### ResolutionStart:

#### ResolutionEnd:

CommentNumber: 254

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 43 Subclause: 43.3.5 Page: 89-94 Line:

CommentType (E, T, ER, or TR): E

Comment:

The separation between the various sets of variables is not terribly clear at present, as all is presented as a single

subclause. CommentEnd: SuggestedRemedy:

Break the subclause down into separate subclauses at the same heading level; i.e., 43.3.5 would be Aggregator

 $variables,\,43.3.6\ would\ be\ Link\ Aggregation\ Group\ variables,\,43.3.7\ would\ be\ Port\ variables....etc.$ 

RemedyEnd: ResolutionStart:

## \*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 255

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.4

Page: 89 Line: 30

CommentType (E, T, ER, or TR): T

Comment:

The Selection\_Wait\_Time is misnamed, selection could happen at any time. The functionality this constant supports is delaying attaching to an Aggregator in case a better aggegator is available shortly, thus it accommodates differences in protocol delays on different links.

### CommentEnd:

SuggestedRemedy:

Rename 'Selection Wait Time' as 'Aggregate Wait Time'.

RemedyEnd: ResolutionStart:

# Accept.

# ResolutionEnd:

CommentNumber: 256

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments Clause: 43 Subclause: 43.3.5

Page: 89 Line: 43

CommentType (E, T, ER, or TR): E

Comment:

It is not clear to me what the Aggregator\_MAC\_address is used for. I could not find any other reference to it. I would like to understand in what way it differs from Actor\_System\_ID.

CommentEnd:

SuggestedRemedy:

Either add explanation or delete it if it is not needed.

RemedyEnd: ResolutionStart:

Reject. See 43.2.10 for clarification.

#### ResolutionEnd:

CommentNumber: 257

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.5

Page: 89 Line: 49

CommentType (E, T, ER, or TR): E

Comment:

The wording "The port number of the Aggregator" is slightly confusing. It could be read as the Aggregator's own port number, or the number of a port attached to the Aggregator". The different wording from that used for the Aggregator\_MAC\_Address definition above adds to the uncertainty.

CommentEnd:

SuggestedRemedy:

Change to "The port number assigned to the Aggregator".

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 258

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Subclause: 43.3. Page: 90

Line:

CommentType (E, T, ER, or TR): TR

Comment:

The Port and System Priorities that should go along with the port number and System ID of both actor and partner are missing.

#### CommentEnd:

SuggestedRemedy:

Add them. RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 259

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 1

CommentType (E, T, ER, or TR): TR

**Comment:** 

All of the LAG ID components are present as other variables with the exception of the partner port. So the LAG ID as a variable on its own is superfluous, as well as being a rather oversized and poorly specified integer.

# CommentEnd:

SuggestedRemedy: Remove the LAG ID.

RemedyEnd: ResolutionStart:

Accept. Eliminate LAG ID as a state variable.

#### ResolutionEnd:

CommentNumber: 260

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 2

CommentType (E, T, ER, or TR): E

Comment:

LAG\_ID has a Value of Integer and yet it is the OR of two system IDs (each 48 bits), two keys (16-bits) and two ports (16-bits). Should this therefore

be a byte array?
CommentEnd:

# SuggestedRemedy:

Either explain how this value is evaluated as an integer or replace the Value with a correct one.

Whatever approach is taken should be included in LAG\_ID (page 90, line 44) and Port\_LAG\_ID (page 91, line 27 which are both of type integer.

RemedyEnd: ResolutionStart:

# Resolved by 259. Also eliminate Port\_LAG\_ID.

## ResolutionEnd:

CommentNumber: 261

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 24

CommentType (E, T, ER, or TR): TR

Comment:

To support the use of system and port priorities (see 43.5.1.1), these values for both the actor and the partner must be recorded for each Aggregator. It should be considered whether they need to be components of the LAGID as well, although I don't think this is absolutely necessary.

## CommentEnd:

# SuggestedRemedy:

Add variables for Actor and Partner system and port priorities.

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 262

CommenterName: Stephen Haddock

Commenter Email: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43 Subclause: 43.3.5 Page: 90

Line: 34 CommentType (E, T, ER, or TR): E

**Comment:** 

The note says the variable definitions assume the same number of aggregators as ports. The significance of this assumption is not evident. I don't see that the variables are either more or less useful, nor does their meaning or interpretation change, based on the number of aggregators vs. ports.

# CommentEnd:

Suggested Remedy:

Remove the note.

RemedyEnd:

**ResolutionStart:** 

Resolved by 263.

ResolutionEnd:

CommentNumber: 263

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 35

CommentType (E, T, ER, or TR): TR

Comment:

The note claims that the variable definitions make certain assumptions, that is not true. These are a perfectly good set of variables even if the assumptions are not true. Under a slightly stricter set of assumptions all this information could be got from the lowest numbered port in any LAG, but that is a different issue.

# CommentEnd:

SuggestedRemedy: Remove the note. RemedyEnd: ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 264 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 38

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

# SuggestedRemedy:

Remove 'a' from 'via a different Aggregators'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 265

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 38

CommentType (E, T, ER, or TR): E

#### **Comment:**

Typo: "resulting in some ports aggregating via a different Aggregators, and  $\Sigma$ %.

#### CommentEnd:

# SuggestedRemedy:

Replace with: "resulting in some ports aggregating via different Aggregators,

and∑‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 266

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43 Subclause: 43.3.5

Page: 90 Line: 41

CommentType (E, T, ER, or TR): E

Comment:

It's not clear why there is a distinction in the variable list between a Aggregator and a Link Aggregation Group. The Collector\_State and Distributor\_State are properties of the Aggregator, but are listed as LAG variables. The Partner\_System\_ID and and Partner\_Aggregator\_Key are listed as Aggregator variables, but only take on an known value when a LAG has been formed using that Aggregator.

#### CommentEnd:

## SuggestedRemedy:

Associate the LAG\_Ports, Collector\_State, and Distributor\_State with the Aggregator, and don't list any variables as distinctly belonging to a Link Aggregation Group versus an Aggregator.

# RemedyEnd:

ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 267

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.5

Page: 90 Line: 42-47

CommentType (E, T, ER, or TR): E

Comment:

This is the same variable as listed for each aggregator (on lines 1-6 of the

same page). Are there two separate variables of the same name, or one variable?

#### CommentEnd:

SuggestedRemedy:

Remove this instance of LAG\_ID and leave the one on lines 1-6.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 268

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43

Subclause: 43.3.5

Page: 90 Line: 43

CommentType (E, T, ER, or TR): TR

Comment:

I don't see the value in repeating the LAG ID here. It will be the same for every port in the LAG. What is more the encoding is ill defined, integers cannot be concatenated to form other integrs without the process of 'concatenation' being accurately defined.

# CommentEnd:

SuggestedRemedy: Remove the LAG ID.

RemedyEnd: ResolutionStart:

Resolved by 259.

### ResolutionEnd:

CommentNumber: 269

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 43 Subclause: 43.3.5 Page: 90, 91 Line: 45, 27

CommentType (E, T, ER, or TR): E

Comment:

The concatenation shown in this subclause is 20-bytes long. This is hardly an integer by most definitions.

# CommentEnd:

Suggested Remedy:

# Refer to the LAG\_ID as a 20-byte value.

# RemedyEnd: ResolutionStart:

\*\*Resolved by elimination of LAG ID

#### ResolutionEnd:

CommentNumber: 270

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 1

CommentType (E, T, ER, or TR): TR

Comment:

On both line 1 and line 30 there is a variable named "Aggregator" defined as "the identifier of the Aggregator" but one is a 48 bit (presumably MAC address) and the other is a Integer. I see no reason for these to be different, but if they are different they should have different descriptions.

#### CommentEnd:

# SuggestedRemedy:

In both places change "identifier" to "Aggregator\_port\_number" and on line 2 change "48 bits" to "Integer". I'd further recommend the editorial change of "Aggregator\_port\_number" to simply "Aggregator\_number" in all cases where it is used.

Page 91 line 1, \*if this variable remains\*, change name to Aggregator\_MAC\_address, and change "identifier" to "MAC address" in definition.

# RemedyEnd: ResolutionStart:

Change aggregator\_port\_number to aggregator\_identifier. Define as "used to uniquely identify an aggregator within a system"

#### ResolutionEnd:

CommentNumber: 271

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 1-4

CommentType (E, T, ER, or TR): E

Comment:

There are 2 instances of a variable named Aggregator one here, another on lines 29-31 of the same page. One is a 48-bit value, the other an integer. (and there are already about 500 instances of the word Aggregator with other

# meanings in this draft)

#### CommentEnd:

# SuggestedRemedy:

Rename the first one to "Aggregator\_ID‰ and list it under Aggregator (not LAG), and rename the port one to "Port\_Aggregator\_ID‰, and make it a 48-bit value.

# RemedyEnd: ResolutionStart:

# Resolved by 270.

#### ResolutionEnd:

CommentNumber: 272

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.5

Page: 91 Line: 5-10

CommentType (E, T, ER, or TR): E

Comment:

The Collector and Distributor states are not per Link Aggregation Group, as suggested by the definition. Rather, they are per port.

## CommentEnd:

# SuggestedRemedy:

Move them both to the per port section lower in the page (after line 14), and change the definitions to state "for each port‰ instead of "for the Link Aggregation Group‰.

# RemedyEnd:

ResolutionStart:

# Resolved by 273.

#### ResolutionEnd:

CommentNumber: 273

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 5-10

CommentType (E, T, ER, or TR): TR

Comment:

Please explain what is meant by Collector\_State and Distributor\_State. I guess the intention if any port in the LAG is collecting the Collector State is 'up' or "enabled" (whatever). But I don't believe a LAG can have this sort of state. The ability to transmit and receive goes along with the aggregator.

#### CommentEnd:

SuggestedRemedy:

If the Collector\_State and Distributor\_State are wanted (they are not used by LACP, they are just consequences) associate them with the Aggregator rather than

the LAG. RemedyEnd: ResolutionStart:

AIP. Move Collector and Distributor state variables to Aggregator section.

#### ResolutionEnd:

CommentNumber: 274

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 5

CommentType (E, T, ER, or TR): E

Comment:

Spurious "." after "Collector\_State"

CommentEnd:

SuggestedRemedy:

Remove spurious "." after "Collector\_State"

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 275

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 25

CommentType (E, T, ER, or TR): TR

Comment:

What is this Port\_LAG\_ID, what relationship does it have to the LAG\_ID?

### CommentEnd:

SuggestedRemedy:

Remove it. RemedyEnd: ResolutionStart:

Resolved by 259.

ResolutionEnd:

CommentNumber: 276

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 31

CommentType (E, T, ER, or TR): E

Comment:

Aggregator here specifies the "identifier of the Aggregator associated with the port". But it is an Integer. How does this identify the Aggregator. Is it the Aggregator\_port\_number (in which case an integer value makes sense) or is it the MAC address (in which case it should be 48 bits).

CommentEnd:

SuggestedRemedy:

Explain the meaning of "identifier" and if a MAC address change the type.

RemedyEnd: ResolutionStart:

AIP. Page 91, line 29: Change to "Aggregator\_identifier".

### ResolutionEnd:

CommentNumber: 277

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 91 Line: 40

CommentType (E, T, ER, or TR): TR

Comment

The Actor\_Port\_Oper\_key and Actor\_Port\_Admin\_key should both be present.

# CommentEnd:

SuggestedRemedy:

Replace Actor\_Port\_Key with the two variables indicated.

RemedyEnd: ResolutionStart:

Accept. Change "key" to OperKey for both port and Aggregator key usage in State Machines. Include text to explain how the Admin key maps to the OperKey (refer to later section on changing keys).

# ResolutionEnd:

CommentNumber: 278

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5

Page: 91 Line:

CommentType (E, T, ER, or TR): TR

#### Comment:

The Actor Port System ID should be present in the port variable list, since there is no system variable set defined. The Actor Port System Priority is also missing.

## CommentEnd:

SuggestedRemedy: RemedyEnd: ResolutionStart:

Accept. Add the indicated variables to the port variable list.

#### ResolutionEnd:

CommentNumber: 279

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43

Subclause: 43.3.5

Page: 91 Line: 44

CommentType (E, T, ER, or TR): TR

Comment:

Default or Admin variables should also be present for the partner Port Priority, Port Number, System Priority, System ID, Port Key, and Port Status ('Status' not 'State' to be consistent).

# CommentEnd:

SuggestedRemedy:Add them.

RemedyEnd: ResolutionStart:

Accept. Add the variables, AND have the state machines show how the default is used or overridden by protocol exchanges.

# ResolutionEnd:

CommentNumber: 280

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.3.5

Page: 92 Line: 11

CommentType (E, T, ER, or TR): E

Comment:

The phrase "The Actor's view of the current values of..." is a useful clarification that could be added to the immediately preceding four

"Partner\_" definitions.

CommentEnd:

# SuggestedRemedy:

Prepend a phrase similar to "The Actor's view of the current values of..." to each of the four preceding "Partner\_" definitions.

RemedyEnd: ResolutionStart: \*\*Editor's discretion ResolutionEnd: CommentNumber: 281 CommenterName: R Tasker CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758 CommenterCompany: CLRC, Daresbury Laboratory Clause: 43 Subclause: 3.5 LAG\_ID Page: Line: 3 CommentType (E, T, ER, or TR): E Comment: "Catenation of....." - no such word! Replace with "Concatenation of..." CommentEnd: SuggestedRemedy: Make change RemedyEnd: ResolutionStart: \*\*Resolved by elimination of variable ResolutionEnd: CommentNumber: 282 CommenterName: Keith Klamm

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 43 Subclause: 43.3.5

Page: 92 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

I recommend that positive true logic be used for the port\_disabled parameter. It is more intuitive and mirrors the way SNMP MIBs are written.

# CommentEnd:

SuggestedRemedy:

Change the name of this object to "port\_enabled", change the varible's meaning to be true = operable and false = inoperable.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 283

CommenterName: Mick Seaman

CommenterEmail: mick seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.5 Page: 92,93,94 Line: 23-

CommentType (E, T, ER, or TR): TR

Comment:

There are far too many variables here, given both the absolute requirement and the state machine conventions we are using.

#### CommentEnd:

# SuggestedRemedy:

Remove 'change' and 'evicted' and replace them with 'selected'. For 'selected' a value of TRUE indicates that the Selection logic has identified an Aggregator to attach the port to. A value of FALSE indicates that protocol information (the Receive Machine) has identified that the port is incorrectly attached to an aggregator (LAG ID has changed), and the Mux Control Machine has not yet detached the port from that aggregator and invoked the Selection Logic.

Remove 'infoReceived', it is not needed since all the state machines operate continually on the available data.

Remove 'infoExpired', it is not required.

Remove 'in\_sync', this is already part of the Actor\_Port\_Oper\_Status.

Remove 'partner in sync', this is already part of the Partner\_Port\_Oper\_Status.

Remove 'Actor\_LACP', this is already part of the Actor\_Port\_Oper\_Status and Actor\_Port\_Admin\_Status.

Remove 'Partner LACP', this is already part of the Partner Port Oper Status.

Rename 'mux\_request' as 'attach' so that it can have a simple truth value.

Rename 'mux\_state' as 'attached' so that it can have a simple truth value.

Replace 'ready' with 'wait\_while', a counter that implements the timer function. When this timer expires the port will be 'ready'.

Remove 'all\_ready', this duplicates information from all the ports, there is no state involved in generating 'all\_ready' it is a combinatorial function over 'ready' for all ports that have 'selected' the aggregate.

Remove 'current\_partner', there is no need to hold this information once the Match Logic is combined with the Receive Machine.

Remove 'no\_partner', it is no longer required : since we have partner defaults we will always have a partner. 'matched' == FALSE copes with the Expired state.

Replace 'matched\_individual' with 'individual'. This is set by the selection logic and indicates that the link is to be used as an Individual link. Remove the mention of InfoExpied (everywhere).

Remove 'matched\_aggregate', we already have 'matched' and 'individual', that is enough.

Remove the final reference to LACPDUs. These are completely processed by the Receive Machine and Match Logic, no other machine needs to see them.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251.

### ResolutionEnd:

CommentNumber: 284 CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43 Subclause: 43.3.5

Page: 92 Line: 25

CommentType (E, T, ER, or TR): E

Comment:

The definition of the variable "change" is confusing. It is not clear why the Selection logic chooses to detach a port.

#### CommentEnd:

SuggestedRemedy:

Add:change A value of TRUE indicates that the Selection logic has chosen different aggregator from the current Aggregator for the port and it is ready to detach the port from its current Aggregator.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

# ResolutionEnd:

CommentNumber: 285

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43 Subclause: 43.3.5

Page: 92 Line: 30

CommentType (E, T, ER, or TR):

Comment:

As will be indicated later: eviction is a function of the Mux state machine. So the evicted variable can be removed.

CommentEnd:

SuggestedRemedy:

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 286

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.5

Page: 93 Line: 24-27

CommentType (E, T, ER, or TR): E

Comment:

Partner\_Timeout is the current state of the LACP\_Timeout, which is valued as Long or Short, not Fast or Slow (see 43.3.2.2, page 86, lines 31-32). I believe we voted to use Long or Short as the values during last September,s interim meeting in Austin. This is how the values are listed in the management section as well.

## CommentEnd:

# SuggestedRemedy:

Replace all instances of "Fast‰ and "Slow‰ with "Short‰ and "Long‰ respectively. I found them in 43.3.5, page 93 line 24-27, and throughout figure 43-11, and in 43.3.7, page 95 lines 13-15.

RemedyEnd: ResolutionStart:

\*\*Reject. Timers are fast/slow, timeouts are short/long.

# ResolutionEnd:

CommentNumber: 287

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43 Subclause: 43.3.5

Page: 93 Line: 26

CommentType (E, T, ER, or TR): T

Comment:

The UNKNOWN value on Partner\_LACP and Partner\_Timeout variables is never used in the state machines, and is redundant with the info\_expired variable which is used.

### CommentEnd:

### SuggestedRemedy:

Eliminate the UNKNOWN value for these variables. State that these variables will be set to PASSIVE and SLOW when info\_expired = TRUE.

# RemedyEnd:

CommentNumber: 288

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317 CommenterCompany: 3Com

Clause: 43 Subclause: 43.3.5

Page: 93 Line: 38

CommentType (E, T, ER, or TR): E

Comment: mux state

This variable indicates the Mux Control logic state for a port.

Values: ATTACHED or DETACHED

The above definition doesnít match with the Mux Control state machine description on Section 43.3.13 Mux Control and Logic page 102, line 3 where the Mux is described as only having the states IN\_SYNC and OUT\_OF\_SYNC. So it isnít clear what is meant here. And then it isnít clear when in the Selection machine a port moves from Attaching to Attached.

#### CommentEnd:

SuggestedRemedy:

Replace ATTACHED with IN\_SYNC and DETACHED with OUT\_OF\_SYNC

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 289

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.6

Page: 94 Line: 36-

CommentType (E, T, ER, or TR): TR

Comment:

Combining the Match Logic with the Received Machine cuts down on the information that has to be recorded from each PDU, since the information that simply has to be checked against the actor's state can be discarded once the checking is done. The clearPDU function is no longer required since the absence of information from a live partner causes defaults to be used. The record\_current\_partner is no longer required since the Receive Machine can reset 'selected' if the partner changes, so the previous partner information does not have to be recorded simply to make that possible.

The functions that are required are as follows:

- 1. Copying all the partners information from the actor's parameters in a received pdu into the PartnerOper variables.
- 2. Copying all the PartnerAdmin (or PartnerDefault, same thing) variables to the PartnerOper variables. This is used when the machine falls back to the default partner parameters.
- 3. Comparing the actor's parameters in a received PDU with the PartnerOper variables. The parameters tested for equality are port priority, port number,

system priority, system id, keys, and the Aggregation flag. If the test fails then the 'selected' variable is reset - the partner's half of the LAG has changed.

4. Comparing the partner's parameters in a received PDU with the ActorOper variables. The same parameters are tested, and the 'matched' variable is set true if they are equal, or if the transmitter of the pdu had reset his Aggregation flag.

CommentEnd:

SuggestedRemedy:

Update the required functions as per the above.

RemedyEnd: ResolutionStart:

ResolutionEnd:

CommentNumber: 290

CommenterName: Benjamin Brown

CommenterEmail: bebrown@BayNetworks.COM

CommenterPhone: (603)629-3027

CommenterCompany: Nortel Networks

Clause: 43 Subclause: 43.3.7

Page: 95 Line: 11-14

CommentType (E, T, ER, or TR): T

Comment:

The wording is wrong for this description.

CommentEnd:

SuggestedRemedy:

Replace with:

current\_while\_timer

This timer is used to time out received LACPDUs in the Receive machine. This timer is initialized to the value Short\_Timeout\_Time if the Actor's LACP\_Timeout parameter is set to Short Timeout or to the value Long\_Timeout\_Time if the Actor's LACP\_Timeout parameter is set to Long Timeout.

RemedyEnd: ResolutionStart:

Accept.

ResolutionEnd:

CommentNumber: 291

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.7 Page: 95 Line: 13

CommentType (E, T, ER, or TR): E

Comment:

Terminology is inconsistent with elsewhere.

CommentEnd:

SuggestedRemedy:

Change "Slow\_Expiry\_Tme" to Long\_Timeout\_Time".

Change "Slow Timeouts" to "Long Timeouts". Change "Fast Timeouts" to "Short Timeouts".

Change "Actor's Timeout" to "Actor's LACP\_Timeout". (x2)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion. Timers are fast/slow, timeouts are short/long

#### ResolutionEnd:

CommentNumber: 292 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43 Subclause: 43.3.7

Page: 95 Line: 13

CommentType (E, T, ER, or TR): ER

Comment:

Incorrect reference to undefined value 'Slow\_Expiry\_Time'.

CommentEnd:

SuggestedRemedy:

Replace 'Slow\_Expiry\_Time' with 'Slow\_Periodic\_Time'.

RemedyEnd: ResolutionStart:

\*\*See 291.

# ResolutionEnd:

CommentNumber: 293

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.7

Page: 95 Line: 13

CommentType (E, T, ER, or TR): E

Comment:

There is no such value as "Slow\_Expiry\_Tme‰ this was the old name of what is

 $now\ called\ "Long\_Timeout\_Time‰$ 

# CommentEnd:

SuggestedRemedy:

Replace "Slow Expiry Tme% with "Long Timeout Time%.

RemedyEnd: ResolutionStart:

\*\*See 291

#### ResolutionEnd:

CommentNumber: 294

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: 43

Subclause: 43.3.7

Page: 95 Line: 13

CommentType (E, T, ER, or TR): TR

Comment:

The term "Slow\_Expiry\_Time" is not defined.

CommentEnd:

SuggestedRemedy:

"Slow\_Expiry\_Time" needs to be replaced with "Long\_Timeout\_Time".

RemedyEnd: ResolutionStart:

Accept. Global check: transmissions should be slow/fast, timeouts should be long/short.

# ResolutionEnd:

CommentNumber: 295

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.7

Page: 95 Line: 18

CommentType (E, T, ER, or TR): TR

**Comment:** 

The fast\_while timer is not required, provided that the receive machine sets both the actor's and partner's operational LACP\_Tiemout to indicate Short Timeout while it is in the Expired state. That causes it to elicit a response from any partner present rapidly and this polling need only last as long as a Short Timeout interval, for which the current while timer is adequate.

# CommentEnd:

SuggestedRemedy:

Remove the fast while timer.

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 296

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.9

Page: 95 Line: 48

CommentType (E, T, ER, or TR): E

Comment:

Grammar. Replace "an" with "a".

CommentEnd:

SuggestedRemedy: Replace "an" with "a". RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 297

CommenterName: Mick Seaman

CommenterEmail: mick\_seaman@3com.com

CommenterPhone: 408 326 5941

CommenterCompany: 3Com Corporation

Clause: 43 Subclause: 43.3.9

Page: 96 Line: 18

CommentType (E, T, ER, or TR): TR

Comment:

As per the Editor's Note, the Receive state needs updating. I propose 4 states:

Rxm\_current - received information current, current while running Rxm\_expired - current while running, information not current Rxm\_defaulted - current while now stopped, reverted to defaults Rxm\_disabled - physical link disabled

Rxm\_current transitions to Rxm\_expired when current while expires, and the timer is restarted.

Rxm\_expired transitions to Rxm\_defaulted when the current while timer expires.

All states transition to Rxm\_disabled when the physical link is disabled, when it is enabled once more the machine transitions to Rxm\_expired.

More detail is in Rev. 3.3 or greater of my "Link Aggregation Control Protocol" paper. These states remove the requirement for any other machine to take note of either the Receive Machine state ('matched' is FALSE in Rxm\_expired and Rxm\_disabled) or the physical link being enabled or disabled, thus simplifying those machines.

#### CommentEnd:

SuggestedRemedy:

Revise the Receive Machine to include the suggested states.

RemedyEnd: ResolutionStart:

ResolutionEnd:

CommentNumber: 298

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.10

Page: 96 Line: 48

CommentType (E, T, ER, or TR): E

Comment:

Is "Partner\_LACP" strictly-speaking administratively-settable? It may have a default of unknown at initialization but after that

it is determined. CommentEnd:

SuggestedRemedy:

Remove "and Partner\_LACP" from the sentence?

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 388

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43 Subclause: 43.3.9

Page: 96 Line: Fig 43-10

CommentType (E, T, ER, or TR): T

Comment:

The state machine may keep on starting current\_while\_timer while in state

CURRENT.
CommentEnd:
SuggestedRemedy:

Either we add a common clarfication that actions are taken only at the

entry in the state machine OR add another state LOADSTATE

as follows:

The state marked as CURRENT becomes LOADSTATE. There is no waiting in

LOADSTATE and state machine goes

to CURRENT state where it waits for either epiry of timer or another

MA\_DATA.indicate. If it is expiry,

it goes to EXPIRED state, if it is MA\_DATA.inidicate, it goes to LOADSTATE.

RemedyEnd: ResolutionStart:

Reject. The state machines conventions are defined such that the proper behavior is exhibited.

# ResolutionEnd:

CommentNumber: 389

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.3.10 Page: 96, 97 Line: 44

CommentType (E, T, ER, or TR): ER

Comment:

The states START FAST\_WHILE and START SLOW\_PERIODIC should be one word.

CommentEnd: SuggestedRemedy:

Name them as START\_FAST\_WHILE and START\_SLOW\_PERIODIC.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion, Resolved by 251.

#### ResolutionEnd:

CommentNumber: 390

CommenterName: Devendra Tripathi

CommenterEmail: devendra.tripathi@xaqti.com

CommenterPhone: (408)-986-4381 Ext 103 CommenterCompany: XaQti Corporation

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 3

CommentType (E, T, ER, or TR): T

Comment:

"If the receive state machine is EXPIRED and ..." is not correct.

CommentEnd: SuggestedRemedy:

Change the EXPIRED to CURRENT.

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 299

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.3.10** 

Page: 97

Line: <multiple>

CommentType (E, T, ER, or TR):

Comment:

actor\_LACP is also written actor\_lacp

CommentEnd:

SuggestedRemedy:

Change all occurrences of actor\_lacp to actor\_LACP

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor's discretion

#### ResolutionEnd:

CommentNumber: 300

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 2, 9-34

CommentType (E, T, ER, or TR): E

Comment:

Use of the word "partner\_speed\" is incorrect, as it is not defined. (it was changed to Partner\_Timeout\")

#### CommentEnd:

# SuggestedRemedy:

Replace all instances of "partner\_speed‰ on page 96, line 52, and page 97, line 2, and in figure 43-11 to "Partner Timeout‰.

# RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 301

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 5, 30

CommentType (E, T, ER, or TR): E

Comment:

Mistyped "fast\_while timer‰ which should be "fast\_while\_timer‰ in both line 5, and in figure 43-11 in the transition conditional from FAST\_PERIODIC to SLOW PERIODIC states.

### CommentEnd:

# SuggestedRemedy:

Replace "fast\_while timer‰ with "fast\_while\_timer‰ in both line 5, and in figure 43-11 in the transition conditional from FAST\_PERIODIC to SLOW\_PERIODIC states.

## RemedyEnd:

ResolutionStart:

\*\*Resolved by 251.

#### ResolutionEnd:

CommentNumber: 302

CommenterName: Benjamin Brown

CommenterEmail: bebrown@BayNetworks.COM

CommenterPhone: (603)629-3027 CommenterCompany: Nortel Networks

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 8-36

CommentType (E, T, ER, or TR): T

Comment:

State Diagram does not match text description. Changes are required in regards to operation when actor\_LACP=PASSIVE and info\_expired=TRUE.

CommentEnd:

SuggestedRemedy:

Change global entry to state START FAST\_WHILE from: actor\_LACP=ACTIVE \* (info\_expired=TRUE + reinitialize=TRUE) to: actor\_LACP=ACTIVE \* reinitialize=TRUE

Change global entry to state NO\_PERIODIC from: actor\_LACP=PASSIVE \* partner\_LACP=PASSIVE

to:

actor\_LACP=PASSIVE \* (partner\_LACP=PASSIVE + info\_expired=TRUE)

Add a transition from state NO\_PERIODIC to state START FAST\_WHILE: actor\_LACP=ACTIVE \* info\_expired=TRUE

RemedyEnd: ResolutionStart:

ResolutionEnd:

CommentNumber: 303

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): T

Comment:

In figure 43-11, having both Start\_Slow\_Periodic and Slow\_Periodic states is extraneous. No events occur within Slow\_Periodic state, and having both states makes the diagram more complex than necessary. The only effect the extra state may have is to cause the actor to send 5 LACPDUs quickly and then slow down, instead of 4 quickly and then slow down if the state is removed. Is that the desired result?

CommentEnd:

SuggestedRemedy:

 $Remove\ Start\_Slow\_Periodic\ state,\ and\ transfer\ entry/exit\ lines\ and\ internal\ events\ to\ Slow\_periodic\ state.$ 

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 304

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): TR

Comment:

In figure 43-11, there is no entry point into the diagram if actor\_LACP = PASSIVE \* partner\_LACP = UNKNOWN, which can happen during reinitialization or

current\_while\_timer expiring in Receive machine.

#### CommentEnd:

SuggestedRemedy:

Replace conditional entry point arrow into NO\_PERIODIC state of "actor\_LACP = PASSIVE \* partner\_LACP = PASSIVE‰ with the following conditional:

"actor\_LACP = PASSIVE \* (partner\_LACP = PASSIVE + current\_while\_timer expired + reinitialize = TRUE)"

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 305

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.10

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): T

Comment:

In figure 43-11, the transition from FAST\_PERIODIC to START\_SLOW\_PERIODIC requires "partner\_speed = SLOW \* (actor\_LACP = ACTIVE + partner\_LACP = ACTIVE). In order for the right conjunct to be false, both actor and partner must be passive, which would transition immediately to NO\_PERIODIC state and not be in the FAST\_PERIODIC state, and thus the conjunct is always true and pointless.

[Besides the fact that "partner\_speed\" is actually "Partner\_Timeout\" (dealt with in an editorial comment)]

# CommentEnd:

SuggestedRemedy:

 $Replace \ ",partner\_speed=SLOW" \ (actor\_lacp = ACTIVE + partner\_LACP = ACTIVE) \% \\ with \ ",Partner\_Timeout = SLOW \% .$ 

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 306

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): T

Comment:

In figure 43-11, the transition from SLOW\_PERIODIC to FAST\_PERIODIC requires "partner\_speed = FAST \* (actor\_LACP = ACTIVE + partner\_LACP = ACTIVE)‰. In order for the right conjunct to be false, both actor and partner must be passive, which would transition immediately to NO\_PERIODIC state and not be in the SLOW\_PERIODIC state, and thus the right conjunct is always true and pointless.

[Besides the fact that "partner\_speed% is actually "Partner\_Timeout%" (dealt with in an editorial comment)]

#### CommentEnd:

SuggestedRemedy:

Replace "partner\_speed=FAST \* (actor\_lacp = ACTIVE + partner\_LACP = ACTIVE)% with "Partner\_Timeout = FAST%.

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 307

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): T

Comment:

In figure 43-11, the transition from FAST\_PERIODIC to SLOW\_PERIODIC requires "fast\_while\_timer expired \* info\_expired = TRUE‰. In order for the fast\_while\_timer to have been set and expired, the actor must be ACTIVE, and if info\_expired becomes TRUE, the state machine will transition to START FAST\_WHILE state, not SLOW\_PERIODIC. This is not the wanted/desired result. We want a devices to be in SLOW\_PERIODIC if the actor is ACTIVE and the partner does not seem to be link agg enabled/capable. (right?)

# CommentEnd:

# SuggestedRemedy:

Replace conditional of entry arrow into START FAST\_WHILE "actor\_LACP = ACTIVE \* (info\_expired = TRUE + reinitialize = TRUE)‰ with "actor\_LACP = ACTIVE \*

(current\_while\_timer expired + reinitialize = TRUE)‰.

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 308

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 9-34

CommentType (E, T, ER, or TR): T

Comment:

In figure 43-11, assuming the state machine will begin in START FAST\_WHILE state. It sets the timer to fast\_while\_timer and then transitions to FAST\_PERIODIC and sets the periodic\_timer. Both timers should, in theory, expire at the same time on the third loop and thus two different exit conditions are true: fast\_while\_timer expired, and periodic\_timer expired. Which one should a device do? (I believe the basic difference is whether 5 LACPDUs are sent quickly, or 6 - see suggested remedy)

#### CommentEnd:

# SuggestedRemedy:

Change looping conditional of "periodic\_timer expired‰ to "periodic timer expired \* !(fast\_while timer expired)". (I believe this means 5 LACPDUs will be transmitted quickly... 4 in FAST\_PERIODIC, 1 in SLOW\_PERIODIC)

RemedyEnd: ResolutionStart:

# ResolutionEnd:

CommentNumber: 309 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 9 - 35

CommentType (E, T, ER, or TR): TR

**Comment:** 

Figure 43-11 - Periodic Transmission Machine State Diagram As currently drawn, there is no way the NO\_PERIODIC state may be entered, except as a result of management configuration to change a previously ACTIVE port to PASSIVE. In the more normal scenario, where a PASSIVE port reinitialises itself when it has a PASSIVE partner, neither end of the link will be able to determine that the other end is PASSIVE.

CommentEnd:

# SuggestedRemedy:

This may be most easily resolved by assuming the partner is PASSIVE,

unless otherwise informed by the partner. This may be shown by changing the condition on the arrow entering the NO\_PERIODIC state to:

'actor\_LACP = PASSIVE \*

(partner\_LACP = PASSIVE + info\_expired = TRUE)'

Note that infoExpired is set to TRUE by the Receive Machine after a reinitialize, or when the current\_while\_timer expires, thus also dealing with the situation when the partner expires and becomes UNKNOWN.

RemedyEnd: ResolutionStart:

#### ResolutionEnd:

CommentNumber: 310

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 10

CommentType (E, T, ER, or TR): TR

Comment:

Figure 43-11 has no initial state when actor\_LACP = PASSIVE and partner\_LACP

= ACTIVE.

#### CommentEnd:

# SuggestedRemedy:

Make the global entry to the NO\_PERIODIC state occur when: actor\_LACP = PASSIVE \* (partner\_LACP = PASSIVE + info\_expired = TRUE + reinitialize = TRUE)

This will resolve the issue assuming that info\_expired or reinitialize will always be TRUE prior to learning that the partner\_LACP is ACTIVE.

#### RemedyEnd:

CommentNumber: 397

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 10-34

CommentType (E, T, ER, or TR): E

Comment:

This comment is editorial because I just want to know the rationale behind the operation....

If I recall correctly, the purpose of having a slow periodic transmit was to support slow/weak devices which could not handle a LACPDU per second speed processing. This state machine only goes halfway by sending to the slow partner slowly, but still requiring it to transmit quickly if its partner can handle it. While I know that parsing/decoding and processing the received LACPDUs is the more intensive process, would we be better serving these slow devices if we just made the lowest common denominator of the two devices the same speed for both? (i.e., if one wants slow, both

do it)

CommentEnd:

SuggestedRemedy:

If it would be better to use the lowest common speed, then a few changes would need to be made to the conditionals, but I'd rather not list them all unless the group decides it's worth it.

RemedyEnd: ResolutionStart:

\*\*Reject.

#### ResolutionEnd:

CommentNumber: 311

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.10

Page: 97 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

Inconsistent terminology.

CommentEnd:

SuggestedRemedy:

Replace "parter\_speed" with "Partner\_Timeout" (x4) Also twice in preceding text (p41 line 52 and p42 line 2).

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 312

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 16

CommentType (E, T, ER, or TR): E

Comment:

Inconsistent terminology.

CommentEnd:

SuggestedRemedy:

Replace "info\_expired" with "infoExpired" (x2)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd:

CommentNumber: 313

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 16

CommentType (E, T, ER, or TR): E

Comment:

Inconsistent terminology.

CommentEnd:

SuggestedRemedy:

Replace "actor\_LACP" with "Actor\_LACP"
Replace "actor\_lacp" with "Actor\_LACP" (x4)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 314

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 17

CommentType (E, T, ER, or TR): E

Comment:

Inconsistent terminology.

CommentEnd:

SuggestedRemedy:

Replace "partner\_LACP" with "Partner\_LACP" (x4)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

# ResolutionEnd:

CommentNumber: 315

CommenterName: Keith Klamm CommenterEmail: klamm@ods.com CommenterPhone: 972-301-3663 CommenterCompany: ODS Networks

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 25

CommentType (E, T, ER, or TR): E

Comment:

In figure 43-11 the acronym "UCT" is undefined.

#### CommentEnd:

SuggestedRemedy:

Define UCT.

RemedyEnd: ResolutionStart:

\*\*Reject. UCT is defined in the state machine conventions.

#### ResolutionEnd:

CommentNumber: 316

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.10** 

Page: 97 Line: 32

CommentType (E, T, ER, or TR): TR

Comment:

Line 3 says "If the receive machine is EXPIRED and Actor\_LACP is PASSIVE, no periodic transmission will occur". This is inconsistent with Fig 43-11 which has no transition paths from either FAST\_PERIODIC or SLOW\_PERIODIC to the NO\_PERIODIC state.

Also if Actor\_LACP and Partner\_LACP have both become PASSIVE then the state machine continues to generate periodic transmissions.

CommentEnd:

SuggestedRemedy:

Add transition from FAST\_PERIODIC to NO\_PERIODIC on the condition Actor\_LACP /= ACTIVE \* Partner\_LACP /= ACTIVE

Add transition from SLOW\_PERIODIC to NO\_PERIODIC on the condition Actor\_LACP /= ACTIVE \* Partner\_LACP /= ACTIVE

(If desired "Actor\_LACP /= ACTIVE" can be replaced by "Actor\_LACP = PASSIVE" but "Partner\_LACP /= ACTIVE" is required to cope with Partner\_LACP being UNKNOWN). RemedyEnd:
ResolutionStart:

# ResolutionEnd:

CommentNumber: 317 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.10

Page: 97 Line: 35

CommentType (E, T, ER, or TR): E

Comment:

Figure 43-11 - Periodic Transmission Machine State Diagram
The capitalisation of the figure title is inconsistent with the other

figures, which have 'state diagram' in lower case.

CommentEnd:

SuggestedRemedy:

Change 'state diagram' to be all lower case.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 318

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.11

Page: 98 Line: 1-17

CommentType (E, T, ER, or TR): TR

Comment:

The state diagram in figure 43-12 has no entry point. What happens when the actor is powered-up or reinitialized?

#### CommentEnd:

# SuggestedRemedy:

Add an entry/begin arrow to the UNMATCHED state with the conditional "reinitialize = TRUE%"

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

# ResolutionEnd:

CommentNumber: 319

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.11

Page: 98 Line: 1-17

CommentType (E, T, ER, or TR): TR

Comment:

The text on page 97, line 46 states "The protocol information is matched if the port is enabled and  $\Sigma$ %, but the state diagram in figure 43-12 has no such requirement. I believe the machine should be in state UNMATCHED if the port is not enabled. This also affects the exit condition from UNMATCHED.

# CommentEnd:

# SuggestedRemedy:

Add an entry arrow to the UNMATCHED state with the conditional "port\_disabled = TRUE", or add that as a disjunction if an entry arrow already exists. Also,

the exit condition from UNMATCHED to MATCHED\_INDIVIDUAL has to change because no\_partner will always be true when port\_disabled is true, so change "no\_partner = TRUE + matched\_individual = TRUE‰ to "(port\_disabled = FALSE \* no\_partner = TRUE) + matched\_individual = TRUE‰. The parenthesis is redundant, but useful for reading.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 320

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.11

Page: 98 Line: 2-16

CommentType (E, T, ER, or TR): T

Comment:

The conditional transitions from MATCHED\_AGGREGATE to UNMATCHED and from MATCHED\_INDIVIDUAL to UNMATCHED both are "no\_partner = FALSE \* matched\_individual = FALSE‰ but couldn,t that also transition it to MATCHED\_AGGREGATE? (being matched\_aggregate \*requires\* this condition to be true) I think it,s a typo.

# CommentEnd:

SuggestedRemedy:

Replace both instances of "no\_partner = FALSE \* matched\_individual = FALSE" With "matched\_aggregate = FALSE \* matched\_individual = FALSE".

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 321

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.11

Page: 98 Line: 2-16

CommentType (E, T, ER, or TR): TR

**Comment:** 

The state machine in figure 43-12 has no means of communicating its state to others, and takes no action (sets no variables, timers, etc.) why does it exist? It does nothing of what the text in 43.3.11 describes, and since only the figure is normative (there are no shalls in the text except to implement the function in the figure), the whole subclause 43.3.11 is moot.

#### CommentEnd:

# SuggestedRemedy:

Redraw the state machine to depict the logic of the text in 43.3.11. Also, create a Match\_State variable so other machines can see what state this one is in, by having it set to a value in each state. (e.g., match\_state = INDIVIDUAL, AGGREGATE, or UNMATCHED)

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 322

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.11** 

Page: 98 Line: 2

CommentType (E, T, ER, or TR): TR

Comment:

The two transition conditions from out of state MATCHED\_INDIVIDUAL can be active simultaneously....

If matched\_aggregate = TRUE then there must be a partner (i.e. no\_partner = FALSE) and it is not a matched individual (i.e. matched\_individual = FALSE).

CommentEnd:

# SuggestedRemedy:

Append "\* matched\_aggregate = FALSE" to the

MATCHED\_INDIVIDUAL to UNMATCHED transition condition.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

# ResolutionEnd:

CommentNumber: 323

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.11

Page: 98

CommentType (E, T, ER, or TR): TR

Comment.

Line: 2

When "matched\_aggregate = TRUE" the Match Logic state machine will oscillate between the MATCHED\_AGGREGATE and UNMATCHED states because the condition "no\_partner = FALSE \* matched\_individual = FALSE" is true, which is the MATCHED\_AGGREGATE to UNMATCHED transition condition, and the "matched aggregate = TRUE" condition is true which is the

UNMATCHED to MATCHED\_AGGREGATE transition condition.

CommentEnd:

SuggestedRemedy:

Append "\* matched\_aggregate = FALSE" to the

MATCHED AGGREGATE to UNMATCHED transition condition.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 324

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.11

Page: 98 Line: 2

CommentType (E, T, ER, or TR): T

Comment:

The state-machine has no way of entering it. (i.e. it has no initialization condition). I know it will sort itself out no matter which state it starts up in, but does convention require an

initialization mechanism?

CommentEnd:

# SuggestedRemedy:

Add initialization condition if necessary (into UNMATCHED probably).

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

# ResolutionEnd:

CommentNumber: 325

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.3.11

Page: 98 Line: 2

CommentType (E, T, ER, or TR): TR

Comment:

The state-machine as drawn in Fig 43-12 has no outputs and can thus be omitted without affecting behaviour.

CommentEnd:

# SuggestedRemedy:

I suggest the "Matched" signal alluded to by Fig 43-9 and by the text of 43.3.11 and 43.3.13 be explicitly defined and set to TRUE in the MATCHED\_INDIVIDUAL and MATCHED\_AGGREGATE states and set to FALSE in the UNMATCHED state.

RemedyEnd:

#### **ResolutionStart:**

\*\*Resolved by 251

### ResolutionEnd:

CommentNumber: 326

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.11 Page: 98

Page: 98 Line: 34-36

CommentType (E, T, ER, or TR): T

Comment:

lines 27-29 of page 99 state the selection logic uses the matched\_aggregate value to decide on aggregates, but it appears the match logic uses the selection logic to decide on matched\_aggregate. This appears circular. (actually, it doesn,t appear the selection logic decides on which port is individual anyway - this is an error)

### CommentEnd:

## SuggestedRemedy:

Replace "and the Selection Logic has not identified  $\Sigma$ ‰ with the actual logic/machine that does this function.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 327

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.11

Page: 99 Line: 18-35

CommentType (E, T, ER, or TR): T

Comment:

What machine/logic actually sets the Individual\_Port variable? (i.e., which one determines whether a port is individual or not?) According to line 35-36 page 98, it,s the selection logic, but I see no mention of that function here. If it is this section (or even if not), there should be a "shall‰ statement stating that ports of differing speeds shall not be aggregated.

## CommentEnd:

### SuggestedRemedy:

Find the logic/machine that actually sets the Individual\_Port variable and state it to in that section, and add a line to the selection logic of something like:

"Ports of differing speed shall not select the same aggregator.‰

RemedyEnd: ResolutionStart:

Reject. No action required.

#### ResolutionEnd:

CommentNumber: 328 CommenterName: R Tasker

CommenterEmail: r.tasker@dl.ac.uk CommenterPhone: +44 1925 603758

CommenterCompany: CLRC, Daresbury Laboratory

Clause: 43 Subclause: 3.12

Page: Line: 47

CommentType (E, T, ER, or TR): E

Comment: Second para., final sentence. For clarity change "from the one

that the

port is currently attached to." to "from to which the port is currently

attached."
CommentEnd:

SuggestedRemedy: Make the change

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

## ResolutionEnd:

CommentNumber: 329

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.1

Page: 99 Line: 16-35

CommentType (E, T, ER, or TR): TR

Comment:

The requirements for selection logic do not mention any of the state variables that the selection logic is responsible for setting/changing. This makes reading and following state diagrams which rely on these variables and signals quite difficult. While I don,t suggest creating state diagrams depicting the selection actions (since we,re leaving this implementation dependent), I do think we can still require that the variables be maintained properly.

#### CommentEnd:

### SuggestedRemedy:

Either state explicitly all the variables that the selection logic is responsible for (evicted, change, ready, all\_ready, etc.), or state something like: "j) The selection logic shall implement and properly maintain all associated variables stated in 43.3.5.‰

RemedyEnd: ResolutionStart:

# \*\*Resolved by 251

### ResolutionEnd:

CommentNumber: 330

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.1

Page: 99 Line: 21-24

CommentType (E, T, ER, or TR): T

Comment:

The requirements for selection logic states that "ports that cannot aggregate with any other port are allocated unique Keys;‰ This is consistent with 43.5.2, where it states ports that dynamically change their operating characteristics can have their key values dynamically changed by the system. But nowhere does it say if the aggregator keys are then also dynamically changed - else the dynamically changed ports won,t have an agg to attach to.

#### CommentEnd:

SuggestedRemedy:

If you must allow dynamic changing of port keys, also allow dynamic changing of agg keys. (this is ugly)

RemedyEnd: ResolutionStart:

Resolved by 215.

#### ResolutionEnd:

CommentNumber: 331

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.3.12.1

Page: 99 Line: 21

CommentType (E, T, ER, or TR): E

Comment:

Items b), c) and d) of this list do not contain a "shall" whereas

all the rest do. They seem to be candidates for shalls.

CommentEnd:

SuggestedRemedy: Add "shalls"?

RemedyEnd: ResolutionStart:

Accept. Make all bullets conformance requirements.

ResolutionEnd:

CommentNumber: 332

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495

CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 3.12.1

Page: 99 Line: 25

CommentType (E, T, ER, or TR): T

Comment:

Aggregator ID is a MAC address, here.

CommentEnd: SuggestedRemedy:

Use ifIndex for the Aggregator ID.

RemedvEnd: ResolutionStart:

Add a bullet. Aggregator is assigned a MAC address, and an identifier. See comment 213.

### ResolutionEnd:

CommentNumber: 391

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.2

Page: 99 Line: 39-44

CommentType (E, T, ER, or TR): T

Comment:

According to the recommended default selection logic, if the cable that was plugged in to the lowest port of a LAG and disconnected is then reconnected to a higher port, the LAG still does not reset - it still uses the same lowest-port aggregator and it's associated MAC address. That's ok, but suppose a case where a user plugs a cable into a low numbered port, thereby forming a LAG of one link, and sometime later moves it to a higher numbered port - the user has formed a LAG of 2 links, one of which is disabled, and the MAC address is still the original port's one! Bad idea. This happens a lot in the real world, and the user didn't intend to form an agg - just to move a single cable. This "feature" would make me manually configure only. The same is also true of disconnecting 2 aggregated links and moving them higher, etc.

If there are no enabled links in the members of a LAG, the LAG should be reset/cleared - after all, the whole point behind this selection scheme was to save from having to reset the aggregator used to minimize disruptions - but if there are no active links, it's a perfect opportunity to do just that!

### CommentEnd:

## SuggestedRemedy:

Change the recommended default to say "if there are no active/enabled link members of a LAG, the Aggregator of the LAG will be deselected" or some such.

RemedyEnd: ResolutionStart:

### AIP. Resolution tbd.

### ResolutionEnd:

CommentNumber: 333

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.2

Page: 99 Line: 38

CommentType (E, T, ER, or TR): TR

Comment:

This entire subclause regarding selection logic is recommended and therefore should be in an annex, not the normative section of the draft. Optional functions, such as Flush Generation are also optional, but their method of operation is normative if they are implemented. The same is not true of this selection logic: if you implement a lowest-number-port selection logic, you still don,t have to do it this way - which may confuse some people.

#### CommentEnd:

SuggestedRemedy:

move subclause 43.3.12.2 to an annex.

RemedyEnd: ResolutionStart:

Reject.

### ResolutionEnd:

CommentNumber: 334

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

Subclause: 43.3.12.2

Page: 100 Line: 43

CommentType (E, T, ER, or TR): E

Comment:

It states that a port is selected as individual if "both the Actor's Activity and the Partner's Activity are Passive LACP". I don't understand

why this is a requirement.

CommentEnd:

SuggestedRemedy:

Please add explanation as to why periodic LACPs are required.

RemedyEnd: ResolutionStart:

ResolutionEnd:

<sup>\*\*</sup>Editor's discretion

CommentNumber: 335

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.3.12.2

Page: 101 Line: 1

CommentType (E, T, ER, or TR): E

Comment:

List starts with item d)

CommentEnd:

SuggestedRemedy: Start list with item a)

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 336

CommenterName: Jeff Lynch

CommenterEmail: jjlynch@us.ibm.com CommenterPhone: 919-254-4454 CommenterCompany: IBM

Clause: 43

Subclause: 43.3.12.2

Page: 101 Line: 1

CommentType (E, T, ER, or TR): E

Comment:

The list needs to be renumbered

CommentEnd:

SuggestedRemedy:

The list should start with a).

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 337 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.12.2

Page: 101 Line: 1 - 5

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

This list is not a continuation of the previous list, therefore it should restart the numbering from 'a)'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 338

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.12.3

Page: 101 Line: 12

CommentType (E, T, ER, or TR): TR

Comment:

The text doesn't describe the following idea behind the selection logic: That if the connection is lost with the partner, that the state doesn't change. That the intent is to ONLY change state after the partner has been heard from again. This intent allows a port to stay in an Aggregation even if the partner is temporarily lost. Because of this ambiguity the infoExpired test appears in the Selection Machine state diagram.

### CommentEnd:

SuggestedRemedy:

Add a comment at the end of the first paragraph that reads: "Once the Selection Machine is in the ATTACHED state it only will change state if a LACPDU is received from the partner indicating that the port should no longer be ATTACHED to the Aggregator. An infoExpired condition or link failure does not change the port state to minimize disturbance to higher layers.

A further simplification is to remove the iinfoExpiredî arrow in the overall state mac hine diagram on page 88 to the Selection Logic. Then infoExpired can be removed from the Selection machine diagram on page 95. The variable ichangeî should be changed to the text below in 1.4.

### RemedyEnd:

ResolutionStart:

\*\*Resolved by 251

### ResolutionEnd:

CommentNumber: 339

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.3

Page: 101 Line: 28-44

CommentType (E, T, ER, or TR): TR

Comment:

There is no entry/begin state for the state machine depicted in figure 43-14.

What happens at reinitialization?

Add entry/global conditional arrow to DETACHED state of "reinitialize = TRUE‰.

# RemedyEnd:

ResolutionStart:

Accept. See resolution of state machines merger.

### ResolutionEnd:

CommentNumber: 340

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.3

Page: 101 Line: 28-44

CommentType (E, T, ER, or TR): T

Comment:

The depicted state machine is per port (right?), so each port sequentially restarting the wait\_while\_timer in state READY may cause a much greater delay for all\_ready to be true than just 5 seconds (the value of wait\_while\_timer), and thus cause the churn timer to expire.

### CommentEnd:

## SuggestedRemedy:

Change the value of wait\_while\_timer to be fast\_periodic\_time, which gives each sequanetial port 1 second to be ready, or at the very least make it slow\_periodic\_time (3 seconds). The former is more desireable than the latter, but either is acceptable for resolution of this comment. (the tradeoff, obviously, is that 1 second may not be enough time)

If you accept one of these remedies, then create an editorial comment to change the name of selection\_wait\_time to something more appropriate.

## RemedyEnd: ResolutionStart:

AIP. Change wait\_while timer to 2 seconds.

### ResolutionEnd:

CommentNumber: 341

CommenterName: Stephen Haddock

CommenterEmail: shaddock@extremenetworks.com

CommenterPhone: (408) 863-2812

CommenterCompany: Extreme Networks

Clause: 43

Subclause: 43.3.12.3

Page: 101 Line: 30

CommentType (E, T, ER, or TR): E

Comment:

The selection machine looks odd in that the transition from each state depends on variables that are not checked when in any of the other states.

I classified this as editorial because I'm not sure if there is anything really wrong, but it seems that the machine should be checked for correct operation if a variable changes in a state where it is not checked. For instance, what should happen if "ready" changes from TRUE to FALSE while the machine is in ATTACHING or ATTACHED?

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

### ResolutionEnd:

CommentNumber: 342

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43

Subclause:43.3.12.3

Page: 101 Line: 30

CommentType (E, T, ER, or TR): TR

Comment:

The Selection Machine does not have an initial condition nor indications on what to do when there is some kind of reinitialize signal.

### CommentEnd:

SuggestedRemedy:

Add the initial condition to point to the Detached State

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

## ResolutionEnd:

CommentNumber: 395

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.12.3

Page: 101 Line: 30-32

CommentType (E, T, ER, or TR): T

Comment:

The wait\_while\_timer in state READY is started, but never actually checked or used for anything subsequently. I don't think that makes it very

useful.

CommentEnd:

SuggestedRemedy:

Replace the exit conditional for the READY state "all\_ready = TRUE \*

port\_disabled = FALSE" with "(wait\_while\_timer expired + all\_ready = TRUE)

\* port\_disabled = FALSE"

(this allows for all\_ready to not have to wait for the timer to expire,

which was mentioned somewhere as the correct operation)

RemedyEnd: ResolutionStart:

\*\*Resolved by 251

#### ResolutionEnd:

CommentNumber: 343
CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.12.3 and 43.5.1

Page: 101 and 108 Line: 30 and 20

CommentType (E, T, ER, or TR): E

Comment:

The text is unclear on what the Selection state is ports that canít attach

to an Aggregator due to aggregation constraints.

On the one hand it looks like iAttachedî, but then why do they get

ievictedî, when another port appears, which is of

higher priority? The ports canít be in ìattachingî, because then the mux

is being asked to get the port into sync.

The mux may or may not attach the port, because the =>mux has no concept

of other ports<= and hence doesnit

know which ports to attach and which not.

### CommentEnd:

## SuggestedRemedy:

So now we have two choices. Either support Hot Standby or give up on it.

If we give up on it, then a port that is not selected due to constraints can simply end up in the

DETACHED state. The selection logic simply wonit set ireadyî for it. The only small catch is that the partner selection logic

will put the port into the ATTACHING state and the port will stay there, because the actor mux will not indicate IN\_SYNC.

Meanwhile the partner selection logic has no way of knowing why this is happening.

We can't choose to have the selection logic put the constrained port into the READY state, because that leads directly to the ATTACHING state, which will confuse the mux.

## RemedyEnd:

ResolutionStart:

\*\*Resolved by 251

# ResolutionEnd:

CommentNumber: 344

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.3.13

Page: 102 Line: 6-39

CommentType (E, T, ER, or TR): T

### Comment:

The editorial comment on lines 34-39 explains the rationale for not having a state diagram well, and I agree with it. However, other state diagrams, in particular figure 43-14 on page 101, require the mux to respond to mux\_request variable and set the mux\_state variable. There needs to be a statement to that effect.

### CommentEnd:

## SuggestedRemedy:

Add a line stating something like:

"If a mux\_request variable is set to ATTACH, the mux control shall attach the port to the selected Aggregator, and set mux\_state = ATTACHED.

If a mux\_request variable is set to DETACH, the mux control shall detach the port to the selected Aggregator, and set mux\_state = DETACHED.‰

(Actually, I,d much prefer a state diagram, but we can,t all have what we want)

# RemedyEnd:

ResolutionStart:

\*\*Resolved by 251

### ResolutionEnd:

CommentNumber: 345

CommenterName: Christian Thrysoe CommenterEmail: cty@olicom.dk CommenterPhone: (+45) 45 27 01 19 CommenterCompany: Olicom A/S

Clause: 43

**Subclause: 43.3.13** 

Page: 102 Line: 21-25

CommentType (E, T, ER, or TR): TR

**Comment:** 

A coupled device can only turn distributor and collector on and off simultaneously. According to d), the distributor (and collector) should be turned on when the partner has turned on its collector function. If two coupled devices are connected a deadlock situation occurs, as the collector and distributor will never be enabled. CommentEnd:

### SuggestedRemedy:

A way to overcome this problem is to reflect the actor coupled state in LACPDUs sent to the partner. Then, an actor connected to a coupled partner can set collector=on and distributor=on when in sync.

RemedyEnd: ResolutionStart:

AIP. Add a statement to (e) that says that when coupled, turning on the Collector and Distributor happen together when the devices are IN\_SYNC.

### ResolutionEnd:

CommentNumber: 346

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 43

Subclause: 43.3.14

Page: 102 Line: 43-51

CommentType (E, T, ER, or TR): E

Comment: The Transmit machine does not maintain any information; it simply assembles & transmits LACPDUs based upon information maintained by the other state machines.

CommentEnd: SuggestedRemedy:

Change the opening line to the following:

"The transmit machine assembles the following information, maintained by the other state machines, for transmission in outgoing LACPDUs (see 43.3.2):‰

Also delete the sentence at lines 51-53.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

#### ResolutionEnd:

CommentNumber: 347

CommenterName: Tony Jeffree CommenterEmail: tony@jeffree.co.uk CommenterPhone: +44-161-282-3824

CommenterCompany: Independent Consultant

Clause: 43 Subclause: 43.4.1 Page: 103 onwards

Line:

CommentType (E, T, ER, or TR): TR

Comment:

The text describing the Flush protocol should make it clear that Flush PDUs get through even if the port,s coleector is disabled.

CommentEnd:
SuggestedRemedy:

Insert the following paragraph at line 46 on page 104:

"The operation of the Flush protocol is unaffected by any changes in the collector or distributor states associated with a port. Therefore, Marker or Marker Response PDUs can be sent on a port whose distribution function is disabled; similarly, such PDUs can be received and passed to the relevant collection or distribution function on a port whose collection function is disabled.‰

RemedyEnd: ResolutionStart:

Accept.

## ResolutionEnd:

CommentNumber: 348

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.3.14

Page: 103 Line: 6-13

CommentType (E, T, ER, or TR): T

Comment:

The wording of the shall statements does not convey the same meaning as the note does to me. The note is more useful than the normative text! Normally we draw state machines to convey requirements such as these, and I,m not sure why

we don,t here.

### CommentEnd:

## SuggestedRemedy:

Either include the note,s input into the normative text, or draw a state machine to specify the normative requirements of the transmission machine. The latter is more desirable than the former, but either remedy will resolve this comment.

RemedyEnd: ResolutionStart:

Accept. Elevate note to text.

### ResolutionEnd:

CommentNumber: 349 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.14

Page: 103 Line: 7

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

## SuggestedRemedy:

Replace 'that properly' with 'that a properly'.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 350 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025

CommenterCompany: 3Com

Clause: 43

Subclause: 43.3.14

Page: 103 Line: 7

CommentType (E, T, ER, or TR): E

Comment:

Minor editorial error.

CommentEnd:

# SuggestedRemedy:

Replace the number '3' at the end of the line with the text 'three'.

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor's discretion

#### ResolutionEnd:

CommentNumber: 351

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.3.14** 

Page: 103 Line: 9

CommentType (E, T, ER, or TR): T

Comment:

The NTT signal is specifically set to TRUE by various state machines but it is never specifically set to FALSE by anything.

CommentEnd:

## SuggestedRemedy:

Add something like "The NTT signal is set to FALSE when a LACPDU is about to be transmitted and the state information it will contain has been gathered". (May need a "shall" since the settings of

NTT to TRUE are "shall'd"?)

RemedyEnd: ResolutionStart:

Accept. Add the statement to the end of this subclause, with a shall requirement.

### ResolutionEnd:

CommentNumber: 352

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43 Subclause: 43.4 Page: 103ff Line: N/A

CommentType (E, T, ER, or TR): E

Comment:

There doesn't appear to be any reference in the flush protocol as to how

this fits in with LACP.

CommentEnd:

### SuggestedRemedy:

Add some explanation as to the use of the flush protocol for detaching a

link from an Aggregator or reference 43.2.11.9.

RemedyEnd: ResolutionStart: \*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 393

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.15** 

Page: 103 Line: 20-30

CommentType (E, T, ER, or TR): T

Comment:

The text and the note state that churn detection due to out\_of\_sync occurs as a result of wiring error or misconfiguration. While I think this was the original idea, the Constrained Aggregation text (section 43.5.1.1, page 109, lines 5-9) suggests using the out\_of\_sync state to keep the line in hot-standby mode, which is definitely not a failure mode. (in fact, the instant a hot-standby becomes in\_sync because it has to be used, would be a failure case)

I like the idea of the churn machines, but frankly I'm not sure they need to be normative. There is no interoperability issue, they are a misnomer in a hot-standby situation, and if the station does not expose management to the user, they're invisible/useless. It seems radical to move them to an annex, but they are already only visible in an optional management package. If the vendor decides to offer a churn-detection mechanism, is there a need to require how they should implement it (specifically what timer to use)?

CommentEnd:

## SuggestedRemedy:

Remove the state diagrams, any shall statements, and move it to an annex as a recommended implementation.

RemedyEnd: ResolutionStart:

Change implementation of Churn Machines subclause to be optional based on implementation of the related Management function (43.3.15). Fix wording of p103 L20 to show that it really indicates that a link is up, but not brought into active, aggregated use within a bounded time. Change the timer value to 60 secs. Add a note indicating the rationale (i.e., to allow time for dynamic key changes to stabilize before declaring a management event).

### ResolutionEnd:

CommentNumber: 353

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.4.1 Page: 104 Line: 2-20

CommentType (E, T, ER, or TR): T

Comment

If one follows the selection machine depicted in 43.3.12.3 page 101, lines 12-14, waiting for wait\_while\_timer of 5 seconds before attaching will cause the churn machine to detect churn, since the MUX will be Out\_of\_Sync and the Churn machine only waits short\_timeout\_time of 3 seconds.

### CommentEnd:

SuggestedRemedy:

Change local\_churn\_timer value to selection\_wait\_time of 5 seconds.

RemedyEnd: ResolutionStart:

## Resolved by 393.

### ResolutionEnd:

CommentNumber: 354

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.4.1 Page: 104 Line: 7

CommentType (E, T, ER, or TR): T

**Comment:** 

Variables local\_churn\_detected and remote\_churn\_detected have

not been defined. CommentEnd:

Suggested Remedy:

Add definitions to subclause 43.3.5

RemedyEnd: ResolutionStart:

Accept. Make sure that the variables get into the list.

### ResolutionEnd:

CommentNumber: 355

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.4.1 Page: 104 Line: 22-40

CommentType (E, T, ER, or TR): T

Comment:

If one follows the selection machine depicted in 43.3.12.3 page 101, lines 12-14, waiting for wait\_while\_timer of 5 seconds before attaching will cause the remote churn machine to detect churn, since the MUX will be Out\_of\_Sync and the remote churn machine only waits short\_timeout\_time of 3 seconds.

### CommentEnd:

SuggestedRemedy:

Change remote\_churn\_timer value to selection\_wait\_time (5 seconds).

RemedyEnd:

Resolution Start:

Resolved by 393.

ResolutionEnd:

CommentNumber: 394

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.3.15** 

Page: 104 Line: 22-27

CommentType (E, T, ER, or TR): T

Comment:

The two entry conditionals of "infoExpired = TRUE" and "reinitialize + port\_disabled" are both true if the latter one is true, since infoExpired is always true in that case. So there are two states the machine should start in, which is not possible. (I think it's a typo - see remedy)

CommentEnd: SuggestedRemedy:

I think the purpose of the infoExpired conditional was to catch the case where no LACPDUs were being received, so replace "infoExpired = TRUE" with "current\_while\_timer expired".

RemedyEnd: ResolutionStart:

AIP. Remove unconditional entry of infoExpired.

### ResolutionEnd:

CommentNumber: 356

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 4.3.2 Page: 105 Line: 18

CommentType (E, T, ER, or TR): T

Comment:

Please make the Transaction ID 4 bytes, instead of 2. A simple-minded application can always use just the lower 2 bytes. A software implementation may find it very convenient to have a 4-byte transaction ID.

CommentEnd: SuggestedRemedy:

Make the Transaction ID 4 bytes.

RemedyEnd: ResolutionStart:

Accept. Reduce pad to 2 bytes.

### ResolutionEnd:

CommentNumber: 396

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.4.3.2** 

Page: 106 Line: 2-27

CommentType (E, T, ER, or TR): T

Comment:

Why do the requestor\_port, requestor\_system, length, and tlv\_type fields exist? They are ignored by the responder, are fixed in location for backwards compatibility, and only have meaning to the generator/receiver. If a generator/receiver wish to use all the requestor fields for something completely different than the specified semantics, that's fine and no one would be the wiser. I like the fact that we have fields that the responder will mirror, but they are not used/useful for the definitions given them. CommentEnd:

SuggestedRemedy:

Keep the field spaces, but remove the semantics/definitions of them. Further, make a shall statement that the data in the fields is to be copied/reproduced by the responder in its marker response. (this is implied, but I much prefer shalls)

Either that, or make the responder check these fields for validity and/or change their values (I don't really recommend this).

RemedyEnd: ResolutionStart:

Reject. Make sure that there is no validation performed on these fields. Be clear on which fields ARE validated on receive. The parser checks the Type and subtype; no other fields are validated.

General principle to apply to both Marker and LACPDUs: Specify, in the subclause where a frame is received, for all fields, which fields SHALL be verified, specify those which SHALL NOT be verified (e.g. transaction IDs), and specify those fields which MAY be verified (e.g., length fields)

#### ResolutionEnd:

CommentNumber: 357

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

Subclause: 43.4.4.2.2

Page: 107 Line: 43

CommentType (E, T, ER, or TR): E

Comment:

service\_class isn't used. Remove from the list.

CommentEnd:

SuggestedRemedy:

Remove service\_class from the list.

RemedyEnd: ResolutionStart:

\*\*Reject. This is part of the service specification.

### ResolutionEnd:

CommentNumber: 358

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.4.4.2.1

Page: 108 Line: 6-16

CommentType (E, T, ER, or TR): TR

#### Comment:

The state machine depicted in figure 43-19 has no entry point what happens at reinitialization? You can,t start in the only state because you,d have to parse a frame that doesn,t exist, and then transmit a response to a request that was never received. (i.e., cart,s before the horse)

#### CommentEnd:

## SuggestedRemedy:

- 1) Add a state called WAIT\_FOR\_MARKER before RESPOND TO MARKER.
- 2) Move begin-point of transition arrow with conditional
- "MA\_DATA.indicationN(DA, SA, m\_sdu, FCS, status)‰ (the one that loops) to begin at WAIT\_FOR\_MARKER and end at RESPOND TO MARKER.
- 3) Add a transition arrow from RESPOND TO MARKER to WAIT\_FOR\_MARKER with conditional "UCT‰.
- 4) Add an entry/global arrow into WAIT\_FOR\_MARKER with the conditional "reinitialize = TRUE‰.

# RemedyEnd:

ResolutionStart:

Accept. Change to a two-state diagram, initialize entry into a "Wait for" state.

#### ResolutionEnd:

CommentNumber: 359

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

Subclause: 43.4.4.2.1

Page: 108 Line: 6-16

CommentType (E, T, ER, or TR): T

Comment:

The marker responder has no timing contraint, which is inconsistent with the requirements of annex 43B. Although the marker generator should never exceed the timing constraints, if it does, the responder ought not to exacerbate the problem.

### CommentEnd:

### SuggestedRemedy:

Either add a 5-second timer into the state diagram, or add a line like "The marker responder must comply with the timing restrictions for Slow Protocols specified in Annex 43B‰ to the normative text.

## RemedyEnd:

ResolutionStart:

AIP. Add text to state that a Marker Responder MAY, but is not required to, throttle transmissions to conform to the slow-protocols timing constraint when faced with Marker messages not in compliance with this requirement.

## ResolutionEnd:

CommentNumber: 360 CommenterName: Les Bell

CommenterEmail: Les\_Bell@3Com.com CommenterPhone: +44 1442 438025 CommenterCompany: 3Com

Clause: 43

Subclause: 43.4.4.2

Page: 108 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

Figure 43-19 - Marker Responder State Diagram

The capitalisation of the figure title is inconsistent with the other

figures, which have 'state diagram' in lower case.

CommentEnd:

SuggestedRemedy:

Change 'state diagram' to be all lower case.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 361

CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43 Subclause: 43.5.1 Page: 108

Page: 108 Line: 20 - 55

CommentType (E, T, ER, or TR): E

Comment:

It isnít clear which of these two state machines Selection Logic or Mux Control is to run the port priority selection. The selection text in 43.5.1.1 îUse of system and port prioritiesî, page 108, Line 31 sounds like the Selection machine. The Selection machine being the only machine that handles all the ports in an aggregation. But the logic seems to rely on

OUT\_OF\_SYNC signals coming from the partnerís mux implying that the mux is to do it.

## CommentEnd:

SuggestedRemedy:

Make this part of the Selection Logic. A reference should be placed in

43.2 to point to 43.5. 43.5 should reference the Selection Logic.

RemedyEnd: ResolutionStart:

\*\*Resolved by 251 and 362

# ResolutionEnd:

CommentNumber: 362

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 5.1.1 Page: 108-109 Line: 34-55, 1-10

CommentType (E, T, ER, or TR): T

### Comment:

This section and its priority plan is flawed. If a device is capable of aggregating no more than, say, 4 ports together, then there are much preferable ways to configure it than using the priority scheme listed.

The principal objection is that the two devices do not know each others' limitations. In particular, the device with no limitation doesn not know that the other device can use only 4 links. The Out\_Of\_Synch state is a nasty way to inform it. Furthrmore, the extra links are useless except as hot standby, which is very poor.

CommentEnd:

SuggestedRemedy:

Either of two alternatives is much better:

- 1. The limited device can change the keys for the unusable links, so that they can form another aggregation.
- 2. The device with the 4-port limitation can have its ports divided into arbitrary groups of four ports each, and the operator instructed to use the groups as painted on the connector panel. Or, the grouping can be controlled by software.

The plan presented adds an extra variable, the priority, for a poor solution. Remove the priority and omit section 43.5.1.1. RemedyEnd:
ResolutionStart:

Reject in principle. Priority mechanisms will stay in the draft. Informative text to be added to Annex A (Implementation Issues) explaining how the mechanisms are used (dynamic key changing): Mick and Norm.

43.5.1.1 item (c): Clarify: the highest priority port "of the system with the higher priority".

Global change: Check all uses of "key" and clarify whether it should be "admin" or "operational".

### ResolutionEnd:

CommentNumber: 363 CommenterName: Joris Wils

CommenterEmail: joris\_wils@3com.com CommenterPhone: (+1) 978-264-1317

CommenterCompany: 3Com

Clause: 43 Subclause: 43.5.2

Page: 108 Line:

CommentType (E, T, ER, or TR): E

**Comment:** 

A number of failure cases for Hot Standby are not covered

1) The case isnít covered if the actor portís hardware (i.e. the MAC)

indicates bad Link\_State, so the system is to fail over to the hot standby link.

2) The case isnit covered if the actor portis hardware indicates good link

state, but infoExpired has been true for an

extended period of time. In the current logic infoExpired is set as soon

as 1 of the partneris LACPDUis is lost: hardly

reason to remove the port from active duty in Aggregation while link state is still good.

RemedyEnd: ResolutionStart:

\*\*Will take under consideration. No remedy provided.

### ResolutionEnd:

CommentNumber: 364

CommenterName: Norman Finn CommenterEmail: nfinn@cisco.com CommenterPhone: 1.408.526.4495 CommenterCompany: Cisco Systems, Inc.

Clause: 43 Subclause: 5.2 Page: 109 Line: 12-47

CommentType (E, T, ER, or TR): T

Comment:

The technique described here cannot work. If the system with the worse priority is the system with the limitation (e.g. 2+2 OK, 3+1 not OK), then this technique requires that the system with the better priority know what the limitations of the other system are, so that it can adjust the keys. The protocol provides no means for the better-priority system to know this. It is therefore not interoperable.

CommentEnd: SuggestedRemedy:

The technique described in my original paper does work, though it cannot guarantee optimal results. (I have not heard of any technique that does, except enumerating the n! allowed combinations.) This technique says:

- 1. Either device can change keys, but key changes caused by reception of another device's LACP packets can ONLY proceed in the direction of less aggregation. That is, one or more ports with the same key can be changed to have different keys. LACP packet reception can never cause two ports with different keys to change to have the same key.
- 2. Hardware changes such as speed negotiation changes, or loss of carrier followed by a re-connect, can cause ports with different keys to get the same key.
- 3. Operator intervention may cause ports with different keys to get the same key.

In the specific example give in the text, lines 20-22, this scheme would result in a proper connection of the two devices, assuming that the physical wiring allows the aggregation to occur at all.

With this plan, the objection of note 2, lines 38-40, is not valid, as the key changes must terminate eventually, with no aggregation allowed.

Please change this section to match the rules above. RemedyEnd:

CommentNumber: 365

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.5.3

Page: 109 Line: 50-53

CommentType (E, T, ER, or TR): T

Comment:

The phrase "shall be statically configured to indicate that they are unable to aggregate‰ is ambiguous does this mean they,re statically configured to be Individual, or statically configured to have unique keys, or do they have link aggregation completely disabled? (i.e., don,t source LACPDUs)

### CommentEnd:

## SuggestedRemedy:

Reword it to indicate Link Aggregation is completely disabled (no LACPDUs are transmitted). (if it,s not disabled, wouldn,t that allow for a lot of confusing chatter on a shared medium?)

## RemedyEnd: ResolutionStart:

AIP. Adjust the Periodic Machine to provide a mechanism to prevent any LACPDU transmissions on a link. Use this mechanism for disabling use on shared media links. State that half duplex links shall be treated as Individual, with transmission/reception of LACPDUs disabled on such ports.

### ResolutionEnd:

CommentNumber: 366

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43 Subclause: 43.5.4 Page: 110 Line: 1-32

CommentType (E, T, ER, or TR): E

Comment

Sections 43.5.4 43.5.4.2 are merely examples of possible implementations of the selection logic, and as such should be in an annex not the normative section of the draft.

# CommentEnd:

SuggestedRemedy:

Move sections 43.5.4 43.5.4.2 to an annex.

RemedyEnd: ResolutionStart:

\*\*Reject.

ResolutionEnd:

CommentNumber: 367

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43 Subclause: 43.6 Page: <multiple> Line: <multiple>

CommentType (E, T, ER, or TR): E

Comment:

There is an inconsistent reference to state diagrams in the tables in this section. The following references to state diagrams use the section number

Page 112, line 15 . line 35

Page 113, line 10

. line 35

Page 118, line 20

Whereas the following refer to state diagrams by Figure number

Page 113, line 22

Page 115, line 33

, line 42

Page 116, line 6

, line 15

, line 24

Page 117, line 45

Page 118, line 15

, line 17

CommentEnd:

### SuggestedRemedy:

Chose a format and stick to it throughout the section

RemedyEnd: ResolutionStart:

\*\*Editor will resolve

### ResolutionEnd:

CommentNumber: 368

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.6.6 Page: 113 Line: 8

CommentType (E, T, ER, or TR): E

Comment:

The MGR2 Marker Responder is technically not in the

Marker Generator/Receiver so should not be under the heading

"Marker Generator/Receiver"

CommentEnd:

## SuggestedRemedy:

Change subclause heading to encompass Marker Responder.

RemedyEnd: ResolutionStart:

### \*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 369

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43 Subclause: 43.6.7

Page: 113 Line: 22

CommentType (E, T, ER, or TR): E

Comment:

The "shall" in 43.2.7 says "function specified by the state

diagram of 43.2.7.1" not "shown in Figure 43-5".

CommentEnd:

SuggestedRemedy:

Change to be consistent with 43.2.7

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 370

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.14** 

Page: 115 Line: 33

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 43-6 to 43-7 RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

# ResolutionEnd:

CommentNumber: 371

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.14** 

Page: 115 Line: 34

CommentType (E, T, ER, or TR): E

Comment:

Incorrect figure reference.

CommentEnd:

SuggestedRemedy:

Change "Figure 43-6" to be "Figure 43-7".

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 372

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.16** 

Page: 116 Line: 6

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 43-10 to 43-11

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

# ResolutionEnd:

CommentNumber: 373

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.16** 

Page: 116 Line: 7

CommentType (E, T, ER, or TR): E

Comment:

Incorrect figure reference.

CommentEnd:

SuggestedRemedy:

Change "Figure 43-10" to be "Figure 43-11".

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor will resolve all references

### ResolutionEnd:

CommentNumber: 374

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.18** 

Page: 116 Line: 24

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 43-12 to 43-13 RemedyEnd:

ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 375

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.6.18** 

Page: 116 Line: 24-25

CommentType (E, T, ER, or TR): E

Comment:

"As defined in Figure 43-12‰ is an incorrect figure #: it,s now 43-14

### CommentEnd:

SuggestedRemedy:

Replace with "As defined in Figure 43-14‰

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 376

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.18** 

Page: 116 Line: 25 CommentType (E, T, ER, or TR): E

Comment:

Incorrect figure reference.

CommentEnd:

SuggestedRemedy:

Change "Figure 43-12" to be "Figure 43-14".

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

#### ResolutionEnd:

CommentNumber: 377

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.20** 

Page: 117 Line: 15

CommentType (E, T, ER, or TR): E

Comment:

Wrong subclause reference (x3). Variable line widths in table.

CommentEnd:

Suggested Remedy:

Change "43.2.11.2" to be "43.3.14". (x3)

Fix line widths. RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

## ResolutionEnd:

CommentNumber: 378

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.20** 

Page: 117

Line: 15, 33 and 35

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 43.2.11.2 to 43.3.14

RemedyEnd: ResolutionStart:

<sup>\*\*</sup>Editor will resolve all references

#### ResolutionEnd:

CommentNumber: 379

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.21** 

Page: 117 Line: 45

CommentType (E, T, ER, or TR): E

Comment:

Incorrect figure references.

CommentEnd:

SuggestedRemedy:

Change "Figure 43-13" to be "Figure 43-15". Change "Figure 43-14" to be "Figure 43-16".

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

## ResolutionEnd:

CommentNumber: 380

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.21** 

Page: 117 Line: 45

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 43-13 to 43-15 Change 43-14 to 43-16

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

# ResolutionEnd:

CommentNumber: 381

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.6.21** 

Page: 117 Line: 45-46

CommentType (E, T, ER, or TR): E

#### Comment:

"As defined in Figure 43-13 and Figure 43-14‰ is incorrect, should be 43-15, 43-16.

### CommentEnd:

SuggestedRemedy:

Replace with: "As defined in Figure 43-15 and Figure 43-16‰

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 382

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43

**Subclause: 43.6.22** 

Page: 118 Line: 15-21

CommentType (E, T, ER, or TR): E

Comment

Two instances if "As shown in Figure 43-16 and as described.‰ Are incorrect should be 43-18, and "As specified in the state diagram in 43.4.4.2‰ should list the figure number.

## CommentEnd:

# SuggestedRemedy:

Replace 2 instances with: "As shown in Figure 43-18 and as defined in 43.4.3.2.‰, and third sentence with "As defined in Figure 43-19‰.

## RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 383

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.22** 

Page: 118

Line: 15 AND 17

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy: Change 43-16 to 43-18 RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

## ResolutionEnd:

CommentNumber: 384

CommenterName: Keith Balmer

CommenterEmail: Keith.Balmer@tiuk.ti.com

CommenterPhone: (44) 1604 663408

CommenterCompany: Texas Instruments Ltd.

Clause: 43

**Subclause: 43.6.22** 

Page: 118 Line: 16

CommentType (E, T, ER, or TR): E

Comment:

Incorrect figure references.

CommentEnd:

Change "Figure 43-16" to be "Figure 43-18". (x2)

SuggestedRemedy:

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 385

CommenterName: Graham Short

CommenterEmail: Graham.Short@tiuk.ti.com

CommenterPhone: +44-1604-663410 CommenterCompany: Texas Instruments

Clause: 43

**Subclause: 43.6.22** 

Page: 118 Line: 20

CommentType (E, T, ER, or TR): E

Comment:

incorrect reference CommentEnd:

SuggestedRemedy:

Change 43.4.4.1 to 43.4.4.2

RemedyEnd: ResolutionStart:

\*\*Editor will resolve all references

### ResolutionEnd:

CommentNumber: 386

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43B Subclause: 43B.3 Page: 126 Line: 4

CommentType (E, T, ER, or TR): E

Comment:

Typo: "value is identified in see Table 43B-1.‰

### CommentEnd:

SuggestedRemedy:

Replace with: "value is identified in Table 43B-1.‰

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

### ResolutionEnd:

CommentNumber: 387

CommenterName: Hadriel Kaplan CommenterEmail: hsk@iol.unh.edu CommenterPhone: (603)862-3332

CommenterCompany: InterOperability Lab - UNH

Clause: 43B Subclause: 43B.6 Page: 127 Line: 53

CommentType (E, T, ER, or TR): E

Comment:

The title of the subclause is broken up across 2 pages needs to be kept

together and on new page.

### CommentEnd:

SuggestedRemedy:

Move line to new page and keep it together.

RemedyEnd: ResolutionStart:

\*\*Editor's discretion

ResolutionEnd: