DISPOSITION OF BALLOT COMMENTS ON

IEEE *Draft* P802.1ad/D4.0

Virtual Bridged Local Area Networks — Amendment 4: Provider Bridges

Sponsor

LAN MAN Standards Committee of the IEEE Computer Society

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Commentary:

This Disposition of Ballot Comments has been prepared to document the ballot comments received in the Working Group ballot on P802.1ad/D4.0, and to record the resolutions of those ballot comments, agreed during the meeting of 802.1 held in Atlanta GA, in March 2005. The document contains:

1) A table of responses received.
2) A listing of comments received, each accompanied by a disposition.

This document constitutes a record of the Instructions to the Editor for the preparation of P802.1ad/D4.1.

1. Ballot summary

The following table indicates the status of each ballot response received. Where comments have been received without an accompanying ballot, this is indicated in the ***Comments*** column. The Status column indicates the voting status of the responder. ***V(oting)*** indicates 802.1 voting member at the start of the ballot period. ***N(on-voting)*** indicates a comment only response. ***L(iaison)*** indicates a voting liaison response. The ***Vote*** column indicates

the vote cast; Y=Approve, N=Disapprove, T=Abstain due to lack of time, E=Abstain due to lack of expertise, O=Abstain for other reasons, C=Comments only.The results of the

STATUS	*VOTE*	*NAME*	*Comments?*
V		Brandon Barry	
V	y	Les Bell	y
V		Mike Borza	
V	n	Paul Bottorff	y
V	e	Jim Burns	
V	y	Dirceu Cavendish	y
V	y	Paul Congdon	y
V		Sharam Davari	
V	n	Arjan de Heer	y
V	y	Craig Easley	
V	y	Anush Elangovan	
V	y	Hesham Elbakoury	
V	y	David Elie-Dit-Cosaque	
V	t	Norm Finn	
V	y	David Frattura	
V	e	Ken Grewal	
V	y	Steve Haddock	y
V	y	Ran Ish-Shalom	
V	y	Tony Jeffree	y
V	y	Hal Keen	
V	y	Yongbum Kim	
V	y	Loren Larsen	y
V	y	Yannick Le Goff	
V	y	John Messenger	
V	n	Dinesh Mohan	y
V	e	Bob Moskowitz	
V	y	Don O'Connor	
V	n	Glenn Parsons	y
V	y	Ken Patton	
V	e	Karen Randall	
V	y	Allyn Romanow	
V	n	Dan Romascanu	y
V	y	Jessy V Rouyer	
V		Ali Sajassi	
V	e	Dolors Sala	
V	y	Sam Sambasivan	
V	y	John Sauer	
V	n	Mick Seaman	y
V	y	Koichiro Seto	
V	n	Muneyoshi Suzuki	y
V	e	Geoff Thompson	
V	e	John Viega	
V	y	Dennis Volpano	
V	y	Karl Weber	
V	e	Ludwig Winkel	
V	y	Michael D. Wright	y
N		David Melman	y
N		Anoop Ghanwani	y

ballot can be seen in the following table.Ballot Comments

Category	Total	Percentage
Yes	26	78.79%
No	7	21.21%
Abstain	9	21.43%
No. of Voters	46	100.00%
Voters responding	42	91.30%

Comment 1 Tony Jeffree

COMMENT TYPE: E
CLAUSE: Throughout
PAGE:
LINE:
COMMENT START:
In various places, the Editing instructions indicate "This amendment makes no changes to XXX". While this is helpful and useful during the development of the amendment, it actually has no place in the final document, which should record only the changes that *are* made by the amendment.
COMMENT END:
SUGGESTED CHANGES START:
Remove all instances of "This amendment makes no changes to XXX" in the document.

Remind the Chair that it is time to get the IEEE Editors to do an editorial review on the next draft - may as well deal with their tidy-ups before it gets shipped to Sponsor ballot (which looks to be reasonably imminent).
SUGGESTED CHANGES END:

Disposition of Comment 1

Accept.

Comment 2 Mick Seaman

COMMENT TYPE: General
CLAUSE: General
PAGE:
LINE:
COMMENT START:
I would like to commend the editor for having done an excellent job with this draft, not

just with the text of the standard but also with the supporting material such as the editor's foreword. This makes it easy to see what has changed, and is of considerable help to future maintenance activity.

This ballot response is a disapprove because it identifies one major but well contained technical deficiency that need to be addressed to change it to an approve. However I hope that this together with similar comments from others can be resolved at the upcoming meeting and that we can proceed to a confirmation ballot : there being no reason to run another full WG ballot if all substantive comments received have been addressed. From past experience, the move to confirmation ballot stage helps considerably in achieving the level of stability necessary to complete the PICS. Although much of PICS preparation is mechanical, it becomes very tedious if clauses are added or reorganized.
COMMENT END:
SUGGESTED CHANGES START:
As per the remainder of these comments.
SUGGESTED CHANGES END:

Disposition of Comment 2

Accept.

Comment 3 Glenn Parsons

COMMENT TYPE: TR

CLAUSE: A

PAGE: 65

LINE: 1

COMMENT START:

This amendment is incomplete without a PICS. The draft is sufficiently stable to add PICS.

COMMENT END:

SUGGESTED CHANGES START:

Include updated PICS based on amendment. E.g., add a new table A.16 Provider Bridge support

SUGGESTED CHANGES END:

Disposition of Comment 3

Accept.

Comment 4 Dinesh Mohan

COMMENT TYPE: General
CLAUSE:
PAGE:
LINE:
COMMENT START:
Some of the comments are editorial in nature to tighten up the text further. For most of these editorial comments, specific first occurrences are mentioned; however, repeated instances are not mentioned but these comments apply to all other occurrences in the document.
COMMENT END:
SUGGESTED CHANGES START:
SUGGESTED CHANGES END:

Disposition of Comment 4

Accept.

Comment 5 Glenn Parsons

COMMENT TYPE: ER

CLAUSE: all

PAGE: -

LINE: -

COMMENT START:

Reference to other IEEE standards includes years and inconsistent notation (e.g., 802.1Q-1998 or 802.1Q, 1998 Edition). The year is not necessary in the body of the text. The year and title of the most recent version of the standard at the publication of this amendment should be included in the References clause 2.

COMMENT END:

SUGGESTED CHANGES START:

Remove all dates from references to IEEE 802.1Q, IEEE 802.1D, IEEE 802.3, and so forth within the main body (e.g. Clause 3.45, Tables 8-1 & 8-2)

Show an updated clause 2 with at least:

IEEE 802.1D-2004

IEEE 802.3-2005

SUGGESTED CHANGES END:

Disposition of Comment 5

Accept in principle. Will remove the dates from the body of the text. This amendment does not make reference to anything that isn't referenced by 802.1Q-REV, therefore there will be no changes to clause 2 in this standard. Q-REV currently references 802.1D-2004 and 802.3-2003. It will be updated to 802.3-2005 assuming that standard will be final prior to Q-REV completing sponsor ballot.

Comment 6 Mick Seaman

COMMENT TYPE: E
CLAUSE: Various nits
PAGE:
LINE:
COMMENT START:
The editor's foreword claims that service instance is not yet defined, but the definition in 3.63 appears to be adequate.

A "1" has mysteriously appeared in front of P802.1ad on the title page (9) and should be removed.

There is a missing word in bullet (t) of clause 1.1 (pg 18 line 17), should probably read "MAC Sublayer and specifies their relationship"

There already is input for the Bibliography, see the editor's foreword for ITU documents suggested by Glenn Parsons. However I don't think there is any additional material now required for reference (possibly the MEF flow meter?) so the editor's note should be acted on.

3.41 on page 20, line 5/6, "composed of" should be "comprising".

5.9, pg 26, line 5, the reference to 802.3ad is incorrect and should be to "Clause 43" not "Clause 41".
COMMENT END:

SUGGESTED CHANGES START:

Update.

SUGGESTED CHANGES END:

Disposition of Comment 6

Accept.

Comment 7 Glenn Parsons

COMMENT TYPE: ER

CLAUSE: 2 or H

PAGE:

LINE:

COMMENT START:

It would be appropriate to reference ITU-T SG15 work on Ethernet architecture, services and interfaces since this is relevant to provider bridges.

COMMENT END:

SUGGESTED CHANGES START:

Add the following references to the Bibliography clause:

ITU-T G.8010 (2003) - Architecture of Ethernet Layer Networks

ITU-T G.8011 (2004) - Ethernet over Transport - Ethernet services framework

ITU-T G.8011.1 (2004) - Ethernet private line service

ITU-T G.8012 (2004) - Ethernet UNI and Ethernet over Transport NNI

ITU-T G.8021 (2004) - Characteristics of Ethernet transport network equipment functional blocks

Given the clause 15 definition of a 'service instance', the inclusion of some of these in the References clause might be appropriate.

SUGGESTED CHANGES END:

Disposition of Comment 7

Accept.
Add to bibliography.

Comment 8 Dan Romascanu

COMMENT TYPE: TR

CLAUSE: Overview
PAGE: 4
LINE: 48
COMMENT START:
As the text in line 48 and following states, the MIB module is not included in the draft. In the absence of the MIB module the technical content of this document cannot be considered complete.
COMMENT END:
SUGGESTED CHANGES START:
Edit and include the MIB module and related sections.
SUGGESTED CHANGES END:

Disposition of Comment 8

This is a summary provided by Paul Congdon of the discussion of this comment on the first morning of the March 2005 meeting:

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1. This must be discussed at an 802.1 Plenary for official agreement
2. We would like to make some form of statement about where the work
will be done (eventually)
3. It is too late to put the MSTP MIB in .1ad
4. Even if we were to put something in .1ad, it would need to be updated
to support the clause 12 of .1ad
5. Any MSTP MIB needs to be synchronized with changes done for an RSTP
MIB (current item in bridge-mib)
6. We would like to get Q-REV completed before starting another
amendment to Q
7. When Q-REV, RSTP MIB, Q-extensions MIB are all officially complete,
we will start a new project that incorporates a new MIB that supports
MSTP, .1ad extensions and all of the above into an amendment of the new
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Q document.
At the 802.1 closing plenary meeting in March 2005, a motion was passed "802.1 authorises the May interim meeting to create a draft PAR/five criteria for an 802.1Q MIB, including, but not restricted to, 802.1ad extensions, and instructs the chair to forward the draft PAR to the SEC under the 30-day rule."
Therefore 802.1ad will not include a MIB.

Comment 9 Paul Bottorff

COMMENT TYPE: T
CLAUSE: Editor's Forward
PAGE: 4
LINE: 48
COMMENT START:
In the absence of the MIB module the technical content of this document cannot be considered complete.
COMMENT END:
SUGGESTED CHANGES START:
Edit and include the MIB module and related sections.
SUGGESTED CHANGES END:

Disposition of Comment 9

Resolved by Comment 8 on P12.

Comment 10 Dinesh Mohan

COMMENT TYPE: TR
CLAUSE: TBD
PAGE:
LINE:
COMMENT START:
Clause 12 has introduced Provider Bridge Management. A MIB based on these management objects needs to be defined as also mentioned in the editor's notes. This MIB is required for this document.
COMMENT END:
SUGGESTED CHANGES START:
A MIB should be added in this document. If a MIB cannot be defined in a timely manner,

a specific determination should be made and captured in the document.

SUGGESTED CHANGES END:

Disposition of Comment 10

Resolved by Comment 8 on P12.

Comment 11 Glenn Parsons

COMMENT TYPE: TR

CLAUSE: TBD

PAGE:

LINE:

COMMENT START:

As noted in the editor's intro there is no MIB yet for this document. Though there is a good introduction to a potential MIB in 12.13

COMMENT END:

SUGGESTED CHANGES START:

A MIB must be added in this document. Or alternatively, a new project should be created to create the MIB and that fact should be noted in this document.

SUGGESTED CHANGES END:

Disposition of Comment 11

Resolved by Comment 8 on P12.

Comment 12 Anoop Ghanwani

COMMENT TYPE: E

CLAUSE: 1.1

PAGE: 18

LINE: 30

COMMENT START:

"allow a customer to select and identify interfaces using S-VIDs". This is somewhat confusing. The customer doesn't deal with S-VIDs at all. The provider segregates customers using S-VIDs.

COMMENT END:

SUGGESTED CHANGES START:

Modify the bullet as suggested above.

SUGGESTED CHANGES END:

Disposition of Comment 12

Accept in principle. It is somewhat confusing, I think because the customer is selecting service instances, not interfaces. Note, however, that the customer is allowed to deal with S-VIDs when using an S-tagged service interface (15.5). Reword to match preceding bullet: “allow a customer to select amongst and identify service instances using S-VIDs”.

Comment 13 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 1.1, others

PAGE: 18

LINE: 2&5

COMMENT START:

Consistent use of either “service provider” or “provider” is desirable in the document. Line 2 uses “service provider” while Line 5 uses “provider”

COMMENT END:

SUGGESTED CHANGES START:

It is suggested that a consistent use of either “provider” or “service provider” is made in the document. “Provider” would be preferable since it would be consistent with the name of the amendment.

SUGGESTED CHANGES END:

Disposition of Comment 13

Accept. Use “service provider” at first mention in each clause, and simply “provider” through remainder of clause. Capitalize per style guidelines specified in resolution to Comment 16 on page 19.

Comment 14 Dinesh Mohan

COMMENT TYPE: TR

CLAUSE: 1.1 (q), 3.58, 3.60

PAGE: 18, 21

LINE: 8-10, 1, 6-7

COMMENT START:

Description of "Provider Bridge" in 1.1(q) is not entirely consistent with the one defined in 3.58. For example, Provider Bridge is defined in 1.1(q) as comprising a single S-VLAN component, while 3.58 defines it as an S-VLAN aware bridge. Further definitions of Provider Edge Bridge in 1.1(q) and This leads to an ambiguity, wherein, 3.58 can imply Provider Edge Bridge is also a Provider Bridge since it is S-VLAN aware while 1.1(q) seems to be more limiting in context of

COMMENT END:

SUGGESTED CHANGES START:

It is suggested to modify definition of

Provider Bridge in 3.58 as "A S-VLAN aware bridge comprising a single S-VLAN component"; Provider Edge Bridge in 1.1(q) as "…and a Provider Edge Bridge as a Provider Bridge comprising a specified configuration of a single S-VLAN component and C-VLAN components";

Provider Edge Bridge in 3.60 as "A Provider Bridge comprising a specified configuration of a single S-VLAN component and C-VLAN components; making it capable of selecting and identifying connectivity across a provider network by C-TAGs in frames received and transmitted at customer interfaces"

SUGGESTED CHANGES END:

Disposition of Comment 14

Accept.
In 3.60 propose rewording suggested change to "one or more C-VLAN components" and spell out "customer VLAN tags".
After much discussion we concluded that a Provider Edge Bridge should be a particular type of Provider Bridge that has C-VLAN components, and therefore needed a term for a type of Provider Bridge that does not have C-VLAN components. Call this a S-VLAN Bridge.

Change 1.1 q) to:
"Specifies a VLAN Bridge as comprising a single C-VLAN component, and a Provider Bridge as encompassing bridges that comprise a single S-VLAN component and no C-VLAN components (S-VLAN Bridge) or a single S-VLAN component and one or more C-VLAN components (Provider Edge Bridge).

VLAN Bridge: A system composed of a single C-VLAN-aware Bridge implemented in accordance with Clause 5 of this standard.
(Existing definition modified from definition in 802.1Q) Change to "A system comprising a single C-VLAN component implemented in accordance with Clause 5 of this standard."

C-VLAN Bridge: A VLAN Bridge.
(new definition)

S-VLAN Bridge: A system comprising a single S-VLAN component implemented in accordance with Clause 5 of this standard.
(new definition)

Provider Bridge: An S-VLAN aware bridge.
Change to "A S-VLAN Bridge or a Provider Edge Bridge."

Provider Edge Bridge: A Provider Bridge capable of selecting and identifying connectivity across a provider network by customer tagging of frames received and transmitted at customer interfaces.
Change to "A system comprising a single S-VLAN component and one or more C-VLAN components implemented in accordance with Clause 5 of this standard."

Customer Bridge: A MAC Bridge as specified by IEEE Std 802.1D-2004 or a VLAN Bridge as specified by this Standard.
(Existing definition)

MAC Bridge: A MAC Bridge as specified by IEEE Std 802.1D-2004.
(Propose deleting this definition. Not used anywhere in .1ad except in 8.1.1 in text copied from .1Q and not changed by this standard.)

VLAN-aware ~~B~~bridge component: ~~A Bridge~~The media access method independent functionality of a system or system component that recognises frames with a VLAN tag, and can insert or remove tag head-

ers, relaying frames between Ports each supported by an instance of the EISS.

(Existing definition modified from definition in 802.1Q) Delete "of a system or system component" and change "tag header" to "VLAN tag header"

Change to: **VLAN-aware ~~B~~bridge component:** ~~A Bridge~~The media access method independent functionality that recognises frames with a VLAN tag, and can insert or remove VLAN tag headers, relaying frames between Ports each supported by an instance of the EISS.

C-VLAN component: A VLAN-aware bridge component with each Port supported by an instance of the EISS that can recognise and insert C-TAGs.

Change to: "A VLAN-aware bridge component with the EISS on all Ports supported by the use of a Customer VLAN Tag."

(This now matches the definition provided in the conformance clause.)

S-VLAN component: A VLAN-aware bridge component with each Port supported by an instance of the EISS that can recognise and insert S-TAGs.

Change to: "A VLAN-aware bridge component with the EISS on all Ports supported by the use of a Service VLAN Tag."

(This now matches the definition provided in the conformance clause.)

Comment 15 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 2

PAGE: 19

LINE:

COMMENT START:

ITU-T documents have already been suggested for bibliography in the previous ballots. One addition can be made for MEF 10 (recently passed)

COMMENT END:

SUGGESTED CHANGES START:

Add reference to MEF 10 in bibliography.

MEF 10 (2004) Ethernet Services Attributes Phase 1

SUGGESTED CHANGES END:

Disposition of Comment 15

Accept in principal.
802.1Q-REV/D2.0 references MEF 5. Will replace this with MEF 10 in the next draft of Q-REV. Editor will remind Tony.

Comment 16 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 3, others

PAGE: 20,21

LINE: 5, 1

COMMENT START:

It is desirable to use a consistent capitalization scheme for either “Bridge” or “bridge”. E.g. Line 5 on page 20 uses “Bridge” while Line 1 on page 21 uses “bridge”. There are other similar instances in the document.

COMMENT END:

SUGGESTED CHANGES START:

It is suggested that “Bridge” be used consistently in the document instead of “bridge”

SUGGESTED CHANGES END:

Disposition of Comment 16

Accept in principle. The style guideline that should be consistently applied is that a word is capitalized when it is a proper noun that has a specific definition for the purposes of this standard. Otherwise it is not capitalized. In particular it is not capitalized if it refers to any one of a set of specifically defined things (e.g. “bridge” when used to refer to any of Customer Bridge, Provider Bridge, MAC Bridge, VLAN Bridge).

Comment 17 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 3.45 and 3.55

PAGE: 20,21

LINE: 5, 1

COMMENT START:

Since 3.55 defines "MAC Bridge" there is no reason for duplication of definition of MAC

Bridge in 3.45. Moreover 3.55 definition looks circular.

COMMENT END:

SUGGESTED CHANGES START:

It is suggested that 3.55 be deleted.

SUGGESTED CHANGES END:

Disposition of Comment 17

Accept.

Comment 18 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 3.64

PAGE: 21

LINE: 21-22

COMMENT START:

Wording used for definition makes the roles of customer and provider a bit ambiguous. Either a provider contracts with customer to provide service ... or customer contracts with a provider to receive service

COMMENT END:

SUGGESTED CHANGES START:

Change definition as "An organization with which a customer contracts to receive one or more service instances."

SUGGESTED CHANGES END:

Disposition of Comment 18

Accept in principle.
Change definition to:
“Service Provider: An organization that contracts to provide one or more service instances to a customer.”

Comment 19 Dirceu Cavendish

COMMENT TYPE: TR

CLAUSE: Overview

PAGE: 18
LINE: w-2
COMMENT START:
Definitions' section states that a C-VID is a VLAN identifier conveyed in a C-TAG, which is simply a tag of significance for the customer. As such, selecting service instances by C-VID seems to be at odds with the fact that each bridge port supports a single service.
COMMENT END:
SUGGESTED CHANGES START:
See next comment. [Comment 20 on page 21]
SUGGESTED CHANGES END:

Disposition of Comment 19

The commenter appears to be confusing two different types of service interfaces: the Port-based service interface (15.3) where each Customer Network Port supports a single service, and the Customer-tagged service interface (15.4) where each Customer Edge Port supports one or more services selected by the C-VID. No changes are required in response to this comment.

Comment 20 Dirceu Cavendish

COMMENT TYPE: TR
CLAUSE: 3
PAGE: 20
LINE: various
COMMENT START:
C-TAG and S-TAG are not defined. They should be the next terms to be defined after Customer and Provider bridge concepts. Other definitions depend on those.
COMMENT END:
SUGGESTED CHANGES START:
Include C-TAG and S-TAG definitions, preferably including read/write rights by customer and provider.
SUGGESTED CHANGES END:

Disposition of Comment 20

Accept in principle. C-TAG and S-TAG are abbreviations for Customer VLAN Tag and Service VLAN Tag. These are defined in clause 9, however it is a good idea to include them in clause 3 as well. How they are read/written by C-VLAN components and S-

VLAN components is not appropriate in the definitions. The actual tag/untag functions are specified in 6.7; the use of C-VLAN components and S-VLAN components in a system are specified in clauses 5 and 15.

Add definitions:

"Customer VLAN Tag: A VLAN tag with a Tag Protocol Identification value allocated for "802.1Q Tag Protocol Type" as specified in Table 9-1."

"Service VLAN Tag: A VLAN tag with a Tag Protocol Identification value allocated for "802.1Q Service Tag Type" as specified in Table 9-1."

Comment 21 Dirceu Cavendish

COMMENT TYPE: TR
CLAUSE: 3
PAGE: 20
LINE: various
COMMENT START:
S-VID and C-VID terms are not defined, but only referred to (e.g., abbreviations).
COMMENT END:
SUGGESTED CHANGES START:
Define S-VID and C-VID and their architecture roles (so as to explain/support overview clause), and related them with other terms such as C-TAG and V-TAG.
SUGGESTED CHANGES END:

Disposition of Comment 21

Accept in principle. It is appropriate to include the definitions, but the specification of the architectural roles belongs in the body of the standard where it is already sufficiently covered, particularly in clause 15. The modification to the definitions are resolved in Comment 27 on page 25.

Comment 22 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3.56
PAGE: 20
LINE:
COMMENT START:

typo
COMMENT END:
SUGGESTED CHANGES START:
frame -> frames
SUGGESTED CHANGES END:

Disposition of Comment 22

Accept (line 52).

Comment 23 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3.53
PAGE: 20
LINE:
COMMENT START:
typo
COMMENT END:
SUGGESTED CHANGES START:
VLANS -> VLANs
SUGGESTED CHANGES END:

Disposition of Comment 23

Accept.

Comment 24 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3.43
PAGE: 20
LINE:
COMMENT START:
strictly speaking the EISS does not insert C-TAGs; this is performed by a function below it. (This comment applies to S-VLAN component (3.65)as well)
COMMENT END:
SUGGESTED CHANGES START:
Change definition to:

* ... with the EISS supported by the use of C-TAGs. (remove insert)
* ... a function that can recognize and insert C-TAGs (change "EISS" to "a function")
SUGGESTED CHANGES END:

Disposition of Comment 24

Resolved by Comment 14 on page 15.

Comment 25 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3.56
PAGE: 20
LINE:
COMMENT START:
Definition talks about interface, but does not specify to what it is an interface
COMMENT END:
SUGGESTED CHANGES START:
Add after interface: to a VLAN aware bridge (component)
SUGGESTED CHANGES END:

Disposition of Comment 25

Accept in principle.
Change definition to:
“Port-based interface: The interface provided by an S-VLAN Bridge that associates all customer frames with a single service instance.”

Comment 26 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3.60
PAGE: 21
LINE:
COMMENT START:
Definition includes "by customer tagging of frames received and transmitted at customer interfaces." I read this as that the Provider Edge Bridge adds customer tags.
COMMENT END:
SUGGESTED CHANGES START:
by customer tagging -> by using customer tags

SUGGESTED CHANGES END:

Disposition of Comment 26

Resolved by Comment 14 on page 15

Comment 27 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 3
PAGE: 21
LINE:
COMMENT START:
add definitions for Service VLANs and Service VIDs
COMMENT END:
SUGGESTED CHANGES START:
Service VLANs: VLANs identified by a C-VID
Service VIDs: A VLAN identifier conveyed in an S-tag
SUGGESTED CHANGES END:

Disposition of Comment 27

Accept in principle. Modify the Customer VLANs and Customer VIDs definitions to make them singular, not plural, and add the Service VLAN and Service VID definitions as follows:
"Customer VLAN: A VLAN identified by a C-VID.
Customer VLAN ID: A VLAN identifier conveyed in a C-TAG.
Service VLAN: A VLAN identified by an S-VID.
Service VLAN ID: A VLAN identifier conveyed in an S-TAG."

Comment 28 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 5.2

PAGE: 23

LINE: 31

COMMENT START:

Note mentions C-VLAN Bridge. There is no definition for a C-VLAN Bridge rather a Customer Bridge is defined

COMMENT END:

SUGGESTED CHANGES START:

Delete reference to C-VLAN Bridge.

SUGGESTED CHANGES END:

Disposition of Comment 28

Resolved by Comment 14 on page 15 (also from Dinesh) which adds a definition for C-VLAN Bridge.

Comment 29 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 5.5, 5.6, many others

PAGE: 24

LINE: 20, 46

COMMENT START:

There are many instances in the document where the abbreviations introduced in Clause 4 are either redefined or not used in later Clauses. This has also led to erroneous introduction of inconsistent abbreviations e.g. C-TAG as Customer TAG instead of Customer VLAN TAG. Therefore, for readability and consistency purposes, it is desirable to use abbreviations introduced in Clause 4 in subsequent clauses.

COMMENT END:

SUGGESTED CHANGES START:

Following clause 4, use abbreviations introduced in Clause 4 as opposed to expanded text in rest of the document (should be possible to do a simple find and replace)

SUGGESTED CHANGES END:

Disposition of Comment 29

Accept in principle. The editor will search the document and attempt to make the use of abbreviations consistent, and limited to those defined in clause 4 or in the clause local to use of the definition.

Comment 30 Dinesh Mohan

COMMENT TYPE: TR

CLAUSE: 5.5,5.6, 3.43,3.65

PAGE: 24, 21

LINE: 45-46, 24-25

COMMENT START:

Definition of S-VLAN component introduced in 5.6 implies that the EISS on all Ports is supported by the use of a S-TAG (singular) while the definition in 3.65 implies EISS on each port that can recognize and insert S-TAGs (plural). It is desirable to have a consistent definition. Similar ambiguity exists for definition of C-VLAN component in 5.5 and 3.43.

COMMENT END:

SUGGESTED CHANGES START:

It is suggested that since S-VLAN component is already defined in 3.65, it is not redefined in 5.6. Similarly, not redefine C-VLAN in 5.5.

SUGGESTED CHANGES END:

Disposition of Comment 30

Resolved by Comment 14 on page 15.

Comment 31 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 5.5
PAGE: 24
LINE: 32
COMMENT START:
A general comment about the word "use" for tags. What does this mean? Does it mean adding/removing/using for forwarding/all of the above?
COMMENT END:
SUGGESTED CHANGES START:
Provide a clarification for what "use" of tag means. Also, if a bridge does not "use" a certain type of tag and the frame contains the tag, does it treat the frame as untagged, or does it drop the frame?
SUGGESTED CHANGES END:

Disposition of Comment 31

The functions of the EISS (6.7) include adding/removing tags, and decoding/encoding EISS parameters in the tag contents. The EISS functions in a C-VLAN component use VLAN tags with the 802.1Q Ethertype (defined as a C-TAG). It sounds like the commenter would prefer a different verb than "use", but it is not obvious what verb would make it more clear. No changes are made as a result of this comment.

Comment 32 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 5.5 & 5.6
PAGE: 24
LINE: 20 & 46
COMMENT START:
Allign S-Tag, C-Tag with abbreviations in Clause 4
COMMENT END:
SUGGESTED CHANGES START:
line 20: Customer Tag -> Customer VLAN Tag
line 46: S-VLAN Tag -> Service VLAN Tag
SUGGESTED CHANGES END:

Disposition of Comment 32

Accept.

Comment 33 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 5.5
PAGE: 24
LINE: 27
COMMENT START:
Table 11-1 of what standard?
COMMENT END:
SUGGESTED CHANGES START:
Table 11-1 -> IEEE Std 802.1Q, Table 11-1 (as in clause 5.6, p25, l10)
SUGGESTED CHANGES END:

Disposition of Comment 33

As this is an amendment to 802.1Q, it provides editorial instructions on how to modify 802.1Q to incorporate this amendment. It is not appropriate to include explicit reference to 802.1Q as this would result in the document referencing itself. However, this means bullet k) on page 25 is wrong, since it does reference 802.1Q. Editor will correct that and search for other instances.

Comment 34 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 5.6
PAGE: 24
LINE: 46&48
COMMENT START:
typo
COMMENT END:
SUGGESTED CHANGES START:
a S-VLAN -> an S-VLAN
SUGGESTED CHANGES END:

Disposition of Comment 34

Accept.

Comment 35 Les Bell

COMMENT TYPE: E
CLAUSE: 5.6
PAGE: 25
LINE: 1,2
COMMENT START:
Bullet (f) defines behaviour that a conformant S-VLAN component shall not do, and would be better positioned with the other prohibited behaviours, defined by bullets (i) to (k).
COMMENT END:
SUGGESTED CHANGES START:
Move bullet (f) to appear just before bullet (i).
Remove the "not" from the beginning of bullet (f),
Renumber the bullets, as appropriate.

SUGGESTED CHANGES END:

Disposition of Comment 35

Accept.

Comment 36 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 5.6.1
PAGE: 25
LINE: 17
COMMENT START:
When VID translation table is supported it must be used in both received and transmitted frames.
COMMENT END:
SUGGESTED CHANGES START:
Change "translation of received VIDs" to "translation of S-VIDs".
SUGGESTED CHANGES END:

Disposition of Comment 36

Accept in principle.
Simply delete the word “recieved” so it reads: “translation of VIDs”.

Comment 37 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 5.8
PAGE: 25
LINE: 36
COMMENT START:
To be consistent with the approach to Provider Bridge management introduced in D4.0, a Provider Bridge Port must also be configurable as a Customer Edge Port.
COMMENT END:
SUGGESTED CHANGES START:
Add Customer Edge Port to the list in 5.8, and include in the subsequent text that configuring a Port as a Customer Edge Port infers the presence of a C-VLAN component Provider Edge Bridge functionality.

To reinforce that a Provider Edge Bridge is a special case of a Provider Bridge, change section 5.9 to 5.8.1.
SUGGESTED CHANGES END:

Disposition of Comment 37

Accept in principle. Add a 5.8.2 for S-VLAN Bridge conformance. Explicitly state that it does not have C-VLAN components or Customer Edge Ports.

Edit section 5.8 as follows:

5.8 Provider Bridge conformance

A Provider Bridge shall comprise a single conformant S-VLAN component (5.6) and zero or more C-VLAN components (5.5).

Each Port shall be capable of being configured as one of, and may be capable of being configured as ~~either~~ any of:

a) a Provider Network Port;
b) a Customer Network Port;
c) a Customer Edge Port;

as specified in Clause 15. Each Port configured as a Provider Network Port or Customer Network Port shall be capable of attaching the S-VLAN component of the Provider Bridge directly to an 802 LAN. Each Port configured as a Customer ~~Network~~ Edge Port shall ~~also~~ be capable of attaching a C-VLAN component within the Provider Bridge directly to an 802 LAN~~, except when the Provider Bridge is configured as a Provider Edge Bridge (5.8.1) and the Port attaches to a Provider Edge component~~.

5.8.1 S-VLAN Bridge conformance

An S-VLAN Bridge shall comprise a single conformant S-VLAN component (5.6). A S-VLAN Bridge does not have any physical interfaces configured as a Customer Edge Interface, nor does it include any C-VLAN components.

5.8.2 Provider Edge Bridge conformance

A Provider Edge Bridge is a conformant Provider Bridge with the capability to include one or more C-VLAN components as specified in Clause 15.4.

Each C-VLAN component shall comprise a single Customer Edge Port, and a single distinct Provider Edge Port for each service instance that can be provided through that Customer Edge Port. Each Provider Edge Port shall be connected within the Provider Edge Bridge, as specified in Clause 6.10, to a distinct Customer Network Port on the S-VLAN component.

NOTE—The single Customer Edge Port supported by a C-VLAN component can be supported by two or more independent instances of a MAC, aggregated as specified by Link Aggregation (IEEE-802.3-2000 Clause ~~41~~ 43).

Comment 38 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 5.8
PAGE: 25
LINE: 45
COMMENT START:
Provider Edge component is not defined.
COMMENT END:
SUGGESTED CHANGES START:
Change "Provider Edge component" to "Provider Edge Port of a C-VLAN component".
SUGGESTED CHANGES END:

Disposition of Comment 38

Accept. May no longer be relevant following resolution of Comment 37 on page 30.

Comment 39 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 5.8
PAGE: 25
LINE: 45
COMMENT START:
"Provider Edge component" is not in the list of definitions.
COMMENT END:
SUGGESTED CHANGES START:
Add definition.
SUGGESTED CHANGES END:

Disposition of Comment 39

Resolved by Comment 38 on P32.

Comment 40 Arjan de Heer

COMMENT TYPE: T
CLAUSE: 5.9
PAGE: 25
LINE: 53
COMMENT START:
distinct Provider Edge Port for each service instance ...
Does this text make clear that there is only one such port per service instance?
COMMENT END:
SUGGESTED CHANGES START:
distinct Provider Edge Port -> a single distinct Provider Edge Port
SUGGESTED CHANGES END:

Disposition of Comment 40

Accept.

Comment 41 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 5.9
PAGE: 26
LINE: 4
COMMENT START:
This NOTE is redundant. Why mention what can be done with link aggregation when it is completely transparent to bridging?
COMMENT END:
SUGGESTED CHANGES START:
Remove note.
SUGGESTED CHANGES END:

Disposition of Comment 41

Reject. The note is present as an aid to readers who may, in this context, overlook the fact that Link Aggregation is completely transparent to bridging, and erroneously interpret the single Customer Edge Port per C-VLAN component as prohibiting Link Aggregation.

Comment 42 Muneyoshi Suzuki

COMMENT TYPE: ER
CLAUSE: 6.6.1
PAGE: 27
LINE: 45
COMMENT START:
"include_tag" is deleted in Q-REV/D2.0.
COMMENT END:
SUGGESTED CHANGES START:
Delete it.
SUGGESTED CHANGES END:

Disposition of Comment 42

Accept.

Comment 43 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 6.6.1
PAGE: 27
LINE: 45
COMMENT START:
As of D2.0 of 802.1Q-REV the include_tag parameter no longer exists at the EISS.
COMMENT END:
SUGGESTED CHANGES START:
Delete "include_tag" from the list of EM_UNITDATA.request parameters.
SUGGESTED CHANGES END:

Disposition of Comment 43

Resolved by Comment 42 on page 34.

Comment 44 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 6.6.1
PAGE: 27
LINE: 48
COMMENT START:
Changes in 802.1Q-REV/D2.0 make the instruction on where to insert the "drop_eligible" description incorrect.
COMMENT END:
SUGGESTED CHANGES START:
Delete "following the definition of the destination_address, etc. and".
SUGGESTED CHANGES END:

Disposition of Comment 44

Accept.

Comment 45 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 6.7
PAGE: 28
LINE: 3
COMMENT START:
Changes in 802.1Q-REV/D2.0 make the instruction on now to modify the paragraph incorrect.
COMMENT END:
SUGGESTED CHANGES START:
Change "Replace the initial paragraph" to "Replace the first two sentences".
SUGGESTED CHANGES END:

Disposition of Comment 45

Accept.

Comment 46 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 6.7
PAGE: 28
LINE: 13
COMMENT START:
The VID translation table should be defined in "6.7 Support of the EISS", not in sections "8.6.2 Ingress" and "8.6.5 Egress". One justification for this is that in 802.1Q-REV/D2.0, the PVID and Port-and-Protocol-based-VLAN-classification functions were moved from the Ingress portion of clause 8 to 6.7 with the effect that the VID value is completely determined in the EISS functions. Another justification is that the translation table is a port specific function that must be used symmetrically in transmit and receive directions. It also clarifies when the translation is done relative to ingress and egress filtering rules (checking that the VID is in the member set).
COMMENT END:
SUGGESTED CHANGES START:
Page 28 line 13 add: "Insert the following sentence after bullet c:)
An instance of the EISS support using the S-VLAN tag type may also support the following parameter:
d) a S-VID translation table."

Page 28 line 13 add: "Insert a new paragraph at the end of 6.7 (following the note):
"The S-VID translation table, when supported, shall contain a one-to-one mapping of VID values included in the S-TAG of frames transmitted and received on the port (frame-VID) and VID values in the parameters of the EISS service primitives (EISS-VID). The table is configurable by management, and the default table configuration maps each frame-VID value to the same EISS-VID value."

Page 28 line 15 add: "Modify bullet c) as follows:
c) The value contained in the VID field, optionally translated using the S-VID translation table, if the frame is VLAN-tagged;"

Page 28 line 33 change: "vlan_classification" to "vlan_identifier (optionally translated using the S-VID translation table)"

Subclause 8.6.2 page 35 line 24: Replace the current instructions and paragraph with "This standard makes no changes to subclause 8.6.2."

Subclause 8.6.5 page 37 line 40: Replace the current instructions and paragraph with "This standard makes no changes to subclause 8.6.5."

Clause 11 page 45: Change "VID translation table" to "S-VID translation table" and add reference to 6.7 (two places).

Clause 12.13.2 page 47-48: Change "VID translation table" to "S-VID translation table" (6 places).
SUGGESTED CHANGES END:

Disposition of Comment 46

Accept in principle.
Leave as “VID translation table” (not “S-VID”). Do not build the S-VLAN only restriction into the function; leave it as a general purpose function and limit it to S-VLANs only in the conformance clause.
Also need to change 12.13.2 to be consistent with the “frame-VID” and “EISS-VID” terminology.

Comment 47 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 6.7.1 and 6.7.2
PAGE: 28
LINE: 27
COMMENT START:
Clarify handling of the canonical_format_indicator parameter for EISS using S-TAGs.
COMMENT END:
SUGGESTED CHANGES START:
Subclause 6.7.1 page 28 line 27 add: "Modify bullet g) as follows:

g) If the frame ~~is tagged~~ contains a Customer VLAN tag, then the value is as specified in Clause 9. Otherwise;"

Subclause 6.7.2 page 28 line 36 add" "Modify the second sentence of the fourth paragraph as follows:
If the canonical_format_indicator parameter indicates that the mac_service_data_unit may

contain embedded MAC Addresses in a format inappropriate to the destination MAC type, and the frame is to be transmitted untagged or with a Service VLAN tag, then the Bridge shall either

a) Convert any embedded MAC Addresses in the mac_service_data_unit to the format appropriate to the destination MAC type; or

b) Discard the EISS data request without issuing a corresponding ISS data request."

SUGGESTED CHANGES END:

Disposition of Comment 47

Accept in principle. The paragraph in 6.7.2 will be modified as a result of the 802.1Q-REV/D2.0 confirmation ballot, so make sure the editorial instructions are consistent with the new wording in 802.1Q.

Comment 48 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 6.7.1
PAGE: 28
LINE: 17
COMMENT START:
Changes in 802.1Q-REV/D2.0 make the instructions regarding bullets f) and g) incorrect.
COMMENT END:
SUGGESTED CHANGES START:
Replace the existing instructions and bullets f) and g) with: "Insert the following after bullet e), renumbering subsequent bullets as appropriate:
The value of the drop_eligible parameter is as follows:

f) If the frame is tagged, the value of the drop_eligible parameter and the received priority value are decoded from the tag header as described in 6.7.3. Otherwise;

g) The parameter carries the value False."

SUGGESTED CHANGES END:

Disposition of Comment 48

Accept.

Comment 49 Dinesh Mohan

COMMENT TYPE: TR

CLAUSE: 6.7.2

PAGE: 28

LINE: 32

COMMENT START:

vlan_classification parameter is vlan_identifier in 6.6.1

COMMENT END:

SUGGESTED CHANGES START:

Change vlan_classification to vlan_identifier

SUGGESTED CHANGES END:

Disposition of Comment 49

Accept.

Comment 50 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 6.7.3

PAGE: 29

LINE: 33

COMMENT START:

Reference to the "Priority Encoding Table" and "Priority Decoding Table" is not precise; e.g. there is no table marked "Priority Decoding Table"

COMMENT END:

SUGGESTED CHANGES START:

Change reference to tables as Table 6-4, and Table 6-5 respectively.

SUGGESTED CHANGES END:

Disposition of Comment 50

Accept in principle. The accurate title for the tables would be “Priority Code Point Encoding” and “Priority Code Point Decoding”. Make this change, and make all references to the tables consistent with it. Likewise for tables G-1 and G-2.

Comment 51 Arjan de Heer

COMMENT TYPE: E
CLAUSE: 6.7
PAGE: 28
LINE: 21
COMMENT START:
Make clear that the tag header should be of the supported type.
COMMENT END:
SUGGESTED CHANGES START:
contained a tag header -> contained a tag header of the supported type
SUGGESTED CHANGES END:

Disposition of Comment 51

Accept.
Since it will now be specific to the tag header type, the reference should change from 9.3 to 9.5.

Comment 52 Arjan de Heer

COMMENT TYPE: TR
CLAUSE: 6.7.3
PAGE: 29
LINE: 29
COMMENT START:
For S-VLAN aware bridge components the Priority encoding/decoding support is mandatory as implied by the required support of the tables 6-4 and 6-5? This would imply that it is no longer possible to create a Provider Bridge out of a VLAN bridge by merely changing the Ethertype used.
COMMENT END:
SUGGESTED CHANGES START:
Make the support of anything but 8P0D optional.
SUGGESTED CHANGES END:

Disposition of Comment 52

Reject.
The specification that it would be required for a S-VLAN component to support drop eligible encoding in the Priority Code Point, but optional to support the DE bit, has been stable for some time, and is believed to represent the consensus of the Working Group.

Comment 53 Arjan de Heer

COMMENT TYPE: TR
CLAUSE: 6.7.3
PAGE: 29
LINE:
COMMENT START:
I could not find the disposition of my comment to D3 regarding the encoding of DE for the combination of 0 and 1.
COMMENT END:
SUGGESTED CHANGES START:
Table 6-4, 5P3D row: 0->1 ODE->0 1->1 1DE->0
Table 6-5, 5P3D row: 0->0DE 1 ->0
Line 45 add at beginning of sentence: For 8P0D, 7P1D, and 6P2D ...
SUGGESTED CHANGES END:

Disposition of Comment 53

Accept.
The disposition of the comment to D3 was that it was marked as “needing offline consideration” following the November 2004 meeting. There being no further discussion of it at the January 2005 meeting, the new editor believed it was resolved with no action necessary.
One effect of this change is that a device transmitting frames using a “default” PCP of 0 would have those frames interpreted as 0DE (priority 0 with drop_eligible set) rather than priority 0 with drop_eligible clear as it is now.
The values in the table were also chosen so that if a PCP-encoded frame were received at a device not recognizing PCP encodings, it would interpret frames with drop_eligible set as lower priority than those with drop_eligible clear.
Even if the rest of the comment is accepted, the change to line 45 is not necessary since in the 5P3D case the distinction between priority 0 and 1 is lost.

Comment 54 Arjan de Heer

COMMENT TYPE: TR
CLAUSE: 6.7.3
PAGE: 29
LINE: 49
COMMENT START:
Make clear that the use of DE bit in the S-Tag is turned off by default.
COMMENT END:
SUGGESTED CHANGES START:
Add sentence at line 51, before "If the DE Bit is set .." : The DE Bit parameter is cleared by default.
SUGGESTED CHANGES END:

Disposition of Comment 54

Accept in principle. Use “True” and “False” rather than “set” and “clear” consistently throughout the paragraph.

Comment 55 Anoop Ghanwani

COMMENT TYPE: T
CLAUSE: 6.7.3
PAGE: 29
LINE: 50

COMMENT START:
This paragraph states that the use of the DE-bit is optional. In fact, the information that it carries is always present in the PCP. This makes the DE-bit redundant. The DE-bit would be useful if we allowed 8P8D with 8 priorities, each with a drop eligible encoding.
COMMENT END:
SUGGESTED CHANGES START:
Add 8P8D or provide additional explanation for why the DE-bit is useful.
SUGGESTED CHANGES END:

Disposition of Comment 55

Accept in principle. Add the following sentence after the first sentence in the last paragraph of 6.7.3:
"Use of the DE bit allows the S-TAG to convey eight distinct priorities, each with a drop_eligible indication."

Comment 56 Anoop Ghanwani

COMMENT TYPE: T
CLAUSE: 6.9
PAGE: 30
LINE: 34
COMMENT START:
In Fig. 6-2 we have the Customer bridge dealing with S-tags. According to the definitions section, a customer bridge is a D bridge or a VLAN bridge. Neither of these deals with S-tags.
COMMENT END:
SUGGESTED CHANGES START:
Modify the figure or clarify.
SUGGESTED CHANGES END:

Disposition of Comment 56

Accept in principle. In the figure, will change "6.8 S-TAG" to "6.9 Priority S-TAG". The point of this subclause is that it defines the sole exception to a Customer Bridge not dealing with S-TAGs. See conformance requirements in 5.5 bullet f).

Comment 57 Stephen Haddock

COMMENT TYPE: E

CLAUSE: 6.9
PAGE: 30
LINE: 40
COMMENT START:
Incorrect reference in Figure 6-2.
COMMENT END:
SUGGESTED CHANGES START:
Change "Clause 6.8 S-Tag" to "Clause 6.9 S-Tag".
SUGGESTED CHANGES END:

Disposition of Comment 57

Accept.

Comment 58 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 6.9.1
PAGE: 31
LINE: 42
COMMENT START:
user_priority does not exist anywhere in .1Q.
COMMENT END:
SUGGESTED CHANGES START:
Change user_priority to priority.
SUGGESTED CHANGES END:

Disposition of Comment 58

Accept.

Comment 59 Ken Patton

COMMENT TYPE: E
CLAUSE: 6.11
PAGE: 32
LINE: 27
COMMENT START:
"a 802 MAC service ..." should be "an 802 MAC service ..."

COMMENT END:
SUGGESTED CHANGES START:
change "a" to "an"
SUGGESTED CHANGES END:

Disposition of Comment 59

Accept.

Comment 60 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 8.1.1
PAGE: 34
LINE: 22
COMMENT START:
There is nothing that has been said about "bandwidth guarantees" so far, so the term is something new.
COMMENT END:
SUGGESTED CHANGES START:
Change "bandwidth guarantees" to "metering criteria".
SUGGESTED CHANGES END:

Disposition of Comment 60

Accept in principle: “Metering criteria” is a little vague, and “bandwidth limits” is the phrase already used. Modify the sentence to read:
“Metering of frames, potentially discarding or marking as drop eligible frames exceeding bandwidth limits.”

Comment 61 Dirceu Cavendish

COMMENT TYPE: TR
CLAUSE: 8.6.1
PAGE: 38
LINE:
COMMENT START:
Red paragraph is vague, in particular "...to be substituted for each of the possible 4094 VID values assigned or received as specified ABOVE (uppercase added).
COMMENT END:

SUGGESTED CHANGES START:
Fix ambiguous text, in particular: possible 4094 VID -> 4094 C-VID ? as assigned by C-VLAN aware bridge or received by an S-VLAN aware bridge.
SUGGESTED CHANGES END:

Disposition of Comment 61

Resolved by Comment 46 on page 36.

Comment 62 Arjan de Heer

COMMENT TYPE: T
CLAUSE: 8.6.2
PAGE: 35
LINE:
COMMENT START:
If the VID is changed, the FCS must be adapted. Do we need a sentence/note here that after VID translation the frame_check_sequence parameter needs to be updated? (Same applies for 8.6.4, when the DE value is changed)
COMMENT END:
SUGGESTED CHANGES START:
Add note: If the VID is changed the value of the frame_check_sequence parameter needs to be set to an unspecified value, or to the new correct value.
SUGGESTED CHANGES END:

Disposition of Comment 62

This should be resolved by Comment 46 on page 36 which moves the VID translation table to an EISS function, since the EISS function already makes frame modifications that require updating the frame_check_sequence. As 802.1Q-REV is currently in the ballot process, any clarification of EISS functions affecting the frame_check_sequence should be addressed to Q-REV.
Add a note in 8.6.4 that changing the drop_eligible parameter may result in a change to frame contents when the frame is formatted for transmission (see 6.7.2) and may require updating the frame_check_sequence.

Comment 63 Dan Romascanu

COMMENT TYPE: TR
CLAUSE: 8.6.3

PAGE: 36
LINE: 30
COMMENT START:
The table ignores the LLDP Multicast Address
COMMENT END:
SUGGESTED CHANGES START:
Replace " Reserved for ..." by " "IEEE Std. 802.1AB Link Layer Discovery Protocol multicast address"
SUGGESTED CHANGES END:

Disposition of Comment 63

Accept. Make consistent with 802.1Q-REV/D2.0.
The working group concluded an address should also be designated for use with customer layer-2 control protocols (e.g., 802.1X) that wish to “tunnel” through the provider network, rather than peer with provider equipment to which they are directly connected. Proposed text:
“The reserved MAC address allocated for the 802.1X PAE address allows the protocol to operate between a C-VLAN Bridge and a directly connected S-VLAN Bridge. The reserved MAC address allocated for 802.1AB LLDP allows the protocol to operate between C-VLAN Bridges connected by a service instance on a provider network. The 802.1X PAE address may be used by an instance of 802.1AB LLDP operating between a C-VLAN bridge and a directly connected S-VLAN Bridge. The 802.1AB LLDP address may be used by an instance of 802.1X PAE operating between C-VLAN Bridges connected by a service instance on a provider network.”
Perhaps also add sentence:
“The 802.1AB LLDP address may also be used by an instance of 802.3ad LACP operating between C-VLAN Bridges connected by multiple service instances on a provider network.”
Needs wordsmithing. May create a name for the class of protocols operating between C-VLAN and S-VLAN Bridges; and a name for the class of protocols operating across a service instance, and put these names in the table (e.g. 802.1X PAE address; also foo protocols).

Comment 64 Dinesh Mohan

COMMENT TYPE: ER
CLAUSE: 8.6.3
PAGE: 36,37
LINE:
COMMENT START:

Table 8-1 and 8-2, replace occurrences of Customer with C and Service with S in the title and table text

COMMENT END:

SUGGESTED CHANGES START:

Table 8-1 and 8-2, replace occurrences of Customer with C and Service with S in the title and table text

SUGGESTED CHANGES END:

Disposition of Comment 64

Accept in principle. Modify the table text and title to use terms defined in the resolution to Comment 14 on page 15.

Comment 65 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 8.6.4
PAGE: 37
LINE: 27
COMMENT START:
Changes in 802.1Q-REV/D2.0 make the instruction on now to modify the paragraph incorrect.
COMMENT END:
SUGGESTED CHANGES START:
Change "Change the first paragraph" to "Change the third paragraph".
SUGGESTED CHANGES END:

Disposition of Comment 65

Accept.

Comment 66 Anoop Ghanwani

COMMENT TYPE: T
CLAUSE: 8.6.4
PAGE: 37
LINE: 30
COMMENT START:
Per Section 3, RFC 2698 - A Two Rate Three Color Marker, markers may operate in

color-aware or color-blind mode. In color-blind mode it is actually possible to promote a packet being metered, because the whole stream is reset and the metering is performed as if all packets were uncolored. Is there a reason why we are precluding color-blind mode, which makes us incompatible with RFC 2698?
COMMENT END:
SUGGESTED CHANGES START:
Clarify, or add ability to perform color-blind metering.
SUGGESTED CHANGES END:

Disposition of Comment 66

Accept.
It is desirable to support color-blind mode. Functionally this is equivalent to clearing the drop_eligible bit on every received frame, which is conceptually similar to "regenerating" the received priority. Structurally in the document this should be an function supporting the EISS (subclause 6.7). Add a note in 8.6.4 (and possibly in 6.7) saying that the color blind mode is the equivalent of clearing the drop eligible bit at the EISS.

Comment 67 **Dinesh Mohan**

COMMENT TYPE: TR

CLAUSE: 8.6.7

PAGE: 38

LINE: 7

COMMENT START:

"discard drop_eligible frames" should be "discard drop_eligible set frames"

COMMENT END:

SUGGESTED CHANGES START:

add "set" between "discard drop_eligible" and "frames"

SUGGESTED CHANGES END:

Disposition of Comment 67

Accept in principle. Use "discard frames with drop_eligible set".

Comment 68 **Anoop Ghanwani**

COMMENT TYPE: E

CLAUSE: 8.13.5
PAGE: 39
LINE: 20
COMMENT START:
Since the provider network appears to the customer as a LAN, the customer's network now consists of a shared medium between it's sites. If there are 3 or more sites connected to the provider network, the customer's RSTP will need to be configured so that it runs as if on a shared medium. This will reduce the speed of convergence.
COMMENT END:
SUGGESTED CHANGES START:
This should be pointed out in a note.
SUGGESTED CHANGES END:

Disposition of Comment 68

Accept in principle. Will point this out in a note or in the text as part of the resolution of Comment 98 on page 66, though it will probably appear in clause 16 rather than 8.13.5.

Comment 69 Dirceu Cavendish

COMMENT TYPE: TR
CLAUSE: 9.5
PAGE: 47
LINE:
COMMENT START:
Explanatory text for Fig. 9-1 has not been customized for C-VLAN aware bridges.
COMMENT END:
SUGGESTED CHANGES START:
Replace all instances of VLAN with C-VLAN. Also, there might be a good idea to separate Fig. 9-1 and 9-2 into two subclauses - 9.5.1, 9.5.2, with explicit text about C-VLAN aware and S-VLAN aware bridges (components).
SUGGESTED CHANGES END:

Disposition of Comment 69

Accept in principle. Modify text to use C-VLAN as appropriate. Figures 9-1 and 9-2 are already in separate subclauses (9.6 and 9.7).

Comment 70 Stephen Haddock

COMMENT TYPE: E
CLAUSE: 9.5
PAGE: 41
LINE: 32
COMMENT START:
May be more than one C_VLAN component.
COMMENT END:
SUGGESTED CHANGES START:
Change "a C-VLAN component" to "C-VLAN components".
SUGGESTED CHANGES END:

Disposition of Comment 70

Accept.

Comment 71 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 9.6
PAGE: 42
LINE: 12
COMMENT START:
'0' should be '1'. If we are referring to priority-tagged, we should call it out specifically.
COMMENT END:
SUGGESTED CHANGES START:
Do as suggested.
SUGGESTED CHANGES END:

Disposition of Comment 71

Reject. Comment pertains to 802.1Q, not .1ad, but it is the consensus of the Working Group that the text is correct.

Comment 72 Les Bell

COMMENT TYPE: E
CLAUSE: 9.7
PAGE: 42
LINE: 41
COMMENT START:
Ambiguous reference to bit 5.
COMMENT END:
SUGGESTED CHANGES START:
Clarify that it refers to bit 5 of octet 1 of the TCI.
SUGGESTED CHANGES END:

Disposition of Comment 72

Accept.

Comment 73 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 9.9
PAGE: 43
LINE: 1
COMMENT START:
Changes in 802.1Q-REV/D2.0 make this subclause unnecessary.
COMMENT END:
SUGGESTED CHANGES START:
Delete subclause 9.9.
SUGGESTED CHANGES END:

Disposition of Comment 73

Accept.

Comment 74 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 12
PAGE:
LINE:
COMMENT START:
Need management objects for the Priority Encoding Table and Priority Decoding Table (6.7.3).
COMMENT END:
SUGGESTED CHANGES START:
Add management objects.
SUGGESTED CHANGES END:

Disposition of Comment 74

Accept.

Comment 75 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 12
PAGE:
LINE:
COMMENT START:
Need management objects for the Use_DE_Bit parameter (6.7.3).
COMMENT END:
SUGGESTED CHANGES START:
Add management objects.
SUGGESTED CHANGES END:

Disposition of Comment 75

Accept.

Comment 76 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 12
PAGE:
LINE:
COMMENT START:
Need management objects for null vs. service access priority selection functions of 6.9, and the Service Access Priority Table (6.9.1).
COMMENT END:
SUGGESTED CHANGES START:
Add management objects.
SUGGESTED CHANGES END:

Disposition of Comment 76

Accept.

Comment 77 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 12
PAGE:
LINE:
COMMENT START:
Need management objects for the RequireDropEncoding parameter (8.6.7).
COMMENT END:
SUGGESTED CHANGES START:
Add management objects.
SUGGESTED CHANGES END:

Disposition of Comment 77

Accept.

Comment 78 David Melman

COMMENT TYPE: T
CLAUSE: 12.13.2
PAGE: 47
LINE: 46
COMMENT START:
The text describes the use of the VLAN Translation table only with respect to ingress VLAN translation and not in regards to egress VLAN translation.
COMMENT END:
SUGGESTED CHANGES START:
Add text describing use of VLAN Translation table for egress VLAN translation.
SUGGESTED CHANGES END:

Disposition of Comment 78

Accept in principle. Change “mapping between” to “bidirectional mapping between”. The text already refers to “frames transmitted and received through this Customer Network Port or Provider Network Port”.

Comment 79 Arjan de Heer

COMMENT TYPE: T
CLAUSE: 12.13.2
PAGE: 47
LINE:
COMMENT START:
Why would one need a VID translation table on a Customer Network Port? There is only one customer connected. Frames from the customer do not contain an S-VID value, so why first assign one that is later translated?
COMMENT END:
SUGGESTED CHANGES START:
Remove Customer Network Port in lines 42 and 47
(update 5.6.1 as well)
SUGGESTED CHANGES END:

Disposition of Comment 79

Reject. There is only one customer connected, however frames from the customer may contain an S-VID value in the case of an S-tagged service interface (15.5).

Comment 80 Arjan de Heer

COMMENT TYPE: T
CLAUSE: 12.13.3
PAGE: 48
LINE: 40
COMMENT START:
The only S-VID assignment mentioned is based on PVID, this implies that Protocol based S-VID assignment is prohibited?
COMMENT END:
SUGGESTED CHANGES START:
If prohibited add this to shall not part of 5.6.
SUGGESTED CHANGES END:

Disposition of Comment 80

For internal Customer Network Ports specifically, S-VID is always assigned by PVID and Protocol based is not supported. After much discussion that ranged from prohibiting Protocol based S-VID assignment in all S-VLAN components to not changing anything at all, we concluded that we'll attempt to clarify the restriction on internal Customer Network Ports as part of the resolution of Comment 90 on page 61

Comment 81 David Melman

COMMENT TYPE: T
CLAUSE: 12.13.3
PAGE: 38
LINE: 32
COMMENT START:
Not clear how the Provider Edge Port is configured to send priority-tagged frames in order to signal priority to the Customer Network Port. Shouldn't there be a configuration option for this?
COMMENT END:
SUGGESTED CHANGES START:
SUGGESTED CHANGES END:

Disposition of Comment 81

Resolved by Comment 76 on page 54.

Comment 82 Dinesh Mohan

COMMENT TYPE: ER

CLAUSE: 12.13

PAGE: 46

LINE: 36

COMMENT START:

Consistency in use of capitalization of "Spanning Tree" vs. "spanning tree" needs to be maintained.

COMMENT END:

SUGGESTED CHANGES START:

Apply a consistent use of capitalization for spanning tree and other as mentioned earlier e.g. bridge.

SUGGESTED CHANGES END:

Disposition of Comment 82

Accept.

Comment 83 Loren Larsen

COMMENT TYPE: E

CLAUSE: 12.13.3.3.2

PAGE: 50

LINE: 3

COMMENT START:

“Customer Edge Port” should read “Provider Edge Port”.

COMMENT END:

SUGGESTED CHANGES START:

Make change.

SUGGESTED CHANGES END:

Disposition of Comment 83

Reject. The text is correct as it stands. The input to the function is the identification of the Provider Edge Port. The Provider Edge Port is uniquely identified by the combination of the Customer Edge Port number and the Service VLAN Identifier (see fourth paragraph of 12.13).

Comment 84 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 15.3
PAGE: 55
LINE: 53
COMMENT START:
Use of "through" is a bit confusing because it makes one think that the port exists on the transmitter, which is not the case here. A customer network port only exists on an S-VLAN aware system.
COMMENT END:
SUGGESTED CHANGES START:
Change "through" to "to".
SUGGESTED CHANGES END:

Disposition of Comment 84

Accept.

Comment 85 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 15.4
PAGE: 56
LINE: 19
COMMENT START:
Change customer-tagged to c-tagged to be consistent with the following clause.
COMMENT END:
SUGGESTED CHANGES START:
Change as suggested.
SUGGESTED CHANGES END:

Disposition of Comment 85

Accept in principle. Make consistent with the defined terms and abreviations.

Comment 86 Anoop Ghanwani

COMMENT TYPE: T
CLAUSE: 15.4
PAGE: 57
LINE: 6
COMMENT START:
Since Q-bridges don't send priority-tagged frames, there will be loss of PCP (priority/DE information) when the frame is untagged.
COMMENT END:
SUGGESTED CHANGES START:
Point this out.
SUGGESTED CHANGES END:

Disposition of Comment 86

The internal links specified in 6.10 and used in Provider Edge Bridges carry priority from the Provider Edge Port ISS to the Customer Network Port ISS, so priority information is not lost. (Drop eligibility is not passed, however, effectively making the interface color blind.)
In a Port-based interface priority can be signalled to the Customer Network Port using priority S-tags as defined in 6.9. In the course of the discussion it became apparent that there is priority information lost in frames sent from a Port-based interface at the provider to a customer because the 6.9 shim doesn’t recover priority from received frames with S-tags. It should.

In 6.9.2, change the prioriy parameter so that it gets its value from the S-tag if present.

Comment 87 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 15.4
PAGE: 57
LINE: 13
COMMENT START:
Clarify that there is a single Customer Edge Port per C-VLAN component, even in the case of multiple Customer Edge Ports to the same customer.

COMMENT END:
SUGGESTED CHANGES START:
Replace the last paragraph of 15.4 with:
"Each Provider Edge Bridge can support multiple Customer Edge Ports for the same customer or for multiple customers. Each Customer Edge Port is supported by a dedicated C-VLAN component as illustrated in Figure 15-6."
SUGGESTED CHANGES END:

Disposition of Comment 87

Accept.

Comment 88 Dirceu Cavendish

COMMENT TYPE: T
CLAUSE: 15.6
PAGE: 43
LINE: e)
COMMENT START:
15.6 e) seems to contradict Fig. 15-7, in that the figure depicts a "Customer controlled provider bridge", whereas clause 15.6 e) states that "Provider Bridges ... can only be directly controlled by the provider.!!!
COMMENT END:
SUGGESTED CHANGES START:
Clarify what "directly controlled" means, and "customer controlled" provider bridge of clause 15.5.
SUGGESTED CHANGES END:

Disposition of Comment 88

Accept in principle. The text actually says Provider Edge Bridges "within the provider network" can only be directly controlled by the provider. Add a sentence:
"Customer equipment, including Customer operated Provider Bridges, are not within the provider network and are controlled by the customer."

Comment 89 Anoop Ghanwani

COMMENT TYPE: E
CLAUSE: 15.7
PAGE: 59

LINE: 7
COMMENT START:
It's confusing to see why customer has to deal with S-VIDs when a customer bridge doesn't know anything about S-VIDs.
COMMENT END:
SUGGESTED CHANGES START:
If this customer is in fact a provider, then this makes sense, but in that case, we should replace customer and provider by provider 1 and provider 2.
SUGGESTED CHANGES END:

Disposition of Comment 89

Accept in principle. Clarify that this applies to S-tagged service interfaces (where the customer does know about S-VIDs). Modify to read:
"... used by a customer (or other provider) on an S-tagged service interface to identify service instances."

Comment 90 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 15.7
PAGE: 59
LINE: 28
COMMENT START:
This subclause discusses the configuration of several parameters that are not explicitly configurable at internal ports using the Provider Bridge management approach introduced in D4.0.
COMMENT END:
SUGGESTED CHANGES START:
Modify the subclause specifying configuration of the management objects in Provider Bridge Management subclause 12.13.
SUGGESTED CHANGES END:

Disposition of Comment 90

Accept in principle. Mick asked that we make it clear that the management objects of clasue 12.13 provide equivalent functionality to the more familiar port and VLAN parameters.

Comment 91 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 15.7
PAGE: 59
LINE: 1
COMMENT START:
NOTE 2 is incorrect since the PVID assignment was moved to be an EISS function in 802.1Q-REV/D2.0. It also used MACsec as an example without providing any references for MACsec. NOTE 3 will be incorrect if my comment to move the S-VID translation table to 6.7 is accepted.
COMMENT END:
SUGGESTED CHANGES START:
Rewrite the text beginning with the paragraph preceding NOTE 2 up through NOTE 3 to accurately reflect how a Customer Network Port determines the S-VID, with and without using the S-VID translation table.
SUGGESTED CHANGES END:

Disposition of Comment 91

Accept. Edit as follows:

For all the interfaces described, the Customer Network Port ~~is configured so the VLAN classification rules (8.9)~~ determine<u>s</u> the S-VID for each customer data frame~~, by examining all frames for a Service Tag (5.7)~~ <u>as specified in 6.7.1 for an EISS instance using a Service VLAN Tag type</u>.

~~NOTE 2—Formally it is not a frame that is examined, but the parameters supplied with an ISS (Internal Sublayer Service) indication (6.4). An ISS M_UNITDATA.indication will only give rise to an EISS EM_UNITDATA indication with a non-NULL VID if the initial octets of the mac_service_data_unit (msdu) parameter contain a Service Tag. A Customer TAG that occupies the initial octets, and any tag in subsequent octets, of the ISS msdu will remain as part of the EISS msdu. The distinction between examining the frame and the msdu is important if the service is being provided with underlying functionality that both uses and provides the ISS, e.g. MACsec.~~

The ~~S-VID of the frame within the provider network is that determined by the classification rules by default, but may be selected by managing the~~ VID Translation Table for the Port (6.7.1) ~~to~~ allow<u>s</u> a provider to assign S-VIDs independently from those used by a customer <u>(or other provider)</u> to identify service instances <u>on an S-tagged service interface (15.5)</u>. The table also allows customers to identify the same service instance by different VIDs at different interfaces.

~~NOTE 3—If a VID Translation Table is used and the frame is untagged, the S-VID assigned will be the value in the table corresponding to the PVID assigned to the Port, i.e. the PVID is the assigned value prior to translation. The ingress filtering check is applied to the S-VID resulting from the translation.~~

Comment 92 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 15.8
PAGE: 59
LINE: 21
COMMENT START:
A change in 802.1Q-REV/D2.0 allows the Priority Regeneration Table to be used even for tagged frames. Therefore it can be used for C-Tagged and S-Tagged service interfaces, not just for Port Based service interfaces.
COMMENT END:
SUGGESTED CHANGES START:
Begin the subclause with:
"For all service interface types, the service priority is selected using the received priority for each frame, possibly regenerated using the Priority Regeneration Table (6.7.4). The mechanism for determining the received priority varies with the type of service interface."
Use the existing paragraphs (with editorial modification of the first) to describe the determination of received priority for each type of service interface.
SUGGESTED CHANGES END:

Disposition of Comment 92

Accept.

Comment 93 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 168
PAGE: 60
LINE: 31
COMMENT START:
Incorrect reference.
COMMENT END:
SUGGESTED CHANGES START:

Replace “Enhanced Internal Layer Service (6.4)” with “Internal Sublayer Service (6.4)”.
SUGGESTED CHANGES END:

Disposition of Comment 93

Accept.

Comment 94 Ken Patton

COMMENT TYPE: E
CLAUSE: 16.3
PAGE: 63
LINE: 5
COMMENT START:
Do we not normally capitalize "Spanning Tree Protocol"? Perhaps it is lower case here deliberately, to imply something generic? If we would suggest an 802.1D Spanning Tree Protocol, then I would prefer to see it capitalized.
COMMENT END:
SUGGESTED CHANGES START:
Capitalize "Spanning Tree Protocol"
SUGGESTED CHANGES END:

Disposition of Comment 94

Accept in principle. Capitalize per style guidelines specified in resolution to Comment 16 on page 19.

Comment 95 Muneyoshi Suzuki

COMMENT TYPE: TR
CLAUSE: 16.3
PAGE: 64
LINE: 18-20
COMMENT START:
"Frames ... addressed to the GVRP Address (802.1D Table 12-1) are relayed by a Provider Bridge ...." implies that the support of customer GARP relay is limited to customer GVRP relay only.
COMMENT END:
SUGGESTED CHANGES START:
Proposed sentence is:

"Frames ... addressed to the GARP Addresses (802.1D Table 12-1) are relayed by a Provider Bridge ...."
SUGGESTED CHANGES END:

Disposition of Comment 95

Accept.

Comment 96 Muneyoshi Suzuki

COMMENT TYPE: TR
CLAUSE: 16.3
PAGE: 64
LINE: 16-23
COMMENT START:
This paragraph does not explicitly address that the customer GARP PDUs are tagged by Provider Bridge.
COMMENT END:
SUGGESTED CHANGES START:
Insert the following sentence to line 20.
....GARP Applications. "Frames received by Customer Network Ports and addressed to the GARP Addresses (802.1D Table 12-1) are subject to service instance selection and relay in the same way as customer data frames." The GARP.....
SUGGESTED CHANGES END:

Disposition of Comment 96

Accept. Replace the sentence with the proposed text (rather than inserting a new sentence).

Comment 97 Stephen Haddock

COMMENT TYPE: T
CLAUSE: 16.3
PAGE: 63
LINE: 22 and 41
COMMENT START:
To avoid ambiguity the phrases “customer points of attachment to the provider network” and “provider network ingress ports” should be replaced with terms that have specific def-

initions.
COMMENT END:
SUGGESTED CHANGES START:
Change to “Customer Network Ports”.
SUGGESTED CHANGES END:

Disposition of Comment 97

Accept.

Comment 98 Mick Seaman

COMMENT TYPE: T
CLAUSE: 16.5
PAGE: 63
LINE: 50/51
COMMENT START:

NOTE 2 is not adequate to deal with issue of customer's own spanning trees, as it does not with the fact that the CVLAN-aware component in Customer Edge Ports is specified as blocking frames sent to the Bridge Group Address (and in fact as running RSTP at a minimum). Proposals for handling customer BPDUs within a provider's network are contained in the two notes:

http://www.ieee802.org/1/files/public/docs2005/ad-seaman-provider-edge-bridge-spanning-tree-0205-11.pdf

http://www.ieee802.org/1/files/public/docs2005/ad-seaman-more-edge-bridge-spanning-tree-0205-11.pdf

these proposals have the very desirable property that connectivity through the provider network is not reduced to a simple spanning tree within the provider network as a consequence of their operation.

One thing that these notes don't emphasize is that simply letting the spanning tree BPDUS pass through the CVLAN-components onto all service instances doesn't propagate spanning tree information correctly. With the single service instance per CVLAN-component restriction (otherwise referred to as the no U turn in the C-VLAN component requirement), a superior BPDU sent from a site 1 to site 2 (say), will not be sent from site 2 to a site 3. If sites 1 and 3 are simply connected external to the provider what will happen is that BPDUs from both sites 1 and 3 will arrive alternately at site 2, thrashing the spanning

tree there. Obviously BPDUs received in a Provider Edge Bridge from different service instances can't be copied promiscuously from one to another as that would cause them to loop. It is not a satisfactory solution to abandon all pretence of supporting spanning tree across the provider network, and rely on adhoc means of limiting the damage caused by loops (16.5 NOTE 4) as they could well cause unpredictable network behavior, with some links being cut at one time, some at another, and loops arriving and disappearing the while. Moreover, it is not unreasonable for a customer to use a spanning tree to control backup connectivity. In conclusion then, we can't get away from specifying an active part for the Customer Edge Port C-VLAN component in a customer spanning tree.

I propose that

1. the detailed specification of how this works be based on section 4 of "More Edge Bridge Spanning Tree" (the second of the two notes referenced above);

2. the detail of that specification be mainly in an additional subclause of clause 13;

3. the style of that subclause be as a set of enhancements to clause 13 (called "enhanced RSTP" for the present discussion, i.e. that no attempt be made at this revision to fully integrate the enhancements within clause 13 -- that should be done after the RSTP and MSTP specifications are fully combined and reduced to a single specification, which is beyond the scope of the .1ad amendment;

4. a short reference to the clause 13 additional specification (enhanced RSTP) be placed in clause 16.5, after the present NOTE 4 and with the deletion of NOTE 2, together with a "shall" making it mandatory to implement;

5. enhanced RSTP should be added to 5.5.1 as a C-VLAN component option, and implementation of the option mandated in 5.9 Provider Edge Bridge conformance;

6. The details in the new subclause of 13 be an explanation of what is being achieved (as per the introduction to the first referenced note, with a simple figure probably borrowed from either of the notes above) together with a definition of Rootward port and enhancements (probably by replacement) of the updtTreePorts(), updtRolesTree(), setReRootTree), setSyncTree(), and setTcPropTree() procedures, addition of the selectedRole of RootwardPort to the PRT machine, and enhancement of allSynced and reRooted conditions, all as specified in the second referenced note (above).
COMMENT END:
SUGGESTED CHANGES START:

As per the above, I believe the foregoing detail to be sufficient to allow the necessary changes to be "readily determined", but if they are not I would be happy to work with the editor on the detail.
SUGGESTED CHANGES END:

Disposition of Comment 98

Accept in principle. Editor will solicite help from Mick as necessary to incorporate this comment into the document.

Comment 99 Dan Romascanu

COMMENT TYPE: E
CLAUSE: 16.6
PAGE: 64
LINE: 13
COMMENT START:
The network management clause must indicate in a normative manner the administrative separation of the management domains between Service Provider and Customer, so that future management implementation apply access control of management operations accordingly.
COMMENT END:
SUGGESTED CHANGES START:
replace 'No elements of the Provider Bridge are manageable directly by a Provider Network Customer' by 'Provider Network Customers shall not have access to management objects related to a elements of Provider Bridges.'
SUGGESTED CHANGES END:

Disposition of Comment 99

Accept in principle. Add “within the provider network” to the end of the sentence.

Comment 100 Michael Wright

COMMENT TYPE: E
CLAUSE: E.1
PAGE: 66
LINE: 41
COMMENT START:

There is an editors note “check this” which needs to be removed if this amendment did not make changes to E.6.1 and E.6.2.
COMMENT END:
SUGGESTED CHANGES START:
Remove reference if appropriate
SUGGESTED CHANGES END:

Disposition of Comment 100

Accept.

Comment 101 Muneyoshi Suzuki

COMMENT E
CLAUSE: Annex G
PAGE: 67
LINE: 15
COMMENT START:
"user data frame" is incorrect.
COMMENT END:
SUGGESTED CHANGES START:
It is "customer data frame".
SUGGESTED CHANGES END:

Disposition of Comment 101

Reject. “user data frame” is the term used in 802.1Q and this amendment has no reason to change that portion of the text. The term is commonly used to refer to frames received from users of the bridge.

Comment 102 Michael Wright

COMMENT TYPE: E
CLAUSE: G
PAGE: 67
LINE: 17
COMMENT START:
Extra and – metering and policing and drop precedence
COMMENT END:
SUGGESTED CHANGES START:

Remove the first and "metering, policing, and drop precedence"
SUGGESTED CHANGES END:

Disposition of Comment 102

Accept.

Comment 103 Stephen Haddock

COMMENT E
CLAUSE: Annex G.6
PAGE: 67
LINE: 42
COMMENT START:
First sentence is true if encoding in PCP, but not if using DE bit. Clarify.
COMMENT END:
SUGGESTED CHANGES START:
Replace the first sentence with :
"The Priority Code Point field of VLAN tags allow encoding of a single level of drop eligibility with five or more distinct priorities."
On bullet a), add the parenthetical phrase:
"(but may be conveyed in S-TAGs using the DE bit (9.7))"
SUGGESTED CHANGES END:

Disposition of Comment 103

Accept.

Comment 104 Anoop Ghanwani

COMMENT TYPE: T
CLAUSE: G.7
PAGE: 68
LINE: 26
COMMENT START:
This is not a strong enough justification for DE. It states that if the network is misconfigured, then one may lose DE information. If the DE information cannot be used consistently by all switches along the path, it could result in reordering and inability to provide bandwidth guarantees. Why would preserving the DE-bit in a misconfigured network be

of any value?
COMMENT END:
SUGGESTED CHANGES START:
Remove the justification.
SUGGESTED CHANGES END:

Disposition of Comment 104

Withdrawn.

Comment 105 802.1Q Editor

COMMENT TYPE: E
CLAUSE: throughout
PAGE:
LINE:
COMMENT START:
Resolution of comment #7 of 802.1Q-REV/D2.0 ballot resulted some global editorial changes that may be relevant to 802.1ad as well.
COMMENT END:
SUGGESTED CHANGES START:
Editor should check document for places where analogous editorial updates may be necessary.
SUGGESTED CHANGES END:

Disposition of Comment 105

Comment 106 802.1Q Editor

COMMENT TYPE: E
CLAUSE: 6.7.2
PAGE:
LINE:
COMMENT START:
Resolution of comment #19 of 802.1Q-REV/D2.0 ballot resulted in a change to 6.7.2 that will require a subsequent modification in 802.1ad.
COMMENT END:

SUGGESTED CHANGES START:
Add editorial instructions to make the following modification to 6.7.2:
"and no Customer VLAN tag header is to be inserted, then"
SUGGESTED CHANGES END:

Disposition of Comment 106

Comment 107 802.1Q Editor

COMMENT TYPE: E
CLAUSE: 8.6.4 and 8.6.5
PAGE:
LINE:
COMMENT START:
Resolution of comment #28 of 802.1Q-REV/D2.0 ballot resulted in reversing the order of the "Egress" and "Flow metering" subclauses.
COMMENT END:
SUGGESTED CHANGES START:
Track this change and update any relevant references.
SUGGESTED CHANGES END:

Disposition of Comment 107