# 802.1AB/D12 Sponsor Confirmation Ballot Comment Summary 

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## Ballot Summary - so far

- Ballot officially closes Nov 19 ${ }^{\text {th }}$
- Will require conditional approval to submit to RevCom prior to next plenary
- No ballot changes from D11. Still a single 'no' vote
- 68 comments from sole ‘no’ vote
- Majority are minor editorial and have been cleared with editor
- 4 comment groups to discuss with BRC
- 4 editor proposed comments from others


## 'No' Vote Comment Summary

- Restructure of clause 3 to include conformance levels and numerical notation
- Comments 1, 7, 44 and 64
- Capitalization of field names (802 style issue)
- Comments 18 and 51
- Mandating that organizations maintain lists
- Comment 21
- OUI transmission description
- Comment 68
- Various formatting issues (resolved)
- Blanks: comments 11,13, 15, 22, 52 and 65
- Dashes: comments $4,10,12,49,53,55,56,57,60$ and 67
- Spaces: comments 24, 48 and 50
- Columns: comments 36, 37, 39, 45,58, 62 and 63
- Hyphens: comments 19, 25, 26, 27, 28, 30, 31 and 32
- Lists: comments 29, 33 and 34
- Line breaks: comments 2, 3 and 66
- Various typos: comments $6,9,14,16,17,20,23,35,38,40,42,43,54$ and 59


## Conformance Levels

## 3. Terms, definitions, and notation

### 3.1 Conformance levels

Several key words are used to differentiate between different levels of requirements and options, as described in this subclause.
3.1.1 may: Indicates a course of action permissible within the limits of the standard with no implied preference ("may" means "is permitted to").
3.1.2 shall: Indicates mandatory requirements to be strictly followed in order to conform to the standard and from which no deviation is permitted ("shall" means "is required to").
3.1.3 should: An indication that among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain course of action is deprecated but not prohibited ("should" means "is recommended to").

## From 802 Style Guide

## 13. Word usage

### 13.1 Shall, should, may, and can

The word shall is used to indicate mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (shall equals is required to). The use of the word must is deprecated and shall not be used when stating mandatory requirements; must is used only to describe unavoidable situations. The use of the word will is deprecated and shall not be used when stating mandatory requirements; will is only used in statements of fact.

The word should is used to indicate that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain course of action is deprecated but not prohibited (should equals is recommended that).

The word may is used to indicate a course of action permissible within the limits of the standard (may equals is permitted).

The word can is used for statements of possibility and capability, whether material, physical, or causal (can equals is able to).

## Numerical Representation

### 3.3 Numerical representation

Decimal, hexadecimal, and binary numbers are used within this document. For clarity, decimal numbers are generally used to represent counts, hexadecimal numbers are used to represent addresses, and binary numbers are used to describe bit patterns within binary fields.

Decimal numbers are represented in their usual $0,1,2, \ldots$ format. Hexadecimal numbers are represented by a string of one or more hexadecimal (0-9,A-F) digits followed by the subscript 16, except in C-code contexts, where they are written as $0 \times 123 E F 2$ etc. Binary numbers are represented by a string of one or more binary $(0,1)$ digits, followed by the subscript 2 . Thus the decimal number " 26 " may also be represented as "1A16" or "110102".

MAC addresses and OUI/EUI values are represented as strings of 8 -bit hexadecimal numbers separated by hyphens and without a subscript, as for example "01-80-C2-00-00-15" or "AA-55-11".

## Capitalization of field names



Figure 9-12—Basic format for Organizationally Specific TLVs

## COMMENT START:

Field names [should] be spelled the same, whether in a figure or in text. What is less clear is whether you want to adopt the same convention within subclause headings, where its more consistent but looks a bit funny.
COMMENT END:
SUGGESTED CHANGES START:
Don't capitalize field names in figures, unless that is how they are normally spelled in the middle of a sentence. Changes apply here and everywhere.
SUGGESTED CHANGES END:

## Organizations maintaining lists

### 9.6.1.4 Organizationally defined TLV subtype <br> The organizationally defined TLV subtype field shall contain a unique subtype value assigned by the defining organization. Defining organizations shall be responsible for maintaining listings of organizationally defined TLV subtypes.

## COMMENT START:

A shall requirement on maintaining listings seems hard to quantify. I suspect there is some sort of implied requirements that might need to be stated. Are there backup copies, what is the penalty for not doing so, is this public or private, etc.
COMMENT END:
SUGGESTED CHANGES START:
change shall to should
SUGGESTED CHANGES END:
PROPOSED CHANGES START:
delete the second sentence altogether
PROPOSED CHANGES END:

## OUI Transmission

### 9.6.1.3 Organizationally unique identifier (OUI) <br> The organizationally unique identifier field shall contain the organization's OUI as defined in Clause 9 of IEEE Std 8022001.

## COMMENT START:

The mapping of the OUI must be accurately defined, in terms of the IEEE/RAC supplied values, expressed in the format-assignment letter. The current reference is bit-oriented (not hex oriented, vertically oriented (not horizontal oriented), puts LSB on the left (not right), described different things (40-bit and 48-bit), which makes the reference difficult to understand in this context.
COMMENT END:
SUGGESTED CHANGES START:
Replace text with:

### 9.6.1.3 Organizationally Unique Identifier (OUI)

The Organizationally Unique Identifier field shall contain the organization's OUI. For example, when using the 802.1 OUI value of 00-$80-\mathrm{C} 2,00$ and C2 bytes correspond to the first and last of these three transmitted bytes, respectively (see F.2).
SUGGESTED CHANGES END:

## Editor's Proposed Comments

- Compiled from bugs or confusion found by early implementers
- Comment summary

1. Typos not fixed in D11 regarding "MAC Service" > "MAC service"
2. Confusion on fields in Power over MDI TLV
3. 4. Bug encoding IP address in notes

## Confusion about Power MDI TLV



COMMENT START:
Based on implementer's comments, there may be some confusion about which fields apply to PSEs and PDs or to PSEs only.
COMMENT END:
SUGGESTED CHANGES START:
Rename the power pair field to "PSE power pair" in both the format diagram and the field title/def'n
In table G-3
Bit-2 should be renamed "PSE MDI power state"
Bit-3 should be renamed "PSE pairs control ability"
Correct line format error in note "G.3.2.2" - should be "note" format and \#2
Add a note-3 "If bit-1 is zero, bit-2 has no meaning"
In G.3.4 replace pethPsePortPowerClassification ==> pethPsePortPowerClassifications Make associated changes to G.6.1.2 and to Tables G-6 and G-7
These minor clarifications to the TLV description and should not require a dot-3 MIB change
SUGGESTED CHANGES END:

## IP Address encoding bug

*networkAddress is an octet string that identifies a particular network address family and an associated network address that are encoded in network octet order. An IP address, for example, would be encoded with the first octet containing the IANA Address Family Numbers enumeration value for the specific address type and octets 2 through $n$ containing the address value (for example, the encoding for 01-C0-A8-D6-0A ${ }_{16}$ would indicate the IP version 4 address 192.168.254.10).

## COMMENT START:

The example encoding for a network address gives the encoding 01-C0-A8-D6-0A for the IP version 4 address 192.168.254.10. This is obviously wrong, as 192.168.254.10 is expressed as C0-A8-FE-OA in hex. The encoding given in the example would correspond to an IPv4 address of 192.168.208.10.

COMMENT END:
SUGGESTED CHANGES START:
Pick a correct pair
.SUGGESTED CHANGES END:

## Next Steps

- Review proposed disposition
- Review proposed editor's comments
- Submit editor's comments prior to 11/19
- Produce D13 - target December $1^{\text {st }}$
- Run and close final confirmation ballot approximately by Dec $17^{\text {th }}$
- Submit document as a Christmas present for RevCom

